



INTEGRATED STRATEGY *for a better future*



2016 INTEGRATED REPORT

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TIP: Use the color bar at the right edge to navigate through the document.




OUR COVER:

International Museum of the Baroque, Cholula, Puebla, Mexico.

Photo: Patrick Jaimes

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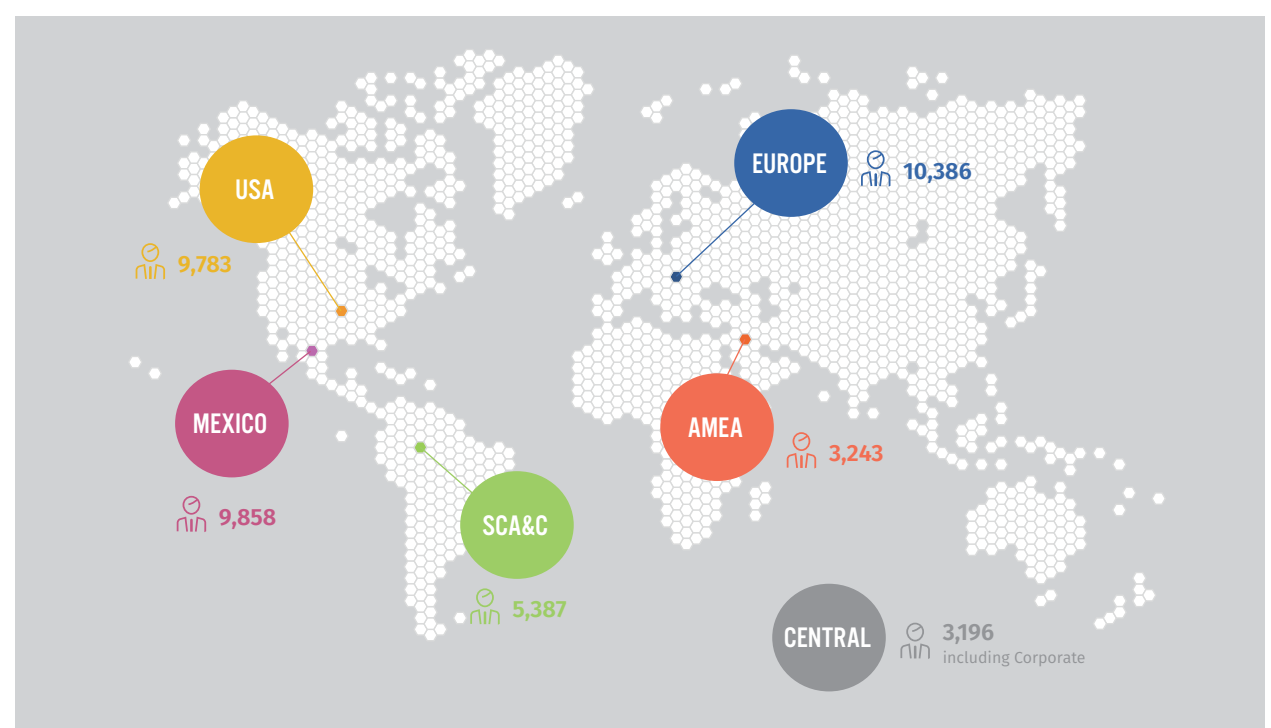
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1.1 | Company snapshot

CEMEX is a global building materials company that provides high-quality products and reliable service to customers and communities in more than 50 countries. Celebrating its 110th anniversary, CEMEX has a rich history of improving the well-being of those it serves through innovative building solutions, efficiency advancements, and efforts to promote a sustainable future.



Number of employees

SCA&C - South, Central America and the Caribbean

AMEA - Asia, Middle East and Africa



AS A CUSTOMER-FOCUSED ORGANIZATION, WE UNDERSTAND THAT WE SUCCEED ONLY WHEN OUR STAKEHOLDERS SUCCEED.

	+41,000 EMPLOYEES AROUND THE WORLD	93 million tons ANNUAL CEMENT PRODUCTION CAPACITY
54 CEMENT PLANTS +13 WITH MINORITY PARTICIPATION	1,555 READY-MIX CONCRETE PLANTS	
52 million m³ ANNUAL PRODUCTION OF READY-MIX CONCRETE		151 million tons AGGREGATES ANNUAL PRODUCTION
305 AGGREGATES QUARRIES	247 LAND DISTRIBUTION CENTERS	63 MARINE TERMINALS

1.1 | Company snapshot

WE PROVIDE HIGH-QUALITY PRODUCTS AND RELIABLE SERVICE TO CUSTOMERS AND COMMUNITIES IN MORE THAN 50 COUNTRIES.

OUR OFFERING PORTFOLIO:

PRODUCTS

CEMENT. Gray ordinary portland cement, white portland cement, masonry or mortar, oil-well cement, blended cement, and others.

READY-MIX CONCRETE. Made from a mixture of cement, aggregates, water and admixtures, ready-mix concrete is an extremely durable building material that can be cast into any shape, size, or design.

AGGREGATES. Materials such as stone, sand and gravel are the primary ingredients in ready-mix concrete. Others include asphalt and mortar.

OTHER PRODUCTS. Includes additives, granulated blast furnace slag, gypsum, fly ash, asphalt, concrete blocks, architectural products, and other precast products.



SOLUTIONS AND SERVICES

BUILDING SOLUTIONS. Development of customized energy-efficient building solutions and affordable housing solutions such as ICF, EPS panels, monolithic cast-in-place, and others.

CONCRETE PAVEMENTS. Conventional Concrete pavement, short slabs pavement, roller compacted concrete, concrete overlay/whitotopping, cement treated base, soil cement, and others.

GREEN BUILDING SERVICES. Bioclimatic architecture and engineering, modeling of buildings' energy performance, international green building certifications, and others.



1.2 | Letter to stakeholders

OUR GOAL IS SIMPLE: TO ENSURE YOU UNDERSTAND WHY WE ARE ENTHUSIASTIC ABOUT OUR FUTURE.



ROGELIO ZAMBRANO, CHAIRMAN OF THE BOARD OF DIRECTORS

DEAR FELLOW STAKEHOLDERS:

We live in a world characterized by change, a world where even the pace of change is accelerating. For many, that is disquieting. However, at CEMEX, we see that as a world of opportunity, a place where we can create value for all of our stakeholders. As we conclude our 110th anniversary celebration, we are confident in our future because we have invested considerable effort focusing on how CEMEX creates value and reshaping everything we do as a company to achieve our vision of building a better future for our employees, customers, shareholders, suppliers, and communities.

This Integrated Report is designed to provide a holistic analysis of our company's strategic vision, performance, governance, and value creation. We want you to understand the relationship between the financial and non-financial key performance indicators that we use to manage our business, and we want to impart a deeper understanding of how our operating model works.

Our goal is simple: To ensure you understand why we are enthusiastic about our future. We are confident that we will continue to justify your faith in CEMEX.

Despite continued financial market volatility and uncertainty, we made good progress on our strategic priorities and achieved strong financial results during 2016. On a like-to-like basis, our net sales improved by 4% to US\$13.4 billion, and

our operating EBITDA increased by 15% to US\$2.7 billion—our highest EBITDA generation in eight years. Operating EBITDA margin expanded 1.7 percentage points to 20.5%, while net income increased tenfold to US\$750 million, both the highest levels since 2007.

