

2016

INTEGRATED REPORT



It's often said that nothing is forever:
at a time when so many things are disposable and temporary;
products become obsolete;
opinions change;
relationships are brief.
And life? Life is short!
And what was meant to last, materialize, solidify,
simply evaporates.

We at Votorantim Cimentos think differently.
To us, everything that is worthwhile should last. And last for a long time!
Our products ensure the permanence of construction projects.
Our people make this vision a reality.
Our investments are for the long term.
And, our actions reinforce our values.
With our partners and customers, we are committed to ensuring relationships for life.

We will leave a legacy that extends far beyond our own existence, bringing to life the
dreams that make a difference today, tomorrow and for generations to come.


We are strategic in our actions, and not reactionary.
We deliver personalized support, not indiscriminant products.
We seek long-lasting relationships, not short-term ones.
We think about our entire industry, and not only about ourselves.
And, we work to understand customer requirements and deliver lasting solutions.

If you also believe in this purpose, we invite you to help us in this journey.
More than that, to be a part of it.

Votorantim Cimentos. Life is Made to Last

WATCH A VIDEO
OF OUR CREDO
ONLINE



 **Votorantim**
Cimentos
Life is made to last

OUR PRESENCE IN THE WORLD

We are present in 14 countries with very different economic dynamics: Argentina, Bolivia, Brazil, Canada, Chile, China, India, Morocco, Peru, Spain, Tunisia, Turkey, United States, and Uruguay.

VOTORANTIM CIMENTOS NORTH AMERICA (VCNA)

Great Lakes United States / Canada

Florida

St Marys Cement

CBM

PRAIRIE MATERIAL

PRESTIGE CONCRETE PRODUCTS

SAC

CEMENTO COSMOS

CEMENTO TEIDE

Prebetong

Prebetong

Pulmor

Spain

Morocco

ASMENT TEMARA

GRABEMARO

Tunisia

CIMENTS JBEL OUST

GRANULATS JBEL OUST

NESRINE

VOTORANTIM CIMENTOS EUROPE, ASIA AND AFRICA (VCEAA)

Turkey

Votorantim Cimentos

CEMPOWER

ISOLIUM

PLASTIUM

HYPERIUM

TEKNOMIX

India

KAMAL CEMENT

China

华沃水泥

威牌

VOTORANTIM CIMENTOS BRAZIL (VCBR)

Portland cements

CIMENTO VOTORAN

CIMENTO POTY

CIMENTO ITAÚ

CIMENTO TOCANTINS

Other products

votomassa

ENGEMIX

ITAÚ

CALCÁRIO ITAÚ

Decoratta

MATRIX

ITAÚ

Cal Fértil

VOTORANTIM CIMENTOS SOUTH AMERICA (VCSA)

Peru

Bolivia³

ITACAMBA CEMENTO S.A.

Chile²

CEMENTOS BIO BIO

Argentina¹

CEMENTOS AVELLANEDA

Uruguay⁴

CEMENTOS ARTIGAS

1. Argentina: 49% stake in Cementos Avellaneda | 2. Chile: 16.7% stake in Cementos Bio Bio | 3. Bolivia: 51% stake in Yacuses, which holds 66.7% in Itacamba Cementos S.A. | 4. Uruguay: 51% stake in Cementos Artigas.

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INTRODUCTION

Sustainability is at the core of our business: it is part of our strategies, the development and execution of our projects, and our daily lives. Therefore, it is only natural that our financial and socio-environmental results are reported together, showing society and the market how we integrate the sustainability dimension into our Company's initiatives.

Within this premise, this Integrated Report addresses our strategies, our commitments, our business model and the processes by which we create and sustain value.

In this report, we identify the material themes, risks, goals, projects and performance indicators related to the Company's businesses: cement, concrete, aggregates, mortar, lime, agricultural lime, sand and other related products. Our objective is to show the impact of Votorantim Cimentos throughout the value chain, including our main stakeholders.

To achieve this goal with transparency, we followed a pioneering reporting process, framed by the guidelines of the new Global Reporting Initiative (GRI) Standards, the International Integrated Reporting Council (IIRC), the Cement Sustainability Initiative of the World Business Council for Sustainable Development (WBCSD), and the Global Compact.

With regard to financial consolidation, we followed the criteria established by the International Financial Reporting Standards (IFRS). Therefore, this report does not consider our minority interests in Argentina, Chile and Peru, or our joint venture in the U.S. (Suwannee American Cement).

Our Integrated Report underwent PricewaterhouseCoopers' limited external assurance for both financial and non-financial data, as well as an assessment from the GRI on materiality and performance and management indicators, and from the Global Compact.

The Report is published annually in Portuguese and English, in both print and digital versions. The digital version is available on the [Votorantim Cimentos website](#).

In its digital version, this report is distributed to our employees and stakeholders, such as investors, governments, economic/financial analysts, community leaders, civil society, industry associations, regulators, and the media, among others.

In order for us to continue to advance in our reporting process, we want to hear your valuable opinion. Send us your feedback, comments or questions by e-mail (ri@vcimentos.com).

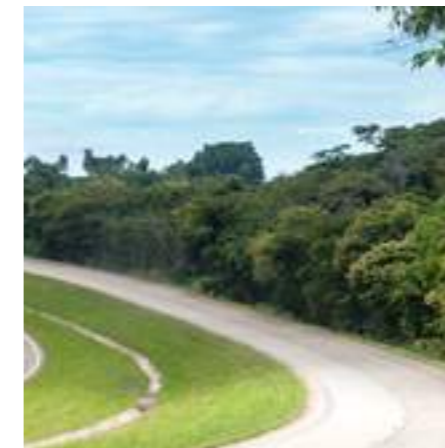
Good reading!

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COVER: JACIARA ROAD

Restoration and expansion of highway BR-163/364, an important agribusiness transportation route in the Brazilian state of Mato Grosso. The construction of the concrete pavement, a partnership between VC, Sanches Tripoloni and CRG Engenharia, will allow the road to be up to 53% more eco-efficient and is an example of our commitments as a Company: to strive for excellence, to promote sustainable growth, and to create relationships and a legacy that are made to last.

[GRI 102-49 | 102-53]



Our path is clear

A 10-year plan and initiatives that anticipate trends ensure that we are one step ahead of our challenges.

The year 2016 demonstrated the complexity of our times. From a variety of perspectives, the year tested the limits of all of us: we were sensitized to the refugee crisis, witnessed terrorist attacks in Europe, including Turkey (a country in which we operate), and followed the election of the new U.S. president and the English plebiscite (Brexit). In Brazil in particular, we lived through a year that made history as a time marked by economic and governability crisis. Our country had a record fiscal deficit, coupled with the second consecutive year of economic recession and rising unemployment and household indebtedness. At the same time, we enthusiastically followed the advances in the peace process in Colombia and the ratification by several countries (including Brazil) of the Paris Agreement in response to the threat of climate change, reinforcing our belief in relationships and in the importance of long-term vision.

In this context, we continued our work based on our values of Solidness, Ethics, Respect, Entrepreneurship and Unity, and on the ability to reorganize ourselves to respond to adverse situations, preparing ourselves for the future by taking timely actions in the present. As a result of our strategy, in 2016 we established ourselves as a Company with a global network,

present in 14 countries. Today, our international operations account for about 40% of our business in terms of installed cement production capacity, and continue to grow. These markets challenge us, enrich our view of the world, and contribute to our future growth prospects.

We mobilized ourselves to face the challenges of the Brazilian market with strong determination. We increased our competitiveness, with a greater focus on our customers and on the diversification of our products and services. One example was our agricultural lime business, which finished the year with meaningful growth and positive results, positioning us as the main player in the Country¹ and extending our presence in the new agricultural production frontiers in Brazil. In Brazil we launched our new portfolio of bagged cement, with one cement for each type of construction project, aiming to provide greater efficiency and productivity for each project and enterprise as partners, not suppliers.

In addition to that, we reaffirmed our commitments to sustainability, one of the pillars of our business strategy. We approved investments for plant modernizations and structured the co-processing activity as a Business Unit dedicated to raw materials and alternative fuels, achieving a 21.6% increase in the volume of fossil fuel substitu-



From left to right: Alexandre Gonçalves Silva, José Ermírio de Moraes Neto, João Carvalho de Miranda, Fábio Ermírio de Moraes, Markus Akermann and Vinícius Prianti

We remain faithful to our commitment to transparency and to ensuring the highest standard of governance

tion in our global operations in 2016. We further strengthened eco-efficiency measures in our operations, with the objective of ensuring the production of products at competitive prices and with lower environmental impact. In 2016, these initiatives were responsible for preventing the emission of 630,000 metric tons of CO₂.

We remain faithful to our commitment to transparency and to ensuring the highest standard of governance, in line with our business strategy and our values and beliefs. We have added new competencies to our Board of Directors

and we continue to evolve in our role of ensuring that from our Beliefs, Values and Purpose, we can find the solutions that best meet market demands and opportunities.

We strive and are committed to supporting the transformations necessary to expand the value creation of our Company. This spirit of permanence guided our conversations within Votorantim Cimentos, with our employees in all our operations around the world, as well as with our customers, suppliers, partners and society.

Finally, we would like to thank all

Votorantim Cimentos employees for their leadership, teamwork, dedication and hard work throughout 2016 – a year of challenges, which proved to be notable for having instigated us to increase our efficiency and productivity...a year in which we took another step towards the future and the legacy we believe in and are building for Votorantim Cimentos and for society.

**Votorantim Cimentos
Board of Directors**

1. According to Abracal's market data for the 2016/2017 harvest.



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A MESSAGE FROM MANAGEMENT

Building our tomorrow

We are a Company made to last, and our actions to address the diverse economic situations that we faced around the world in 2016 have moved us towards the sustainability of our business.

In 83 years of history, our journey has taught us to see a forest where many see only a tree. We have gone through a series of unfavorable situations, from which we emerged stronger, always looking beyond the immediate challenges and anticipating changes in the market. It hasn't been different this time around. We are a Company made to last, and our actions to address the diverse economic situations that we faced around the world in 2016 have moved us towards the sustainability of our business. We have always been able to maintain our competitiveness while dealing with difficult environments, such as political instability in Turkey, the political crisis in Spain, or China's challenging market, just to name a few. At the same time, we have been able to sustain the focus on efficiency and to increase our competitive advantage while benefiting from favorable environments, such as in the United States or Morocco.

In Brazil, our main market, we saw a decrease in cement sales for the second consecutive year, as a consequence of a 3.6% decrease in the Brazilian GDP in 2016, after a 3.8% drop in 2015. As national leaders, we suffered the impact of this contraction, but we managed to minimize it with actions that anticipated the difficult period.

We took several preventive actions in recent years, such as the adoption of zero-based budgeting, adjustments to the organizational structure, a review of our go-to-market strategy (with the launch of a new product line in Brazil), and financial discipline.

Our efficiency gains through numerous improvements – large and small – stood out in the way we operated in 2016. As part of our concentrated Focus on Excellence effort, we systematically reviewed processes in all countries where we operate. This allowed us to reduce expenses in the all sectors, from production to sales, from transportation to supply chain.

Great programs for excellence have contributed to those results. They

included, for example, our Brazilian Productivity projects (which create models of organizational structure to be pursued), Bolt (which transformed our logistics into a lever of competitiveness), and the adoption of Lean management in our mortar plants. New technologies to manage suppliers and sales also made their contribution, as well as numerous specific actions, fostered by programs that reinforce the autonomy of our employees. Our efforts to ensure competitiveness resulted in difficult decisions in the face of market challenges, such as the sale of non-strategic assets and the adjustment of operations to the current market scenario, including the closure of units. At the end of the year, we had a Company that was leaner, more sustainable, more efficient and ready for a market recovery.

The decision to prioritize investments in co-processing – an area of major developments in 2016 – must be seen within this context. Given our long-term perspective, the resources we use today in technologies that enable us to use waste as a source of thermal energy in our operations represent, in the future, savings in fuel procurement and progress regarding our sustainable production targets.

More than that, we are preparing to make Votorantim Cimentos reach a prominent position in the treatment of industrial waste, a fast-expanding market. Our positioning gained momentum in 2016 with the creation of the Eco-efficiency area and the AFR (Alternative Fuels and Raw Materials) business unit. We started to offer other industries proper waste disposal services. In addition, we made progress

Our financial discipline was fundamental to ensure the continuity of our investments in expansion and modernization, efficiency and sustainability

in the transformation of a by-product from our mining business into agricultural lime. Our initiatives in this area prevented the deposit of 916,000 metric tons of secondary ore and created value through better use of our installed capacity.

Our financial management, in this context, was fundamental to ensure the health of our Company. In North America (VCNA), for the first time in our history, we successfully issued US\$ 500 million in bonds and implemented a receivable securitization program, which allowed us to continue the liability management among the different clusters of the Company. At VCEAA (Europe, Asia and Africa) financial strategies enabled the extension of the debt maturity profile from 9.0 to 9.9 years, with a significant reduction of maturities in the next three years. With this, we count with a solid financial position and a robust cash position to handle the market in 2017.

While making each of these decisions, we considered their impact in the future – therefore the business strategy approved in 2016 is based on the year 2025. This long-term perspective, however, can also be seen from the opposite standpoint: while we invest in the future of the Company, we now harvest seeds planted in the past. And one of the most relevant of these "seeds" is the global diversification of our business.

The right decision to expand our businesses to other countries yielded results that helped partially offset economic difficulties faced in Brazil. At VCNA (North America), with a favorable market, our Ebitda grew by more than 23% in US dollars. Similarly, at VCEAA (Europe, Asia and Africa) efficiency measures produced a 6% increase in Ebitda in euro.

The positive results of the VCNA and VCEAA operations helped us to maintain our expansion cycle started in 2010, with an expected duration of eight years. Fulfilling the execution of this expansion cycle, in 2016 we inaugurated two new units: Primavera, in Brazil, and Yacuses, in Bolivia. Primavera contributes to better position ourselves in the Brazilian North and Northeast markets. Yacuses was inaugurated ahead of schedule and within the proposed budget, and has become a successful example of the



Walter Dissinger – CEO

application of our guidelines of operational excellence. We are still working on expansions in Turkey (Sivas), the United States (Charlevoix) and Argentina (Olavarría and San Luis), all markets with growth prospects.

Other seeds that had been planted years ago and are now beginning to bring results are initiatives in excellence and customer focus. Just last year, 44 research and development (R&D) projects were completed. Developed in a variety of areas, these initiatives resulted in the launch of new products and in improvements on final quality, in addition to cost reduction and support in different processes of the Company.

The results of these actions could not have been better. We had a spike in our Net Promoter Score (NPS), which measures client recommendations and client loyalty, which was 14 percentage points higher than in 2015, the largest increase we have ever recorded. Also in

2016, after a year of intensive research and internal discussions, we launched our new bagged product portfolio in the Brazilian market.

Our commitment to excellence also earned us a record number of external recognitions during the year. In all, we received 43 awards. Among them, the "Master Imobiliário" award – for the first time ever awarded to a cement Company – and our inclusion, for the third consecutive year, in Exame Magazine's "Melhores e Maiores" ranking as the most notable Company in the Construction Industry in Brazil. More than simply filling us with pride, these acknowledgments indicate that we are paving the right path by putting our DNA, Beliefs, Values, and Purpose into practice.

Walter Dissinger

CEO of Votorantim Cimentos



OUR STORY IN



THE KEY FACTS AND INITIATIVES THAT SUMMARIZE THE YEAR OF VOTORANTIM CIMENTOS



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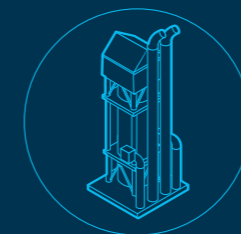
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LAUNCH OF THE **NEW PORTFOLIO** OF BAGGED CEMENT IN BRAZIL. HIGHLIGHT: THE NEW STRUCTURAL CEMENT, WHICH ALREADY ACCOUNTS FOR 8.5% OF SALES



SUCCESSFUL **STARTUP** OF **PRIMAVERA** (BRAZIL) AND **YACUSES** (BOLIVIA) PLANTS



GLOBAL **CO-PROCESSING**: WE WENT FROM 9.7% TO 11.8% OF REPLACEMENT OF FOSSIL FUELS



APPROVAL OF R\$ **1 BILLION IN NEW INVESTMENTS** FOR EXPANSIONS IN TURKEY, UNITED STATES AND ARGENTINA



3,500 EMPLOYEES PARTICIPATED IN THE **SUSTAINABLE PRACTICE WEEK**



THE **BOLT PROJECT** TRANSFORMED LOGISTICS INTO A LEVER OF COMPETITIVENESS, WITH A GOAL TO SAVE R\$ 45 MILLION A YEAR



ISSUANCE OF **\$ 500 MILLION IN BONDS** BY VCNA AND EXTENSION OF COMPANY'S DEBT PROFILE



THE IMPLEMENTATION OF THE **LEAN MODEL** IMPROVED THE MORTAR BUSINESS PERFORMANCE IN BRAZIL BY 26%



RECORD NUMBER OF AWARDS. HIGHLIGHT: **THE MASTER IMOBILIÁRIO**, THE MOST IMPORTANT AWARD IN THE BRAZILIAN REAL ESTATE MARKET



THE INDEX (NPS) THAT MEASURES **CUSTOMER RECOMMENDATION** OF OUR PRODUCTS GREW 14 PERCENTAGE POINTS IN BRAZIL



CREATION OF **ENVIRONMENTAL PRODUCT DECLARATIONS (EPD)** IN BRAZIL AND IN THE UNITED STATES



MAINTAINING OUR LONG-TERM FOCUS, WE APPROVED OUR **10-YEAR STRATEGIC PLAN**



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نبني للدوام

Yaşamda iz bırak

LIFE IS MADE TO LAST

A vida é feita para durar

Construimos para la vie

The Purpose of Votorantim Cement establishes a long-term vision, focusing on building a legacy and long-lasting relationships.

CN Tower, Canada - Landmark built with our products

The new phase of Votorantim Cimentos, started in 2012 with the intensification of the Company's internationalization process, was one of the stimuli to deepen the reflection on how to position ourselves, to relate to people, and to tell our story. Our main mission was to identify our purpose – something that would be, at the same time, genuine, globally applicable and connected to the business, and that would translate much more than the technical attributes of cement and all our products. A purpose that could express our DNA while also inspire our team, would be relevant and strengthen the relationship with our stakeholders, building trust and value for our business.

It was with this spirit that we began an intense process of "soul searching". The methodology included studies on strategic objectives and considered the specificities of each market, focus on the customer, and the sense of belonging in each of the countries in which we are present. In the light of our Vision, we conducted interviews with our Company's leadership, our customers and other stakeholders (such as the media, communities, government, and investors) to understand what they considered important in their long-term relationship with us. "They helped us arrive at the following insight: everything is so ephemeral and disposable these days; construction projects and relationships cannot be like that," said Malu Weber, global general manager of corporate communications and institutional branding. This insight was represented by the tagline "Life is Made to Last", which reinforces the attributes of perpetuity, trust, long-lasting relationships and long-term businesses.

More than a signature, our Purpose summarizes Votorantim Cimentos' raison d'être and provides a vision for all our actions. For us, "Life is Made to Last" represents our commitment to establishing permanent relationships, the enduring results of our work, the development of the communities where we are present, and initiatives to mitigate our environmental impact, the long-term vision of our business, the durability of our constructions and our legacy.

Once our Company's purpose was

approved by the Board and embraced by our senior management, we began to prepare ourselves to talk about it: we made cultural adaptations of "Life is Made to Last" in the other countries in which we operate, respecting the different local "accents"; we tailored the messages, initiatives and timeline for each group of stakeholders in each country; we celebrated Global Purpose Day on September 8 with leaders from each country; we invited all employees to reflect on how they give life to this Purpose every day and to share the legacy that everyone wants to leave in the world, in their community, at work, and for their family. We started using our tagline in internal corporate materials, as a constant reminder of our greater commitment to everyone around us. We promoted discussions in all departments, connecting our business initiatives with all areas of the Company, translating the concept of permanence through everyday actions. And, little by little, we began to see our people embracing our Purpose more and more, and becoming the main ambassadors of our brand. In 2017, with our Purpose already embraced by our employees, we will advance in its communication to our diverse stakeholders.

Purpose is a journey: the journey of reputation

Purpose is a journey. The journey of reputation. It means telling our story in a more inspiring way, seeking to connect and create bonds with all our audiences, building trust. It means being coherent in speaking and acting, fostering a strong corporate personality, with authenticity, conviction and legitimacy, knowing how to listen and build together, internally and externally, continuously. It means to be present, through our actions, our concerns and social commitment for a better world and our responsibility for the impact on the environment, and all the initiatives that we have taken to mitigate risks and to prepare for the future. It means validating and being consistent with "Life is Made to Last" at every step of this journey. What the reader will see in the next pages is the result of our commitment to the long term.



FACING THE CHALLENGES

Our recipe to overcome economic difficulties, ensure financial strength and increase our competitiveness was focused on two ingredients: geographical diversification and operational efficiency.

In 2016 we strengthened our strategic focus on the completion of our investments in Brazil and on the continuity of our investments abroad to improve geographic diversification, with financial discipline, and efficiency gains in all the countries in which we operate.

Our mantra was competitiveness. We took measures to ensure cost optimization and efficiency gains in all our operations, and adjusted our production capacity to the new demand curve. Our goal was to maintain our competitiveness not only immediately, in the face of the current recession of the Brazilian economy (which registered a 3.6% decrease in the GDP, leading to a decrease in cement consumption) but also to help us better position ourselves for the future.

This optimization was also supported by the implementation of a liability management plan to ensure the Company's financial soundness through the distribution of liabilities between the different regions where we operate – Brazil, North America, and Europe, Asia and Africa – and the extension of our debt maturity profile.

It was also important for us to know how to take advantage of the good momentum of the construction market in the United States, with advances in public works and real estate launches in the Great Lakes and Florida regions.

Within this context, we took additional measures for optimization and efficiency gains, which resulted in a 4.5% cost reduction in relation to the previous year (without considering the impact of inflation and depreciation of the Brazilian real). The performance of our logistics operation in the region, for example, grew by about 12%. Coupled with the favorable environment in the U.S., our measures led our operation in North America to record a 33% increase in Ebitda in dollars, not including non-recurring effects. "We took the year to maximize the efficiency of our operations," said Filiberto Ruiz, regional CEO of VCNA.

We also recorded growth in our operations in Europe, Asia and Africa, with a consolidated increase of 6% in Ebitda in euro throughout the year, especially in our operations in Morocco, which were favored by stable local

market conditions and significant investments in infrastructure.

In Brazil, we took difficult measures to adapt to a challenging year. Our efforts to maintain our competitiveness included the implementation of zero-based budgeting, cost optimization, and the sale of non-strategic assets. It was also necessary to suspend or close units and reduce the number of employees.

The growth of VCNA and VCEAA operations, coupled with the Brazilian market downturn in 2016, meant that our operations outside Brazil accounted for about 40% of our business in terms of installed cement production capacity. This figure has doubled since 2010, when our international operations used to make up 20% of this total.

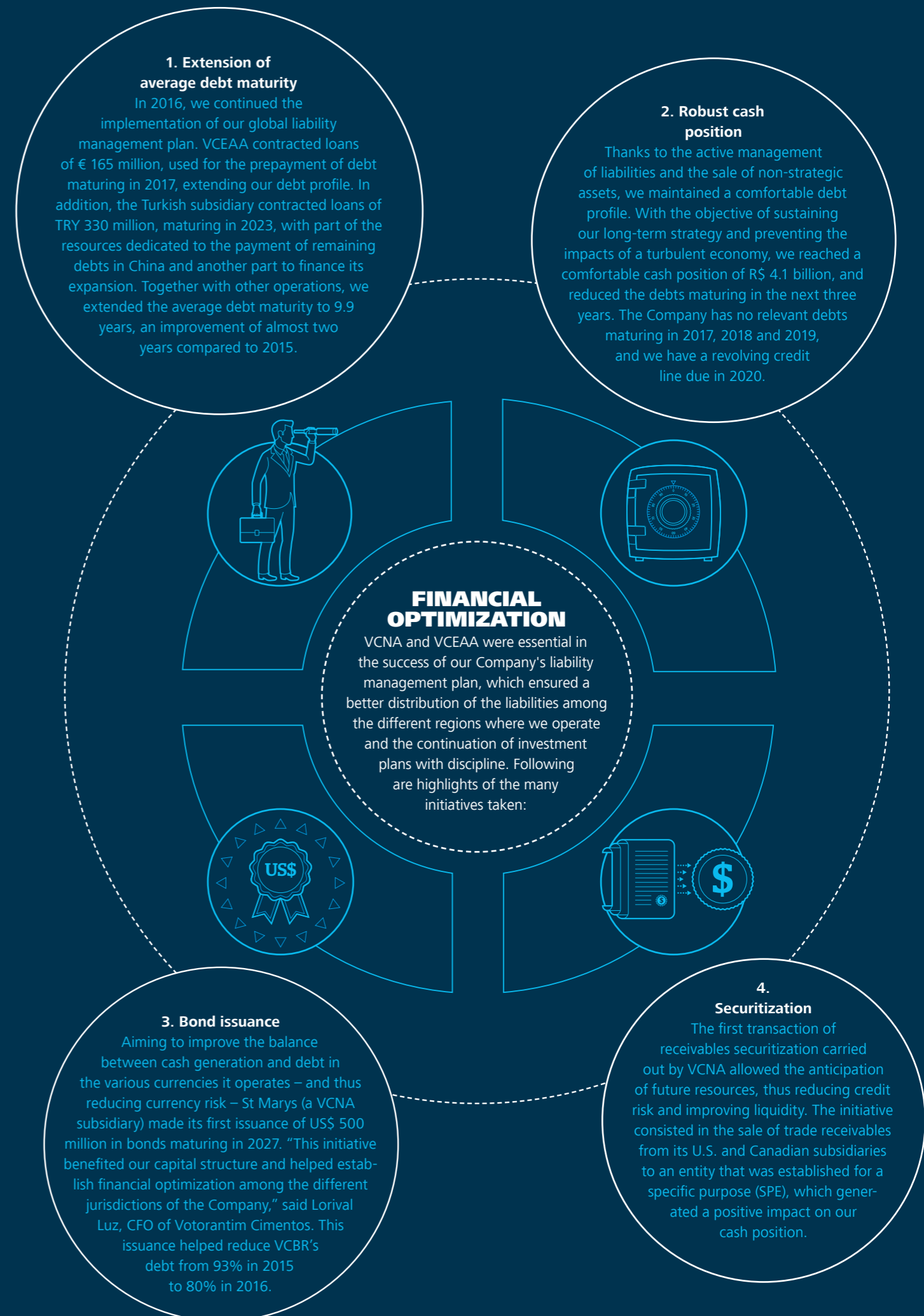
Thanks to our focus on efficiency and our long-term vision (which is reflected in our internationalization process that started in 1997), we are among the ten largest cement companies in the world (excluding China¹), with an installed capacity of 57.5 million metric tons of cement per year, operating in both mature and emerging markets. This diversification has helped us mitigate challenges in local economies and has strengthened our economic-financial performance.

With a history of 83 years and a unique experience in operating in adverse situations, we remain true to our long-term vision, beliefs and values, with a commitment to building a legacy. In 2016, we prepared for and anticipated a challenging environment. Our goal was not only to get through this phase, but to overcome it, and emerge from it with better financial capacity, operational efficiency and a DNA of incomparable and durable competitiveness that also better position us to operate at the beginning of a new cycle.

We adopted measures that ensure the maintenance of investments in new units and the improvement of productivity and eco-efficiency

1. Considering Ebitda in dollars as of December 31, 2016.

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Votorantim Cimentos unit in Spain

WHEN LIFE GIVES YOU LEMONS

Our reaction to the crisis has brought together initiatives that are leaving a legacy of increased efficiency and productivity in all areas and in all countries where we operate.

The downturn in the Brazilian cement market in 2016 represented a challenge to the Company's operations beyond the border and prompted us accelerate improvement processes within Votorantim Cimentos. Our main response to the crisis was to build a Company that is more efficient in the use of its resources, more sustainable as a business and more prepared for a market recovery. This was done in a coordinated effort in all of the Company's operations, through dozens of initiatives that redesigned the business in areas such as production, operations, logistics, purchasing, procurement, and sales, among others.

Our commitment to these improvements was reflected in the allocation of a relevant part of capex (investments in capital goods) in modernization, profitability, and alternative sources of energy. This enabled several initiatives that, although they have already yielded immediate results, are mainly focused on a permanent impact on the future of the Company.

The right measure

The expansion of programs of operational excellence summarized our movement towards efficiency in 2016. The focus of Votorantim Cimentos during the year remained on measuring our progress, while our efforts were concentrated on making adjustments and improving what we quantified. We monitored each step of the process along the production chain and evaluated potential opportunities for improvement. All these measures allowed us to improve our activ-

ities in the most diverse stages of the production chain.

An example of this was the adoption by Brazilian mortar units of the Lean Manufacturing Concept, which focuses on systematically combating resource wastage at different stages of production. After training more than 100 professionals in Lean tools, we had a 13% increase in performance at the Barueri plant, 16% at the Cajamar plant and 26% across the entire mortar business in Brazil. Given this success, the program will be expanded in 2017 to the Limeira and Camaçari units.

The Lean methodology was adopted in projects we had with our customers and earned us awards, such as the renowned "Master Imobiliário", one of the most important awards in the real estate industry. The award recognized a project of synergy with the customer that resulted in logistical gains (agility), better products and increased team productivity. (Learn more on page 21)

Another improvement in Brazil involved the concrete business Engemix. The Company's concrete mixers were equipped with GPS and began to be tracked, and the delivery management was centralized, along with scheduling and dispatching. As a result, delivery

time improved, as well as the assistance to construction sites. Through the management of its assets, Engemix enhanced the quality of its services.

Many of these initiatives to increase efficiency are benefited by Votorantim Cimentos' Global Performance Program. Initiated in 2015, the program consolidates operational performance data from our cement plants around the world. The data – including safety, environment, production, operating performance and cost indicators, among others – allows a precise benchmark, and subsequent identification of performance improvement actions.