As a result, we achieved or exceeded all of our targets on our path to regaining our investment grade capital structure. Once again, we met our cost and expense reduction target of US\$150 million for the year. We almost doubled free cash flow after maintenance CAPEX to nearly US\$1.7 billion thanks to higher EBITDA, as well as initiatives to lower working capital investment, reduce financial expenses, and limit CAPEX. Additionally, we announced asset sales of more than US\$2 billion. Consequently, we reduced total debt by close to US\$2.3 billion, a 25% reduction from the end of 2013.

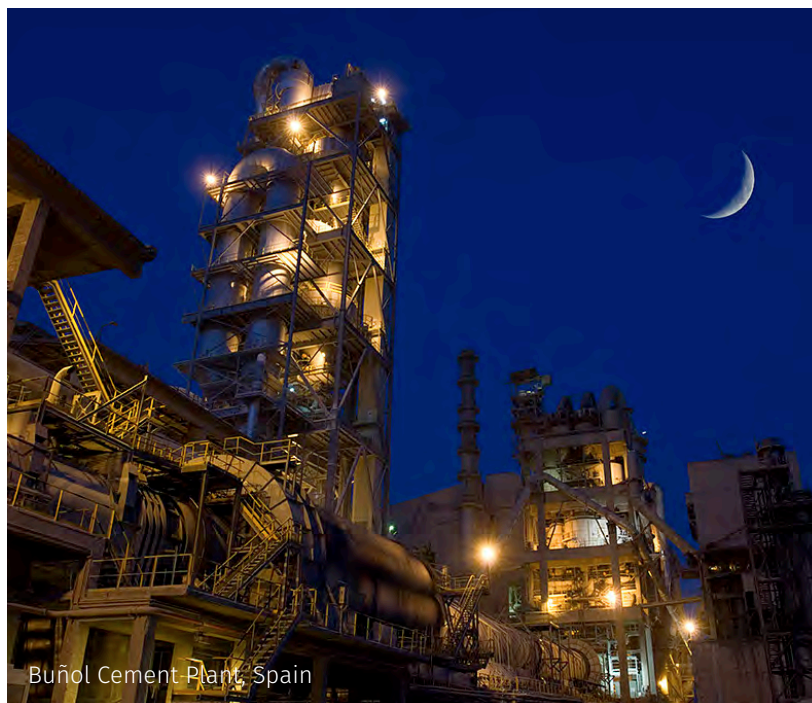
Rooted in our core values, value creation is embedded in everything we do. Four pillars—People, Customers, Markets, and Sustainability—underpin our strategy. We drive value across all aspects of our business through the integration of these pillars with our operating and governance models.

Our people are the cornerstone of our success. They build long-term relationships with our customers and play a vital role as representatives of CEMEX in the communities where they live and work. We work hard to provide a high-performance, rewarding—and above all—safe workplace



FERNANDO A. GONZÁLEZ, CHIEF EXECUTIVE OFFICER

1.2 | Letter to stakeholders



Buñol Cement Plant, Spain

environment. In 2016, we reduced lost-time incidents by 16%. However, we know that we need to reinforce our focus on safety day after day; no fatality or incident is acceptable.

Our ability to fully understand and tailor our products and services to solve our customers' challenges is key to creating lasting value. Clients are at the heart of our business decisions, and we have organized the company and redesigned its processes to ensure that we create the best experience for them. We strive to make it easy for customers to do business with us, utilizing advanced technology whenever possible. To this end, we launched a digital transformation strategy during 2016. Our recently announced partnership with IBM is an important element of that strategy. Together, we are designing and developing mobile applications that will dramatically change the way customers interact with us.

CEMEX invests in markets with strong growth fundamentals—geographies where we can leverage our broad and deep knowledge of cement, aggregates, and ready-mix concrete. Our business portfolio concentrates on dynamic, diverse markets with significant upside potential. In January 2017, we reinforced our already strong position in the Caribbean with our successful acquisition of the majority of the shares of Trinidad Cement Limited, a leading cement producer in Trinidad and Tobago, Jamaica, and Barbados.

At CEMEX, we embed sustainability in every aspect of our business. This provides opportunities for growth, reduces risks and costs, strengthens our license to operate, and creates value for all of our stakeholders. Our goals are to become the global leader in sustainable construction, achieve a low-carbon, resource-efficient footprint, and serve as a key partner in the development of our communities. In 2016, we provided products and solutions to more than 1,200 projects which attained a green building certification, representing almost 10 million m² of construction space, and we installed more than 5 million m² of concrete pavements for over 460 projects. We also achieved an alternative fuel substitution rate of over 23%. This, together with our other mitigation efforts, helped us achieve a 20% reduction in CO₂ emissions compared with our 1990 baseline—equal to the emissions generated by 1.3 million cars annually. Additionally, 18 of our initiatives have now earned biodiversity certification from the Wildlife Habitat Council, while we expanded our partnership with Birdlife International to develop biodiversity action plans in quarries with high biodiversity value. Moreover, our high-impact social strategy continued to empower our communities, benefiting 12.6 million people from the inception of our programs—which means we are well on the way to reach CEMEX's 2020 target of 15 million beneficiaries since 1998.

OUR SUSTAINABILITY GOALS ARE TO BECOME THE GLOBAL LEADER IN SUSTAINABLE CONSTRUCTION, ACHIEVE A LOW-CARBON, RESOURCE-EFFICIENT FOOTPRINT, AND SERVE AS A KEY PARTNER IN THE DEVELOPMENT OF OUR COMMUNITIES.

As a global company, our ability to leverage knowledge and best practices across our worldwide network is a key competitive advantage. Through our Global Networks, we operate as One CEMEX and create value through collaboration and integration across borders. For example, during 2016, we increased the worldwide operating efficiency of our cement kilns to 89%; we replenished 115 million tons of our aggregates reserves, while reducing inventories by 15%; and we deployed our new supply chain process globally. By virtue of our Global Networks, we manage the company as one efficient worldwide enterprise—ensuring that CEMEX is much more than the sum of its parts.

At CEMEX, we are committed to maintaining the highest ethical and corporate governance standards. We continually strive to enhance our reputation as a responsible and sustainable company in order to attract and retain employees, customers, suppliers, and investors, as well as to maintain positive relationships with our communities—all of which are critical to creating value each and every day.

On behalf of CEMEX's Board of Directors, our management team, and our employees, we greatly appreciate your interest in CEMEX, as we continue our efforts to build a better future for all of our stakeholders.

Sincerely,

ROGELIO ZAMBRANO
Chairman of the Board of Directors

FERNANDO A. GONZÁLEZ
Chief Executive Officer

1.3 | Management assessment of performance

CONSOLIDATED RESULTS

Following is a review of operational results and the financial condition of the company.

Consolidated net sales decreased 3% to US\$13.4 billion in 2016. On a like-to-like basis for our ongoing operations and for foreign exchange fluctuations compared with 2015, consolidated net sales increased 4% for the year. The increase on a like-to-like basis was the result of higher prices of our products in local currency terms in most of our operations, as well as higher volumes in Mexico, the U.S., and our Europe region.

Cost of sales as a percentage of net sales decreased 1.8 percentage points, from 66.3% in 2015 to 64.5% in 2016. The decrease in cost of sales as a percentage of net sales was mainly driven by our cost-reduction initiatives, as well as lower energy costs.

Operating expenses as a percentage of net sales decreased 0.3 percentage points, from 21.7% in 2015 to 21.4% in 2016, mainly driven by lower distribution expenses and our cost-reduction initiatives.

Operating EBITDA increased 6% to US\$2.7 billion in 2016. On a like-to-like basis, operating EBITDA increased 15% for the year. The increase on a like-to-like basis was due mainly to higher contributions from Mexico, the U.S., and our Europe and Asia, Middle East and Africa regions.

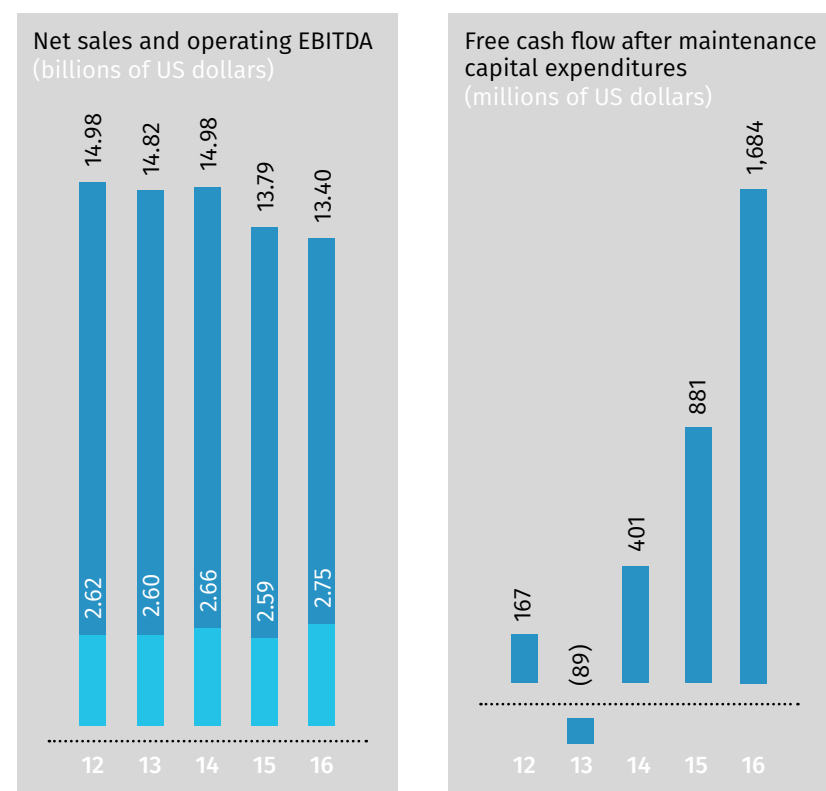
Operating EBITDA margin increased 1.7 percentage points, from 18.8% in 2015 to 20.5% in 2016.

We reported a **gain on financial instruments** of US\$6 million in 2016. This gain resulted mainly from our equity derivatives related to CEMEX shares.

We reported a **foreign exchange gain** of US\$264 million in 2016, resulting mainly from the fluctuation of the Mexican peso versus the U.S. dollar.

We reported **controlling interest net income** of US\$750 million in 2016 versus net income of US\$75 million in 2015. The income primarily reflects higher operating earnings before other expenses, net, lower other expenses, lower financial expenses, better results from financial instruments, and a positive effect from foreign exchange results, partially offset by lower equity in gain of associates, higher income tax, higher non-controlling interest net income, and a negative effect in discontinued operations.

Total debt plus perpetual notes decreased US\$2.3 billion to US\$13.1 billion at the end of 2016.



ON A LIKE-TO-LIKE BASIS, OUR NET SALES IMPROVED BY 4%, AND OUR OPERATING EBITDA INCREASED BY 15%—OUR HIGHEST EBITDA GENERATION IN EIGHT YEARS.

Financial position: Towards investment grade

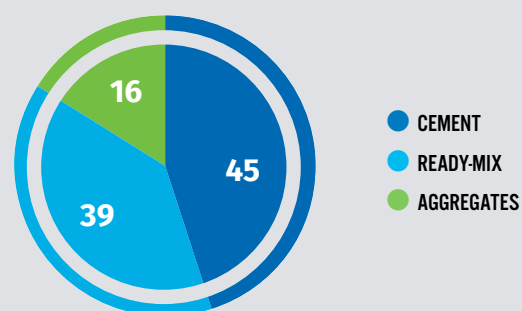
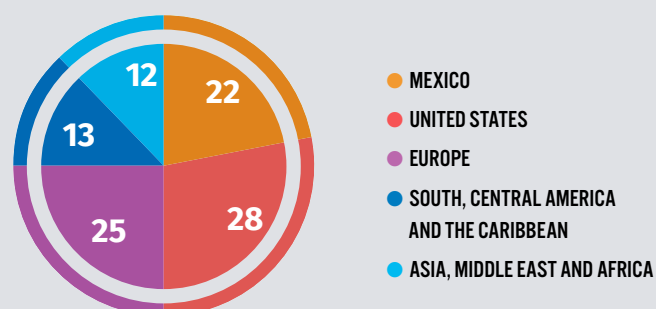
One of our main priorities is to reach an investment-grade capital structure as soon as possible. To this end, we continue to focus on strengthening our financial position by reducing our costs and expenses, improving our cash flow generation, divesting assets, and reducing our debt. As a result of our efforts, we achieved all of our targets for 2016.

- ▶ We reached our cost and expense reduction target of US\$150 million for the year.
- ▶ We significantly exceeded our anticipated free cash flow initiatives, achieving close to US\$1 billion during the year, while eclipsing our target of US\$670 million thanks to our efforts to lower working capital, reduce financial expenses, lower taxes, and limit total capital expenditures (“CAPEX”).
- ▶ We announced asset sales for approximately US\$2 billion of which almost US\$1 billion closed during the year.
- ▶ We applied the proceeds from our free cash flow generation and asset sales mainly for debt reduction. Consequently, our total debt plus perpetual securities is close to US\$2.3 billion lower than at the end of 2015—representing a 15% reduction from our debt level as of the end of 2015 and a 25% reduction from the end of 2013. Hence, we lowered our consolidated funded debt to EBITDA ratio to 4.22 times from 5.21 times as of the end of 2015.

As a result of our progress, we are well on our way to significantly strengthen our financial position and regain an investment-grade capital structure. Already, our discipline and consistency in reducing our leverage is translating into an improvement in our credit ratings. In January 2017, S&P upgraded our corporate credit rating to BB- for its global scale and to mxA- for its national scale. This upgrade should allow us to access the institutional Mexican fixed-income market.

1.3 | Management assessment of performance

GLOBAL REVIEW OF OPERATIONS

SALES DISTRIBUTION BY PRODUCT
(percentage)SALES DISTRIBUTION BY REGION
(percentage)