In addition to the Global Performance Program, a complementary operational excellence initiative was implemented in 2016 in Brazil: the Productivity Project. This initiative involves creating a benchmark with the optimum amount of equipment and employees for the maximum productivity of each of our units. From this study on what would be the ideal organization of a factory, we train employees, who will have a compatible level of remuneration, to be multifunctional and take on new tasks and responsibilities. The project targets will serve to guide future decisions in each plant and, in the long run, will

The Bolt project transformed logistics into a competitiveness lever with the goal of saving R\$ 45 million per year



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also help us to make the most of each one of them.

Identifying opportunities

Whereas programs of excellence are important to accelerate towards a more sustainable Company, they are not the only ones. A number of timely strategic changes across countries and business areas were also fundamental in optimizing resources.

The VCEAA (Europe, Asia and Africa) operation, for example, saved 1.4 million euro in 2016 by centralizing in Madrid the acquisition of some strategic materials (such as filters, refractories and converters) for units in several countries. The amount saved with this initiative is expected to reach 12 million euro in 2017. In Brazil, the creation of a stock planning unit within the purchasing department allowed better management of the large material purchases and the internal use of materials available in other plants, leading to a reduction of R\$ 30 million in stock and directly benefiting our working capital. Energy was another important aspect, both from the point of view of cost reduction and the prospect of a more sustainable operation. In Spain, for example, we reduced expenses by including a different mix in our energy

IN SEARCH OF PRECISION

Better measures and changes in how we measure our processes help cut spending

Decisions about changes in processes within a Company need to be supported by reliable and accurate indicators. We took steps in this direction in 2016 by introducing two new indicators in Brazil, in addition to the traditional Product Quality Index (PQI): the Product Regularity Index and the Product Performance Index. "If we have a more regular product, we will have more stability in the process with consequent cost optimization. And what is even better, our customer wins," said Alvaro Lorenz, global technical director at Votorantim Cimentos. In 2016 we reached a 96% PQI, an increase over 2015 (95%). "With high levels like these, we need to dig deeper into new product analysis for constant improvement," said Lorenz.

In addition, in order to improve the indicators, VCBR showed that the measurement process itself can also gain in efficiency with the development of the new "Equivalent Mortar" method. The technique, which verifies how cement behaves in the concrete, replaces the costly and time-consuming traditional process of concrete mixing by an alternative process that achieves the same results more quickly and at a lower cost.

In addition to significant gains from renegotiations in 2016, we are automating our purchasing system

purchasing strategy. In addition to signing long-term contracts, we leveraged our opportunities to buy at lower prices in the spot market (in which you can choose among different suppliers' daily quotes). In addition, changes in operating hours (extending plant operations beyond electricity price peak hours) and revision of supply contracts in all operating countries of Europe, Asia and Africa have played an important role in the economy of resources.

In parallel, in Brazil, we re-adjusted our portfolio of long-term contracts (adjustment to market changes), completed the migration of five production units to the free energy market (another six are planned for 2017), acquired energy in alternative markets, and maximized the operation of our hydroelectric generation assets. These actions were aimed at optimizing contracts and energy assets in Brazil and reinforcing our commitment to

sustainable practices.

In Brazilian and VCNA operations, there was increased attention and training of employees at points that could optimize the use of raw material and the thermal production of the kilns, resulting in increased productivity. Also in operations in Brazil, the United States and Canada, energy efficiency programs and operations optimization have reduced energy consumption.

In addition to all these individual efficiency gains with suppliers, we are preparing for major changes in the entire procurement process in 2017. After the adoption of e-procurement in Brazil, automating all spot purchases (purchases that are made on demand by users) using an online platform, we have already begun to implement a new improvement: the SAP Ariba platform.

The deployment of the Ariba platform will allow all purchases made by procurement team – and not just the spot ones – to happen electronically. This includes corporate and consolidated negotiations of raw materials and services, resulting in a reduction in the processes administration cost. Negotiations through the new system will rely on more sophisticated analytical tools, allowing us to gain competitiveness and to reduce the price of our purchases. "In addition to giving more visibility to internal users of each purchasing step, Ariba allows the buyer to interact with more potential suppliers in each purchasing process, and for example, organize electronic bids to decide who will be the new supplier of any given service," said Henrique Paes de Carvalho, general manager of Procurement. The Ariba project, which has already gone live in the operations of VCNA, is being developed jointly with other companies of the Group: Votorantim Metais, Companhia Brasileira de Alumínio and Votorantim Energia.

Improvements throughout the supply chain

Logistics continued to be one of the great drivers of efficiency gains in 2016. The Bolt project, which in 2015 began to transform the logistics of our operations in Brazil into a competitive lever, presented new results during the year. Working on 45 fronts managed by 25 leaders, we set priorities regarding the level of service and conducted specific projects in transportation and service network. The work carried out by Logistics had the involvement of several areas, such as Commercial, Industrial and Financial.

As part of Bolt we defined a series of actions that reorganized our network and increased our efficiency, with significant cost reduction. These initiatives included, for example, the creation of a traffic control center that monitors 150 vehicles simultaneously – with which we have already seen important gains in productivity and reduction of transportation costs. Other important initiatives are the optimization of the Distribution Centers network and the implementation of new logistics services, such as specialized unloading and delivery scheduling. "Each initiative is at a different stage. The entire project will reach R\$ 45 million per year of savings. We are currently in track with the plan, which corresponds to 70% of our goal," says Eduardo Botelho Lotti, general manager of Logistics.

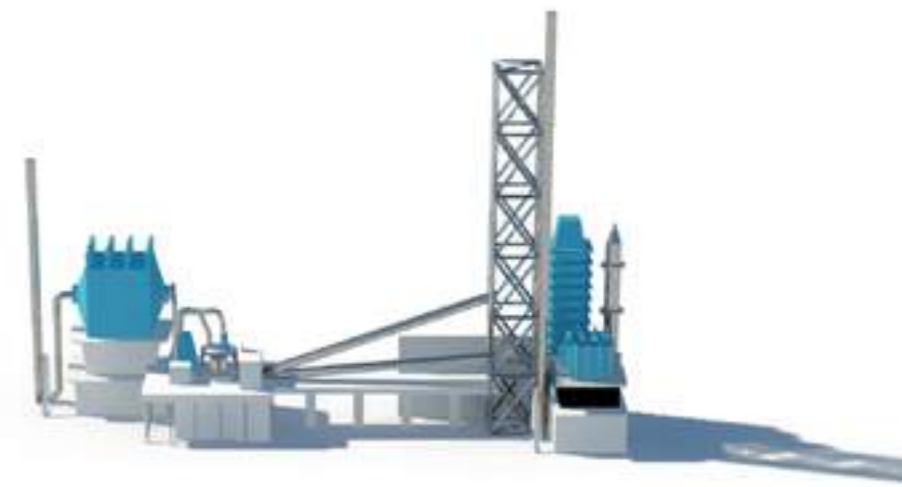
As in Brazil, operations in North America and Europe, Asia and Africa had significantly benefited from improvements in the logistics strategy. In the United States and Canada, for example, a series of ship loading/unloading time targets improved process performance by 12%. In Europe, Asia and Africa, we also had several examples of efficiency gains, such as a reduction of 10% in the cost of cement transportation in Morocco, a one-hour reduction in our loading time in India, new packer machines in Tunisia (which reduced our customer's waiting time) and the systematic improvement in logistics on the Spanish port, which, in addition to promoting savings, contributed to a 12% growth in our exports¹.

AWARD-WINNING EFFICIENCY

Votorantim Cimentos receives unprecedented recognition from the real estate market

In 2016 we became the first cement Company to win the "Master Imobiliário", the most important award in the Brazilian real estate market. The award recognized our project with Conx construction Company, through which we studied several links in the chain of production and delivery of our products – in addition to our relationship with our customers – which could benefit from productivity gains.

The project counted with three fronts. On the first front, we created a standard contract that reduced the time to release documents in the system by 60%, and fully eliminated all the technical proposals. In parallel, we produced a more fluid concrete, thus eliminating stoppage due to pump clogging. On the second front, we customized our products within the specifications that best served our customer, gaining their trust and increasing our sales volume within the mix of acquisitions by the construction Company. Finally, we trained more than 100 Conx employees on concrete-related technology, and trained construction site supervisors on Lean Construction, thus increasing their productivity by 66%.



RECYCLING ENERGY

Project uses residual heat from cement production to generate electricity

Electricity consumption accounts for up to 20% of a cement plant's total operating costs. Therefore, reducing the use of electricity represents a significant cost cutting opportunity and, at the same time, reinforces our commitment to our sustainability pillar. We have already moved in this direction with the deployment of the innovative Waste Heat Recovery technology.

This technique reuses residual heat contained in the dispersed gases during the cement manufacturing process to move a turbine and generate electricity, which is then used by the plant itself. At our plant in China, the procedure already generates about 38% savings. In India, where in 2016 we retrofitted an existing system, approximately 16% of the plant's energy demand is supplied by heat recovery.

We are now preparing to operate a new heat recovery project at our factory in Tunisia. The initiative starts in 2017 and it is expected that in the long term it will supply up to 30% of our electricity needs in the plant.



STAYING ON TRACK

Our long-term vision ensures our expansion schedule that includes, in addition to Brazil, our markets in Bolivia, Turkey, the United States and Argentina.

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Because we always consider the long term, even in the midst of a challenging economic situation we have continued our expansion cycle started in 2010 with an expected duration of eight years. The measures we adopted, such as cost reductions and the sale of non-strategic assets, are enabling the conclusion of this cycle with financial discipline. Within this context, we had two important inaugurations in 2016: the Primavera plant, in Brazil, and the Yacuses plant, in Bolivia.

The startup of our operation in Primavera, in May 2016, increased our presence in the North and Northeast regions. With an estimated investment of R\$ 860 million, the plant has an installed capacity of 1.2 million metric tons of cement per year. We created 1,200 jobs in the construction phase and 270 direct and indirect jobs with the beginning of operations. "It was the most successful

startup in our Company's history," said Alexandre Lencastre, director of Operations, Brazil. Among all startups in our Company, Primavera had the fastest growth in the internal OEE (Overall Equipment Effectiveness) index, which measures the overall efficiency of our equipment.

The Bolivian plant, for which we have two other partners, is our first greenfield project outside Brazil. The plant began operating in December 2016, serving a rapidly expanding market in the country, eastern Bolivia. With an estimated investment of US\$ 212 million, the plant is already considered a success story. In addition to being completed 15 days ahead of schedule, the plant introduced a new institutional brand, logistic model and social responsibility plan to a region lacking infrastructure.

We built the plant in a strategic location, close to raw materials and with

easy access to the railroad that leads to Santa Cruz, one of the largest markets in the country and the main one for our Company. We also have easy access to the natural gas pipeline connecting Bolivia to Brazil, which has led us to adapt the plant so that the fuel used and the generation of electric energy are both gas-based. This energy matrix will result in benefits from both an environmental and economical standpoint.

During construction, we overcame obstacles such as the logistical challenge of the delivery of equipment: 600 trucks left Arica, Chile, and climbed the Andes using roads that were often precarious. The Yacuses plant has the capacity to produce approximately one million metric tons of cement per year. The plant structure and number of employees comply with the Global Performance program. That is, the operation is, from the very beginning, already lean,

efficient and founded on the concept of excellence, one of Votorantim Cimentos' strategic pillars.

The construction of the plant employed 1,600 workers, including Bolivians, Brazilians, Argentines, Germans, Chinese, Dutch and Venezuelans. To run the operation, we have 230 employees, who brought an economic boost to a town that has less than a thousand inhabitants. Yacuses expanded its infrastructure with a hotel, restaurants and service providers, which brought development to the region.

In addition to fostering economic development, the unit started its operation with a consideration for sustainability, with rainwater collection, treatment and reuse systems, emissions controls and logistics based on rail transportation. We have also implemented a social responsibility project that will assist in the development of the community.

Jbel Oust unit, Tunisia





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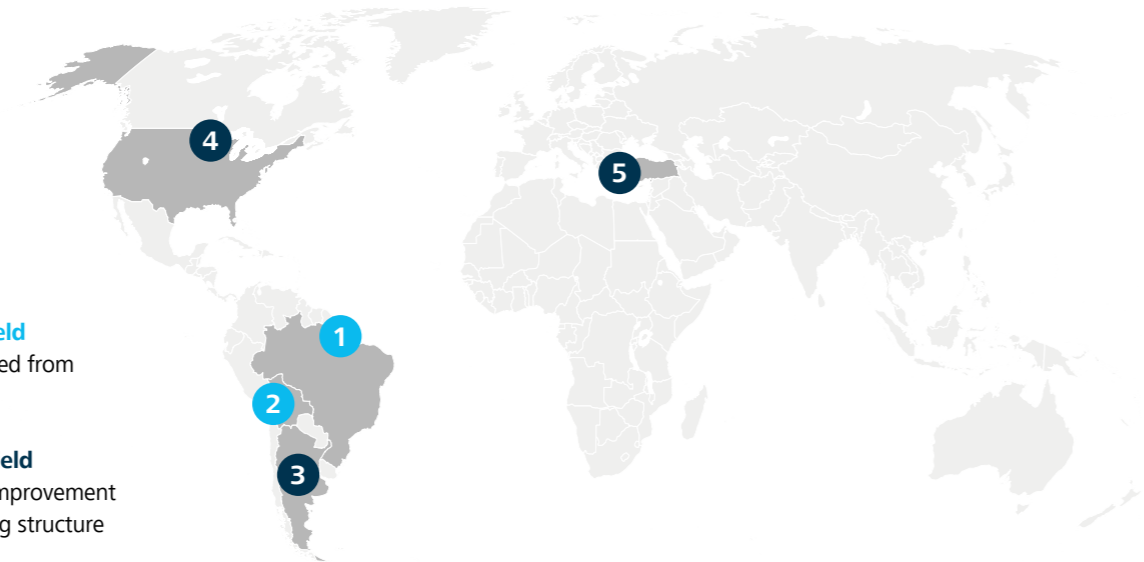
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- **Greenfield**
Project started from scratch
- **Brownfield**
Expansion/improvement of an existing structure

1. PRIMAVERA – BRAZIL

The unit, inaugurated in May 2016, has strategic importance to serve the markets of the North and Northeast of Brazil, which are expected to make a strong comeback once we see a recovery in the economy.

Plant installed capacity:



4. CHARLEVOIX – UNITED STATES

We will continue to expand the unit with an estimated investment of US\$ 184 million. The expansion, with startup scheduled for 2018, will put us in a good position to capitalize on opportunities in the Great Lakes region.

Plant installed capacity

(estimated after expansion):



2. YACUSES – BOLIVIA

Our first greenfield project outside Brazil, the plant was inaugurated 15 days ahead of schedule and has already become a successful example of planning and applying the Company's global standards. This unit will enable us to produce up to five times more cement in Bolivia.

Plant installed capacity:

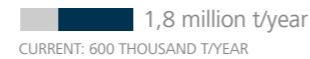


5. SIVAS - TURKEY

Our estimated investment of € 140 million in the expansion of the unit will triple its production capacity and increase our network in eastern Turkey. The expansion started operating in April 2017.

Plant installed capacity

(estimated after expansion):



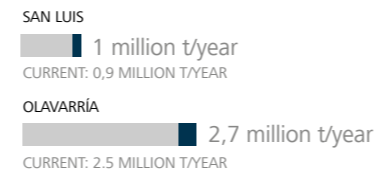
3. ARGENTINA

In 2016, we advanced our project to expand the capacity of the San Luis plant and engineering projects for its new electricity line. Startup is planned for 2019.

Last year we also approved the expansion of the Olavarría plant. This will increase its capacity by 175,000 metric tons a year, because the plant will reuse in its production a pozzolan that will be manufactured locally.

Installed capacity

(estimated after expansion):



Continuation of the cycle

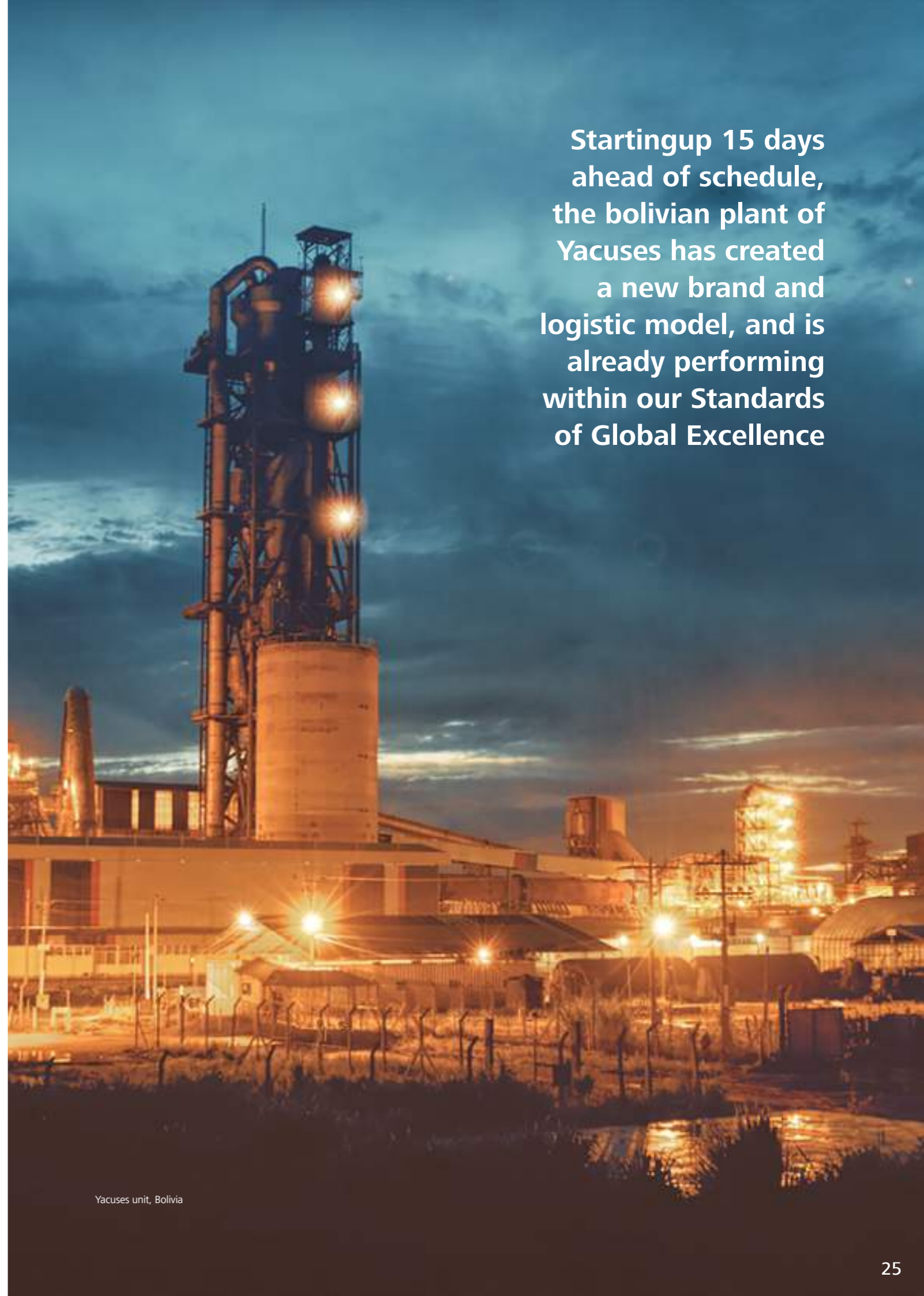
In 2016, with the inauguration of Primavera, we concluded in Brazil the expansion cycle initiated in 2010. This cycle will continue through 2018, focusing in new units outside of Brazil for the next two years. The Company made an investment of R\$ 1.2 billion in expansions in 2016, enabling the start of the Yacuses operation in Bolivia in 2016, and of the Sivas plant in Turkey, in 2017. The

new Turkish unit will expand our market in the east of the country, which will require an operational, logistics and sales effort to reach new customers. In the United States, the current expansion project in Charlevoix is expected to be completed in 2018. Located in Michigan, the plant will significantly increase our presence in the Great Lakes region. With an estimated investment of US\$ 184 million,

the expansion is expected to increase production capacity from 1.3 million metric tons to 1.9 million metric tons.

We also have a promising expansion project in Argentina. In anticipation of a recovery of the country's economy, we plan to inaugurate a new line inside the San Luis plant by 2019. That should increase the unit's production capacity from 0.3 million to 1 million metric tons.

Starting up 15 days ahead of schedule, the bolivian plant of Yacuses has created a new brand and logistic model, and is already performing within our Standards of Global Excellence



Yacuses unit, Bolivia



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INCORPORATING SUSTAINABILITY

Series of initiatives promoted to create a culture of sustainability within the Company already bears fruit in new projects aimed at reducing our environmental impact.

Tombador Waterfall-
Private Natural Heritage
Reserve located in the
Nobres/Brazil unit

Having sustainability as one of our strategic pillars is not something new. But for everyone in the Company to incorporate this concept to their tasks, we must go beyond the declaration of intentions, to promote and communicate an increasing number of initiatives founded on our commitment. That is why the Sustainable Practices Week, an event that reached 30 of our 34 units in Brazil and included 22 visits to our social projects, was a great milestone for our Company. After learning about the projects, many participants started to engage in them.

In all, more than 3,500 employees participated in the various activities organized as part of the event. "It was a great opportunity to talk about sustainability," said Mariana Monteiro, global manager of Eco-efficiency and Corporate Social Responsibility. "People gained a better understanding of what sustainability is and they learned more about what the Company is doing in the socio-environmental arena." The promotion of good practices was reinforced by the 2016 Water Campaign, through which we taught our employees conscious consumption practices and promoted a contest to encourage consumption reduction.

These training sessions, coupled with awards that encourage innovations in this area (see chart on the next page), have created a more conducive environment for sustainability improvements. This momentum was reflected in a series of actions, such as the beginning of the migration to solar energy in Brazilian cement distribution centers. We signed a 12-year agreement to install photovoltaic panels in these centers, which will result in reduced energy consumption.

Another outcome of the promotion of a culture of sustainability is the progress in water consumption mapping of our units in Brazil, which allowed us to include in this report, for example, the volume of water withdrawn for consumption and the discarded volume (indicators GRI 303-1 and 306-1), in addition to the CSI indicator of liters consumed per metric ton of cement produced. This and other information helps us advance our Water Resources Management Plan, which is part of our Sustainability Commitments for 2020.



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The culture of concern for the environments in which we operate was clearly manifested in three more initiatives in Brazil during 2016: the launch of a Guide to Good Environmental Practices in Limestone Mining in Karstic Areas, the Sustainable Land Management Plan and the Pró Cavernas Project.

The Guide to Good Environmental Practices in Limestone Mining in Karstic Areas is the first worldwide publication released by an industry that compiles good environmental practices in the areas of limestone mining, in which caves are commonly found. The Sustainable Land Management Plan presents an innovative methodology for identifying and protecting existing environmental assets. Pró Cavernas, in turn, broadens the knowledge within our units about caves and proposes measures for their management and conservation.

In 2016, we also worked on the conservation of Cova Eirós, in Spain, a cave that is considered a heritage site. The cave has a rich archaeological and paleontological collection for research, with cave paintings thousands of years old, and fossils of bears. We are improving conditions for researchers by monitoring humidity, temperature and pressure, among other measures that ensure that our mining work preserves this heritage.

Certificate of good practices

The creation of a culture of sustainability is also manifested at VCNA, through the complete recovery of areas that have been used for mineral extraction. In Ontario, for example, we are filling a mine used for exploration and transforming it into a high-productivity farm. "For each acre used for exploration, we're rehabilitating two acres," said Edison Chimilovski, VCNA's Director of Aggregates.

Also in the VCNA operation, we developed environmental product declarations (EPDs) for different types of cements and concretes that we produce. These documents quantify environmental impacts and provide consumers with information about the product's life cycle. These declarations, along with our trained LEED-certified consultants, appeal

to the most demanding consumers in terms of sustainability. "Many people don't think about this yet, but when that awareness hits the market we will be in a good position," said Bill Asselstine, technical VP of Sustainability and Safety at VCNA.

The creation of EPDs was also a great milestone during the year in Brazil: we are the first Company in the construction industry in the Country to launch this initiative. In addition, in 2016 we started the process of multisite ISO 14001 certification in our cement units. Until then this certification was carried out by

plant, individually. This process should be completed by 2020, when all units should receive the certification, granted to companies that have environmental management systems aligned with international standards.

We remain alert

Due to market changes that occurred in 2016, we noticed an increase in the indicator that measures the clinker cement factor. Although the VCEAA operations experienced a slight reduction in this indicator, it increased in North America

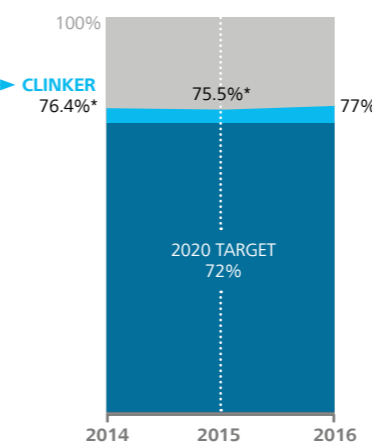


Sustainable Practices Week –Castanhas do Carrilho Project – Sergipe, Brazil

More than 3,500 employees participated in the Sustainable Practices Week

CLINKER: The production of cement includes heating limestone and other raw materials to very high temperatures, in a chemical reaction called calcination. The product of this reaction is clinker, the main raw material used in cement manufacturing. Since this calcination consumes fossil fuels and generates a significant volume of CO₂ emissions, one of the biggest environmental challenges in our industry is to reduce the use of clinker, replacing it in the cement mix with materials that have lower environmental impact.

CLINKER / CEMENT FACTOR



* Revised data

and Brazil. At VCNA, this was due to the inclusion of Dixon type I/III cement (which uses more clinker), in the results. In Brazil, while we saw an increase in the relative demand for our structural cement (a specialty product that uses more clinker), changes in our product mix due to the market downturn also had a negative impact on the clinker factor.

However, the impact of additional CO₂ emissions caused by clinker was more than offset by our environmental measures, and we were able to make progress on our 2020 target. By 2015 we had achieved a reduction of 16.1% in

CO₂ emissions compared to 1990 levels. In 2016, the same indicator showed a 17.2% reduction. Even so, we already have initiatives under way to deal with the increased environmental pressure that came with the market change. Among them is monitoring of the regularity index of the specialty cement we have in our new portfolio, which will enable us to reduce the use of clinker in its manufacturing process. Another measure is the accelerated advance of co-processing in 2017, which will help us replace traditional fuels with lower-carbon fuels.

TALENT IN SUSTAINABILITY AWARDS

Number of projects submitted to the competition increased 250%

As proof that the environmental culture has gained in importance within our Company, the 2016 Talent in Sustainability Awards received a total of 326 projects, a 250% increase compared to 2015. The competition recognizes and encourages employees and trainees who head innovative projects in sustainability. The first phase occurs within each of the companies of the Votorantim Group and the second phase includes the best projects from the entire group.

The competition recognizes innovative projects in four areas: Environment, Productivity and Efficiency, Social Engagement, and Health and Safety. The winners of the first phase were: "Eco-efficiency Analysis of Construction and Maintenance of Asphalt and Concrete Roads" (Environment), "E= MC²– Energy Conservation and Management Initiative" (Productivity and Efficiency) and "Children

of Employees of Votorantim Cimentos Star in Safety Video in Turkey" (Health and Safety).

Our Sustainable Primavera project, in addition to winning the first phase, was also voted the best initiative in the Social Engagement category in the entire Votorantim Group. The project measured the return on the R\$ 10 million social investment made in the town where our new unit is located. The measurement showed that, in the specific case of Primavera (which included cheaper credit lines and tax benefits), we were able to obtain a return of R\$ 4.54 in benefits for each R\$ 1 invested. Detailed measurement and analysis were conducted over a period of four months and included interviews with 20 professionals, application of consolidated methodologies and validation from finance specialists.



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Co-processing at the Sobradinho/Brazil unit

THE RIGHT ALTERNATIVE

Fossil fuel substitution within VC advances and is supported by the consolidation of an area exclusively dedicated to raw materials and alternative fuels.

The year 2016 will be remembered in our history as the one in which our commitment to sustainable production was solidified. We increased our global fossil fuel substitution rate from 9.7% to 11.8%, consolidated a new business unit dedicated to alternative fuels and raw materials (AFR), advanced in the use of waste from other industries in our production, and created the area of eco-efficiency. While this is significant, we know there is still more to come.

Behind all the progress in this area – which is one of our strategic drivers – was our decision to maintain our R\$ 300 million investment plan to achieve, by 2020, 40% of non-fossil fuels use in VCBR units and 30% globally. Reuse of waste from other industries, such as nickel and manganese slag, and the use of more sustainable fuels, such as rice husks, soybean molasses, briquettes, sawdust and cotton bark, are fundamental to fulfill our long-term vision, both from an environmental standpoint and from the perspective of greater efficiency and cost reduction.

Co-processing is nothing new at Votorantim Cimentos. We have been on this path since 1991, when we became pioneers in Brazil, even before the creation of the first federal legislation that regulated this activity. Since then, we have accumulated expertise in techniques to take advantage of tires, biomass and other types of waste to replace part of the petcoke used in the cement manufacturing process.

Co-processing, which helps reduce the use of non-renewable natural resources, is one of the most important strategic initiatives to move us towards our goal of reducing CO₂ emissions per metric ton of cement by 25% compared to 1990. More than that, co-processing helps to reduce the accumulation of waste in landfills, contributing to a more favorable environmental balance.

In all, Votorantim Cimentos co-processes in 23 clinker kilns in Brazil. In 2016 alone, co-processing operations consumed 637,000 metric tons of waste, tires and biomass, which contributed to avoid the emission of more than 630,000 metric tons of CO₂. The environmental benefits go further: because of this substitution in our thermal matrix, Votorantim Cimentos avoided the use of the equivalent of 10,000 trucks of petroleum coke.

Co-processing has advanced not only in Brazil. At VCEAA (Europe, Asia and Africa), we added 15 new alternative fuels to our operations in Spain, India, Morocco, Tunisia and Turkey. In

Canada, after 10 years of efforts, we were granted a permanent license to co-process wood waste, which will be the first initiative of this kind in the state of Ontario. In Uruguay, following a major reformulation of the plant, we began co-processing tires.

Fine mixture

In addition to the use of alternative fuels to replace fossil fuels, we have also been advancing in using cement production technologies for mixing non-traditional materials, such as nickel, copper and more recently, manganese acid slags. After years of research and development, six plants in Brazil now provide a destination for the sustainable use of waste material from other industries that would otherwise end up accumulated in great mountains or landfills.

In 2016, our acid slag technology earned us the "Green Mine" Award, from In the "Mine Magazine", and the "Dr. Clemente Greco" Award, as the most innovative environmental project

In one year, we went from 9.7% to 11.8% of fossil fuel substitution



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in the industry in South America. In addition to the positive impact on waste disposal, the use of non-traditional materials also cuts manufacturing costs and considerably reduces the volume of emitted CO₂.

We also produce cement using pozzolan clay, which reduces the carbon footprint of a traditional product by half. One of the units in which this technology is applied, Nobres, received in 2016 the green stamp of Mato Grosso government. In 2016, we completed the research that will allow us to make the red clay into gray pozzolan product, which will bring even greater market acceptance.

A major project in this area is scheduled for 2018, with the expansion of the Olavarría unit in Argentina. The plant has already been accumulating calcined pozzolan as a byproduct of its operation. After rigorous laboratory tests in 2016, we concluded that this clay is a suitable material to mix in cement. Now, with costs close to zero, this calcined pozzolan will play a key role in adding 300,000 metric tons to the plant's capacity.

Restructuring our business

With so many initiatives that reuse waste from other companies in a sustainable way, it is only natural that we continue to strengthen our Alternative Fuels and Raw Materials (AFR) business unit. This unit has the goal of accelerating the reuse of waste in our operations, and opening a service front for the sustainable use of materials from other companies. Within three years, we want to become a major player in the industrial waste treatment market.

The support from our new eco-efficiency area, created in 2016 to support business decisions with the application of sustainability practices, will be very important in our journey. The strategy of this area includes quantifying impacts on sustainability, directing innovation processes and strengthening internal and external communication to foster a culture of sustainability within the Company.

Keeping with this direction, the area developed in 2016 a series of studies on



Initiatives saved the atmosphere of 213,000 metric tons of CO₂



Algae project at the St Marys, Canada unit

sustainable practices in our business. The first study allowed us to quantify the amount of CO₂ avoided through our co-processing initiatives. Another study demonstrated how using industrialized mortar instead of mortar mixed on-site brings a series environmental benefits. Our study found that the use of industrialized mortar reduces energy consumption, causes 68% less greenhouse gas emissions and reduces the amount of water used in its production by 30%.

The eco-efficiency area also addressed other issues in 2016, such as the positive impact of the addition of waste from the steel and thermoelectric industries to our products, and the environmental opportunities created by the production of agricultural lime. The area also promoted a series of sustainability training sessions for Votorantim Cimentos leaders.

Initiatives like these are increasingly important, and we need to move

AT THE FOREFRONT OF SUSTAINABLE TECHNOLOGY

One of our projects is a finalist in the most renowned technological innovation awards in the world

Many of the world's best scientists are now struggling on the question "What can we do to prevent the CO₂ we emit from getting to the atmosphere and worsening global warming?" In 2016, XPRIZE, the most famous technological innovation awards in the world, selected the 27 most promising initiatives in this area worldwide. Among them is a project by Pond Technologies, a Company in which Votorantim Cimentos has a corporate interest. With the support of the National Science Council of Canada, we developed prototypes that use large amounts of CO₂ in algae culture. These high-CO₂-consuming algae, in turn, can transform the gas emitted by factories into biofuels, fertilizers and animal feed. A Pond bioreactor has already been installed at VCNA headquarters and another one will be installed at our Bowmanville facility, in Canada, in 2017.

towards fulfilled the commitments we made. We began to carry out carbon pricing simulations that will be adopted as a criterion in decisions involving the allocation of capex. "The profitability of long-term projects will also be analyzed from this perspective. We are creating an internal culture based on the awareness that carbon has a price, and preparing ourselves for the future," said Alvaro Lorenz, Global Technical Director.

2

1. INTRODUCTION

2. OUR STORY IN 2016

- Life is made to last
- Facing the challenges
- When life gives you lemons
- Staying on track
- Incorporating sustainability
- The right alternative
- Building a new market

3. OUR BUSINESS

4. OUR ECOSYSTEM

5. OUR LONG-TERM RELATIONSHIPS

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BUILDING A NEW MARKET

New Votorantim Cimentos portfolio changes the way cement is sold and purchased.

Whether they are looking to purchase cars, refrigerators or mortar, it is the customers who decide. They have access to detailed information and want products tailored to their specific needs. In line with this trend, we have created a specific product line, divided by types of application – which has made life easier for both customers and construction professionals.

Developed throughout 2015 for the Brazilian market, the new portfolio was presented to consumers in 2016. A major national marketing campaign – of unprecedented proportions in our 83-year history – spread the idea of “The first and only cement for each type of construction” and the hashtag #partiobra throughout Brazil. Behind this major communication effort was an even greater work of research and development. The new portfolio was the result of research involving more than 400 professionals from the entire construction chain: construction workers, retailers, clerks, builders, consumers and associations. Masons participated in practical tests carried out to confirm if the different types of cement offered practical benefits.

“This was not just a simple change in packaging. We conducted extensive R&D to develop a new cement portfolio, and we adapted our production lines to this new offering,” said Álvaro Lorenz, Global Technical Director. This launch also changed the Company’s sales

profile. “Special cements already account for almost 10% of the Company’s sales. In this mix, our Structural Construction cement stands out, since it offers 20% greater resistance and a shorter drying time than traditional cements,” said Mauricio Russomanno, director of Sales, Marketing and Concrete Operations.

NEW CEMENT PORTFOLIO

SPECIAL CONSTRUCTIONS IN AGGRESSIVE ENVIRONMENTS

Specific for pipelines, sewage treatment stations and coastal areas.

SPECIAL CONSTRUCTIONS

For industrial use, such as in precast and artifacts.

STRUCTURAL CONSTRUCTIONS

For foundations, pillars, beams and structures.

ALL CONSTRUCTIONS

More versatile and suitable for plastering, underlayment and slabs.

BASIC CONSTRUCTIONS

For use in renovations without structural function and repairs.



New portfolio campaign held in Brazil

The new specialty cements already account for almost 10% of cement sales in Brazil



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OUR BUSINESS

THE STRATEGIES, PRODUCTS AND EXCELLENCE THAT CEMENT OUR LASTING PRESENCE IN THE MARKET



Commercial Self-Construction/Brazil



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OUR VISION

Operating in the construction materials business since 1933, we are leaders in the Brazilian cement market and one of the ten largest global Company in this industry*. We have a cement production capacity of 57.5 million metric tons/year and revenue of R\$ 12.7 billion (2016).

We started in the cement business with the Santa Helena plant, in São Paulo, which celebrated 80 years of operation in 2016. Over time, the

unit grew and solidified: it went from an annual production of 800,000 metric tons to a 2.5 million-metric ton capacity. Like Saint Helena, the business of Votorantim Cement as a whole has also expanded and has been building a legacy.

Today, we have 13,187 employees (not counting the 330 trainees/summer students and 216 apprentices) manufacturing products that build structures made to last –

whether cement for a dam, concrete for a bridge, gravel for a road, the mortar that will add the finish to your house, or agricultural lime for agribusiness.

Our headquarters are in Brazil, but we are present in 13 other countries in the Americas, Europe, Asia and Africa. Even though we speak several languages, with many accents, we are united by one objective:

TO BE THE BUILDING MATERIALS COMPANY COMMITTED TO CUSTOMER SUCCESS, THROUGH EXCELLENCE.



Yozgat unit / Turkey



OUR HISTORY

www.votorantimcimentos.com/en-US/Company/Paginas/history.aspx



VALUES AND BELIEFS

www.votorantimcimentos.com/en-US/Company/Paginas/values-and-beliefs.aspx

Our voluntary commitments

We are signatories to global and national pacts and initiatives:

1

Global Compact
A United Nations initiative that encourages companies to respect human rights and to support decent work, the development of the environment and the fight against corruption.

2

Cement Sustainability Initiative (CSI)
International protocol that brings together the 23 largest producers of construction materials in the world, aiming at the adoption of better practices by the cement sector.

3

Business Pact Na Mão Certa Program – Aims to ensure the commitment of the signatory companies in initiatives to combat the sexual exploitation of children and adolescents on Brazilian highways.

4

SBE VC RBMA Technical Partnership
Brazilian Society of Speleology – Votorantim Cimentos – Atlantic Forest Biosphere Reserve – Partnership for the development of socio-environmental practices in areas with caves and in the Atlantic Forest.

5

Global Reporting Initiative (GRI)
Independent international organization that helps companies, governments and other organizations understand and communicate their impact on critical sustainability issues.

6

Open Letter to Brazil on Climate Change (Ethos Institute)
Business sector initiative, led by the Ethos Institute, that encourages companies to make a series of commitments to combat climate change.

* In terms of Ebitda in dollars as of December 31, 2016, excluding companies from China.

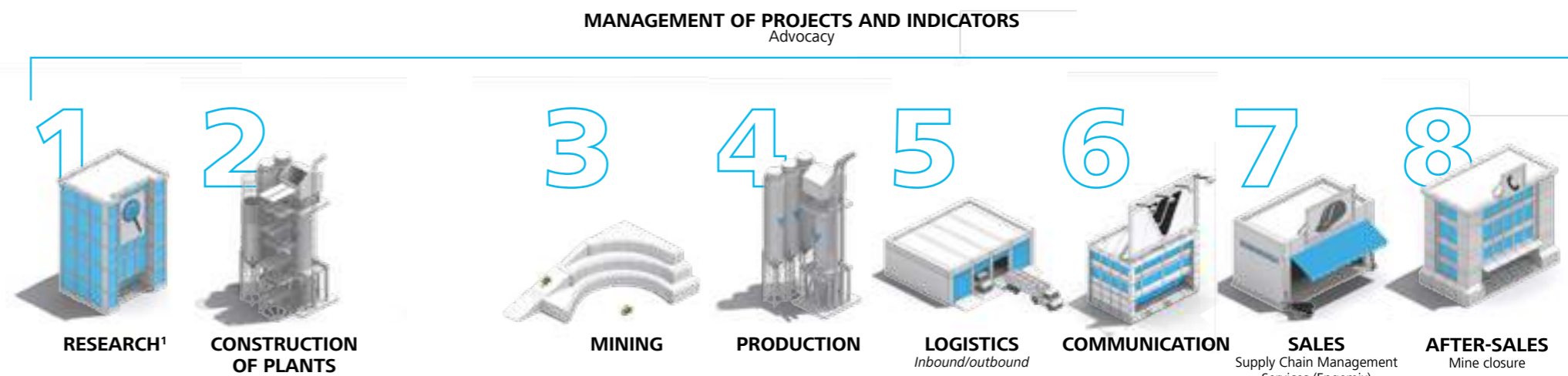


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BUSINESS MODEL

VOTORANTIM CIMENTOS

KEY ACTIVITIES



VALUE PROPOSITION

The value proposition is the factor that makes a customer choose between one Company and another. Value Propositions are a set of products or services intended to solve a customer's problem or satisfy their need. Some value propositions may be innovative while others may be similar to existing offers in the market but including some differentiation or additional attribute.

Credibility of the brand		
Technical expertise		
Efficient process management		
Management of teams or people		
Professional qualification		
Reduction of red-tape		
Sustainability		
Technology and innovation		
Devotion to safety in the workplace		
Supplier screening		
Broad portfolio		
Reduction in the consumption of natural resources		
Care with biodiversity		
Innovation focused on environmental impact		
Quality of the products		
Environmental product declaration (EPD)		
Relationship program		
Dedicated customer service for key accounts		
Efficiency in the formulation of products		
Efficient, safe and sustainable logistics		
Co-processing of waste		
DTM ² (Technical Market Development) support		
Order to cash		
Specialized sales team		
Third-party training		

MAIN RESOURCES

The Main Resources are those which are directly linked to the functioning of the business model.

Investment capacity		
Human resources		
Machinery/equipment		
Fuel		
Natural resources		
IT		
Energy		
Water		
Concrete plants		
Distribution center		
Technology center		
Plants		
Fleet and concrete-mixer trucks		
Inputs		
Media and marketing		
Mines		

STRATEGIC PARTNERSHIPS AND ALLIANCES

The key partners are all those who can contribute to the key-activities as well as with the supply of Key Resources.

- Universities
- Environmental institutes
- Trade associations
- Banks
- Suppliers
- Governmental bodies
- Unions
- Suppliers
- Independent contractors
- Banks
- Government
- Equipment suppliers
- Community/social license
- Carriers and self-employed drivers
- Independent contractors
- Trade associations
- Environmental institutes
- Government
- Equipment suppliers
- Army (explosives)
- Suppliers
- Independent contractors
- Trade associations
- Vocational training schools
- Suppliers of equipment, alternative fuels and cementitious materials
- Unions
- Carriers and self-employed drivers
- Trade associations
- Equipment suppliers
- Opinion makers/influencers
- Customers/promoters
- Newspapers, magazines, TV and websites
- Government
- Customers
- Key accounts (Major construction companies and Home centers)
- Technical laboratories

STRATEGIC DRIVERS AND PERFORMANCE INDICATORS

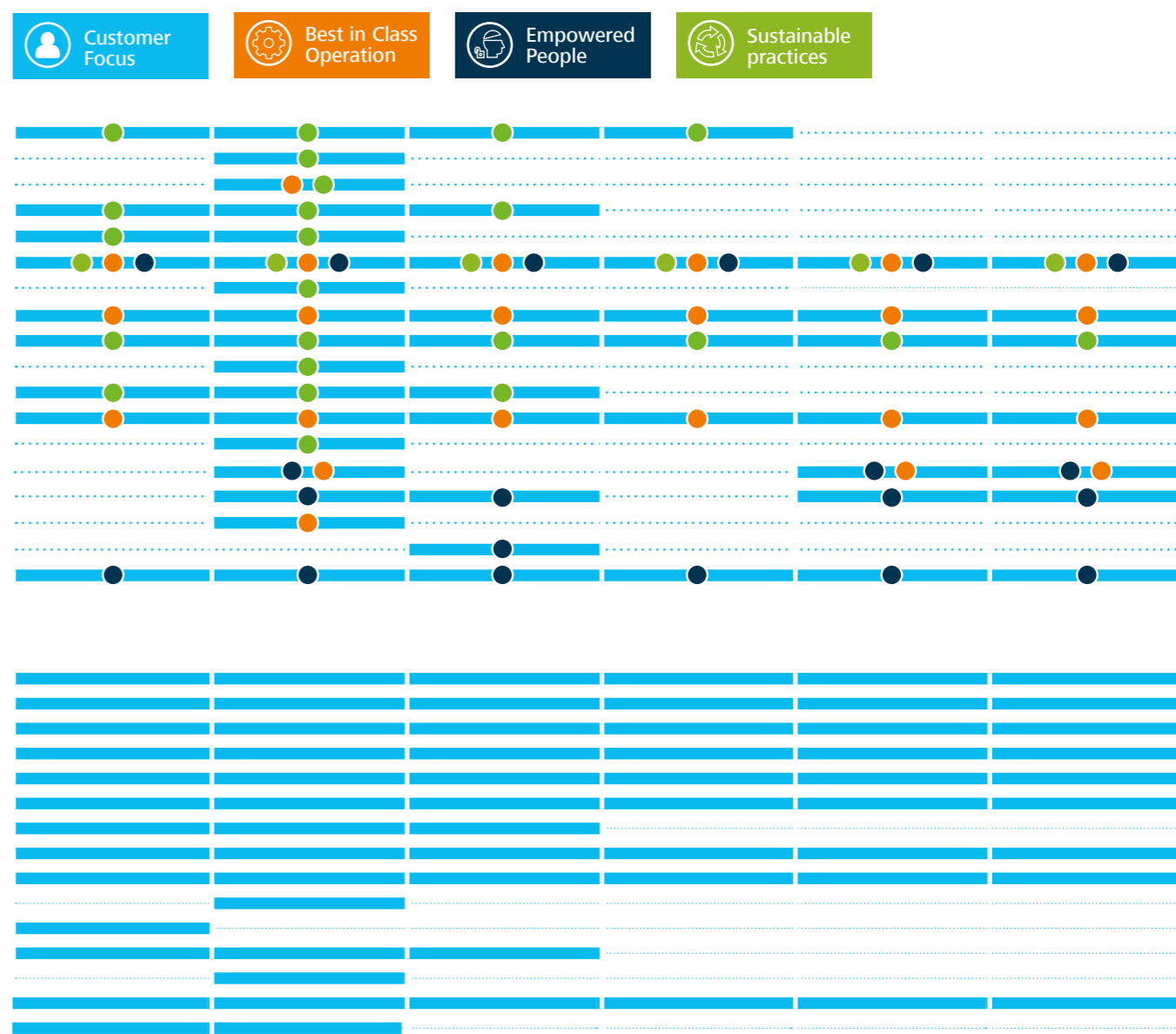
The Strategic Pillars that make up Our North represent the base for our business operation. They are reflected in our targets and in our materiality. Page. 49

Engagement with the community		
Reduction in emissions of NOx and SOx		
30% use of fossil fuels		
Safety (fatality rate)		
Water and biodiversity		
Ethical commercial practices (Code of conduct)		
AFR - Substitution target		
Ebitda		
Sustainability in the supply chain		
Reduction in CO ₂ emissions		
Global Environmental Policy and Green Rules		
Cash Cost Process		
Clinker/Cement factor		
IQP Processes		
NPS (Net Promoter Score)		
OEE - Productivity and Quality		
Tmac - Customer Service		
Engagement Index		

MATERIAL ISSUES

[GRI 102-44]

Occupational health and safety		
Training, qualification and development of employees		
Employment and labor relations		
Economic performance		
Ethics and integrity in business		
Customer relationship and recommendation		
Relationship with the community		
Supply Chain management		
Climate change and GHG emissions		
Energy management		
Biodiversity preservatio		
Atmospheric emissions (particulates, NOx and SO ₂)		
Water and effluent management		
Innovation, research and development		
Sustainable and inclusive construction		



1. Research activity includes geological research, market research and Research and Development (R&D)
2. Attendance of Technical Market Development Team

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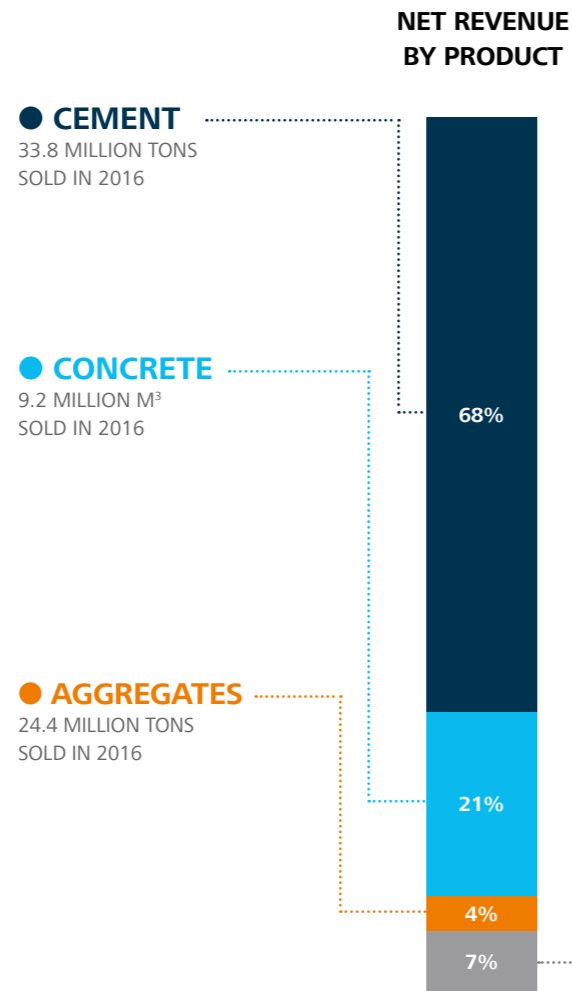
PRODUCTS, SERVICES AND BUSINESSES

We offer a number of different products, especially cement, mortar and concrete. With the structuring of the new AFR (raw materials and alternative fuels) business area, we also offer a service of adequate disposal of industrial waste through co-processing.

Our customers are quite diverse and include retailers, distributors, industries, infrastructure companies and real estate companies. In 2016, we developed a series of customized products in Brazil, with special emphasis on a pozzolan cement and a special cement for wind power towers. Final consumers in Brazil now also have access to a new product portfolio, developed to meet the specific needs of each

construction project, an important innovation that changed the way that cement is bought and sold (see article on page 34).

In 2016, we instituted two new quality indicators in Brazil: the Product Performance Index (PPI) and the Product Regularity Index (PRI). These indicators compare the quality required by the consumers of different types of product (what we call a quality contract) with the actual quality of the cement we produce. Both indicators are already helping us identify critical issues, guide initiatives that will enhance our focus on the customer, and provide a more regular product – which will result in an increase in productivity.



CEMENT
33.8 MILLION TONS SOLD IN 2016

CONCRETE
9.2 MILLION M³ SOLD IN 2016

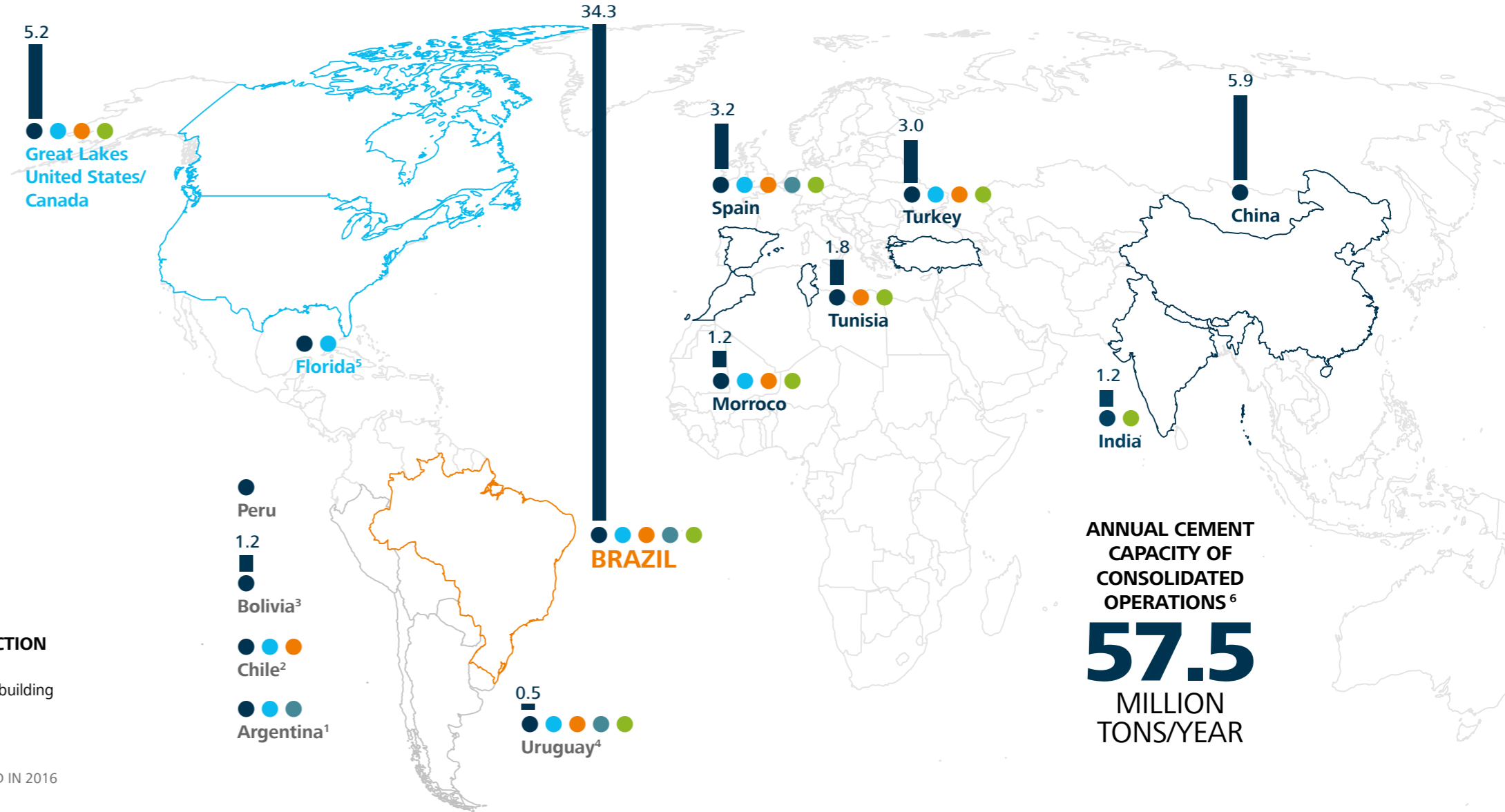
AGGREGATES
24.4 MILLION TONS SOLD IN 2016

OTHER CONSTRUCTION MATERIALS
We also supply other building materials, including:

MORTAR
1.6 MILLION TONS SOLD IN 2016

LIME
AGRICULTURAL LIME
CONCRETE BLOCKS
SHOTCRETE

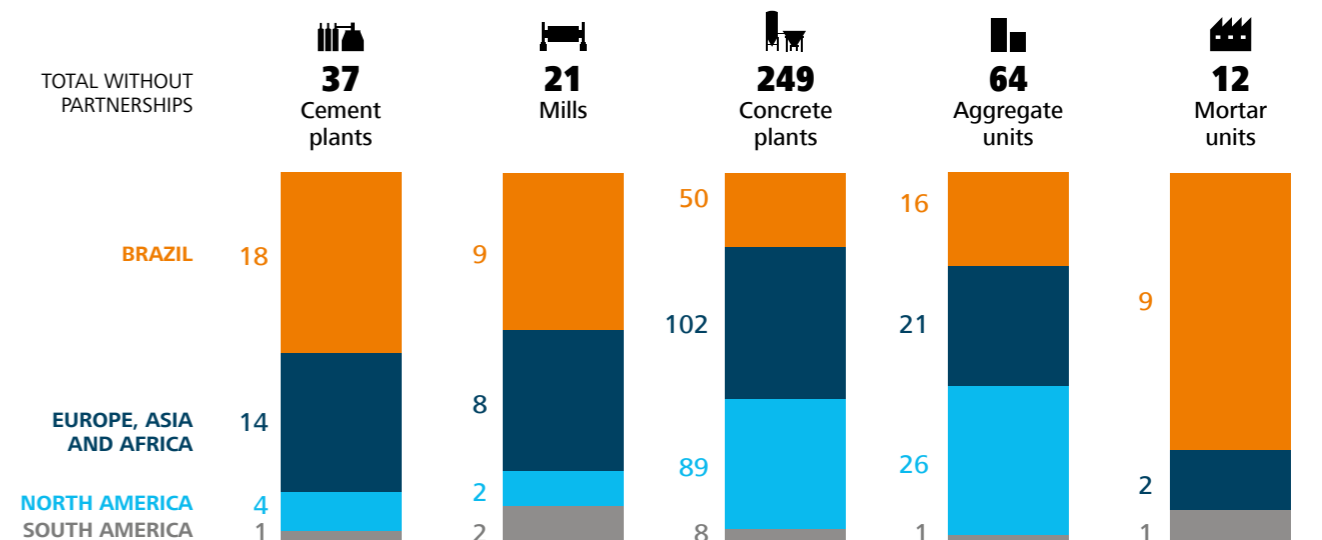
CO-PROCESSING
Technology consisting of the use of industrial waste, disposed tires and biomass as fuel substitutes – in cement plants properly licensed for this purpose. Co-processing is also an environmentally sound way to dispose of waste, which eliminates several environmental liabilities.



CAPTION: ■ INSTALLED CAPACITY OF 1 MILLION METRIC TONS = CONSTRUCTION OF 83 MARACANÁ STADIUMS (RIO DE JANEIRO, BRAZIL)

ANNUAL CEMENT CAPACITY OF CONSOLIDATED OPERATIONS⁶
57.5
MILLION TONS/YEAR

NUMBER OF UNITS [SEE OUR INTERACTIVE MAP ON THE WEBSITE](#)



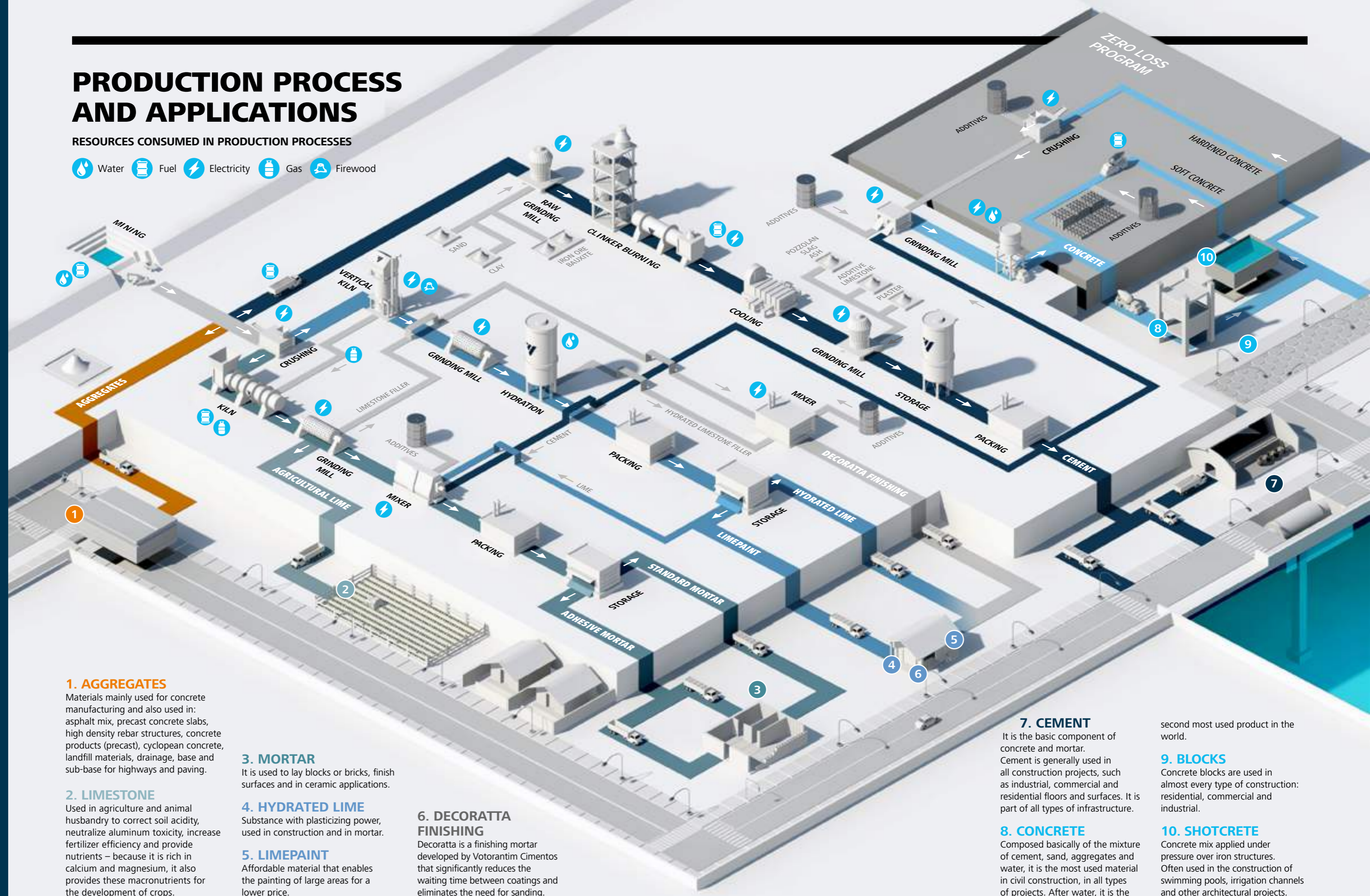
1. Argentina: 49% stake in Cementos Avellaneda | 2. Chile: 16.7% stake in Cementos Bio Bio | 3. Bolivia: 51% stake in Yacuses, which holds 66.7% in Itacamba Cementos S.A. | 4. Uruguay: 51% stake in Cementos Artigas | 5. Includes 100% of Suwannee's annual installed capacity, which is not consolidated in the VCSA Financial Statements | 6. Does not include annual installed capacity of Bio Bio, Avellaneda and Suwannee, which are not consolidated in the VCSA Financial Statements.