GLOBAL OPERATIONS

	MEXICO	UNITED STATES ¹	EUROPE ²	SOUTH, CENTRAL AMERICA AND THE CARIBBEAN ³	ASIA, MIDDLE EAST AND AFRICA ⁴	OTHER	TOTAL
Net sales	2,862	3,668	3,255	1,727	1,538	353	13,403
Operating earnings before other expenses, net	913	264	187	466	302	(248)	1,884
Operating EBITDA	1,041	619	377	542	375	(207)	2,746
Assets ⁵	3,599	14,694	5,178	2,359	1,456	1,657	28,944

millions of US dollars as of December 31, 2016

CAPACITY PER REGION⁶

	MEXICO	UNITED STATES	EUROPE	SOUTH, CENTRAL AMERICA AND THE CARIBBEAN	ASIA, MIDDLE EAST AND AFRICA	TOTAL
Cement production capacity (million tons/year)	30.0	16.6	23.9	12.5	9.9	92.9
Cement plants (controlled)	15	12	17	7	3	54
Cement plants (minority part.)	3	6	1	3	0	13
Ready-mix plants	265	345	737	114	94	1,555
Aggregates quarries	15	73	185	22	10	305
Land distribution centers	78	39	67	34	29	247
Marine terminals	7	6	33	13	4	63

as of December 31, 2016

- Beginning March 31, 2011, includes the operations of Ready Mix USA LLC. In 2016, Concrete Pipe Business in the United States is excluded from net sales, operating earnings before other expenses, net, and operating EBITDA.
- Includes operations in Croatia, Czech Republic, Finland, France, Germany, Latvia, Lithuania, Norway, Poland, Spain, Sweden, and the United Kingdom. Croatia is excluded from net sales, operating earnings before other expenses, net, and operating EBITDA.
- Includes operations in Argentina, Colombia, Costa Rica, the Dominican Republic, El Salvador, Guatemala, Jamaica, Nicaragua, Panama, Peru, and Puerto Rico, as well as other operations in the South, Central America, and the Caribbean region.
- Includes operations in Egypt, Israel, Malaysia, the Philippines, and the United Arab Emirates. Bangladesh and Thailand are excluded from net sales, operating earnings before other expenses, net, and operating EBITDA.
- Includes assets in associated participation.
- Includes active and inactive operations that are leased, owned, or with a minority participation; aggregates quarries with depleted reserves are excluded.

1.3 | Management assessment of performance

Mexico

In 2016, our Mexican operations' net sales increased 1% year over year to US\$2.9 billion, and operating EBITDA improved 8% to US\$1.0 billion. Our domestic gray cement and aggregates volumes increased 4% and 3%, respectively, while our ready-mix concrete volumes declined 3% for the year.

All of our sectors of demand, except infrastructure, enjoyed good volume performance during 2016. The industrial-and-commercial sector was supported by continued commercial activity, as well as warehouse and industrial park construction. The formal residential sector benefited from double-digit growth in mortgage investment from the banking sector, as well as stable investment from INFONAVIT. The main indicators for the self-construction sector, including remittances and job creation, remained solid during the year.

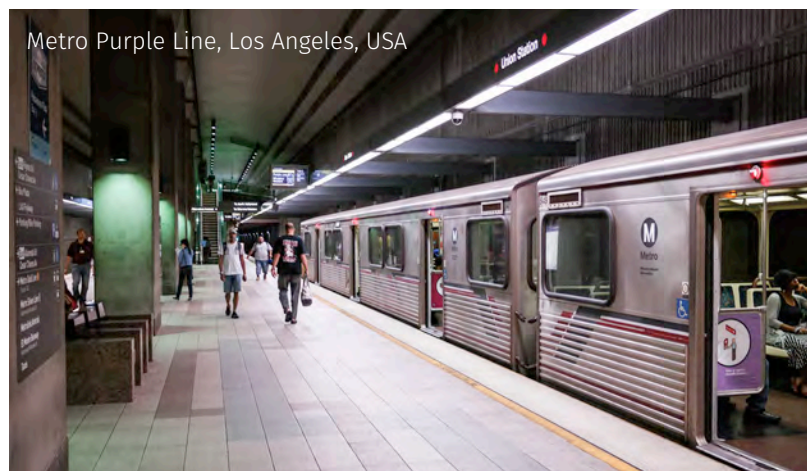
United States

Our U.S. operations' net sales remained flat year over year at US\$3.7 billion for 2016. Operating EBITDA rose 18% to US\$619 million during the year. On a like-to-like basis, adjusting for assets sold to Grupo Cementos de Chihuahua, our U.S. operations' domestic gray cement, ready-mix concrete, and aggregates volumes increased 3%, 1%, and 2%, respectively, for 2016.

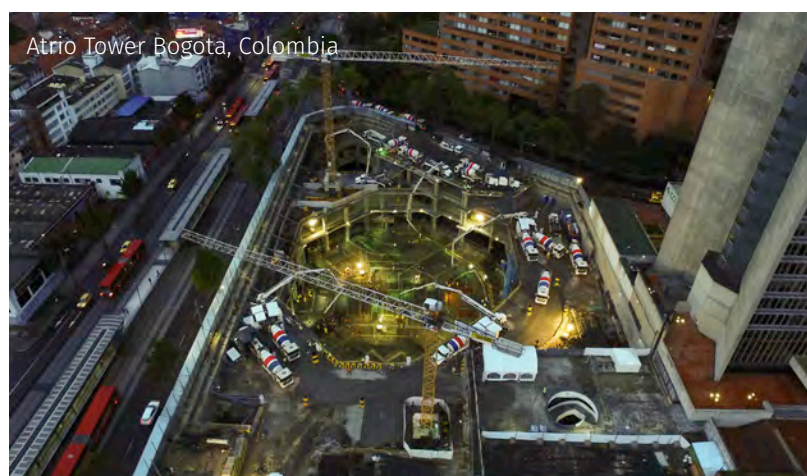
During 2016, our volumes were driven by residential, industrial-and-commercial, and infrastructure activity. In the residential sector, cement intensive single-family housing starts increased 9% for the year, supported by low interest rates and inventories, strong job creation, and household formation. Industrial-and-commercial construction sector spending increased 1% for the year, reflecting growth in lodging and office construction, which was partially offset by a decline in energy, agriculture, and manufacturing investment. In the infrastructure sector, street and highway spending picked up during the fourth quarter of the year after a weak pre-election performance.



BBVA Bancomer Stadium, Monterrey, Mexico



Metro Purple Line, Los Angeles, USA



Atrio Tower Bogotá, Colombia

OPERATING EBITDA IN OUR U.S. OPERATIONS ROSE 18%, WHILE IT IMPROVED 8% IN MEXICO.

South, Central America and the Caribbean

In 2016, our net sales for the region decreased 9% to US\$1.7 billion, while our operating EBITDA declined 5% to US\$542 million. As a whole, our regional operations' domestic gray cement volumes increased 1%, while our ready-mix concrete and aggregates volumes both decreased 13% for the year.

Our Colombian operations' domestic gray cement volumes remained flat, while our ready-mix concrete and aggregates volumes declined 8% and 13%, respectively, during 2016. Infrastructure project delays and macroeconomic challenges impacted national cement consumption, particularly during the second half of 2016.

Europe

Our European operations' net sales decreased 5% year over year to US\$3.3 billion, and operating EBITDA declined 3% to US\$377 million in 2016. For the full year, our domestic gray cement volumes remained flat, while our ready-mix concrete and aggregates volumes increased 2% and 3%, respectively.

In the United Kingdom, our operations' domestic gray cement and aggregates volumes increased 7% and 3%, respectively, while our ready-mix concrete volumes declined 3% for the year. Our cement volume growth was driven by improvement in demand from all of our main construction sectors. Our cement volume growth benefited from higher sales of blended cement, resulting from a scarcity of fly ash.

In Spain, our operations' domestic gray cement volumes decreased 3%, while our ready-mix concrete volumes increased 2% during 2016. Political uncertainty weighed on consumer sentiment and particularly affected construction activity for the year. The residential sector was the main driver of cement consumption during 2016, benefiting from favorable credit and income conditions, job creation, and pent-up housing demand.

1.3 | Management assessment of performance



Boulevard by the Odra River, Wrocław, Poland

In Germany, our operations' domestic gray cement volumes remained flat for the year. The residential sector remained the main driver of cement consumption, despite capacity constraints in the local construction industry and public authorities' restrictions. The sector benefited from low unemployment and mortgage rates, rising purchasing power, and growing immigration.