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PRODUCTION PROCESS AND APPLICATIONS

RESOURCES CONSUMED IN PRODUCTION PROCESSES

- Water
- Fuel
- Electricity
- Gas
- Firewood



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1. AGGREGATES

Materials mainly used for concrete manufacturing and also used in: asphalt mix, precast concrete slabs, high density rebar structures, concrete products (precast), cyclopean concrete, landfill materials, drainage, base and sub-base for highways and paving.

2. LIMESTONE

Used in agriculture and animal husbandry to correct soil acidity, neutralize aluminum toxicity, increase fertilizer efficiency and provide nutrients – because it is rich in calcium and magnesium, it also provides these macronutrients for the development of crops.

3. MORTAR

It is used to lay blocks or bricks, finish surfaces and in ceramic applications.

4. HYDRATED LIME

Substance with plasticizing power, used in construction and in mortar.

5. LIMEPAINT

Affordable material that enables the painting of large areas for a lower price.

6. DECORATTA FINISHING

Decoratta is a finishing mortar developed by Votorantim Cimentos that significantly reduces the waiting time between coatings and eliminates the need for sanding.

7. CEMENT

It is the basic component of concrete and mortar. Cement is generally used in all construction projects, such as industrial, commercial and residential floors and surfaces. It is part of all types of infrastructure.

8. CONCRETE

Composed basically of the mixture of cement, sand, aggregates and water, it is the most used material in civil construction, in all types of projects. After water, it is the

second most used product in the world.

9. BLOCKS

Concrete blocks are used in almost every type of construction: residential, commercial and industrial.

10. SHOTCRETE

Concrete mix applied under pressure over iron structures. Often used in the construction of swimming pools, irrigation channels and other architectural projects.

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INNOVATION AND TECHNOLOGY

In Brazil, we develop projects in the area of innovation with multifunctional teams, brought together by the leader of each initiative, according to the specific need. This process consolidates an integrated vision of Innovation, Research & Development and Quality around initiatives that anticipate new business models or that focus on incremental improvements, promoting cost reductions and product, process and service improvements.

In 2016, the area of innovation area on two main objectives: to make two or three new products available to the market by 2017 and to implement a model to raise funds for new projects through financing systems. Both

goals have been achieved: in 2016 we launched a new self-leveling underlayment floor and a stabilized mortar, and created a plan with financial institutions. Two new quality indicators instituted in 2016 are helping us to identify critical points and direct initiatives aimed at these incremental improvements in Brazil: the Product Performance Index (PPI) and the Product Regularity Index (PRI). Together, they compare the quality contract we have established for each type of product with the actual quality of production. In addition to allowing more precise control over quality, they also help us to maintain better regularity.

R&D AND QUALITY PROJECTS

Throughout the year, we conducted 44 projects that resulted in product and process improvements in all business segments. The main drivers of these projects were cost reduction, value generation, environmental concerns and customer service.

PROJECTS CARRIED OUT IN 2016

COMPLETED PROJECTS/
TOTAL PROJECTS

CEMENT	4 / 7
MORTAR	16 / 21
CONCRETE	3 / 6
CEMENTITIOUS	1 / 10

NEW PRODUCTS



Self-leveling Ready-mix Underlayment

Traditionally, underlayment is made with a low water content mortar, which requires intensive labor. In Brazil, we developed a product for the same purpose using fluid mortars, which, unlike the traditional underlayment, does not need to be applied manually or transported through cranes, cargo lifts and wheelbarrows. Our new product can be pumped, and sets onto the subfloor through the self-leveling action of its own weight. This provides significant reduction in labor and the time required for the construction of the underlayment, resulting in significant productivity gains.



Bagged lightweight EVA (ethylene vinyl acetate) underlayment

We developed a product that uses ground synthetic EVA foam as an aggregate. This synthetic foam is a raw material used on a large scale by the footwear, automobile and office materials industries in Brazil. Since these industries use EVA in finishing phases, a significant volume of scraps is discarded or sold at very attractive prices by these companies. Before using these scraps as aggregates in the Votorantim Cimentos underlayment, they are ground into EVA plates.

COST REDUCTION



Use of nickel slag as pozzolan

We reuse acidic slag, a waste from the nickel industry that is rich in magnesium silicate, as a pozzolan addition to the cement produced in our Edealina plant in Brazil. Since August 2016, we have been using this residual material as an addition to the bagged CP II-Z-32 cement. This measure has helped reduce the cost of cement production and the clinker factor in these plants, contributing to the reduction of CO₂ emission levels.



MOBILE LABORATORIES

In 2016, we launched five new mobile laboratories in Brazil. They were added to the two already operating in order to provide technical consulting and quality testing to our small, medium and large industrial customers in São Paulo, Paraná and part of Minas Gerais.



CLOUD DATA

Hobolink, a system that monitors the number of tons produced per hour, makes data available in the cloud and increases efficiency and productivity, was implemented across the Aggregates units in North America.



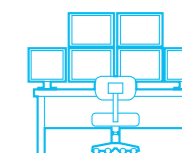
CONSUMER INTELLIGENCE

The implementation of the Consumer Intelligence Program at VCNA, with an update of the CRM software in the concrete areas, allows us to analyze sales data much more efficiently. This enabled significant improvements in the process of how we define the price of the product in different scenarios, increasing our profit margin.



CO₂ SEQUESTRATION

Pond Technologies, a Company of which we are a partner in Canada, is using algae to transform the CO₂ emitted by our plants into biofuel and biomass pallets.



CENTRALIZED CONTROL

We created an Operational Control Center at the Santa Helena unit in Brazil, unifying the operation of the Santa Helena and Salto de Pirapora plants control rooms (located several kilometers from each other)



Recycling heat

We are installing a Waste Heat Recovery system at our facility in Tunisia to capture the heat from gases generated during the production of cement and convert it into electricity. The system will generate an average of 7.5MW per year, about 30% of the plant's energy need.

PROCESS SUPPORT



Optimization of additives in Porto Velho (Rondônia State, Brazil)

We worked on a project focused on increasing the productivity of the unit mill in the production of bagged cement. Throughout the process, we found an opportunity to optimize the granulometry of bagged cement, while still maintaining its quality standard. This optimization increased our productivity by approximately 8% and reduced electric energy consumption, as well as the wear of grinding parts and the tearing of bags.

PRODUCT IMPROVEMENT



Change in the color of pozzolan added to cement

One of the additives used in our cements that reduces production costs and CO₂ emissions is pozzolan made from red clays. These pozzolans have proper quality and characteristics that benefit the products, but they turn the cement brown – which causes rejection from consumers and generates distrust on the quality of our product. Prompted by this observation, our R&D and Quality team developed a pioneering, economically viable process to change the color of red clays during calcination (the process that turns clays into pozzolans). This technique is currently being patented.



Reduction of mortar homogenization time

Studies aimed to reduce the mixing time in the mortar production process were conducted in several mortar plants in Brazil. Our goal was to increase production volume and reduce electric energy consumption and maintenance costs. Tests showed that we are able to maintain the homogeneity of mortars, even with a 33% reduction in the mixing time. In addition to the positive impacts on productivity and power consumption, the reduction in mixing time also increased the life of the mixer parts.



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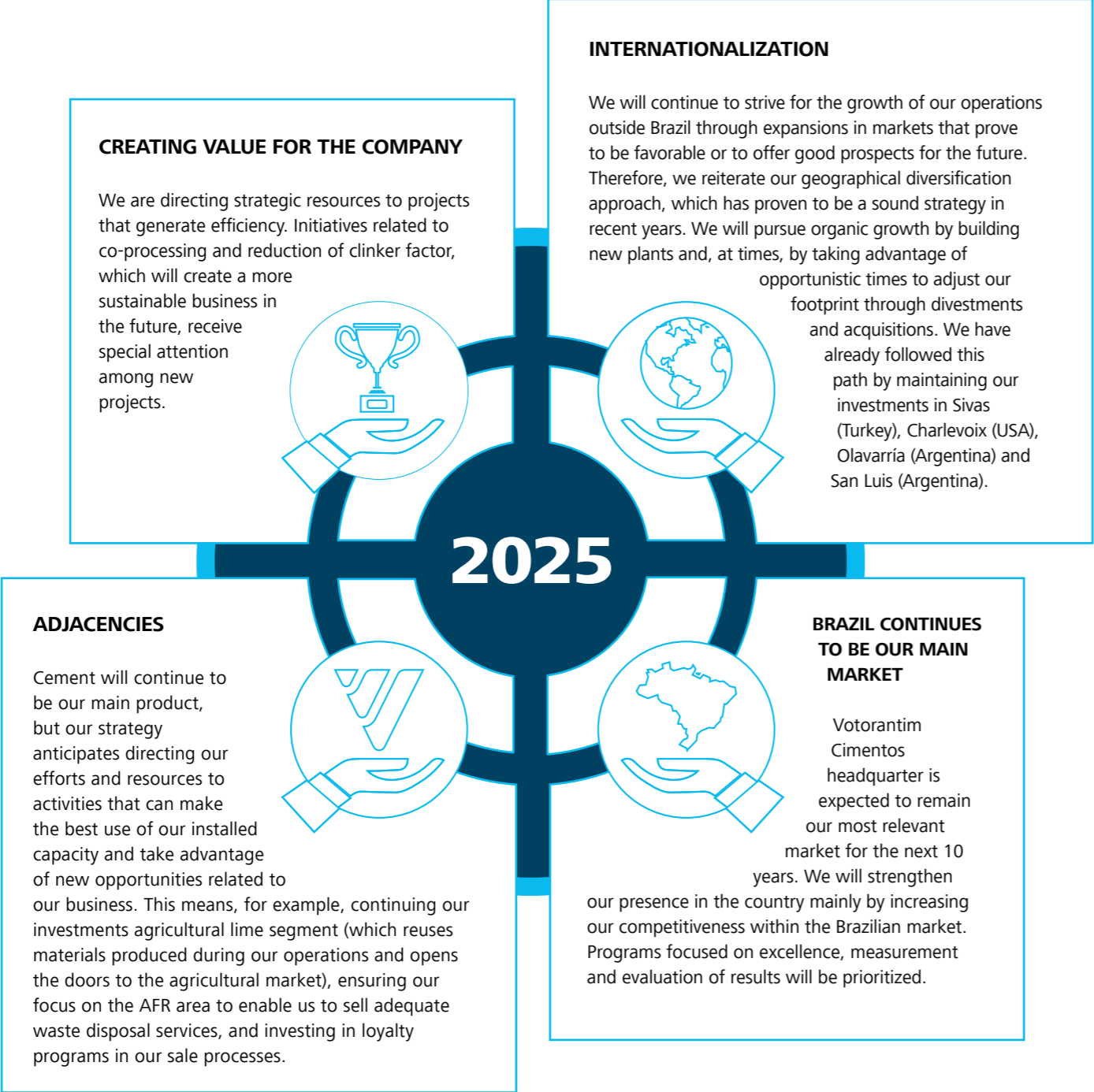
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BUSINESS STRATEGY AND DIRECTION

Our Strategic Dialogue, which entails discussions about our Company’s future, usually follows a three-year cycle. By 2015, however, in line with our focus on the long-term and perpetuity, we decided that, for the first time, we would consider a decade-long horizon. This was the origin of the 2025 Strategy, which was approved in 2016. The document is a detailed plan that outlines possible scenarios and plans initiatives for all Company businesses in each of the countries where we operate. These initiatives are divided into four levers:



Short-term planning

Our annual strategic planning is based on a 5-year time horizon and includes in-depth financial projections. It is reviewed and approved by our Board of Directors and aligned with Votorantim S.A.’s strategic planning. From now on, we will use the long-term 2025 plan as a driver for our future annual plans, improving our strategy process.

GLOBAL PERFORMANCE AND OPERATIONAL EFFICIENCY PROGRAM

This program is focused on the continuous improvement of indicators and industrial costs in the units of Votorantim Cimentos. With a global scope, it has several main objectives: to promote benchmarking among units, countries and regions; to evaluate the historical performance of each operation; to define goals for rationalization of the structures of the plants; to establish and follow performance improvement initiatives in a structured manner; and to serve as a basis for the development of the capex and opex budgets for the following year and of the Strategic Planning regarding operational performance. In its third year, the program has been successfully deployed, leading to consistent performance improvement within our operations.

COST REDUCTION

We foresaw a scenario of market deterioration and, in 2015, adopted initiatives to optimize fixed costs and SG&A. Our active approach when planning scenarios ensures that we enter new challenging environments with an appropriate business size. With that in mind, we rightsized our operations in Brazil and China in order to adapt them to the current market situation, and used tools such as zero-base budgeting for all regions.

OUR STRATEGIC PILLARS

The Strategic Pillars that reflect our Vision are the basis for our business performance:



CUSTOMER FOCUS

- We make our decisions based on the needs of our customers;
- We have specific business models to serve customers with different purposes and needs;
- We work so that the results of the efforts from all areas of the Company converge to deliver what our customer needs.



EMPOWERED PEOPLE

- We value leaders who lead through others, creating strong, diverse and engaged teams;
- We want people who take initiative to act;
- We work together to create solutions and make things happen.



BEST IN CLASS OPERATION

- We monitor our performance and are obsessed with continuous improvement;
- We make decisions with speed, discipline and consistency;
- We maximize productivity in all areas.



SUSTAINABLE PRACTICES

- Safety comes first;
- We act ethically and always in accordance with local laws and regulations;
- We promote eco-efficiency by striving to develop new products and innovative processes;
- We promote dialogue and relationships with our communities to perpetuate the Votorantim legacy.



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SUSTAINABILITY STRATEGY

As we pursue our growth ambitions, our commitment to sustainability is very clear. We are attentive to the present and future needs of society and we offer our clients eco-efficient and innovative materials and services – always ethically and in accordance with the law. In addition, we promote a safe, healthy and inspiring work environment and work for the development of our communities.

To engage our teams in a permanent pursuit of our goals, we developed our Sustainability Commitments for

2020. This document establishes medium- and long-term goals for the Company in the areas of Health and Safety, Ethics and Compliance, Eco-efficiency and Innovation, and Community Engagement.

To monitor them, we created indicators that have been included in the performance evaluation of our leaders – influencing their remuneration. We disseminated these commitments among our employees, through our communication channels and training initiatives.

OUR SUSTAINABILITY COMMITMENTS FOR 2020

Related to our sustainable commitment to Efficiency and Innovation



Health and Safety

Safety comes first!



Ethics and Compliance

We are ethical and trustworthy, acting according to laws and regulations.



Eco-efficiency and Innovation

We promote eco-efficiency through innovative practices and products.



Community Engagement

We foster local dialogue and relationships with communities, seeking to perpetuate the legacy of Votorantim.

↑ Target achieved → Target on schedule ↓ Target Behind schedule

OUR GOALS FOR 2020	WHAT WE DID IN 2016 (GLOBAL)	STATUS
Ensure the effective adoption of the Global Health and Safety Policy and the Rules for Life	The Global Health and Safety Policy was launched in 2016, signed by the CEO and the head of each unit, and made public in all VCBR units. The policy was also widely publicized on Global Safety Day and verified through protocol audits, as in previous years. A Workplace Risk Observation tool was made available and the Company's leadership was trained in its implementation. The entire leadership of the Company has been trained on the policy and the Rules for Life, and is engaged on the issue of safety.	→
Implement standards that ensure sustainability in our logistics and procurement operations	In 2016, 96% of our suppliers in Brazil were qualified and approved. Our goal is to reach 100% by the first half of 2017.	→
Promote healthy and safe working conditions for all employees. Achieve lost-time accident rate lower than 0.4 among direct employees	Our lost-time accident rate among direct employees in 2016 was 1.06, slightly lower than the 1.09 rate recorded in 2015. In 2016, we focused our work on the behavioral program with the engagement of all safety professionals in the Company, from our executive directors to all levels of leadership within our units. Examples of our initiatives: Sponsors Program, Pamy Plan, Perception Survey, Daily Safety Talks Calendar, and Safety Leadership Workshops. We also launched several health and safety campaigns to engage and sensitize our employees.	→

OUR GOALS FOR 2020	WHAT WE DID IN 2016 (GLOBAL)	STATUS
Ethical Business Practices: Ensure that all our operations are run in an ethical manner and in accordance with the Votorantim Cimentos Code of Conduct	In 2016, our Code of Conduct was updated and approved by the board of directors of Votorantim S.A. and of Votorantim Cimentos. The Code now presents our guidelines in a more objective and educational way, with everyday examples of the issues it addresses to facilitate the understanding of all our audiences. The updated version also includes the VC Compliance Program and a new chapter dedicated to the Anti-Corruption Law. In Brazil, the new version was launched in September 2016 with a comprehensive internal campaign and engagement from leadership, to ensure its dissemination to all audiences. In the first half of 2017, the Code of Conduct is expected to be disseminated globally, with new e-learning and face-to-face training.	→
Environmental Policies: Ensure the implementation of our Global Environmental Policy and Green Rules	We launched the policy and trained employees in the countries where we operate in Europe, Asia and Africa.	→
Supply chain standards: Promote sustainable supply chain standards throughout our business units	In 2016, 96% of our suppliers in Brazil were qualified and approved. Our goal is to reach 100% by the first half of 2017.	→
Sustainable products and services: Promote the launch of new sustainable products, solutions, services and innovations – achieve a clinker/cement factor ¹ of 72%	In 2016, we registered a 77% clinker/cement factor. While the clinker/cement ratio decreased in our VCEAA operations, it went up in North America and Brazil. At VCNA, this was due to the incorporation of Dixon type I/III cement (which uses more clinker) in the results. In Brazil, there was an increase in the demand for our structural cement (a specialized product that uses more clinker) and a reduction in the demand for our cements that are manufactured in more efficient clinker replacement plants.	↓
Renewable fuels: Reach a 30% level of non-fossil fuels use in our cement plants	We achieved a 11.8% rate of alternative fuels use in clinker kilns.	→
CO ₂ emissions: Reduce our CO ₂ emissions per ton of cement by 25% compared to 1990	Our CO ₂ emissions were 17.2% lower than in 1990, an improvement over the 2015 level.	→
Emissions: Reduce emissions of particulate matter, NO _x , and SO ₂ , to 65g, 1,950g and 750g per ton of clinker, respectively	Emission levels were 62g PM/ton clinker, 2,024g NO _x /ton clinker and 735g SO ₂ /ton clinker.	↑ → ↑ PM NO _x SO ₂
Water and biodiversity: Implement a water management plan in our business units located in areas of scarcity.	We focused on Measure 1 of our Water Roadmap: we mapped the flow and measured water in all VCBR units. Based on these results we reported, for the first time, the indicators GRI 303-1 and 306-1 and the Total Water Use for all cement units in Brazil.	↓
Water and biodiversity: Ensure that all our mines have a plan for the rehabilitation and management of local biodiversity and for sensitive regions.	Using the criteria established by the CSI, we defined the level of biodiversity management for the units that were identified by indicator EN11 and the basic requirements for each of them. The scope of the Biodiversity Management Plan was also determined for the units that were classified at the high priority level.	↓
Ensure the implementation of community engagement plans in communities in which we operate that have a high degree of social vulnerability.	We maintained community engagement plans in all places with high or very high social vulnerability where we have operating cement factories. Considering our aggregates, mortar, concrete and grinding operations, the percentage of locations of high vulnerability where we maintain community engagement plans is 20%. Considering the total number of VCBR units, this percentage is 43%. When prioritizing locations, we consider the Social Vulnerability Index (IVS - IPEA/ Brazil), a local diagnosis, the strategic relevance of the operation, and an evaluation of impacts and social risks.	→

1. The clinker/cement factor describes the ratio of total clinker consumption and the total cement or cementitious production.



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GOVERNANCE

Our focus on the long-term is also seen in our corporate governance structure. Our commitment is to ensure the highest standard of corporate governance, in compliance with our business strategy, values and beliefs, and also to align our Company to the requirements of publicly traded companies that are listed on the São Paulo Stock Exchanges. That way, we will be better prepared in the event

of a possible IPO, should the market become favorable in the future. That is also a way to enhance the attractiveness of our Company to investors and other stakeholders, nationally and internationally.

We have an integrated governance structure, with the participation of the highest decision-making levels of the Company, at a global level, reporting directly to the Board

of Directors. This structure ensures agility in decision-making and greater depth to discussions on topics such as mergers and acquisitions, investments and strategic drivers, and approval of policies and procedures. In 2016, our governance was strengthened with the arrival of two new independent board members, who added external experience and knowledge to our business.

EXECUTIVE STEERING COMMITTEE

Comprised of the Global CEO, Regional CEOs, the CFO and the Head of Corporate Development. The Executive Steering Committee is responsible for proposing, deciding, and monitoring the implementation of strategies in our four regions.

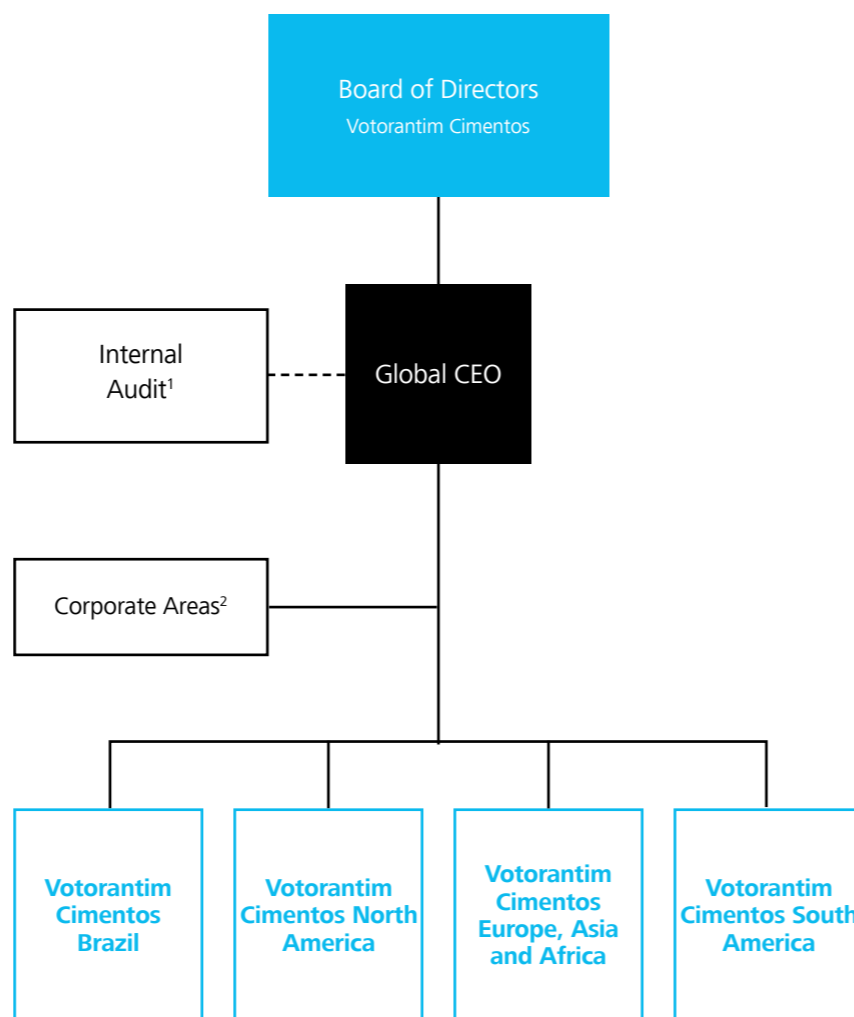
GET – GLOBAL EXECUTIVE TEAM

Comprised of eight functional directors, in addition to the Global CEO, Regional CEOs, the CFO and the Head of Corporate Development. The function of the GET is to guide Votorantim Cimentos in the creation of value in the long term, ensuring corporate governance and compliance, and fostering organizational culture, people development and Company reputation in all the countries in which we operate.

REGIONAL EXECUTIVE TEAMS

The initiatives leading to the fulfillment of Our Vision are aligned with the strategic issues of each operation by three regional executive teams, which mirror the structure of the GET: Brazilian Executive Team (BET); North American Executive Team (NAET) and European, Asian and African Executive Team (EAAET).

ORGANIZATIONAL STRUCTURE



1. Global Internal Audit reports to the Audit Committee of Votorantim and, administratively, to the CEO of Votorantim Cimentos.
 2. Global Areas: Finance, Human Resources, Legal, Corporate Development and Corporate Communications.

INTERNAL AUDIT

In place since 2002, internal audit is an independent activity that seeks to examine, evaluate, monitor and recommend potential improvements in processes and internal controls, to add value and contribute to risk management. The teams are formed by several professionals, who are responsible for the work in all countries in which Votorantim companies operate.

SOUTH AMERICA

We began to implement our global standards in the new Buenos Aires-based internal audit department, from which Argentina, Bolivia and Uruguay will be audited in 2017

EXCHANGING EXPERIENCES

We implemented the Guest Auditor Program, through which the manager of a similar unit from another region is invited to participate in the audit. In 2016, three successful reviews followed this model, and more are expected to happen in 2017. We encourage interregional audits for their potential to increase the knowledge of our professionals

DATA ANALYSIS

We started a state-of-the-art auditing review program in Brazil using Natural Language Processing to analyze large databases. We also use sales governance techniques for scouring contracts and predictive analysis to increase our success rates. The program is expected to be extended to other countries in the near future.

BOARD OF DIRECTORS

It is composed of seven effective members, elected by General Assembly, with a mandate of two years (or three, in the case of independent members). In addition to specific training, members periodically receive analytical materials prepared by the departments of Votorantim Cimentos to inform their decisions. The Board of Directors is responsible for setting and managing short-, medium- and long-term policies and strategies, and is advised by the following committees:

Member **Independent member**

FINANCE COMMITTEE

Advises the Board of Directors on issues related to the Brazilian and worldwide economic situation, financial policies and risks, cash management guidelines and liquidity. It discusses market scenarios, proposes and monitors annual performance targets, and analyzes and monitors VC capital structure, cash flow, and working capital needs.

STATUTORY AUDIT COMMITTEE

Monitors financial reports, internal controls, risk management, ombudsman, compliance with laws and regulations, and internal and external audit activities.

INNOVATION AND STRATEGY COMMITTEE

Advises the Board of Directors on issues related to the context of the Brazilian and global industry environment, possible implications for VC's competitive position, opportunities and risks, and also guides its vision and strategic guidelines.

ORGANIZATION, COMPENSATION AND HUMAN RESOURCES COMMITTEE

This committee supports the Board of Directors in matters related to the remuneration, appointment, profile and competence models of candidates for administration and corporate positions, as well as in decisions related to the Company's human resources.

GLOBAL FUNCTIONAL COMMITTEES

Advises the Global CEO and the Executive Steering Committee on short-, medium- and long-term functional issues such as HR, technical, corporate communications, legal and audit.

REQUEST FOR ANNULMENT – CADE DECISION

In 2015, the Brazilian antitrust authority (CADE) issued a decision in an administrative proceeding initiated in 2006 that condemned large producers in the cement industry, including Votorantim Cimentos, for alleged anti-competitive practices, including cartel formation. Votorantim does not agree with the charges brought against it and on 23rd October, 2016, was filed a lawsuit in

Judicial Court against CADE's final decision. On 24th November, 2016, Votorantim was granted with an injunction suspending all the effects of CADE's decision until final judgment or new Court's decision because of CADE's appeal.

In parallel with the administrative process of 2006, and based on the premises of CADE, the Public Prosecutor's Office of the State of Rio Grande do Norte filed a public civil

action in 2012, claiming damages allegedly incurred by the Company due to the alleged cartel practice. This process is in the evidence gathering stage.

FILING OF ADMINISTRATIVE PROCEEDING

On October 18, 2016, the CADE's Court decided to file an administrative proceeding initiated in 2003 against Brazil's largest concrete

and cement producers, including Votorantim Cimentos, alleging a possible violation of the Brazilian antitrust law. The court recognized that the conduct investigated in this case coincided with the practices discussed in the proceeding started in 2006. Based on this decision, the administrative proceeding initiated in 2013 was filed, without any imposition of penalties to the Company.

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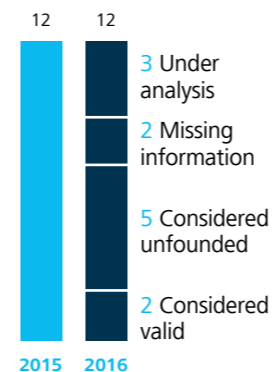
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OMBUDSMAN

In 2016, we achieved a 60% reduction in the number of reports of (suspected) violation of our Code of Conduct compared to early 2014, when important changes in the Ombudsman governance were executed. At the same time, these reports were supported by stronger evidence. Part of this success is due to continued user orientation. "This means that users are better prepared to react when faced with dilemmas or ethical issues and, consequently, use the Ombudsman's Office more effectively, contacting it only when confronted with a (suspected) breach of ethical conduct," said Silvia Maria Sotero, global manager of the Ombudsman's Office. Another part is attributed to the restructuring of reporting mechanisms. The tool for recording and storing reports, for example, has been reconfigured to meet the highest levels of privacy and data protection requirements. In addition, we put in place a network of more than 70 Business Ethics Officers – specially trained professionals, to whom the reports are automatically sent for investigation, according to the type of problem reported and the location in which the alleged incident occurred. These measures provided more agility in case handling and greater reliability in the flow and tracking of information and data.

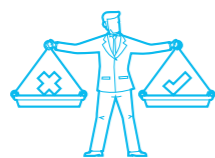
DISCRIMINATION INCIDENTS

TOTAL NUMBER OF INCIDENTS RECEIVED



INTRANET

In 2016, the Ombudsman portal was launched on VCBR's intranet. In addition to the training topics listed below, our portal provides examples of ethical dilemmas, a wide variety of questions and answers about the reporting program, our policies and procedures, details of how we operate and of our structure, and access to the Ethics Line.



TRAINING

We offered a total of five online training courses aimed at developing and training our Business Ethics Officers on issues related to Business Ethics, such as: commitment to confidentiality, mutual respect in the work environment, leading by example and supporting employees who communicate ethical issues, and how to manage questions and concerns.

We facilitated online training for employees in North America on how to raise concerns about ethical conduct.

OMBUDSMAN'S OFFICE FORMS

In 2016, we launched the Ombudsman's Office forms, with global scope, as one more instrument to reinforce communication, transparency and compliance with our Code of Conduct and VC's policies.

- Conflict of Interest Declaration Form
- Contact with Competitor Declaration Form
- Incident Declaration Form for Managers



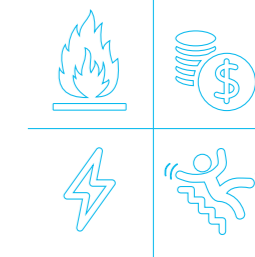
We have 16 videos, called Ethical Moments, available on the intranet for internal use. They cover different topics, such as fostering a culture of integrity, mutual respect, duty to report, retaliation, business integrity, conflict of interest, and respect for competition, among others.

Our Ombudsman Office can be accessed by employees, customers, suppliers and other stakeholders. Access the Ombudsman's Office or consult your local toll-free number at: <https://secure.ethicspoint.com/domain/media/en/gui/27543/index.html>

RISKS AND COMPLIANCE

In 2016, we enhanced our global compliance initiatives through a focus on prevention, risk monitoring and foreseeing vulnerabilities. This improvement had two major areas of focus during the year: updating our Code of Conduct and developing a Compliance Risk Assessment in Brazil, covering all areas of the Company. In the Risk Management area, we advanced with the identification and analysis of risks globally, ensuring the standardization of methodology and reporting in all regions.

Reaffirming our commitment to the continued evolution of our governance, in 2016 KPMG conducted an independent assessment of the maturity of Risk Management and our Compliance Program, pointing out the key challenges for the coming years and validating that we are on the right track, in line with the market's best practices.



RISK MATRIX

We completed our Risk Matrix in Brazil, through the mapping of 28 corporate areas and all five Company businesses. Similarly, we advanced risk mapping in Spain, Turkey, Morocco, in the Votorantim Cimentos North America businesses and in Bolivia.

In Brazil we implemented a routine to update business risks at monthly operations meetings, in which the main identified risks are monitored.

In 2017, the recommendations resulting from the project of evaluation of risk maturity and compliance developed by KPMG in 2016 will also be considered.

ANTI-CORRUPTION PROGRAM

We updated our Anti-Corruption Policy based on the periodic review of the Global Policy approved in 2013. We enhanced our program through risk assessments conducted in all areas of Brazil that have contact with government, and at Votorantim Cimentos Europe Asia and Africa.

PUBLIC AUTHORITIES RELATIONSHIP MANUAL

We published and began training plant managers in Brazil on the content of the new Manual. The manual provides guidance to all professionals in Brazil who interact with government agents, by detailing behavioral protocols and internal procedures to be followed. This initiative will be taken to other regions in 2017.



UPDATED CODE OF CONDUCT

We performed a major update of our Code of Conduct, making it more clear and educational, and showing everyday examples of the issues it addresses, to make it easier for our audiences to understand our rules. The updated version also includes the VC Compliance Program and a chapter on fighting corruption. "With these additions, we reinforced our commitment to conducting our business in a honesty manner," said Ana Luisa Pinheiro, Risk and Compliance manager.

TRAINING

In 2016, we conducted in-person training with all Business Partners of Human Resources Brazil who work as Compliance agents, and included compliance in all levels of our leadership training. Since 2014, we have offered four mandatory online courses for employees, ranging from analysts to senior management, on which more than 2,000 people have already been trained. The courses cover Competition, Code of Conduct and Anti-Corruption (General and Brazilian Law). In 2017, the courses will be available in all languages spoken at our operations in Europe Asia and Africa, and for our partnership companies in South America.



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ECONOMIC AND FINANCIAL PERFORMANCE

BRAZIL

Despite a challenging year, with political and economic instability, the Company focused its efforts on financial management, cost optimization and efficiency gains, aiming to improve its competitiveness and positioning.

During the year, the change in the federal government and consequent suspension of public construction projects and increase in unemployment led to a decrease in economic activity for the second consecutive year, generating a deep economic crisis without precedent in the Country. The combination of these situational and structural problems impacted the construction market and led to a 11.7% drop in cement consumption in the country in 2016, in addition to the 9.5% decline seen in 2015. As a result, our revenue in Brazil decreased by 18% compared to the previous year.

NORTH AMERICA

Our business in North America benefited from the solid growth of the United States economy and a milder winter. Increased economic activity led to an increase of 1.9% and 10.1% in cement consumption in the Great Lakes and Florida regions, respectively, and an increase in cement prices in the regions where we operate. The result of this favorable environment was reflected in an increase of 4.5% in construction investments, accentuated by a 7.8% increase in investments in non-residential constructions, according to the U.S. Census Bureau of the Commerce Department.

As a result, VCNA had a 33% increase in Ebitda in dollars, not considering the extraordinary effects that occurred in 2015.

In addition to positive operating results, we implemented a series of efficiency measures that ensured cost reductions and improved logistics performance by

We advanced in the implementation of optimization and cost reduction initiatives in all areas, anticipating the challenges in the Brazilian market. We also worked on operational improvements, through, for example, the Lean methodology program, which generated a 26% performance increase in the mortar business. We continued our zero-based budgeting initiative, which generated savings of more than R\$ 300 million in 2016 alone.

SOUTH AMERICA

Bolivia continues to have strong economic growth prospects, especially in Santa Cruz de la Sierra region, our main market, which justifies the expansion in the region we started up in December 2016. On the other hand, our operation in Uruguay was impacted by the recession in the economies of both Brazil and Argentina.

THE RESULT

We worked on a series of initiatives throughout the year to ensure cost reductions, which included implementing zero-based budgeting, adapting our operations to market conditions, increasing operational efficiency in all regions in which we operate, and promoting greater geographical diversification through expansion projects outside Brazil. We are now a Company that is more efficient, leaner, and better positioned for an upturn of the Brazilian market and to take advantage of markets with high growth potential. In order to preserve our cash flow, we made a series of divestments of non-strategic assets, as well as working capital improvements. We enjoyed positive results from VCNA and VCEAA, which achieved a significant increase in Ebitda of 13% and 14%, respectively, in Brazilian real. Thanks to a positive environment, VCNA experienced significant price increases and improved operating efficiency, while VCEAA jumped from an Ebitda margin of 12% in 2012 to 24% in 2016. Thanks to the cost initiatives we implemented globally, we have saved R\$ 917 million since 2014. We finished the year with a cash position of R\$ 4.1 billion, which provides a liquidity cushion for higher risk environments.

approximately 12%. The continuation of our zero-based budgeting initiative has also borne fruit.

We performed a successful receivables securitization transaction in the amount of nearly US\$ 150 million, which, together with the enhancement of our credit and collection process, ensured a significant reduction in our receivables terms and contributed to an improvement in working capital needs. In addition, we also performed an inaugural issuance of

US\$ 500 million in bonds.

In line with our strategy to focus on our core business and on assets that are key for the Company's future, we sold non-strategic cement, concrete and aggregate units. To take advantage of the growth of the American market, we have maintained our expansion project in Charlevoix, Michigan, with a start-up planned for 2018.

EUROPE, ASIA AND AFRICA

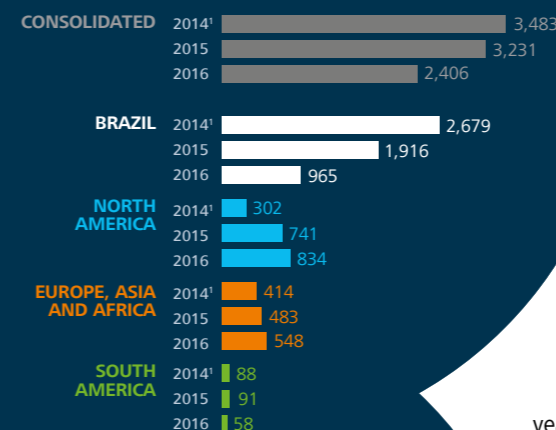
VCEAA achieved a 6% increase in Ebitda in euro in 2016 compared to 2015, thanks to a strong operational performance based on lower costs and higher volumes in Morocco, Spain and Tunisia. Despite the positive result, almost all of VCEAA's countries suffered from political-economic instability, which negatively affected our business. During the year, Spain had a cabinet without support to govern, which resulted in postponements of public investments. Turkey, in turn, suffered a coup attempt in the middle of the year culminating in a declared state of emergency. At the end of the year India restricted the use of currency,

which strongly affected the liquidity of its economy. Tunisia suffered from the instability of neighboring countries, which impacted its exports. On the other hand, operations in Morocco enjoyed operational stability, by benefiting from a stable political and economic environment, and from government investments in infrastructure.

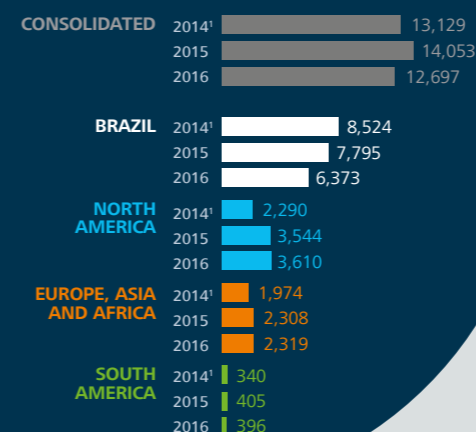
We performed a series of actions that resulted in cost reductions, involving energy efficiency and the use of alternative fuels, in addition to implementing zero-based budgeting and other cost optimization measures. In China, we restructured the operation to adapt to market conditions. In pursuit of improved business sustainability and cost reductions, our Europe, Asia and Africa operation implemented a liability management program, better balancing the capital structure in the region.

Ebitda IN MILLION R\$

Geographical diversification, zero-based budgeting, cost reductions and increased operational efficiency helped to balance consolidated results, mitigating the effect of the Brazilian economic downturn.



NET REVENUE IN MILLION R\$



DEBT AND LEVERAGE IN DECEMBER 2015, IN BILLION REAIS

15.5 GROSS DEBT

4.1 CASH + FINANCIAL INVESTMENTS

11.8 NET DEBT

LIQUIDITY AND DEBT

In 2016, we advanced our liability management plan aiming to extend our debt maturity profile, contributing to further strengthening our liquidity position. Through several initiatives, we further extended our maturity profile, extending the average debt term by almost two years, from 9.0 to 9.9 years. The executed plan ensured a comfortable financial position with no relevant maturities in the short and medium term. That enabled VC to continue its long-term investment trajectory without being impacted by market turbulence in 2016, especially in Brazil. We also reduced our gross debt by R\$ 1.5 billion that proceeds from non-strategic assets sales and the

capitalization of Votorantim S.A. In 2016, the Company also better balanced capital structure aiming at the reallocation of debt according to the currency in which cash is generated in each of the regions in which we operate. With this objective, VCNA's subsidiary St. Marys made its inaugural issuance of bonds maturing in 2027 in the amount of US\$ 500 million, used for the repurchase of euro bonds (tender offer) maturing in 2021 and 2022 in the amount of € 395 million. The Spanish and Turkish operations contracted local loans used to repay China financing. As a result, the percentage of debt held by Brazil's operations in relation to total debt, which represented 93% in 2015, now represents 80%.

1. Economy in the period, excluding the effects of inflation and exchange variation.



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OUR ECOSYSTEM

OUR COMMITMENTS TO SUSTAINABILITY ARE EMBEDDED IN ALL OUR LONG-TERM STRATEGIES

Project of vertical vegetable gardens made from PET bottles in Imbituba, Brazil

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MATERIALITY

We worked on our materiality process between 2013 and 2014, in order to identify the most important material themes for Votorantim Cimentos. This initiative supports our sustainability strategy and the selection and management of the GRI (Global Reporting Initiative) indicators included in this report.

In 2016, we reviewed our material themes in a process involving different stakeholder interviews, following GRI requirements. The listed themes were generated based on the following sources of information:

- Analysis of internal and sectoral documents;
- Face-to-face interviews with the Company's top leadership;
- External interviews: in person, by phone and by e-mail, with several stakeholders considered relevant (specialists, communities, NGOs, suppliers, government agencies, financial institutions and investors).
- Online survey with employees and clients in the four regions where we operate (Brazil, North America, South America and Europe/Asia/Africa).

In all, we listened to 143 interest group representatives – 115 internal and 28 external. The results were consolidated and validated by the Company's senior management.

2016 MATERIAL THEMES

Themes ordered according to their relevance in the stakeholder evaluations and decisions, and the importance of the economic, environmental and social impacts of Votorantim Cimentos

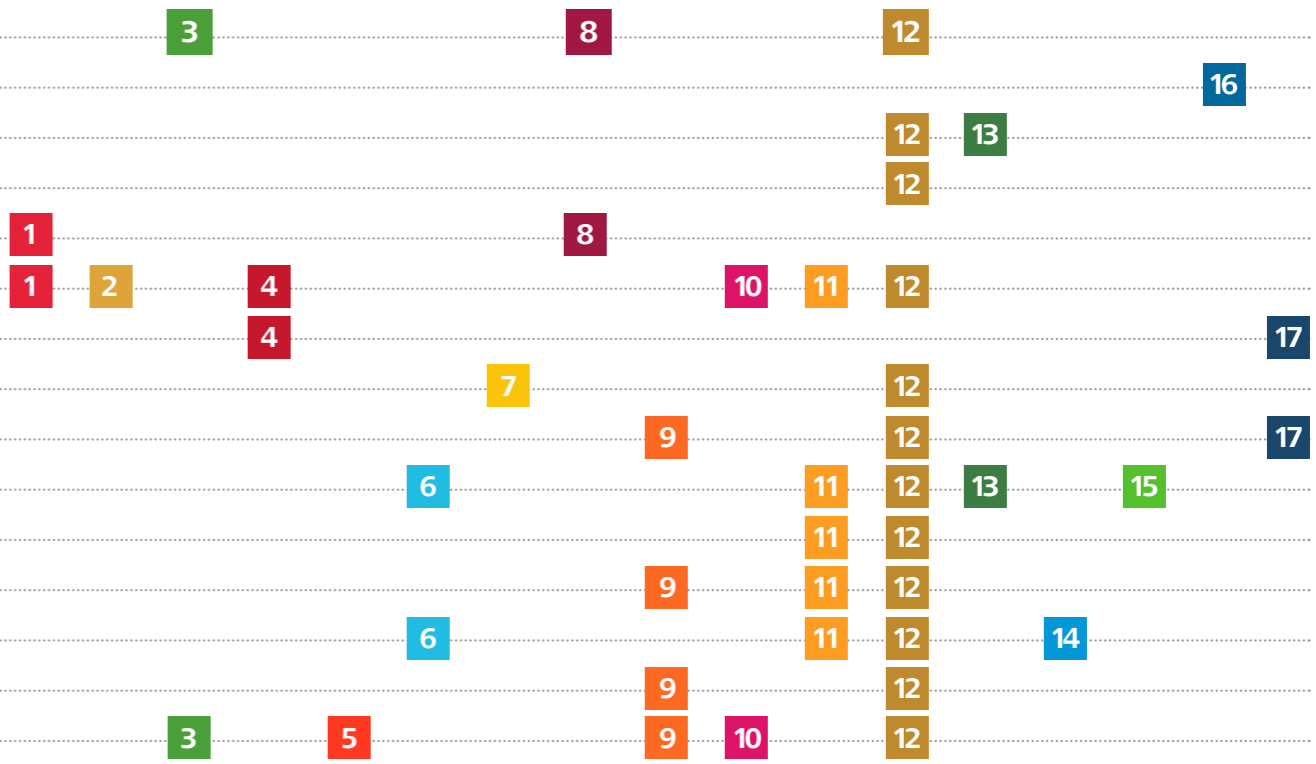
IIRC capitals

- Human capital
- Intellectual and Manufactured-goods capital
- Social and Relationship capital
- Natural capital
- Financial capital

Occupational Health and Safety
Ethics and integrity in business
Climate change and GHG emissions
Customer relationship and recommendation
Economic performance
Relationship with the community
Training, qualification and development of employees
Energy management
Innovation, research and development
Biodiversity preservation
Atmospheric emissions (particulates, NOx and SOx)
Sustainable and inclusive construction
Water and effluent management
Supply chain management
Employment and labor relations

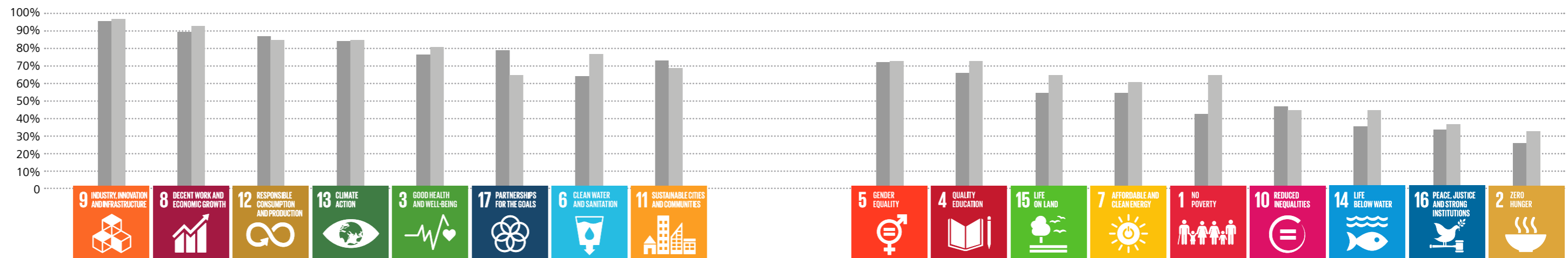
CORRELATION BETWEEN SDGS AND OUR MATERIAL THEMES

We aligned the material themes we identified with the Sustainable Development Goals (SDGs), a global agenda adopted at the UN Summit on Sustainable Development in September 2015, consisting of 17 goals and 169 targets to be achieved by 2030. We will contribute to achieving the SDGs by making our assets available to generate value to society. In addition to good corporate citizenship, integrating the SDGs into our activities is a strategic positioning necessary for the future success of our business. The matrix below demonstrates which material themes are related to each goal.



SDGS THAT VOTORANTIM CIMENTOS CAN CONTRIBUTE

Online survey with stakeholders ■ Internal ■ External



[GRI 102-42 | 102-43 | 102-44 | 102-46 | 102-47 | 102-49]

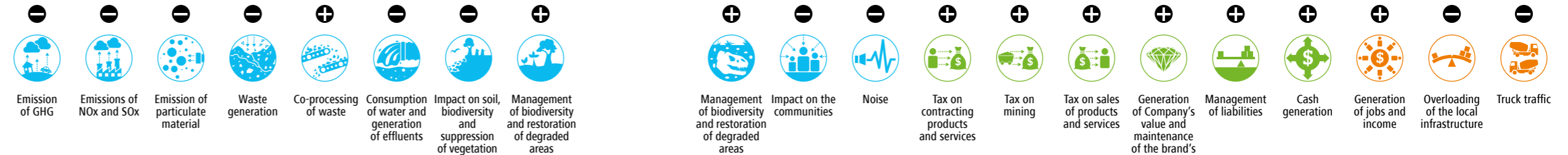
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IMPACTS BY ACTIVITY

ENVIRONMENTAL ■ ECONOMIC ■ SOCIAL ■



RISKS

More restrictive regulation. Risks of legal penalties with fines or restrictions on operations. Increase in the pressure from society, possible damage to reputation and possible increase in charges for emissions	More restrictive regulation. Risks of legal penalties with fines or restrictions on operations. Increase in the pressure from society, possible damage to reputation	More restrictive regulation. Increase in the regulations regarding waste management	Penalties for inadequate disposal. National Waste Policy increasing regulations regarding waste management	More restrictive regulation for environmental licenses. Negative perception regarding emissions could lead to reputational risk. Instability in the supplier chains, possible variation in waste costs	More restrictive legislation. Difficulty to obtain grants. Scarcity of water in some areas and increase in the cost of collection and use of water	Penalties, fines, other restrictions on operations and mining	More restrictive regulation. Risks of legal penalties with fines or restrictions on operations. Increase in the pressure from society, possible damage to reputation and possible increase in charges for emissions	Risk of TAC signature; demand for readjustment of processes	Social license to operate, and negative impacts on Votorantim Cimentos' reputation	Licensing of operations close to urban centers. More complaints from the community of impacts to the reputation in nearby communities	Change in the legislation	Change in the legislation leading to increases in the regulatory fees and demands	Change in the legislation	Reputation and exposure. Financial impacts	Exchange rate variation, possible downgrade of Brazil and increase in financing costs	Political and economic crisis and instabilities in the countries of operation; Regulatory risks	Dependence of the communities on the units. Financial crisis: reduction in the number of employees at the plants; impact on small local suppliers	Regulatory questions; stoppages; not having the social license to operate	More barriers to truck traffic in the city. (Greater investment in road infrastructure. Increased prostitution; vibration; noise; particulate matter; reputational cost. Linked to transport: child labor in the mooring of vehicles and accidents on the edges of highways)
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STRATEGIES

Creation of a new business, AFR and investment in research of new technologies	Reassessment of the limestone business	Investments to reduce emissions	Investments in research to develop technologies for the recycling and reutilization of concrete	Increase the volume of co-processing; creation of the AFR business with revenue targets. External disclosure/reputational improvement	100% monitoring by 2016, reutilization at all the units by 2020, management plan in hydric stress areas	Investment in management plans that meet the legislation with compensation and mitigation of impacts	Investment in management plans that meet the legislation with compensation and mitigation of impacts. External disclosure/reputational improvement	External disclosure/reputational improvement	Community engagement, information regarding social projects and disclosure by the press	Observe and support the government in the preparation of master plans to prevent illegal communities from getting closer to the plants. Establishment of a formal channel for answering complaints	Support for public management	-	-	Strengthening of the new purpose in internal and external communication actions. New portfolio of products and intensification of sustainability and disclosure actions, exposure of the social networks	Balance of capital structure, debt profile extension, seek for lower funding costs	Reduction of financing costs, operational optimization, liability management, geographical diversification	Local development with legacy beyond the VC chain. Prevent the location from being dependent upon our operation. Municipality structured and better qualified to prosper on its account, with or without VC's operation	Social investment to avoid overload; hiring of local labor, investment in school in order to hire locally; improve demand in order to avoid inflation	Making aware and training of drivers; possible paving of streets and accesses
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RESOURCES

Plants, financial resources, thermal substitution materials (waste, biomass and clinker substitutes)	Financial resources, rebate systems and chemical inputs	Financial resources and rebate systems	Additives, financial resources, investment in research and equipment	Financial investment. Technology (injection system, treatment of waste) Human resources in the collection of waste	Financial investment, equipment for the treatment of effluents, human resources	Human resources and financial resources for compensations	Human and financial resources for compensations	Human and financial resources	Human and financial resources	Financial resources Protective equipment and noise mufflers, monitoring of noise	Money and human resources	-	-	Human resources, investment, marketing and communication agency	Human resources	Human resources	Human resources	Financial resources	Human and financial resources	Financial resources
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PARTNERS

Suppliers and clients of the co-processing and cement production service	-	-	Companies that crush concrete waste and sell it to the market	Generator of waste, government entities, intermediaries (blenders)	Basins committee	Atlantic Forest Biosphere Reserve and the Brazilian Speleological Society	Atlantic Forest Biosphere Reserve and the Brazilian Speleological Society	Universities	Instituto Votorantim, BNDES, Sebrae	-	BNDES, Instituto Votorantim and the government	Brazilian Mining Institute (IBRAM)	-	Media, NGOs	-	-	Instituto Votorantim, BNDES, Instituto Arapyaú, Local Government	Instituto Votorantim, BNDES	Government
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GOALS

2020: To reduce emissions of CO ₂ per ton of cement by 25% in relation to 1990's levels	2020: to reduce emissions of particulate materials, NOx e SOx per ton of clinker to 65 g, 1950 g and 750 g/ton of clinker	2020: to reduce emissions of particulate materials, NOx e SOx per ton of clinker to 65 g, 1950 g and 750 g/ton of clinker	-	2020: to use 30% of non-fossil fuels in our cement plants	2020: Water and biodiversity: to implement a water management plan at our units in areas of scarcity	2020: to ensure that all our mines have a restoration plan and a biodiversity management plan for areas of high significance	2020: to ensure that all our mines have a restoration plan and a biodiversity management plan for areas of high significance	-	2020: To ensure the implementation of the engagement plan with the communities that have a high degree of social vulnerability	-	-	-	-	Recognition as sustainable companies with a strong reputation	Reduction of cost of debt, leverage reduction	Cost reduction on Zero Based budgeting, Free Cash Flow	-	-	-
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SAFETY

As the top priority among our strategic pillars, the safety of our employees and contractors are the subject of constant training, risk analysis, and investments in facilities and equipment. In this area, although we saw a little increase in the number of lost-time injuries and in the number of fatalities: a total of five, all involving contractors (three in our operations in Europe, Asia and Africa and two in Brazil).

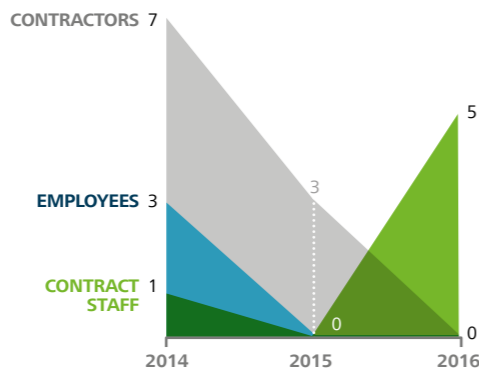
Our response to this situation was to further increase measures to promote a culture of safety within the

Company (see sidebar). Among these initiatives was the creation of a Global Safety Sponsor Program, and the reinforcement of initiatives such as Global Safety Day, Safety Policy, Rules for Life and the Safe Behavior Program.

The reduction in the total hours worked, as a consequence of decreased economic activity, also caused an upward oscillation in the accident rate indicator (number of lost-time injuries in relation to millions of man worked hours), in which we had reached our best historical mark in 2015.

NUMBER OF FATALITIES

Cement, aggregates and concrete*

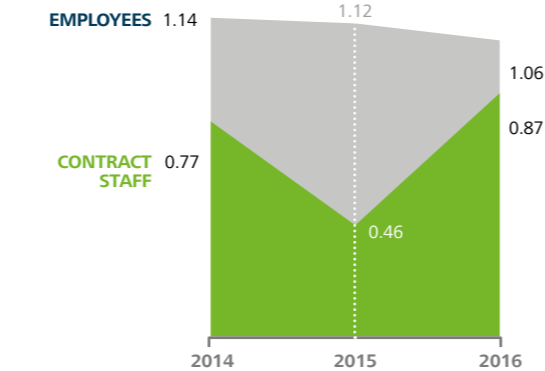


In Brazil, one of the fatalities happened during a silo cleaning and another during tire maintenance. We had no fatalities in North America and South America. In our Europe, Asia and Africa operations, there were two fatalities involving truck drivers and one within the operational area, all with third parties.

*Considering on-site and off-site.

FREQUENCY RATE OF LOSS OF TIME INJURIES

(LTI** FREQUENCY RATE)



In Brazil, there was an increase in lost-time injuries, an increase in frequency rates, and a reduction in non-lost-time accidents. In North America, there was a decrease in lost-time accidents. In operations in Europe, Asia and Africa, there was a reduction in the indicator of lost-time injuries.

**LTI (Lost-time injury) is defined as an incident that results from a lost-time personal accident (employee or third party). The LTI Frequency Rate is calculated as follows:

$$\frac{\text{(Number of lost-time injuries in the considered period)}}{\text{(Total number of hours worked in the considered period)}} \times 1,000,000$$

OTHER PROJECTS IN 2016

NORTH AMERICA

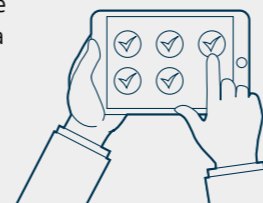
SAFER DRIVERS

We developed a safety program focused on our Prairie unit, where most of our lost-time injuries occurred in 2015. We promoted a series of training session with concrete mixer drivers, raising awareness on the risks related to their activity. As a result, accidents dropped from 6 to only 2 in a year.



E-SLAM

Our aggregate area launched the e-SLAM. The security checklist (SLAM) is now performed via tablet, sending real-time data into the cloud. In addition to saving paper and simplifying risk analysis, the data generated served as the basis for deciding on new projects and safety training topics for 2017.