In Poland, our operations' domestic gray cement volumes decreased 1% during 2016. This decrease reflected delays in infrastructure sector projects, as well as a slight decline in our market position. The residential sector was the main driver of demand.

In France, our operations' domestic ready-mix concrete and aggregates volumes increased 4% and 6%, respectively, for the year. The residential and industrial-and-commercial sectors were the main drivers of demand. The residential sector was supported by low interest rates and government initiatives, including a buy-to-let program and zero-rate loans for first-time buyers.



Archeopark Pavlov museum in UNESCO reserve, Czech Republic

Asia, Middle East and Africa

In the region, our operations' net sales decreased 7% year over year to US\$1.5 billion, while operating EBITDA grew 4% to US\$375 million during 2016. As a whole, our regional operations' domestic gray cement volumes remained flat, our aggregates increased 6%, and our ready-mix concrete volumes declined 4% for the year.

In the Philippines, our operations' domestic gray cement volumes increased 1% during 2016. In the second half of the year, cement consumption weakened due primarily to the government's post-election transition, as well as adverse weather conditions that affected our core markets.

In Egypt, our operations' domestic gray cement volumes increased 2% for the year. Government projects related to the Suez Canal tunnels and port platforms in the city of Port Said, as well as low-income housing complexes, drove cement demand during 2016.

Trading

Our global trading network is one of the largest in the industry. Our trading operations help us to optimize our worldwide production capacity, deliver excess cement to where it is



Yoo Towers, Tel Aviv, Israel

OUR TRADING VOLUME TOTALED MORE THAN 10.5 MILLION TONS.

most needed, and explore new markets without the necessity of making immediate capital investments. Our worldwide network of strategically located marine terminals and broad third-party customer base also provide us with the added flexibility to place contracted supplies in an optimal way.

In 2016, we enjoyed trading relationships with 100 countries. Our trading volume totaled more than 10.5 million tons of cementitious and non-cementitious materials, including approximately 8.0 million tons of cement and clinker. We also maintained a sizeable trading position of 1.6 million tons of granulated blast furnace slag, a non-clinker cementitious material, and 0.9 million tons of other products.

Freight rates, which have been extremely volatile in recent years, account for a large share of our total import supply cost. However, we have obtained significant savings by timely contracting maritime transportation and by using our own and chartered fleets—which transported approximately 64% of our traded cement and clinker volume in 2016.

In addition, we provide freight service to third parties when we have spare fleet capacity, which generates additional profit for our trading operations.



Sv. Juraj Cement Plant, Croatia

1.4 | Our vision and value creation model

VISION FOR A BETTER FUTURE

At CEMEX, we are an integrated global team that shares a common vision: To build a better future for our employees, our customers, our shareholders, and the communities in which we live and work. We come to work each day excited to develop and deliver high-quality, sustainable construction products and innovative building solutions that exceed our customers' expectations and meet society's growing needs.

WE ALL SHARE THE SAME VISION. WE SEE OPPORTUNITIES, WE SEE GROWTH, AND WE SEE A SOLID FOUNDATION ON WHICH CEMEX PROUDLY STANDS.

OUR PURPOSE

The reason we come to work each day

To build a better future for our employees, our customers, our shareholders, and the communities where we live and work.

OUR MISSION

What we do and who we do it for

To create sustainable value by providing industry-leading products and solutions to satisfy the construction needs of our customers around the world.



OUR VALUES

How we operate effectively and get things done

We believe that these five values define us as a company and form a roadmap for how we must approach each day:

ENSURE SAFETY of all our employees by being accountable to each other for our actions and behaviors, and being an industry leader that sets an example for others to follow. With safety there can be no compromises.

FOCUS ON CUSTOMERS by aligning ourselves closely with their business and their needs, following through on our commitments, resolving problems quickly and making it easy to do business with us.

PURSUE EXCELLENCE in all aspects of our business and interactions with customers. We will challenge ourselves to constantly improve and build upon our strong reputation around the world for quality and reliability.

WORK AS ONE CEMEX using our collective strength and global knowledge to share best practices, replicate good ideas and collaborate across boundaries – externally and internally.

ACT WITH INTEGRITY by remaining honest and transparent in all our interactions, complying with our Code of Ethics, and caring for our people, communities and natural resources.

1.4 | Our vision and value creation model

OUR FOUR PILLARS - PEOPLE, CUSTOMERS, MARKETS, AND SUSTAINABILITY - UNDERPIN OUR STRATEGY.

OUR STRATEGY

The plan for achieving our mission

To create value by building and managing a global portfolio of integrated cement, aggregates, ready-mix concrete, and related businesses.

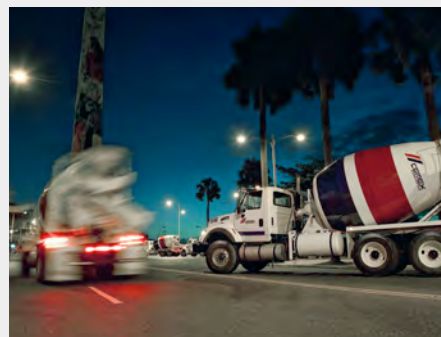


Value our people as our main competitive advantage

We hire the best and ensure that our team's health, safety, and professional growth are top priorities.

We develop leaders and encourage them to create new ways of thinking and acting, while assessing risks and opportunities.

We foster an open dialogue in all of our interactions to align and achieve greater results.



Help our customers succeed

Our customers deal with important challenges daily.

We must invest time in our relationships and listen closely to understand their needs.

We help them to succeed by delivering quality products, innovative solutions, and greater customer service.



Pursue markets that offer long-term profitability

We pursue markets where we can add value for our employees, customers, and shareholders.

We focus on what we do best—cement, aggregates, ready-mix concrete, and related businesses.

We venture beyond those core businesses when it is essential to better market our products.



Ensure sustainability is fully embedded in our business

We invest and innovate to become an industry leader in profitable, environmentally friendly, and sustainable operations.

We provide products and solutions that contribute to more sustainable cities.

We act responsibly in our operations, always looking for a way to minimize our impact on the environment.

We collaborate with local communities to empower them and contribute to their development.



OUR OPERATING MODEL

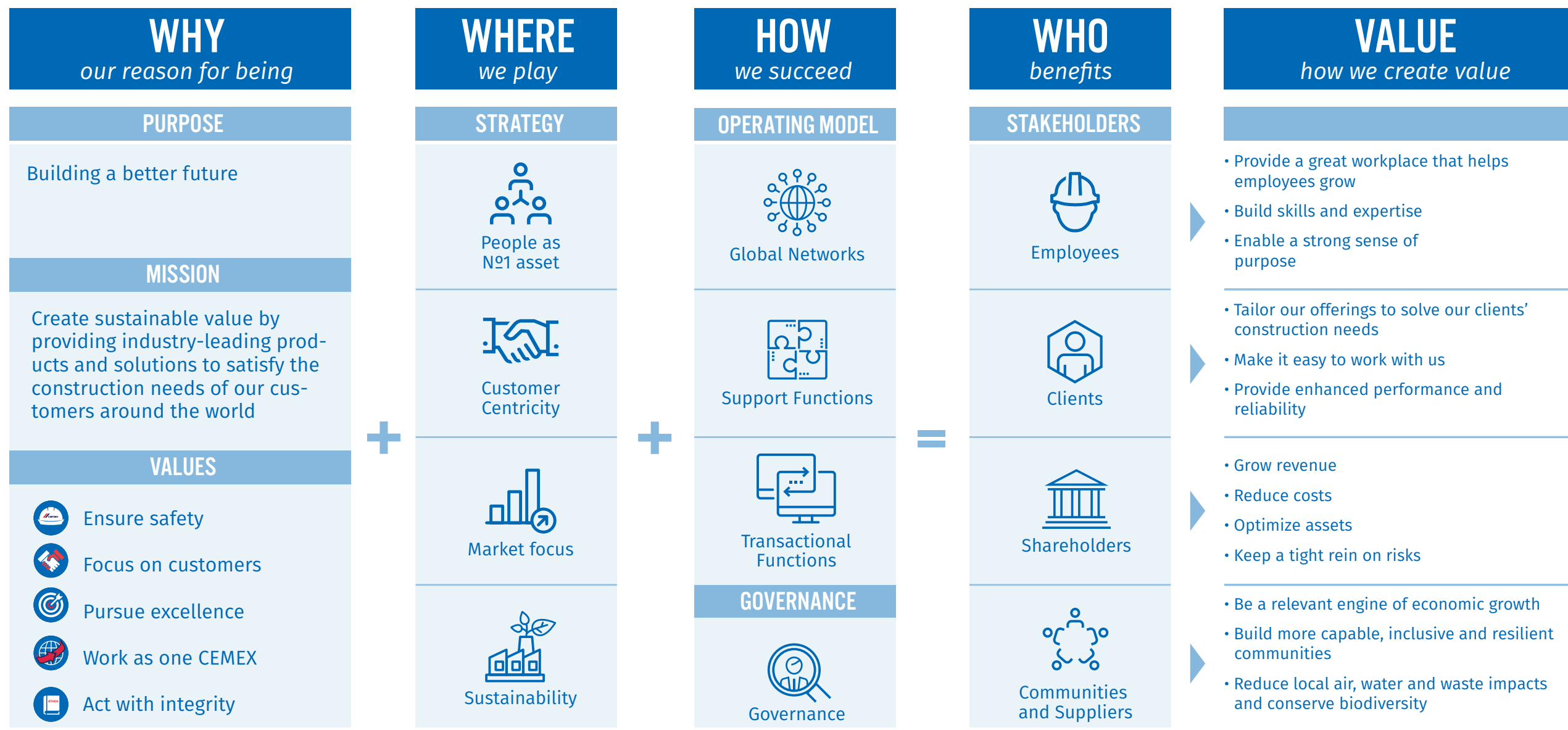
How we operate effectively and get things done

Leverage our knowledge and scale to establish best practices and common processes worldwide in order to operate more effectively and achieve greatest value.

1.4 | Our vision and value creation model

WE DRIVE VALUE ACROSS ALL ASPECTS OF OUR BUSINESS THROUGH THE INTEGRATION OF OUR STRATEGIC PILLARS WITH OUR OPERATING AND GOVERNANCE MODELS.

OUR VALUE CREATION MODEL



2 TRENDS, RISKS
AND OPPORTUNITIES

An agile and innovative company



2.1 | Main global trends

The pace of change in the world is faster than ever. Global megatrends are influencing the current and future state of the construction industry. At CEMEX, we closely monitor trends affecting our business, including these top-line global societal challenges:

ECONOMIC

Relentless population growth and urbanization

ENVIRONMENTAL

Climate change, resource scarcity and biodiversity loss

SOCIAL

Poverty, income inequality, aging population and unemployment

GOVERNANCE

Increasing expectations for private sector to act responsibly and be proactive

The world's growing population is among the key drivers of change expected for the construction industry. Several megatrends are also impacting the future of the construction value chain. According to the Buildings Performance Institute Europe (BPIE), energy availability, demographic changes, the digital and broader technological revolution, and climate change mitigation will challenge the construction value chain in several ways:

- ▶ Growing interest in innovative building technologies among consumers
- ▶ Less demand for new construction and growing demand for existing properties
- ▶ Increase of industrialized and prefabricated building processes
- ▶ Higher demand for flexible, smaller, lifelong, and multi-generational housing types
- ▶ Proliferation of energy suppliers and energy-supply services (e.g., cost-adapted pricing, green energy, comfort services, etc.)
- ▶ Increasing renewable energy production in buildings
- ▶ Interaction of buildings with the energy market (demand response, energy storage, and energy production)
- ▶ Need for affordable renovation techniques
- ▶ Shared use of buildings (e.g., offices, hotels, and residences).

As the world transitions to a low-carbon economy (by 2050), BPIE expects a growing need for a higher-skilled workforce, new business models, different and smarter building archetypes, and industrialized construction methods. For the construction sector, this will require training experts in the fields of insulation, renewable energy installation, and building automation, among others.



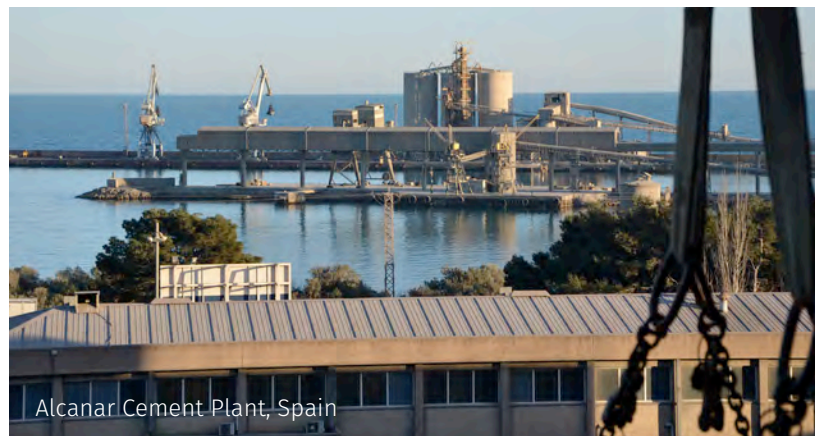
Additionally, it will be important to develop strategies that address the skills gap in the sector and attract more young people to begin careers in construction, while retaining experienced staff to help develop them.

As global megatrends evolve and impact the construction materials market, we will continue to assess and analyze how CEMEX can most positively influence these and other societal challenges worldwide.

MEGATRENDS SHAPING THE CONSTRUCTION INDUSTRY'S FUTURE

ECONOMIC			
DEMAND IN DEVELOPING COUNTRIES	GLOBALIZED MARKETS	AGING INFRASTRUCTURE	MASSIVE FINANCING NEED
65% of the next decade's growth in construction will happen in emerging countries	1 in 2 engineering & construction companies plan to move into new geographies	1 in 3 German railway bridges are more than 100 years old	\$1tn annual investments are needed to close the global infrastructure gap
ENVIRONMENTAL			
RESOURCE SCARCITY	SUSTAINABILITY REQUIREMENTS	ENERGY AND CLIMATE CHANGE	
Nº1 consumer of global raw materials is the construction industry	50% of the solid waste in the United States is produced by the construction industry	30% of global greenhouse gas emissions are attributable to buildings	
SOCIAL			
URBANIZATION AND HOUSING CRISIS		TALENT AND AGING WORKFORCE	
200k people are added daily to urban areas and need affordable and healthy houses		50% of general contractors are concerned about finding experienced workers for their workforce	
GOVERNANCE			
SLOW PERMIT AND APPROVAL PROCESS			
\$1.2tn of infrastructure could be added by 2030 if all countries committed to specific time limits for approvals			

Source: *Shaping the Future of Construction: A Breakthrough in Mindset and Technology*, World Economic Forum, May 2016



Alcanar Cement Plant, Spain

WE WILL CONTINUE TO ASSESS HOW CEMEX CAN MOST POSITIVELY INFLUENCE SOCIETAL CHALLENGES WORLDWIDE.