SAFE BEHAVIOR PROGRAM

We undertook a series of initiatives in all our sites in different countries to transform our safety culture so that safe behaviors would become the foundation of our accident prevention strategy. Following are highlights of the many initiatives taken:

BRAZIL

CRITICAL SITUATIONS

We audited critical protocols in 26 sites in Brazil, using internal auditors trained in 2016, who were supported by a new protocol audit manual. In all, we adopted 12 critical risk protocols in all our regions. They are:

- Confined spaces
- Work at Heights
- Lock Out / Tag Out
- Light vehicles and mobile equipment
- Safety Driving (CSI)
- Lifting
- Contractors management
- Machine protection
- Manual tools
- Hot work
- Mining
- Safe Behavior

TRAINING

All employees in Brazil were trained on topics such as risk perception. We identified points of attention together with the 5,000 drivers we hire most frequently, and conducted safe driving campaigns in more than 80 sites. These campaigns included lectures, videos and driving simulations to address the attention points that were identified.

PAMY PLAN

After a fatality occurred on February 20 involving a contractor, one of our plants developed a plan that includes six initiatives that are carried out monthly to reinforce safety as a non-negotiable value in our Company. The plan was named after the incident: Pamy 180 Days plan. The project was completely focused on behavior. We managed to bring the entire local leadership of our sites closer together through simple yet high-impact actions. All phases of the plan relied on the engagement of our leadership in all sites in Brazil. The initiatives included in the plan were well received by our employees.

EVALUATION

In 2016, we consolidated our Behavior-Based Safety Risk Observation Program. Through it, leaders are trained to identify, quantify (through an indicator), and to improve all observed behavioral deviations in the workplace.

SAFETY SPONSORS PROGRAM

We provide every resource needed to make our work environment safe: we provide equipment, we respect safety protocols, we train people, we communicate our standards, and we established entrance, inspection and certification procedures. The challenge now is to deal with the behavior of each employee and a contractor, which is hard to measure but can be managed by a change in culture within our sites.

To address this issue, we launched the Safety Sponsor Program, leading executives to analyze and monitor operations in different regions to improve their level of safety. Managers are encouraged to check units that they are not in charge of, providing an external look to identify deviations that previously went unnoticed. The program was well accepted in Brazil and North America, and is at its initial phase in our units in Europe, Asia and Africa.

EUROPE, ASIA AND AFRICA

GOVERNANCE

We conducted a strong governance campaign to increase the engagement of senior leaders in work-related accidents. These campaigns addressed safety targets and new criteria to be followed, and validated results of annual initiatives in safety, defining incentives for best practices.





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ENVIRONMENTAL MANAGEMENT

Our commitment to sustainability is guided by a Global Environmental Policy, which applies to everyone in the Company. The policy guides us to reach our growth prospects, always taking into account the needs of society in the present and in the future, through the offer of innovative and eco-efficient services and materials.

To help us meet these goals, we rely on the “Green Rules”, a set of 10 standards that reflect the expected behaviors of our professionals with regard to environmental issues. Our Environmental Policy and the “Green Rules” can be found on our website¹.

In 2016, we advanced our governance with regard to environmental liabilities and environmental

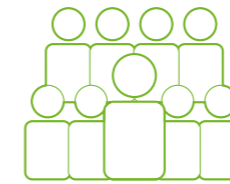
education initiatives. The areas of Health, Safety and Environment were combined. The new HSE area, in addition to being responsible for health and safety, is also responsible for the entire environmental management system and for improvement projects within our units, such as atmospheric emissions control, water resources management and new licensing. The Environmental Affairs area, in turn, concentrates our external relationships, participating in forums and representing our national and international sustainability commitments. All these steps prepared us to start, in 2017, an internal process of carbon pricing, which will be taken into account in all new capex allocation decisions.

OUR INITIATIVES TO STRENGTHEN OUR CULTURE OF SUSTAINABILITY



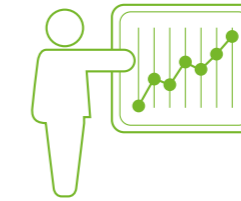
VALUING OUR INITIATIVES

Our Talent in Sustainability Awards, created to encourage initiatives in this area, received 326 applications, an increase of 250% compared to 2015. Learn more on page 29.



SUSTAINABLE PRACTICES

The Sustainable Practices Week was a milestone in our Company. It mobilized 3,500 employees from 30 units in Brazil in activities that, in addition to lectures and a product fair, included 22 visits to social projects that are supported by our Company. Learn more on page 27.



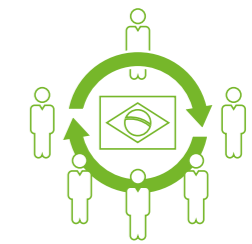
TRAINING LEADERS

We created a sustainable practices training module that was included in all training programs offered by the Company to various levels of leadership.



ISO 14001

In Brazil, our Southeast and Northeast operations were qualified to receive ISO 14001 certification after multi-site audits in 2016. All other Brazilian regional operations are expected to be certified by 2020.



BRAZILIAN COMMITTEE

Votorantim Cimentos is a member of the Brazilian Business Council for Sustainable Development (CEBDS, for its initials in Portuguese). In 2016, we had an active role in their Thematic Chamber on Social Impact, with a VC representative occupying the position of vice-president.

CONTINUOUS IMPROVEMENT AND INNOVATION INITIATIVES

ENVIRONMENTAL PRODUCT DECLARATIONS

In 2016, we became the first Brazilian Company in the construction industry to certify products following the international EPD program. These audited environmental declarations quantify impacts throughout the product life cycle. With this information, we can better evaluate our production processes from an environmental point of view, collecting data that enables us to improve our processes and, at the same time, providing transparent information to consumers who are concerned about sustainability. We also obtained EPDs for the cements and concretes we sell in North America. These declarations prepare us for a trend of growing environmental demand within the construction market.



ANALYSIS OF THE ECO-EFFICIENCY OF MORTARS

Our eco-efficiency area conducted a study to compare the environmental impact of using mortar mixed on-site versus industrialized mortar, which follows a more efficient production process and reduces waste during construction.

Our study demonstrated that the use of industrialized mortar reduces water consumption by 30% and reduces the emission of greenhouse gases by 68%. In absolute figures, that means that 128 liters of water are saved and 280 kg of carbon dioxide don't end up in the atmosphere, for each cubic meter of mortar utilized.

AFR ECO-EFFICIENCY SURVEY

As important as replacing fossil fuels with materials such as tires and biomass is understanding the environmental impact of these initiatives. After measuring the impact of these practices in 2016, we estimated that co-processing reduced our consumption of petcoke (a product imported from the Gulf of Mexico) by 328,000 tons. To illustrate what this volume represents, it would be necessary almost 10,000 trucks to transport it. We were also able to show that our practices prevented the emission of about 630,000



tons of CO₂ in 2016 alone, an amount equivalent to that emitted by a truck when driving 1,700 times around the Earth.

BENEFITS OF AGRICULTURAL LIME

We invested in several fronts to transform the waste generated in our units into a product that can be used as a soil corrective in agriculture. This initiative brings important environmental benefits (by providing a productive end use for the material) and economic benefits (a product that was previously unused now generates income), resulting in increased productivity in our plants.

When measuring the results of the agricultural lime production in Ponte Alta (São Paulo State, Brazil), we realized that by reusing it we will stop accumulating 193,000 tons of unused product in 2017. We will also save on the transportation of this material for disposal, avoiding the consumption of 400,000 liters of diesel oil and the emission of 1,200 tons of CO₂. In addition to environmental benefits, the initiative will bring savings of R\$ 885,000 in 2017.



1. http://www.votorantimcimentos.com/Shared%20Documents/Cartilha%20Politica%20Ambiental%20e%20Regras%20Verdes_ingles.pdf

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ATMOSPHERIC EMISSIONS

In our cement plants, we produce Greenhouse Gas (GHG) Emissions Inventory based on the CSI (Cement Sustainability Initiative) methodology, which also includes carbon dioxide (CO₂) emissions. In our aggregate, concrete and complementary products units, we follow the Greenhouse Gas Protocol. We use 1990 as the base-year in these inventories.

Our CO₂ emissions were 17.2% lower than in 1990, as a result of investments in energy efficiency initiatives, replacement of fossil fuels with alternative fuels and biomass (co-processing), and clinker substitution for other materials.

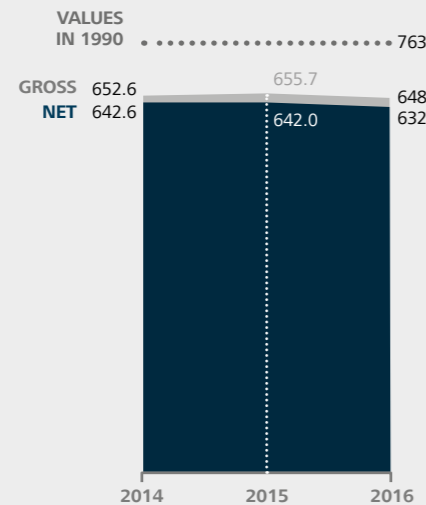
GHG

Sources of CO₂ emissions in our operations include the burning of fuels by mining equipment, vehicles used in logistics, raw and cement mills, packers and clinker kilns.

In addition to fuel combustion, emissions are originated from the chemical reactions needed to produce clinker and lime. Both reactions produce carbon dioxide as a byproduct – clinker emissions are comparatively higher. Clinker kilns – considering the emissions they generate when burning fuel and the emissions resulting from the chemical reaction to make clinker (calcination) – account for about 90% of the emissions produced by a cement plant.

SPECIFIC CO₂ EMISSIONS

kg CO₂/metric ton of cementitious product



NO_x

(Nitrogen Oxide)

SO₂

(Sulfur Dioxide)

PM

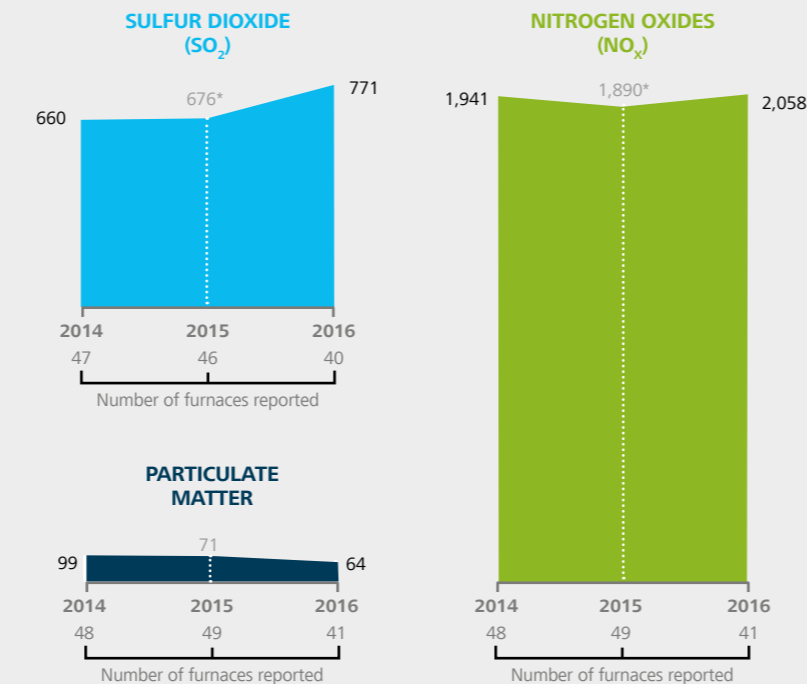
(Particulate Matter)

The origin of both pollutants is related to the combustion process. SO₂ is formed when raw materials and fuels contain sulfur. The emission of SO₂ from fuels, however, is retained in the clinker kilns.

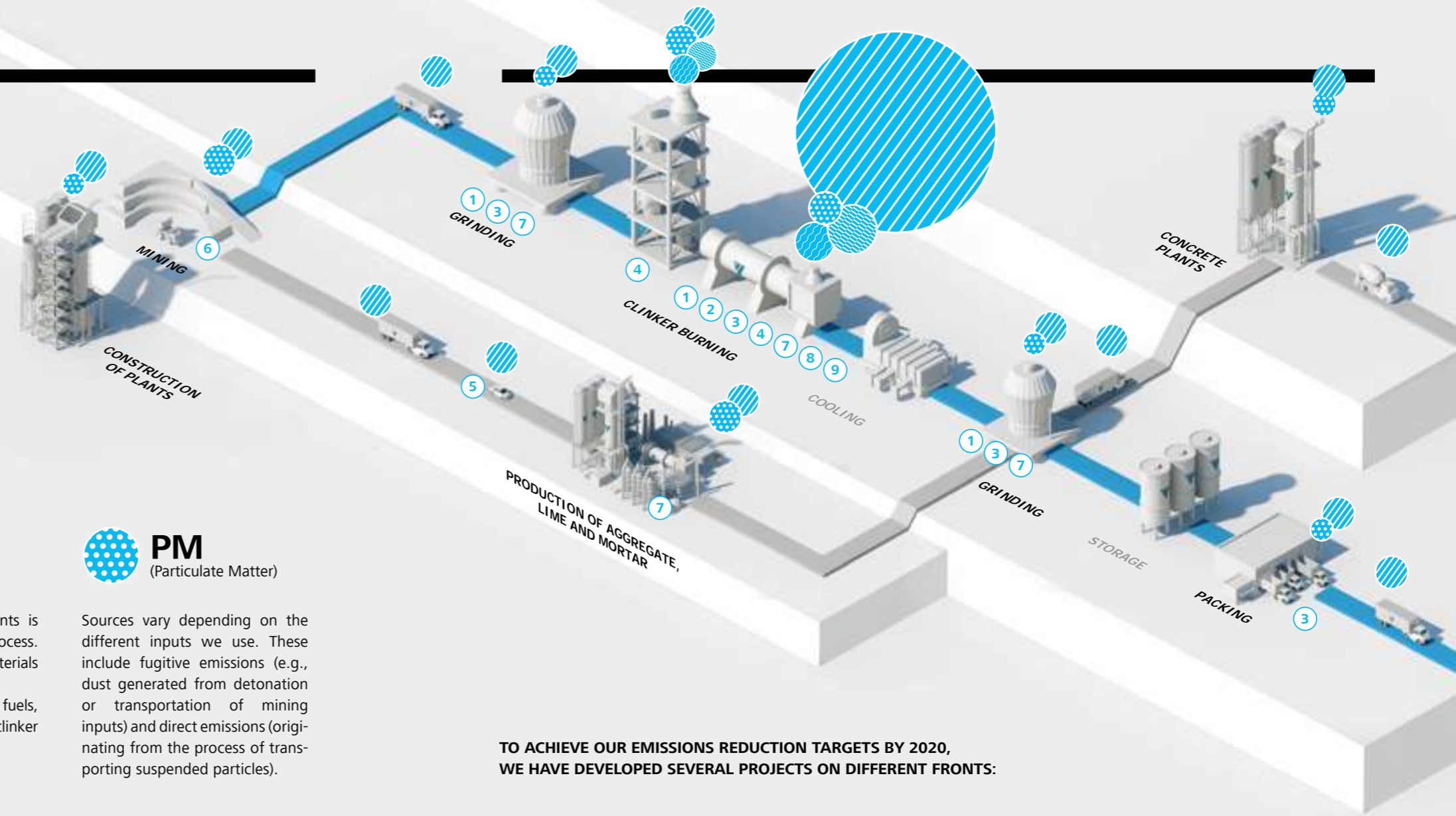
Sources vary depending on the different inputs we use. These include fugitive emissions (e.g., dust generated from detonation or transportation of mining inputs) and direct emissions (originating from the process of transporting suspended particles).

OTHER ATMOSPHERIC EMISSIONS

Average specific concentration (g/metric ton clinker)



* Revised data



TO ACHIEVE OUR EMISSIONS REDUCTION TARGETS BY 2020, WE HAVE DEVELOPED SEVERAL PROJECTS ON DIFFERENT FRONTS:

ENERGY EFFICIENCY

1 CO₂ – We invested in Waste Heat Recovery technology, which uses the heat resulting from production to generate electricity in our plants in China and India. In 2017, this technique will be used in Tunisia, where it will supply one-third of the unit's electricity demand.

CO-PROCESSING

2 CO₂ e NO_x – The substitution of fossil fuels for alternative fuels, such as waste, tires and biomass, has made great progress in Brazil. This technique has also been used in projects in units in Canada, Spain, Turkey and Uruguay (learn more on page 30).

ADDITION OF ALTERNATIVE CONSTITUENTS

3 All our global operations seek to add byproducts from other industries,

such as fly ash and slag, to our cement. In addition to facilitating proper waste disposal, the process reduces the need for clinker, a material that is related to increased CO₂ emissions.

CARBON CAPTURE AND STORAGE (CCS)

4 CO₂ – A groundbreaking North American project, with support from the National Science Council of Canada, is using carbon-dioxide-consuming algae to transform CO₂ into biofuels, fertilizers, and animal feed. The project is among the finalists of Carbon XPRIZE, a major award competition held in Canada.

USE OF ALTERNATIVE FUELS

5 CO₂ – The Ethanol Project prioritized the acquisition of alternative fuel in a few Brazilian states and helped us cut CO₂ emissions by our light vehicles fleet by half.

OTHER INITIATIVES

6 PM – Watering of roads to reduce the dust caused by traffic of trucks.

7 PM – Air filtration and particulate containment systems.

8 SO₂ – We have a project in Bowmanville, Canada, that innovates the way hydrated lime is injected to reduce emissions.

9 NO_x, MP e SO₂ – Use of pollutant emission controls, such as bag filters (for particulate retention), non-selective catalytic reduction (a reaction that decreases NO_x production) and continuous monitoring in Spain, India and Turkey.

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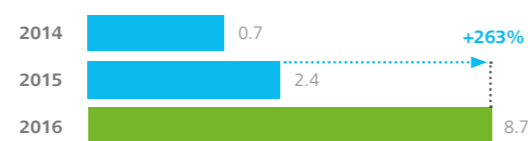
ENERGY

The year 2016 was marked by a significant acceleration in our energy efficiency investments in Brazil. We invested R\$ 8.7 million in projects that made our use of energy more efficient, a growth of 263% over 2015.

This investment adds to our co-processing efforts, which resulted in increased replacement of fossil fuels with waste and biomass in the production of clinker. This puts us on the path to fulfilling our commitments for 2020. In 2017, our investments in this area are expected to increase.

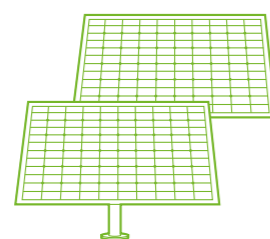
In 2016, our energy consumption outside the Company was 8,087,144 GJ, and 110,827,531 GJ in cement production (in cement production, energy is accounted for as part of the organization – 302-1). We generated 32% of the energy we consumed in Brazil using renewable sources (such as hydroelectric), which means that we prevented the emission of approximately 108,000 tons of CO₂.

EVOLUTION OF OUR INVESTMENTS IN ENERGY EFFICIENCY (in million R\$)



E = MC² PROGRAM

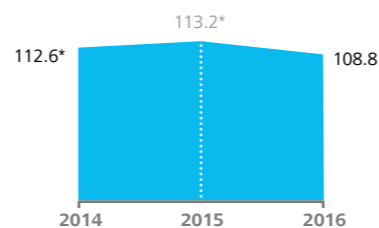
At our Sobradinho unit, the E=mc² energy conservation program has helped us prevent waste and use our resources more efficiently. The change in culture includes initiatives ranging from managing the consumption of thermal energy and electricity (optimizing use of air conditioning and monitoring compressors, for example) to an "eco-point", where tires collected in the community are incinerated. The program was first launched in our unit in Bowmanville (Canada) and later expanded to Brazil.



SOLAR ENERGY

We established a partnership to supply solar energy to our distribution centers in Brazil. Solar panels will be installed by a partner Company and deliver savings in our electricity bill.

ELECTRIC POWER CONSUMPTION - KWh per ton of cement product – Cement Business

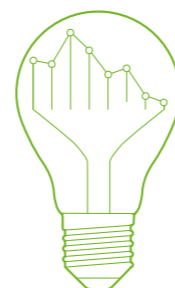


* Revised data



Our hydroelectric generation assets produced **20.4%** of the electricity consumed globally by VC in 2016

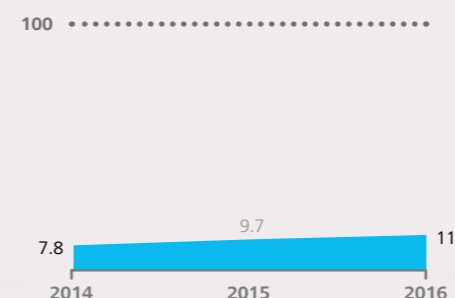
(Machadinho Dam, Pedra do Cavalo Dam, Monte Alto Dam, Santa Cruz Dam, São João Dam and Santana Dam).



COLLECTIVE EFFORT

In 2016, thanks to a collective effort, we reduced the consumption of electricity and all types of thermal energy in our North American plants.

THERMAL SUBSTITUTION BY ALTERNATIVE FUELS AND BIOMASS - IN %

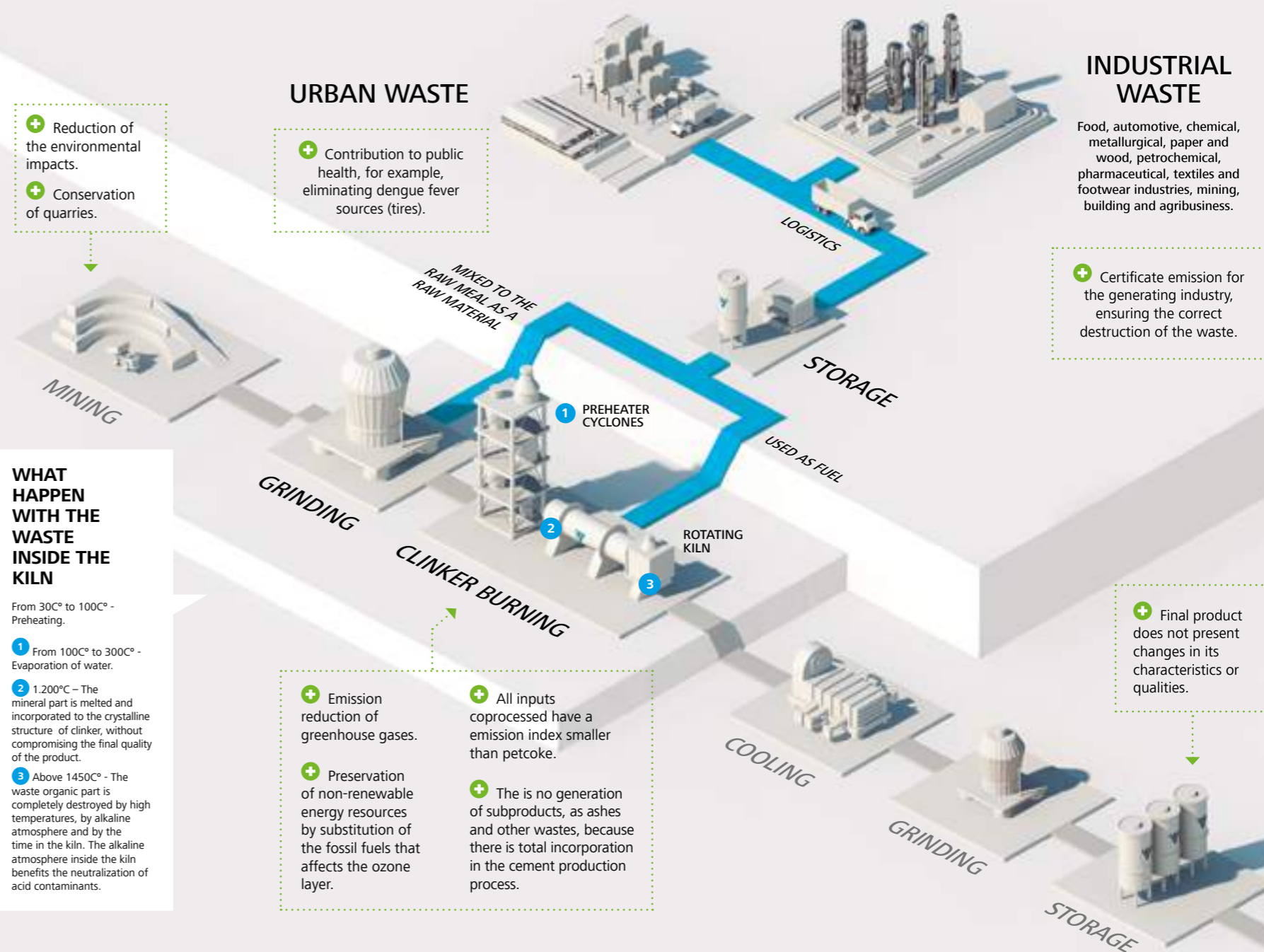


We added 15 new materials to our list of alternative fuels to be processed by our plants in India, Morocco, Spain, Tunisia and Turkey.



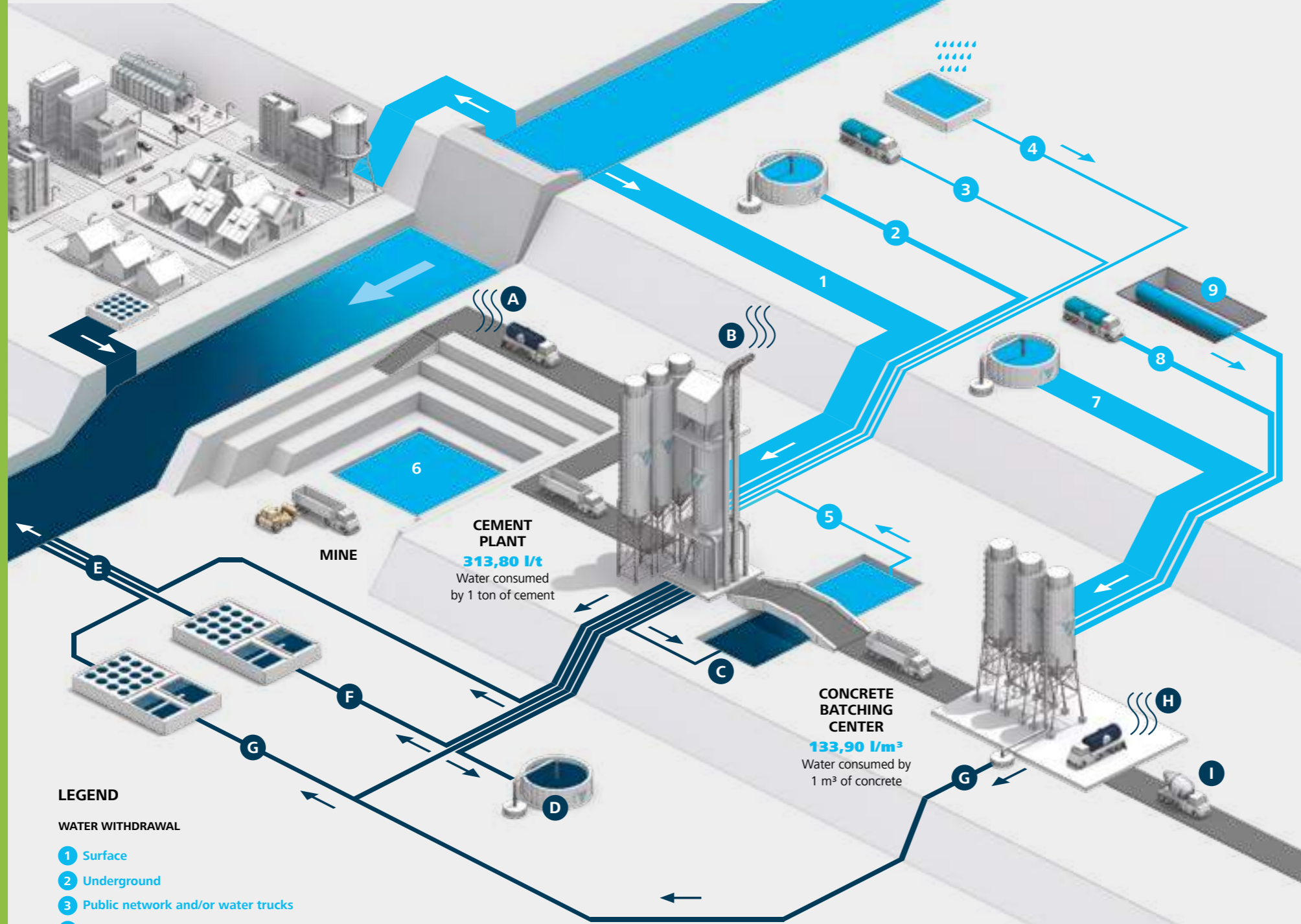
In Canada, after a 10-year effort, we were granted a permanent license to replace fuels with wood waste. This will be the first program of its kind in Ontario.

HOW CO-PROCESSING WORKS AND WHAT ITS IMPACTS



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LEGEND

WATER WITHDRAWAL

- 1 Surface
- 2 Underground
- 3 Public network and/or water trucks
- 4 Rain
- 5 Reuse
- 6 Quarry
- 7 Underground
- 8 Water truck
- 9 Public network

WATER DISCHARGE

- A Evaporation
- B Evaporation
- C Reuse
- D Underground injection
- E Discharge surface
- F Treatment plant
- G Sewerage networks
- H Sewerage networks
- I Evaporation
- J Incorporated in the product

WATER CYCLE AT VOTORANTIM CIMENTOS

CEMENT

In our cement plants, we withdraw water from a variety of sources, such as: surface (rivers and lakes) 1, underground (artesian wells) 2, municipal network and/or water trucks 3, rainwater 4, and reuse 5. Water is reused for industrial purposes, such as in cooling towers, to wash vehicles and for cooling mills. It is also used for administrative purposes, including water for bathrooms, cafeterias and cleaning. In mining, we collect water from the quarry 6 to wet unpaved roads, that might contain particulate materials A. After its use, part of the water is returned to the environment through evaporation. The water used to cool gases is absorbed in the process and released as vapor B. Another part is sent to a sewage treatment plant F and later to rivers and lakes E. Water used

for administrative purposes can also be discharged to underground sources (septic tanks D or sanitation networks G).

CONCRETE

In our concrete plants, we collect water from three different sources: underground (artesian wells) 7, public network (concessionaires) 9 and water trucks 8. Part of this water is incorporated into the final product and another part is used in complementary activities, such as to wet aggregate bays, internal yards and loading zones, as well as to wash vehicles and concrete mixer drums H. A lower percentage of this water also returns to the environment through the natural process of evaporation I.