Concrete is the most-used material in the world after water—with over 25 billion tons annually consumed—and the cement segment alone accounts for 5% per year of total global CO₂ emissions. As a result, regulators, customers, and others are challenging the industry to innovate and develop more durable, safe, sustainably sourced, and energy-efficient products.

As a leading global supplier of building materials, we recognize our responsibility to support society's development needs in a sustainable manner. To achieve this, CEMEX provides concrete solutions to the challenges of urbanization and climate change.

Performance around several issues will drive competitiveness within the construction materials industry, including:

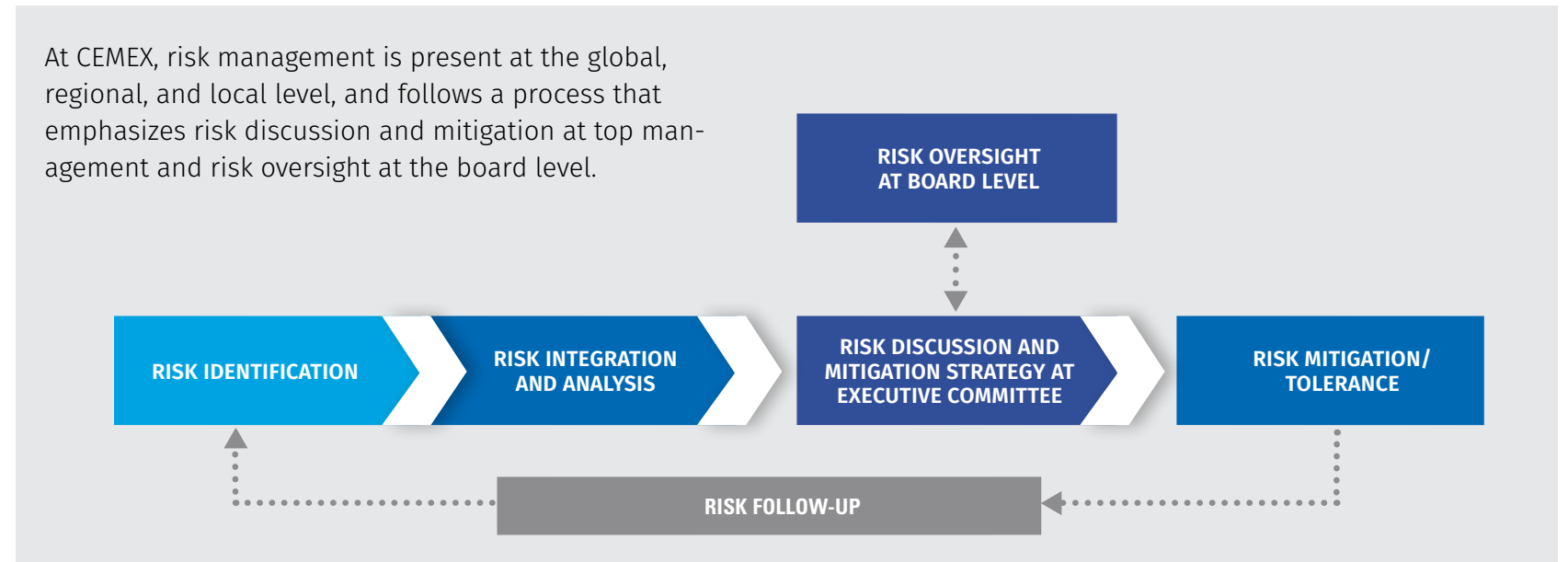
- ▶ Reducing direct greenhouse gas (GHG) emissions from operations
- ▶ Reducing air pollution that can create hazards for human health and the environment
- ▶ Managing energy efficiency and sourcing
- ▶ Securing water supplies without risking local water systems
- ▶ Reducing and managing hazardous and solid waste generated during operations
- ▶ Mitigating the biodiversity impacts of raw material extraction activities
- ▶ Ensuring health and safety
- ▶ Developing innovative solutions to reduce the lifecycle impacts of building products
- ▶ Ensuring transparency in product pricing and avoiding direct or indirect market manipulation.

2.2 | Risks and opportunities

CEMEX has an Enterprise Risk Management (ERM) function to manage all risks and opportunities that could impact the company's objectives. ERM has become fundamental in supporting top management in the decision-making process, reducing the impact of adverse events, and capitalizing on opportunities resulting from a more complex and uncertain environment.

RISKS ARE PRIORITIZED BASED ON THEIR IMPACT AND PROBABILITY OF MATERIALIZATION, AND A MITIGATION STRATEGY IS DEFINED.

At CEMEX, risk management is present at the global, regional, and local level, and follows a process that emphasizes risk discussion and mitigation at top management and risk oversight at the board level.



Global, regional, and country risk agendas are developed on a half-year basis, considering all types of risks and emerging concerns that could impact the company in the short, medium, and long term. Risks are identified considering a combination of a bottom-up and a top-down approach, which also considers identification of potential opportunities.

After their analysis and assessment, risks are prioritized based on their impact and probability of materialization, and a mitigation strategy is defined for their treatment.

The ERM function is complemented by other risk management processes within the company, such as internal audits, internal controls, compliance, and financial risk management.

Additionally, key material risks are identified, evaluated and tracked by the Corporate Practices and Finance Committee at the Board of Directors level.



The following is a description of some of the main risks and opportunities faced by CEMEX and their corresponding mitigation strategies:

OPPORTUNITIES

1 POPULATION GROWTH AND URBANIZATION

According to the United Nations, 54% of the world population currently lives in cities, and this proportion will increase to 66% by 2050. This implies that 200,000 people will move daily into urban areas. Consequently, urban areas will need to provide solutions for the challenges posed by the increasing number of people, who will depend on them to live, move, work, and interact. This influx of people will require careful planning among policymakers and the private sector to ensure adequate investments are made in affordable housing, upgraded highways, bridges, airports, railroads, and other infrastructure worldwide, while protecting our planet's natural resources and mitigating the effects of climate change.

CEMEX ACTIONS

CEMEX is uniquely positioned to address many of the challenges cities are facing:

- ▶ Offering building products and solutions that meet the most demanding construction and sustainability performance standards
- ▶ Contributing resilient infrastructure that withstands the wear and tear of intensive use and extreme weather conditions
- ▶ Providing affordable and sustainable housing for the rapidly growing number of people migrating to urban areas
- ▶ Reducing waste disposed in urban landfills by co-processing it as a fuel in our cement kilns.



2 INCREASED DEMAND FOR SUSTAINABLE AND RESILIENT CONSTRUCTION PRODUCTS AND SOLUTIONS

As a significant contributor to global resource use and greenhouse gas emissions, the building industry is challenged to develop products with superior sustainability attributes and to implement sustainable construction practices that minimize its carbon footprint, reduce its impact on the environment, and preserve natural resources. In this regard, it is estimated that the built environment is responsible for approximately 25 to 40% of total energy use, 30% of raw material use, 30 to 40% of global greenhouse gas emissions, and 30 to 40% of solid waste generation.