WATER RESOURCES

In 2016, one of the ways through which we made progress towards Our Sustainability Commitments for 2020 was the validation of our Water Management Plan. The plan includes an implementation schedule for our Water Roadmap, a set of six measures aimed at minimizing the impact of our Brazilian operations on water resources by 2020. The measures and objectives were disseminated throughout the year, reaching all units through our internal communication vehicles. Learn about the six main initiatives in this area:

1 – MEASUREMENT AND MONITORING

All units in Brazil performed an analysis of water consumption, aiming to establish targets to make our footprint more sustainable. In 2016, we developed a water resources indicator to be implemented in all our businesses in Brazil (cement, concrete, aggregates, mortars, limes and agricultural lime, and logistics) in 2017. This will enable us to obtain data on water withdrawal, discharge and consumption in a standardized way, strongly contributing to the evolution of water management at Votorantim Cimentos.

2 – REDUCTION IN CONSUMPTION AND IMPROVEMENT IN WATER QUALITY

After the implementation of the water resources indicator, we will outline robust water consumption reduction targets for Votorantim Cimentos units.

3 – PROTECTION OF WATER RESOURCES

We protected our water bodies, areas of springs, and groundwater recharge areas. In Brazil, we reiterate our initiatives to protect and improve water resources with the Pro-Nascentes Project.

4 – PROMOTION OF GOOD WATER PRACTICES AMONG OUR SUPPLIERS

We want to ensure that our partners, suppliers and buyers adopt more sustainable practices, and also respect our Green Rules.

5 – INNOVATIONS THAT HELP THE ENVIRONMENT

By 2020, we will develop and implement more efficient technologies for water treatment and reduction of consumption. We already have some examples of these innovations, ranging from our Permeable Concrete – which has high porosity and allows the infiltration of water through its pores, significantly reducing the percentage of surface flow – to the system of digital control of water consumption adopted by the Rio Branco do Sul plant.

6 – PARTNERSHIPS FOR A BETTER FUTURE

We also seek to establish partnerships with towns, NGOs and the scientific community to foster and contribute to new technologies that promote water conservation and improve water management systems.

TOTAL WATER WITHDRAWN IN BRAZIL

CEMENT: 9.370.190 m³
 CONCRETE: 517.940 m³

In 2016, Votorantim Cimentos adopted the methodology for water reporting from the Cement Sustainability Initiative (CSI), using and merging the three options for reporting: measurement, calculation by measurement, and calculation by estimate. In other words, we used all available measurement information and reliable estimates of water management in cement plants in Brazil to report the indicators of water withdrawal, water discharge and water consumption (GRI 303, GRI 306 and Total Water Consumption).

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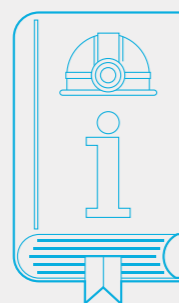
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BIODIVERSITY

At Votorantim Cimentos, we have adopted the guidelines of the Cement Sustainability Initiative (CSI) as our basis for biodiversity management. In addition, we also consider our contribution to achieving the global commitment set out by the 2020 Aichi Biodiversity Targets. These targets were established during the Convention on Biological Diversity and are aimed at reducing the loss of biodiversity worldwide.

We've applied these concepts to our properties in Brazil through a five-year cooperation with the Atlantic Forest Biosphere Reserve and the Brazilian Society of Speleology. This partnership promotes the development, implementation and dissemination of good mining practices in karst areas, conservation areas, and Atlantic Forest areas, aiming to contribute to the conservation of biodiversity and the protection of our speleological heritage. Several projects have already been developed during this partnership (our main projects are highlighted in the sidebar).

In 2016, we made progress in the identification of protected areas (both legal reserves and permanent protection areas) within our properties. In total, we have more than 11,000 hectares of protected area, the equivalent of more than 13,000 soccer fields side by side. We also consolidated, through our wildlife monitoring campaigns, the total number of endangered species. This has allowed us to learn more about our biodiversity and how we can protect it.



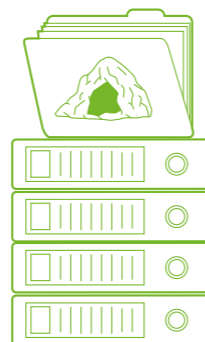
ENVIRONMENTAL LICENSING MANUAL

In Brazil we launched the first Environmental Licensing Manual for Mining Operations, which will guide us in the implementation, expansion and operation of these projects within Votorantim.



GUIDEBOOK OF GOOD ENVIRONMENTAL PRACTICES IN THE QUARRYING IN KARST AREAS

In 2016, we launched the Guidebook of Good Environmental Practices in the Quarrying in Karst Area, which systematizes the best practices for responsible mining management in this type of environment.



PRO-CAVERNAS PROJECT

We were the first major mining Company to voluntarily support a project for cataloging the caves found within our units. Enhancing our knowledge about this heritage will help us to ensure the sustainable use of these areas, thus avoiding, mitigating or correcting impacts.



PILOT PROJECT IN SPAIN

We started a project for the conservation of Cova Eirós, a cave of inestimable archaeological and paleontological value within our properties in Galicia, Spain. We monitor humidity, temperature and pressure, among other parameters, to ensure the preservation of the prehistoric site, which has cave paintings and traces of human ancestors and Neanderthals.

ENVIRONMENTAL ASSETS PROJECT

The main objective of the Assets Project is to identify and classify the environmental and social assets found in the Company's sites, and to propose measures for their conservation and sustainable use.

Through pilot projects developed at our units in Ribeirão Grande (São Paulo State, Brazil) and Laranjeiras (Sergipe State, Brazil), we developed a Sustainable Land Management Plan methodology to serve as a decision-making



tool for Votorantim Cimentos properties, as well as for land-based projects.

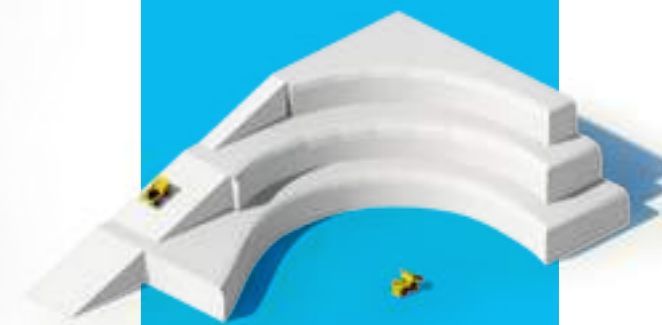
This methodology was published in Portuguese in 2016, and is currently being translated into English with expected launch in 2017.

NEW ACCESS TO CULTURAL HERITAGE

As part of the Sustainable Land Management Plan of our Laranjeiras (Sergipe State, Brazil) unit, we are building an ecological trail and creating conditions that will allow visitors to access one of our preservation areas, which contains a rich ecosystem of great environmental value, including mangroves and historical cultural heritage, among others.



Retiro Trail at Laranjeiras Unit, Brazil

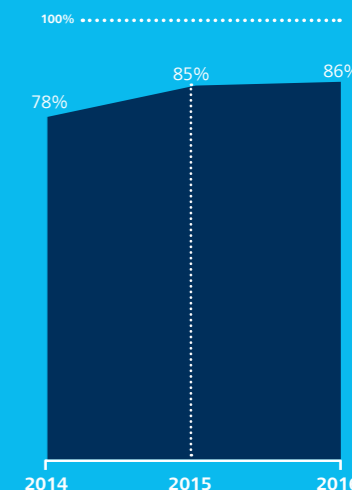


PLAN FOR THE CLOSURE AND REHABILITATION

Our plans for area rehabilitation are carried out by a specialized consultancy and include aspects of environmental recovery and relationships with stakeholders. Their implementation begins while units are still active, including initiatives to mitigate environmental liabilities.

In North America, our Aggregates units advanced in the rehabilitation of two areas in 2016. In one, we created a lake, with fish farming and organic agriculture. The other is being transformed into a corn farm.

OPERATIONS WITH CLOSURE PLAN (%)





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OUR LONG-TERM RELATIONSHIPS

WE MAINTAIN OPEN DIALOGUE WITH
OUR STAKEHOLDERS SO THAT OUR
RELATIONSHIPS ARE MADE TO LAST

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THE IMPORTANCE OF DIALOGUE FOR VC

In 2016, dialogue was the mantra at Votorantim Cimentos. Inspired by our Purpose – Life is Made to Last – which was widely and globally discussed within our teams, our operations around the world have approached their stakeholders to listen and understand how they can improve, seeking solutions not only to today’s challenges and needs but also to build with them long-term, lasting relationships. A sample of this commitment, including our Customer Council, Supplier meetings and Net Promoter Score (NPS) follow-up, as already addressed in previous chapters.

In this chapter, we will present the initiatives of the Corporate Communications and Institutional Brand area. In addition to communicating our Purpose, an effort currently focused on our employees, we increased the exposure of our brand and the consistency of our corporate identity positioning, strengthened the sense of belonging and pride within the Company (we inform, engage, and inspire employees and mobilize them to have a sense of urgency regarding the current situation) and established an agenda for our relationships with influencers, on- and offline, to foster business opportunities and strengthen the Company’s reputation.

We are committed to establishing long-term relationships and bonds that generate value with our stakeholders. And dialogue is the foundation of the relationships we build.

ENCOURAGING OPEN DIALOGUE, INSIDE AND OUTSIDE OUR COMPANY



LEADERSHIP COMMUNICATION

In 2016, we focused on leadership communication, encouraging our leaders to get closer to and to maintain a permanent conversation with their employees, reflecting our belief in Open Dialogue. Always in partnership with the Human Resources area, we met specific needs of managers who took over a different team, shared our results monthly, produced tips on how to be a better communicator, and worked on safety through the Safety Sponsors Program implemented by the technical department (learn more on page 67).



INTERNAL COMMUNICATION CHANNELS

We reformulated and standardized our internal communication channels globally, with the objective of enabling greater dialogue and alignment with our defined corporate identity. More than that, we focused our conversation on our values and beliefs, and we encouraged our employees globally to think about the meaning of our Purpose – Life is Made to Last – in their everyday life, ensuring that our speech takes shape in our routine actions and endorses our business decisions.



DIALOGUES WITH VC

We launched Dialogues with VC, an initiative that was broadcasted live and gathered experts, government, our global CEO and the leadership of Votorantim Cimentos to discuss critical issues affecting our industry and in society, such as the future of co-processing.



CRISIS MANAGEMENT

We trained spokespersons (corporate and operations) in accordance with our crisis management policy, following our One Voice philosophy, with key messages defined for key Company issues. (Read more about compliance training on page 55).



Customer Relationship Center, Brazil



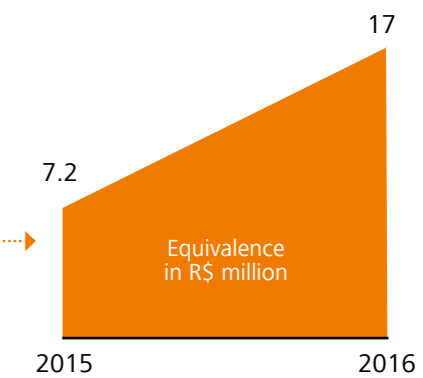
INSTITUTIONAL BRAND ALIGNMENT

We advanced in the implementation of the roadmap for our defined global corporate identity. This roadmap provides guidelines and consistency with regards to brand architecture and institutional positioning in countries where we operate. We launched local websites in all countries and new newsletters in Turkey and Tunisia. We standardized electronic signatures and updated the visual identity of some plants in Spain and Turkey, always respecting their local culture. Our goal is to remain one team, one Company, with one voice and different accents.



MEDIA RELATIONS

As part of our media relations strategy, we developed a relationship platform with journalists, preparing different spokespersons to talk with the national, regional, and local media (in towns where we operate) and also with the international trade. This platform resulted in 2,500 news articles, 90% of which were positive – a 55% increase in exposure in relation to the previous year.



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OUR PEOPLE

When it comes to people, our mission is clear: to have the best team in the building materials industry. To fulfill this mission, we value our employees by offering training, stimulating their creativity through programs, and recognizing our internal talent when filling positions. Given the Company's accelerated growth outside Brazil over the last few years, we have been working on our processes to globally align all our practices and policies.

We continue to work to consolidate the Votorantim Cimentos brand in all the different markets in which we operate. A critical part of this process is to reinforce the sense of belonging to a leading global Brazilian Company among our employees from all different countries.

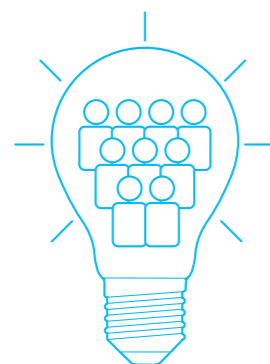
To fulfill this mission, we adopted the slogan One Team, One Company as an umbrella of initiatives that are aligned with our objective of integrating all our employees. We strive to reinforce their feeling of belonging to a Company that encourages their talent and continuous improvement, personally and professionally.

We defined five strategic drivers for the initiatives involving our employees:

1 TO MAKE OUR CULTURE BE AN ELEMENT OF STRATEGIC DIFFERENTIATION AND BUSINESS EVOLUTION

i9 VC FAZ PROGRAM

Aimed at fostering employee initiative and innovation, and enabling the rapid deployment of innovative ideas, this program encourages employees to present solutions to specific issues related to the pillars of our Vision – Customer Focus, Empowered People, Operational Excellence and Sustainable Practices. Ideas are analyzed by judges that are appointed by our managers. Projects are selected within regional operations and businesses to compete against each other.

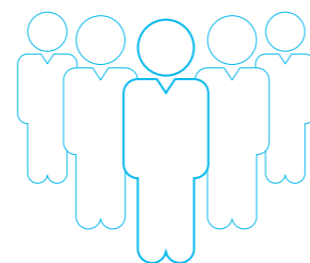


INNOVATION CHALLENGE

This pilot project brought together groups of 90 young people under the age of 32 to develop projects. There were 20 groups from different cities and from the most diverse sectors – in many cases employees developed ideas for areas that were not their own. In December, nine initiatives were selected and will be continued.

2

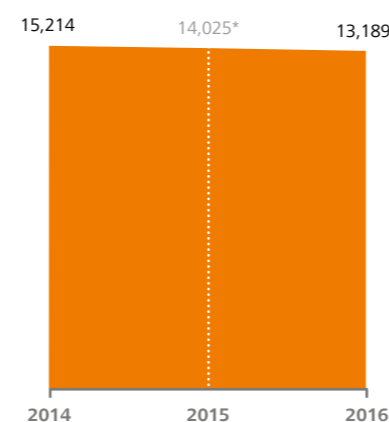
TO HAVE AN ORGANIZATIONAL STRUCTURE THAT SUPPORTS STRATEGIC BUSINESS CHALLENGES



REFORMULATION

To avoid, whenever possible, the suspension of activities, we renegotiated contracts, reduced costs and revisited processes in some of our units. Even some of our suspended units have been reformatted to operate as distribution centers. We also reviewed our operational model to increase multifunctionality and capacity building, leading to leaner and more productive structures in our operations. Still, we were forced to suspend some of our operations to adapt to the new market situation, which resulted in additional layoffs throughout 2016.

TOTAL HIRED EMPLOYEES



* Starting in 2016, the numbers include employees from our operations in China



Employees in the Sobradinho unit - Brazil

INITIATIVES IN SUPPORT OF DIVERSITY

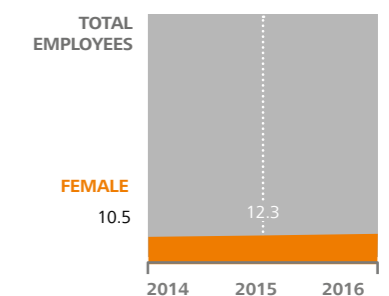
In Brazil, we carried out a pilot project for the inclusion of professionals with disabilities in the Rio Branco plant and the Technical Center in Curitiba, with the enrollment of 71 professionals with disabilities in the towns of Itaperuçu and Rio Branco do Sul. This is the beginning of a broader initiative, which, in 2017, will prepare Human Resources and our managers for a process of inclusion that will activate a network of employability for professionals with disabilities.

In our operations in North America, we created a Diversity Council that promotes various initiatives to attract talent, create opportunities and develop professionals. The council is also responsible for Diversity Day, when employees share their cultural heritage through typical clothing, music, and foods. In this process, they are encouraged to learn more about their colleagues.

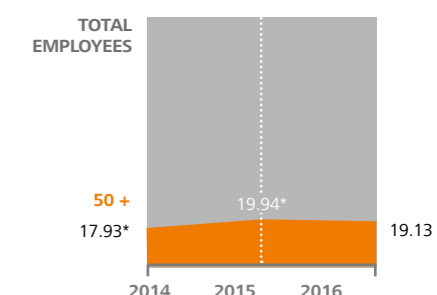
Efforts to promote diversity at VCNA also include creating opportunities, through short and long-term assignments, to attract employees from other countries – which enhances the exchange of skills and cultural influences. In addition, the operation focuses on improving the participation of women, through a Network of Women Leaders that meets monthly to promote lectures and discuss professional development.



FEMALE EMPLOYEES IN %



OVER-50 EMPLOYEES IN %



* Adjusted data

We are attentive to a critical issue affecting North America: the aging workforce. Currently, 50% of our VCNA employees are over 50 years old, which has led us to make a concentrated effort on succession planning.

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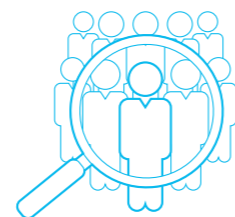
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3 INCREASE THE ATTRACTIVENESS AND DEVELOPMENT OF PEOPLE

Our Global Recruitment and Selection Policy ensures that we take a closer look to our current employees and to people living in the areas in which we operate.

INTERNAL RECRUITMENT

We improved our internal recruitment rate in relation to 2015: from 65.69% to 73.59%, with 209 internally filled positions versus 75 externally filled positions (Brazil data). We also had an increase in internal promotions and recognition this year. We seized the opportunity of a challenging year to invest in our internal talent.



IN SEARCH OF YOUNG TALENT

In order to have the best team in the industry, we consolidated our youth-oriented strategy in 2016, which includes supporting and bringing us closer to student organizations, and participating in brand activation events. In all, we participated in 21 events of this kind throughout the year, reaching more than 20,000 students. Upon returning to their universities, our trainees became ambassadors of our brand and our culture, promoting their experience in the Company through lectures.

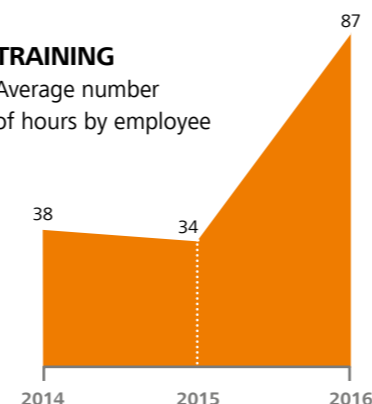
TRAINING

After defining the technical competencies of each position, we began to conduct self-assessments and systematic evaluations of managers with our entire operations team. That enabled us to identify systemic knowledge gaps that will guide our capacity-building initiatives aimed at improving results and increasing the operational competency in our plants. In VCEAA's operations, the Plant Team Assessment and Plant Manager Assessment projects used assessment tools to support succession plans, strategic recruitment of engineers to address future needs, and specific training. All the VCEAA countries had a specific plan of action for the adoption of these tools.

In 2016, we invested a total of R\$ 17 million to train and develop our employees. The important growth in our training average – 87 hours per employee – was due to our focus on internal trainers, the structuring of the

leadership program and the reinforcement of technical skills. The use of digital platforms facilitated access to training and contributed to this increase. One example was the training of 23 VCEAA leaders in Root Cause Analysis, a problem-solving methodology. The trained leaders were charged with the task of replicating their knowledge in their countries of origin.

TRAINING
Average number of hours by employee



Employee at Santa Helena Unit Laboratory, Brazil

LEADERSHIP SCHOOL

Committed to the development of our teams, we continued to invest in our Leadership School in 2016, providing training for managers and directors. As part of our strategy, we invited both teachers from educational institutions and leaders from Votorantim Cimentos to participate in the initiatives.

The project consists of a package of courses: Master Leadership Program (MLP), Advanced Leadership Program (ALP) and Essential Leadership Program (ELP). The MLP reached its second class, with 30 people in the first group and another 30 in the second. The ALP serves approximately 500 people through a digital platform and face-to-face courses. The ELP, which focuses on the top leadership, started in 2016 in various businesses and will be extended to the entire leadership in 2017.

OTHER INITIATIVES

In 2016, we also strengthened our technical capacity, focusing on training ambassadors within the technical area and future industrial managers through the Cement Leaders Program. In addition, we also have a training platform for young employees called Potenciar, which, in 2016, trained 12 young people. The content of all our programs, from technical to leadership training, is in compliance with our pillars: Empowered People, Customer Focus, Operational Excellence and Sustainable Practices.

4 TO STRENGTHEN THE INTEGRATED MANAGEMENT SYSTEM

GLOBAL INTEGRATED MANAGEMENT SYSTEM

In 2016, the Integrated Management System (IMS) started to cover all cement plants and, by 2020, will be adopted by other Company businesses (Aggregates, Concrete and Complementary Products) worldwide. This tool compiles practices, processes, tools and indicators in nine dimensions:

- Customer Orientation
- Quality
- People
- Health
- Mining
- Safety & Environment
- Processes
- Community
- Maintenance

This approach ensures that our employees and leaders understand our strategies and goals, improving our economic, social and environmental results. The system fosters a culture of high performance, excellence and readiness for the necessary changes in the organization's routines.

5 TO STRENGTHEN THE IMAGE AND REPUTATION OF VOTORANTIM CIMENTOS.

INTERNAL CLIMATE SURVEY

Our internal climate survey is conducted globally every two years, always in odd years. In 2016, the human resources area facilitated sample discussion groups, which showed an improvement over the previous year. In 2015, the survey registered 76% engagement and we saw a positive trend in our results. The responses collected allowed us to see that the leadership training programs stand out among our well-evaluated initiatives. On the other hand, the results for the administrative areas stayed the same as 2015.

RISK CONTROL

We do not engage in any type of child labor nor do we employ underage workers in any of our operations. In addition, suppliers accused of engaging in forced or compulsory labor are automatically excluded from our operations.

RELATIONSHIP WITH UNIONS

Historically, our relationship with our industry working unions has been transparent and productive. Our Code of Conduct respects the association of our employees with entities that represent them. Within our Company, 94.8% of our employees are covered by collective bargaining agreements. However, recently, due to the challenges posed by the Brazilian economy, the negotiations have been taking longer. One unit in particular ended 2016 without finalizing the 2015 agreement.

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CUSTOMERS

Our focus on our customers was very clear in our initiatives during 2016. The most important initiative in Brazil was the launch of our new portfolio of products, entirely designed to meet the daily demands of our consumers.

This was coupled with improved service time, the development of special products (such as those for the wind energy market, for example), the introduction of new quality indicators, and innovation projects, such as the project to modify the color of pozzolan cement.

All these initiatives – the results of long-term planning – paved the way for an unprecedented increase in our Net Promoter Score (NPS), as measured by an external consulting firm. The index proves the success of our actions, which were planned over many years aiming at the best possible relationship with our customers.

Our NPS – which measures consumer recommendations and loyalty through the difference between the percentage of promoter and detractor customers – was

40%

It rose 14 percentage points from 2015 to 2016, the highest increase in our Company's history.



TRAINING

Throughout Brazil, more than 40,000 civil construction professionals participated in training courses developed by us and our partners.

DIGITAL PRESENCE

We improved our service channels.

VC ONLINE PORTAL

Our e-commerce platform improved user experience and new features focused on increasing the satisfaction of our customers. Now also available as an App.

MAPA DA OBRA (CONSTRUCTION MAP)

Our web portal focused on construction, offers relevant information about our products and services, and news.

CUSTOMER SUPPORT MANAGEMENT

We promote constant improvements in our customer service level, ensuring proper feedback and support.



SUPPLY CHAIN AND LOGISTICS

The search for more efficient, productive and transparent processes guided the Supply Chain area, which, at Votorantim Cimentos, includes procurement, logistics and ports. In 2016, we saw an improvement in all of our indicators. Among our initiatives in Brazil, the Bolt project stood out as it continued to transform our logistics network into a lever of competitiveness.

The project, which included 45 work fronts managed by 25 leaders, defined a series of actions that reorganized the network and improved processes, with significant cost reductions. We are working within our schedule and we have already reached 70% of our target to save R\$ 45 million annually.

The Supply Chain area also enhanced the dissemination of knowledge within the Company: in Brazil, the Supply Chain School was expanded to the manager level, to solidify expertise in logistics and supply – which is critical for our business – within our organization.

In the US market, where it is common for customers to arrange for cement transportation, we were able to reduce delivery time at peak times by deploying customer-driven loading systems. The idea, first implemented at the Ohio terminal in 2013, was very well accepted by the market. In 2016, self-service accounted for a third of the shipments. The project, which in addition to giving customers flexibility has freed our employees' time, is expected to be expanded to all our terminals in the region by the end of 2018.

Another advancement in this area was the automation of purchase orders in operations in different countries, especially through the initial implementation of the Ariba system in North America, a process that should gain momentum in 2017. Improvements in purchasing management also ensured a reduction of R\$ 30 million in the maintenance, repair and operation (MRO) materials stock in Brazil.

PORT OPERATIONS



In 2016, the Charlevoix plant in the United States, which uses barges to deliver 94% of its production, received investments in technology that accelerated product shipping time by 30%. With this, the number of tons transported per day by our two barges rose 6%. In addition to the increase in efficiency, our Board approved a new barge to serve the region. With a load capacity of 14,000 tons of cement, the new barge should be ready by 2018, in time to address the increase in production resulting from the expansion of Charlevoix. In Brazil, we improved our unloading productivity in the ports of Mucuripe (Ceará State, Brazil), Barra dos Coqueiros (Sergipe State, Brazil) and Imbituba (Santa Catarina State, Brazil), which reduced costs and the ships stand-by time.

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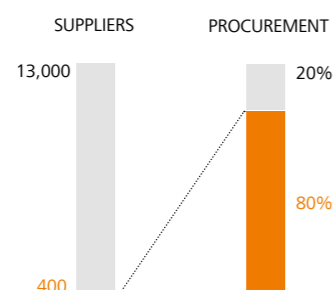
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PROCUREMENT

E-PROCUREMENT

We have about 13,000 suppliers in Brazil, but 80% of our purchases raw materials, third party services and MRO) are concentrated in 400 of them. To handle the large number of other local suppliers, we developed an e-procurement system, which improved the automation of processes and transparency in procurement.



ARIBA SYSTEM

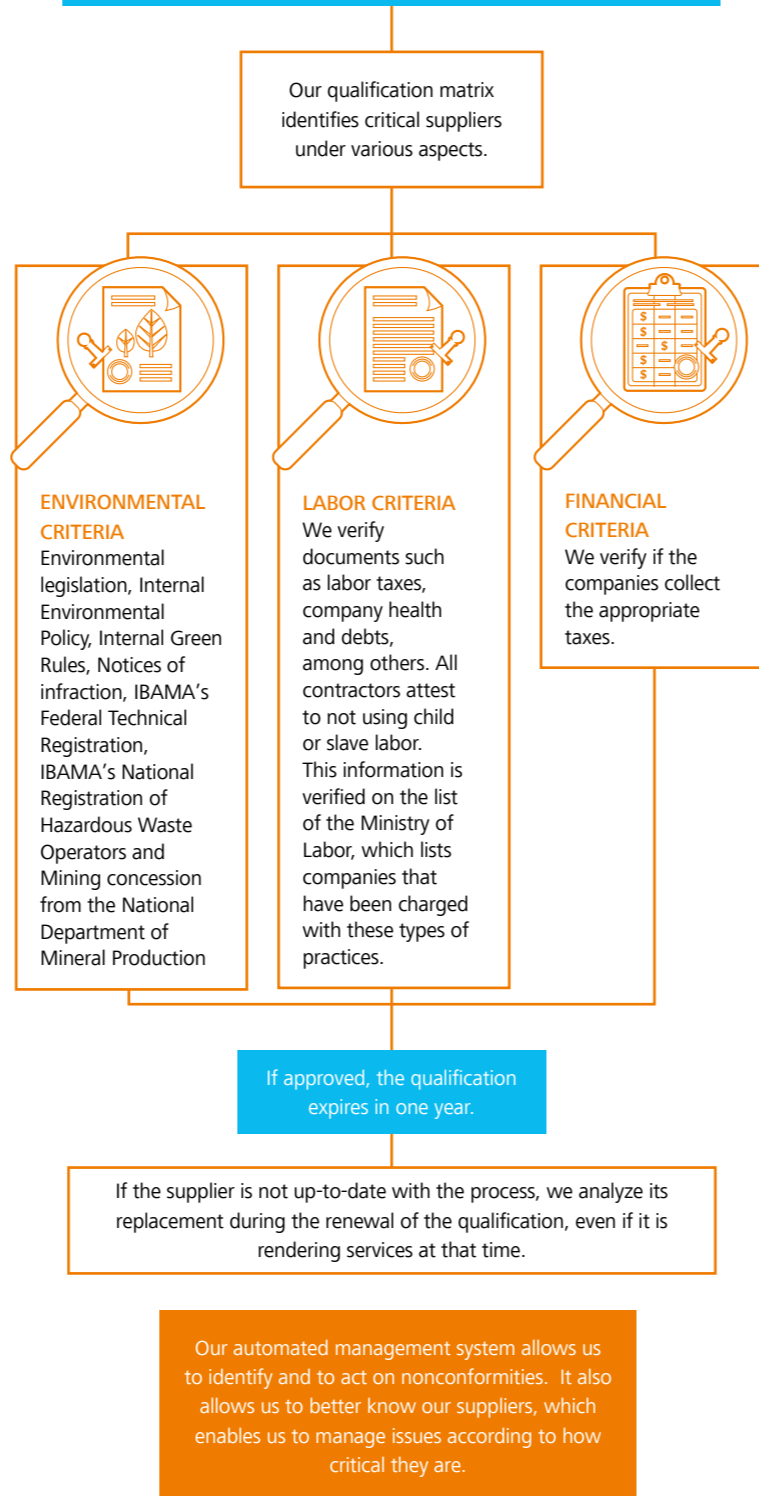
The next step after e-procurement is the deployment, in 2017, of the Ariba platform. The process, already underway in North America, is expected to cut management costs and provide sophisticated purchasing patterns analyses, which should increase both the agility of procurement processes and our bargaining power. In North America, up to 40% of transactions will be taking place on this new platform by the end of 2017.

SEM FRONTEIRAS PROJECT

Started two years ago, the Sem Fronteiras project redesigned the area and revised the way we approach the supplier market, thus enabling in-depth knowledge of the supply chain, research and development, and innovations. The project has been enabling the Company to make successful negotiations, in which both Votorantim Cimentos and the suppliers win. In 2016, these negotiations produced important results, thus increasing our competitiveness within the industry.

PROCESS OF SUPPLIER QUALIFICATION AND MANAGEMENT

In 2016, we qualified 100% of our approximate 4,000 suppliers in Brazil. This ensures agility in purchasing and compliance with legislation and our standards, as all suppliers' documentation are saved in our system according to their area of operation.



[GRI 102-43]

VC'S PARTNERS

The Supplier Certification program includes systemic and quarterly evaluations, which assess the level of service, safety, quality, and communication. The program has three types of recognition, granted by the Procurement area and by the units:

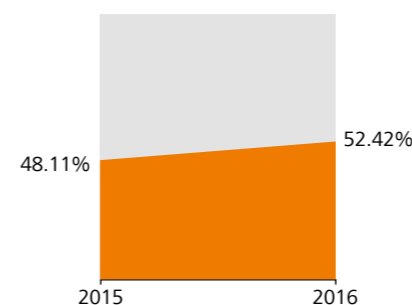
1. Certification
2. Best of the year ranking award
3. Innovation & Sustainability award

LOCAL SUPPLIERS

Local Suppliers Development Program – PDF (for its initials in Portuguese)

Starting in 2014, we have been working in the qualification of local suppliers, fostering new business and economic dynamism, and maximizing local purchases. We conducted this training program in partnerships with SEBRAE, SENAI, CDL, trade associations and other organizations. The program achieved important results by 2016, among them:

- Increase in purchases from local suppliers



- Agreement with the town of Sobral, seeking for the Program to become a public policy through the approval by the City Council
- Training of more than 500 entrepreneurs and managers
- Qualification of more than 1,200 workers
- Certification of 16 local companies
- Participation in five business fairs in Brazil

Productive Chain Program

Held in partnership with SEBRAE, this project enables us to prepare small companies to meet the conditions and requirements of our production chain. In 2016, the program was developed in four Brazilian states (DF, GO, RJ and MT), with a total investment of R\$ 1.2 million – R\$ 240,000 of which came from Votorantim Cimentos. Currently, 74 micro and small companies participate in the program, 56% of which have already become our suppliers.

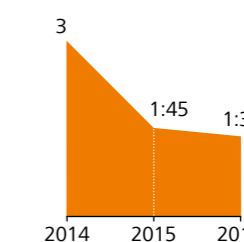
[GRI 102-43]

LOGISTICS

BOLT PROJECT

The implementation of this logistics project has brought important gains in three different areas: Productivity/optimization of logistics processes, savings in transportation costs, and improvement of our service level. We developed the Truck Productivity Project, which currently includes a monitored fleet of 200 vehicles and achieved a 40% increase in productivity. In terms of service level, we improved the management of our orders, reviewed our logistics service level agreements, and implemented a program of visits in which logistics team go to visit our customers, using the Net Promoter Score (NPS) research methodology focused on logistics services attributes. With these initiatives, our "on time, in full" (OTIF) indicator, which measures product shipments assertiveness, reached 97%.

Average Loading Time (in hours)



Through management and analysis of time, movements and bottlenecks, we reduced the average service time in our plants in Brazil. In two years, the loading time in our plants fell from 3h to 1.5h. We put a lot of effort on improving the level of service for our customers. Today, 97% of our orders leave the plants and distribution centers on the date agreed upon and with the correct amount of product. Two years ago, this rate was 90%.



Totem Project

Inspired by the technology used by airlines, totems have made loading and unloading queues clearer, more organized and more productive. Currently in phase 2, this project, which has been

implemented in Brazil, will enable even more process optimization and automation in our plants and distribution centers, generating more productivity and customer satisfaction.

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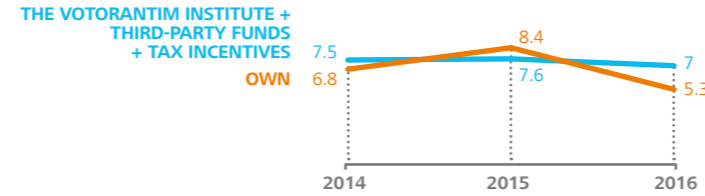
COMMUNITIES

Like everything at Votorantim Cimentos, our social investments are also guided by long-term strategies, which aim to perpetuate their positive impact. The initiatives are linked to the strategic drivers of our business and driven by a map of social risks in the region. This was what led, for example, to a survey on the weaknesses in the infrastructure of the community surrounding our new unit in Bolivia, which we have already begun to address.

Our initiatives in the area are also linked to our pursuit for excellence and efficiency, which has led us to create a database to connect social projects with the identified value chain and social risks. As a result, our external social investment in 2016 reached R\$ 12.3 million, allocated over 85 social initiatives, distributed in 31 locations in Brazil.

The importance of Votorantim Cimentos' efforts in this area has been recognized: since the end of 2015, our Global CEO, Walter Dissinger, has had a seat on the Board of the Social Impact Committee of the World Business Council. And in 2016, we were invited to occupy the vice presidency of the Thematic Chamber of Social Impact of the Brazilian Business Council for Sustainable Development (CEBDS, for its initials in Portuguese). In 2017, the Votorantim Institute, an institution that aims to adapt, strengthen and enhance the social performance of all companies of the Votorantim group, will launch the 100 Years of Education program, a project of which Votorantim Cimentos is part with structured initiatives in the educational area.

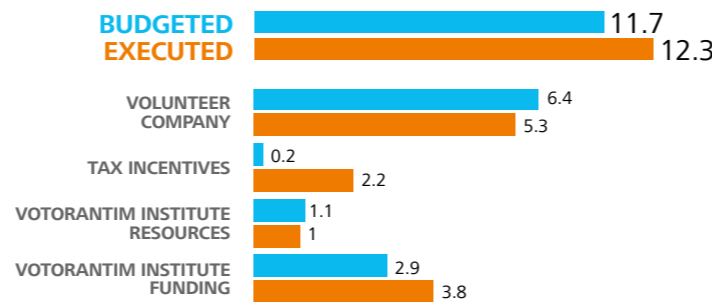
EVOLUTION OF SOCIAL INVESTMENTS (R\$ MILLION)



NUMBER OF PROJECTS 2016



BREAKDOWN OF SOCIAL INVESTMENTS R\$ MILLION



ROLLING FORECAST OF INVESTMENTS



PRIMAVERA (BRAZIL)

Our new plant, inaugurated in 2016 in the town of Primavera, has had a significant positive impact in the entire region. Votorantim Cimentos has been developing the Sustainable Primavera Project since 2011, in partnership with the Votorantim Institute, which last year invested R\$2 million in public safety in the region.

VOTORANTIM CIMENTOS SOCIAL APPROACH IN PRIMAVERA



Technical training and qualification of the local workforce, support for their inclusion in the workforce, and support for entrepreneurship.

- More than 1,600 people benefited



Renovation and expansion of two municipal schools – a project that is part of the Votorantim Partnership for Education (PVE, for its initials in Portuguese) Program.

- 45% more students benefited
- 3,500 students benefited in 12 schools



Construction of the Primavera Public Library and Museum.

- Library as model for the country
- Space to display the local historical-cultural heritage



Public Safety and Social Protection

- Expansion of the public safety structure
- Purchase of equipment and vehicles



[GRI 102-43]

OUR MAIN PROJECTS IN 2016 [GRI 102-43]

ReDes PROGRAM (BRAZIL)

In partnership with the Votorantim Institute, the Brazilian Development Bank (BNDES, for its initials in Portuguese) and the Inter-American Development Bank (IDB), the ReDes Program aims to contribute to the sustainable development of the locations where Votorantim Cimentos operates. In 2016, after a cycle of financial investments that included the implementation of new production processes, new partnerships and access to new markets, the Program has concluded the assistance of eight of the inclusive businesses we support throughout Brazil.

SOBRAL WITH A FUTURE PROJECT (SOBRAL, BRAZIL)

Implemented in partnership with the Votorantim Institute and the Arapyauá Institute, the initiative aims to develop a plan, created and managed by the community, that will guide the sustainable development of Sobral (in the state of Ceará, Brazil) in the coming years. The most diverse sectors of society participate in the discussions, including representatives of the private sector, government and organized society.

COMMUNITY PARTICIPATION GROUPS (SALTO DE PIRAPORA, BRAZIL)

Created in October 2013 with our support, the Community Council assemble people from the community who are interested in the development of the town. The group works on initiatives that focus on integral education. In July 2016, the Council launched the first Good Practices in Integral Education awards. In October, on the occasion of the award ceremony, the Council hosted the First Seminar on Integral Education, with technical support from VC and the Itaú-Unicef Award.

VOLUNTEER CHALLENGE (BRAZIL)

This initiative encouraged employee engagement on voluntary projects and mobilized the community and supporters. In total, 1,174 volunteers from Votorantim Cimentos participated in the Challenge, an increase of 23.71% compared to 2015. The Itaú de Minas group stood out with an initiative involving 150 volunteers, who worked in a local public school, promoting a recycling activity, the Oficina dos Palhaços (a clown workshop), and improvements in infrastructure, among other things.

YACUSES (BOLIVIA)

The inauguration of our new plant benefited a population that faces several challenges related to quality of life and urban infrastructure in the small Bolivian community of Yacuses, in the town of Puerto Suarez. Among the various social projects we developed in the community are the improvement of health infrastructure, water treatment, education, campaigns with ophthalmologists and pediatricians, and support for sports activities, safety and public management. We were also active in job creation, supporting training in sewing and handicrafts, as well as economic development through sustainable agricultural production projects.



Development of a Municipal Master Plan, modernization of tax management systems and fundraising to finance infrastructure projects.

- Potential funding of R\$ 11 million for infrastructure and R\$ 2.7 million for tax modernization



Empowerment of public policies and programs for children and adolescents at risk or in situation of social vulnerability.

- 57 adolescents benefited



Support for the creation of a family farmers cooperative and the promotion of sustainable agriculture as a source of income.

- 120 people benefited
- 45 hectares of area donated
- 538 hours of training



Transparency, communication and relationship with the community.

- Radio shows
- Newsletters to the community
- Blog and social media



Construction of a Health Center and donation of an ambulance.

- capacity: 6,000 appointments



1. The social investments made by Votorantim Cimentos in Primavera contributed to addressing the Sustainable Development Goals (SDGs). The SDGs are a universal call for action to eradicate poverty, protect the planet and ensure that all people enjoy peace and prosperity.
2. Money transferred to the Public Safety and Social Protection Office of Pará, which is responsible for applying the resources to initiatives of public safety and social protection in Primavera.

5

INVESTORS

Transparency is a key element in the development of lasting relationships with our partners, creditors and investors. Therefore, we seek to convey our results in the best possible way to keep our investors well informed and aware of the events that affect our Company. Even without the legal obligations of publicly traded companies, we have adopted high levels of transparency. We want to build a relationship that is trustworthy, valuable and long-term, enabling investors to better understand our Company's credit profile.



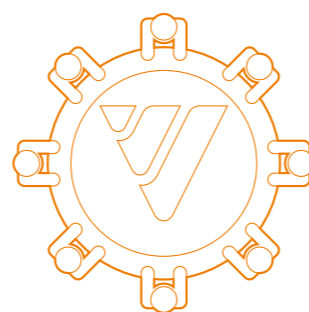
INVESTOR RELATIONS WEBSITE

We restructured our Investor Relations website to increase the transparency and fairness of our information. The new website now has more explanatory and financial content. It also includes more expository content on our operations in North America, which became necessary after we made our first issuance of bonds in the region, facilitating access to information for those interested in the Company. Our good relationship with investors opens doors to new transactions and demonstrates our commitment to the reliability of the information we provide, guaranteeing our permanent access to the capital and banking markets, both nationally and internationally.



STAYING ENGAGED

In 2016, we expanded our channels of contact with investors, creditors and rating agencies, and other interested audiences. We also increased our participation in events and conferences inside and outside Brazil. We made ourselves available to present the Company and address questions and, as a result, the number of contacts we made during the year more than doubled.



TOGETHER WITH VSA

Votorantim Cimentos' holding Company, Votorantim SA (VSA), performs its quarterly release of results through teleconferences and annual face-to-face events. In 2016, in partnership with VSA, Votorantim Cimentos' CFO (Chief Financial Officer) began participating in these announcements, presenting the highlights and quarterly results of the cement business.

[GRI 102-43]

GOVERNMENT AND PUBLIC AGENCIES

Our Government Relations area works to build sustainable relationships with various stakeholders to address issues involving regulatory and legislative issues and relationship with, governments, associations, class entities and other public agencies, at municipal, state and federal levels. We ensure that all relationships are established in a consistent manner, respecting current legislation and compliance standards. In 2016, we made progress in the professionalization of the National Cement Industry Union (of which Votorantim Cimentos is part), with the nomination of a representative who has expertise in this market for its Presidency, which helped us to improve the performance of our sector.

AREAS OF FOCUS:



CO-PROCESSING (AFR)

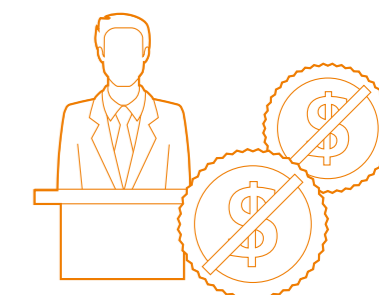
More than 90% of the Votorantim Cimentos units in Brazil have the environmental license issued by the competent environmental agencies to co-process waste. We are in contact with authorities in several states to assess the possibility of using urban waste as fuel in our productive process.

In Canada, our Bowmanville plant has been granted permanent license to use industrial wood waste as an alternative fuel. In addition to the permit, the initiative may have up to 44% of its cost funded by an Ontario government program, to which we have already applied. The co-processing facilities should be ready by 2017.



LEGISLATIVE

We are following the evolution of laws related to topics of interest to the Company, such as the New Mining Code, and the issues related to quilombola areas (communities with a historic connection to former slave populations) where we operate.



DONATIONS TO POLITICIANS

After the Brazilian electoral reform in 2015, the financing of candidates by enterprises became prohibited. In compliance with the new rule, Votorantim Cimentos did not finance any election campaign in 2016 nor will finance in the future.



AMONG THE BEST IN THE WORLD OUR REPORT RECEIVES INTERNATIONAL RECOGNITION

In October 2016, the previous version of this Integrated Annual Report was recognized by the World Business Council for Sustainable Development (WBCSD) as one of the top 10 reports worldwide, among the 163 companies evaluated. Our rating increased 20 percentage points compared to 2014. In addition to the overall score, Votorantim Cimentos was also chosen as one of the best practices in the "Completeness" category, for our business model.



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READY FOR WHAT MAY COME

Efficiency measures focused on the long term have prepared us to face diverse financial environments in each of our businesses.



The operational efficiency initiatives that we have implemented since 2015 (see more on page 18) have better prepared us for the upturn of global markets – especially the Brazilian one – starting in 2017. Our financial discipline and liquidity, strengthened by our strategy of geographic diversification, will allow us to continue advancing in our investment program to expand our production capacity in locations with growth prospects, ensuring the permanence of our business.

In Brazil, our main market, we predict another challenging year, with a 5% to 7% decrease in cement sales, as estimated by the National Cement Industry Union. However, we believe in the long-term fundamentals of the value chain of which we are part, and we have begun to see signs of economic recovery and stabilization. The many efficiency and cost reduction initiatives implemented in 2015 and 2016 and our investment plan have made us leaner to face this environment and better

positioned in the Brazilian market. As a result, in mid-2016 we inaugurated our Primavera plant, which is more efficient, facilitating our entrance into markets with potential of growth in the medium term.

In North America, the Charlevoix expansion project in the United States planned for 2018, will add capacity in this booming market in which we operate. Therefore, we will take advantage in a more efficient way of the economic recovery that is already reflected in an increase in construction works and costs in the US market.

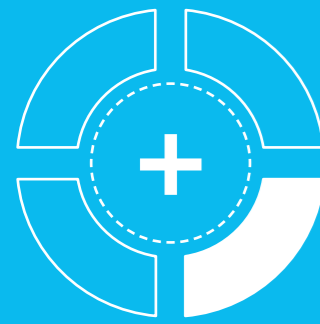
Initiatives that resulted in our increased efficiency will also make a difference in our operations in Europe, Asia and Africa in which we operate. In Turkey, where we will gain new momentum with the inauguration of the Sivas plant, we will reach previously unattained markets with growth expectations, reinforcing our strategy of global diversification.

In South America, the new unit in Yacuses, inaugurated in 2016, will increase

the Company's presence in the region, in a market with continuous growth trends and structural deficits, expanding our area of operation. In Argentina, the Olavarría and San Luis projects are underway, scheduled to be inaugurated in 2018 and 2019, benefiting from the effect of economic reforms expected to have a positive impact on the country's growth starting in 2017.

We will also continue to invest in co-processing initiatives, with the support of the new Eco-efficiency and AFR (alternative fuels and raw materials) areas. In addition to being an essential part of our commitment to the environment, the reuse of waste in our operations brings long-term savings and reaffirms our strategy of becoming a player in selling sustainable services to other industries.

We are moving forward, prepared for whatever may come, building our legacy, reinforcing dialogue and our commitment to lasting relationships and long-term businesses. After all, to us Life is Made to Last.



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EXTERNAL READERS

For the first time in our reports, we submitted the document to reading and evaluation of renowned specialists in Brazil and abroad. This conduct contributes to the evolution of the report and communication with our stakeholders. The opinions below do not have participation, interference or edition from Votorantim Cimentos.

Lorraine Smith



Lorraine Smith is an independent consultant and writer, originally from Toronto, Canada and now based in New York City. She helps large corporations shift their business models to contribute to a regenerative, inclusive and resilient economy. Find out more about her work at www.blorrainesmith.com/

I am pleased to have an opportunity to share perspective on Votorantim Cimentos' 2016 integrated Report. I focus my comments on two areas representing leadership opportunities, noting what is encouraging and where there is room for improvement.

First, there is a high degree of transparency in both narrative and infographic form. Votorantim Cimentos demonstrates that they measure and manage diverse capitals, including positive and negative impacts, across the whole value chain. In this respect, it is a remarkable report that raises the bar above previous years' reporting and is a leader globally.

However, in spite of — or perhaps because of — this high degree of transparency, readers may need additional guidance. There are many dimensions in the dashboards: material issues, strategic drivers, positive and negative impacts, and Sustainable Development Goals, for example. This is a great step forward yet the Company could more prominently communicate the most important findings from the data to orient the reader, and to explain how this information is informing decisions within the Company.

Second, statements from the Board of Directors and CEO indicate an optimistic outlook based on positive values embedded across the Company, and the

details throughout the report back up these statements. This demonstration of an engaged leadership group is critical. I am also encouraged by the mention of the importance of sustainability in the leadership's commentary, as well as the acknowledgement of employees in the Company's success in spite of challenging circumstances.

However, here two interrelated opportunities for improvement were apparent for this reviewer. One is the visible lack of diversity at the Company's most senior level. There is brief mention of diversity later in the report, and a note that external stakeholder feedback is shared with senior management, yet it is unclear how these diverse perspectives are taken into account. As Votorantim Cimentos states a strategic driver of becoming increasingly global, it will be important to illustrate how diverse international perspectives inform the Company's leaders to succeed on this intention.

Additionally, without providing broader context on the climate challenge in the letter from the Board (versus the geo-political circumstances which are well contextualized), the mention of an isolated data point (i.e. 630k metric tons of CO₂ reduced) does not adequately frame the scope of the issue, nor its potential importance to the Company,

its customers and indeed to all of society. Given the focus on the cement industry by those working on the climate agenda, as well as Votorantim Cimentos' participation in the Cement Sustainability Initiative explained in more detail later in the report, I encourage the Company's leadership to more explicitly communicate how they understand the challenge and are contributing to solving it. This entails a shift from "minimizing damage to the environment," as it is currently framed, to maximizing value in a way that reframes carbon as a resource while supporting other biological and societal systems upon which we all depend. Readers who would like to understand the Company's efforts and impacts can read on for more detail, but setting the tone from the beginning will clarify the perspective on one of the most significant challenges of our Age, and one the Company has real potential to influence.

Again, I believe there is tremendous strength in this report that seeks to inform, engage and illustrate complex data points in an ambitious format. I am certain that external readers will reference it both for the content it provides, and as a benchmark for others to consider in their reporting. I look forward to observing Votorantim Cimentos' performance into the future as it seeks to support life that is made to last.

Jim O'Brien



Jim O'Brien is an internationally-recognised sustainability consultant in building materials. Retired after a career of 39 years in a leading international group, besides consulting, he has since accumulated wide experience in leading European and global industry associations.

Votorantim Cimentos (VC) is now a truly international group, present in 14 countries with over 400 operating locations, over 13,000 employees, a significant global player in cement, aggregates, readymix and other building products. The geographic and product diversity is providing earnings resilience away from its recession-hit Brazilian home market. Both the financial and non-financial results demonstrate excellence in managing its business portfolio across five continents. VC is at an exciting stage in its ambitious global growth strategy.

The group has a well-developed strategy for further growth in being IPO-ready with firmly-embedded internal governance structures. VC is to be commended in being a member of the UN Global Compact and of the CSI, and in reporting in accordance with GRI Guidelines. In terms of risk management, VC has identified materiality both internally and externally in all aspects of its operations. Its financial strength is evidenced by its ability to achieve significant bond financing during 2016.

In process performance, VC ranks well amongst the CSI peer group, now achieving 12.4% alternative fuels and about 10% alternative materials, both not only providing greater sustainability but also greater profitability. It ranks well in achieving a 77% clinker/cement ratio and 3,475 MJ/metric ton clinker in thermal efficiency. It emits a commendable net 632 kgCO₂/metric ton clinker, being 17.2% below its 1990 level, though the 25% target by 2020 will be challenging. It is also to be commended in providing solid performance data for its aggregates

and concrete activities.

In environmental performance, VC has commendably reduced kiln dust emissions to 64 grams/metric ton of clinker. However, its specific NOx and SOx emissions are amongst the highest in its peer group, pointing to future reduction measures. VC is commendably addressing its water footprint with some of its sites in water-stressed regions; the water demand of 306 litres/metric ton cement and 134 litres/cubic metre of readmixed concrete rank amongst the best. Very significant waste reduction has been achieved. Some 86% of VC's cement and aggregates quarries have restoration plans, with a 100% target by 2020. VC is committed to fostering biodiversity, introducing biodiversity action plans at sensitive sites across the group.

For VC, safety is clearly an operating imperative. It is to be commended in achieving zero employee and third party fatalities in 2016. However, it is disappointing to see that there were five contractor fatalities; strong preventive actions are being taken. The Lost-Time Injury Frequency Rates for both employees and contractors rank well amongst peers, the ambition being zero. No data is yet reported on employee health; this should be addressed in future reports.

In social performance, VC is committed to increasing its gender diversity, currently 13% female across the organisation. The 18% staff turnover rate is not untypical in the context of downturned Brazilian economy, while being 7.4% for the rest of the group. No data is quoted for absenteeism, a good proxy indicator of employee motivation. VC is to be commended for its dedication to employee development with one of the

highest hours of training per employee per year.

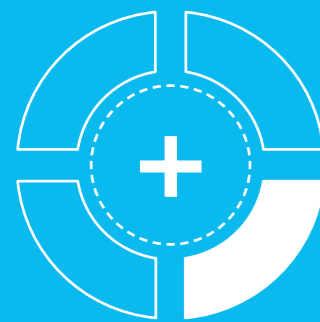
VC is to be complimented on liaising with upstream and downstream stakeholders.

It is on target to screen 100% of its suppliers in 2017, ensuring their ethical and sustainable performance. VC is also to be complimented on improved customer relationships, its Net Promoter Score rising significantly in 2016. Its Bolt initiative in improving transport logistics is particularly noteworthy.

VC is planning to extend its outreach to neighbouring communities, the current figure being relatively low at 43%. Good neighbour relations are the best way of ensuring a continued licence to operate. VC makes significant social investments and it would be interesting to describe some particular successes.

VC is to be commended on the quality of its integrated reporting, demonstrating a solid commitment to sustainable performance in all its activities. The 2016 report gives a good impression of the Company, its ethos and its people; future reports might better reflect the group's international diversity. The independent verification of non-financial data should in future cover all key indicators, with an assessment of data coverage and quality coming from all parts of the group.

As VC pursues its future ambitions for a wider international audience of investors, shareholders and stakeholders, an even higher future level of quality assurance and independent verification would be a great asset. The Company should also seek inclusion in some international sustainability indices, which would provide even greater well-deserved global visibility for Votorantim Cimentos.



LIMITED ASSURANCE REPORT

Independent auditor's limited assurance report on information related to sustainability included in the 2016 Integrated Report

To the Management of
Votorantim Cimentos S.A.
São Paulo - SP

INTRODUCTION

1. We have been engaged by Votorantim Cimentos S.A. ("Company") to present our limited assurance report on the compilation and fair presentation of the information related to sustainability included in the Company's 2016 Integrated Report for the year ended December 31, 2016.

RESPONSIBILITIES OF THE COMPANY'S MANAGEMENT

2. The management of the Company is responsible for the preparation and fair presentation of the information related to sustainability included in the 2016 Integrated Report, in accordance with the criteria defined in paragraph 3 below, 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.

3. The criteria for assessing the information in the 2016 Integrated Report of the activities performed by the Company, with respect to the measurement, obtaining, compilation, calculations and estimates, and the reporting of the sustainability information for 2016, were based on the following documents:

(a) GRI-G4 Reporting Principles and Standard Disclosures - Part 1, 2013,

issued by the Global Reporting Initiative (GRI);

(b) WBCSD/CSI (2011), The Cement CO2 and Energy Protocol: CO2 and Energy Accounting and Reporting Standard for the Cement Industry, Guide to the Protocol, version 3.0, World Business Council for Sustainable Development WBCSD/CSI;

(c) WBCSD/CSI (2014), Fuels and Raw Materials: Guidelines for Co-processing Fuels and Raw Materials in Cement Manufacturing, version 2.0, WBCSD/CSI;

(d) WBCSD/CSI (2013), Safety in the cement industry and Guidelines for measuring and reporting - Health and Safety, version 4.0, WBCSD/CSI;

(e) WBCSD/CSI (2012), Emissions Monitoring and Reporting: Guidelines for Emissions Monitoring and Reporting in the Cement Industry, version 2.0;

(f) WBCSD/CSI (2016), Land and Communities: Environmental and Social Impact Assessment (ESIA) Guidelines, version 1.0;

(g) WBCSD/CSI (2014), Protocol for Water Reporting, version 1.0;

(h) WBCSD (2010), WBCSD Manifesto for Energy Efficiency in Buildings - Implementation Guide, WBCSD.

INDEPENDENT AUDITOR'S RESPONSIBILITY

4. Our responsibility is to express a conclusion on the sustainability information included in the 2016 Integrated Report, based on our limited assurance engagement carried out in accordance with the Technical Communication CTO 01, "Issue of an Assurance Report related to Sustainability and Social Responsibility", issued by the Federal Accounting Council (CFC), based on the Brazilian standard NBC TO 3000, "Assurance Engagements Other than Audit and Review", also issued by the CFC, which is equivalent to the international standard ISAE 3000, "Assurance engagements other than audits or reviews of historical financial information", issued by the International Auditing and Assurance Standards Board (IAASB). Those standards require that we comply with ethical requirements, including independence requirements, and perform our engagement to obtain limited assurance that the information related to sustainability included in the 2016 Integrated Report, taken as a whole, is free from material misstatement.

5. 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 him to believe that the information taken as a whole might present significant misstatements.

MAIN PROCEDURES PERFORMED

6. The procedures selected are based on our understanding of the aspects related to the compilation and presentation of the information related to sustainability included in the 2016 Integrated 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 related to sustainability included in the 2016 Integrated 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) Face-to-face interviews with the managers responsible for the information of:

- the corporate offices of Votorantim Cimentos in São Paulo (São Paulo - SP) and in Curitiba (Paraná - PR);
- the corporate office of the concrete area in São Paulo (SP);
- the corporate office of the aggregate unit in São Paulo (SP);

- the cement units in Sobral (Ceará - CE) and Laranjeiras (Sergipe - SE). Interviews through videoconference with the units of Jbel Oust, in Tunisia, and of Zaozhuang, in China;

(d) 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 2016 Integrated Report;

(e) with regard to the aforementioned units whose managers were interviewed face-to-face, verification, on a test basis, of the carbon dioxide emissions, which correspond to 9% of the total emissions of the Company's clinker and cement activities. The emissions of 33%, 20% and 27% of the total emissions of particulate matter, of NOx and SOx, respectively, of the clinker and cement activities were also verified;

(f) comparing the financial indicators with the financial statements and/or accounting records.

7. The limited assurance engagement also included tests to assess compliance with the guidelines and the preparation criteria applicable to the compilation of the information related to sustainability included in the 2016 Integrated Report.

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

SCOPE AND LIMITATIONS

9. The procedures applied in a limited assurance engagement are substantially less detailed than those applied in a reasonable assurance engagement, the objective of which is the issue of an opinion on the sustainability information included in the 2016 Integrated Report. Consequently, we were not able

to obtain reasonable assurance that we were aware of all significant matters that might be identified in a reasonable assurance engagement, the objective of which is the issuance of an opinion. Had we performed an engagement with the objective of issuing an opinion, we might have identified other matters and possible misstatements in the information related to sustainability included in the 2016 Integrated Report. Therefore, we do not express an opinion on these matters.

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

CONCLUSION

11. Based on the procedures performed, described in this report, no matter has come to our attention that causes us to believe that the information related to sustainability included in the 2016 Integrated Report of Votorantim Cimentos S.A. has not been compiled and fairly presented, in all material respects, in accordance with the criteria described in paragraph 3 above.

São Paulo, May 24, 2017

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

Luciano Jorge Moreira Sampaio Júnior
Contador CRC 1BA018245/O-1 "S" SP



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CREDITS

GENERAL COORDINATION AND ELABORATION

Responsible Director

Álvaro Lorenz

General Coordination

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