CEMEX ACTIONS

Our goal is to become the global leader in sustainable construction. We leverage our leading-edge innovation and agility to develop superior building products and solutions that perform at the highest standards across all applications. We have designed and developed a growing portfolio of special concrete products with clear, tangible benefits for sustainable construction applications. These products include:

- ▶ **Resilia:** Fiber-reinforced concrete with hyper strength and ductility that can replace steel reinforcements in concrete
- ▶ **Hidratium:** Self-curing concrete that tolerates extreme conditions (e.g., wind, heat, direct sunlight) through sealing, water-retention, and low-shrinkage mechanisms
- ▶ **Insularis:** A 100% concrete solution for thermal insulation, acoustic insulation, and fire resistance that eliminates thermal bridges.



RISKS

1 ECONOMIC CONDITIONS IN COUNTRIES WHERE WE OPERATE

The economic condition of the countries where we operate may adversely affect our business, financial condition, results, and prospects.

We face risks particular to each region where we operate. The U.S. economy continues to grow at a moderate pace, and the Federal Reserve has increased interest rates. The impact of increasing U.S. dollar interest rates could not only have an impact on the U.S. economy, but also on that of emerging markets—for example, through their currencies—and thus, potentially, on our consolidated results as well. Mexico’s currency has experienced depreciation, which could increase inflation, and the interest rate hikes intended to combat it might slow economic activity. Furthermore, more protectionist policies by Mexico’s key trading partners could also undermine its growth potential.

Europe has also grown at a moderate pace, and a new significant challenge, stemming from a weak economy in the European Union, could damage the economic stability of the whole Euro zone. Upcoming elections in France and Germany could also play a role in the power dynamics of the region as a whole.

The Chinese economy presents another potential source of risk. If it were to experience a sudden and unexpected deceleration, it has the potential to affect global economic activity.

CEMEX MITIGATION ACTIONS

We have implemented several initiatives to counter the challenging global economic environment:

- ▶ **Value before Volume strategy.** Our strategy focuses on value enhancement, optimizing gains in customer relationships, and generating sufficient returns that allow us to reinvest in our business.
- ▶ **Cost containment.** Over the past years, we have identified and begun implementing global cost-reduction initiatives intended to reduce our annual cost structure to a level consistent with our product demand, as well as our own companywide program to enhance competitiveness.
- ▶ **Asset optimization.** We manage our asset base by divesting non-core assets and optimizing working capital.



2 POLITICAL UNCERTAINTY IN THE COUNTRIES IN WHICH WE OPERATE

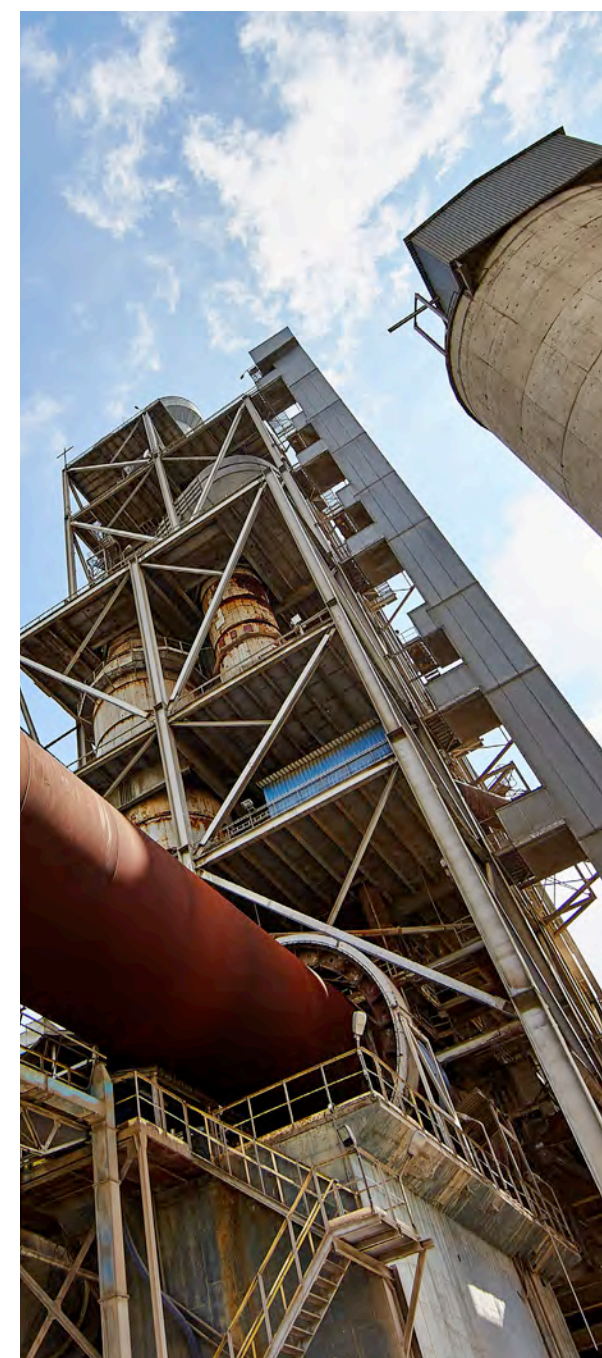
Political uncertainty and its potential economic and social consequences could adversely impact our operations and profitability. Any political result that significantly affects a country’s economic development or its business environment has the potential to impact our operations.

Social stability in some of the countries in which we operate is more susceptible to political events than in others. Some countries where we have operations have seen mass demonstrations and protests, which have the potential to impact the economic and business environment and adversely affect our operations’ results.

CEMEX MITIGATION ACTIONS

We have implemented several initiatives to counter the effects of political risks:

- ▶ **Continued monitoring.** We continuously monitor important political developments in the countries in which we operate in order to anticipate any event that could have an impact on our operations. Through this monitoring, we define the best way to maintain a successful business operation in each particular scenario.
- ▶ **Business continuity plans.** We have business continuity plans to minimize business disruption in situations where the social or political environment in which we operate presents risks to the continuation of operations.



3 MORE COMPLEX COMPETITIVE DYNAMICS

The markets in which we operate are highly competitive and are served by numerous established companies with recognized brand names, as well as new market entrants and increasing imports. These companies compete based on various factors, often employing aggressive commercial strategies to gain market share.

If we are not able to compete effectively, we may lose substantial market share, our net sales could decline or grow at a slower rate, and our business and operations' results would be harmed.

CEMEX MITIGATION ACTIONS

We expect to maintain and grow our market positions in cement, ready-mix concrete, and aggregates—as well as vertically integrating these businesses—by being one of the most customer-centric competitors in the construction materials industry.

We also continue our Value before Volume strategy to reflect the high value-creating capability of our products and services.

4 DEBT LEVEL AND CREDIT AGREEMENT/INSTRUMENT RESTRICTIONS

We have debt and other financial obligations maturing in the next several years. Our ability to comply with our principal debt maturities depends on EBITDA generation, asset sales, and other measures that could be affected by external factors.

Additionally, we have credit agreements and debt instruments that contain several restrictions and covenants. Our ability to comply may be affected by economic conditions and volatility in foreign exchange rates, as well as by overall conditions in the financial and capital markets and the construction sector.

CEMEX MITIGATION ACTIONS

We have a financial strategy defined to reduce our debt level mainly through:

1. Debt prepayments through assets sales and focus on EBITDA generation
2. Lowering financial costs
3. Managing debt profile

Our discipline and consistency in reducing our leverage and strengthening our capital structure has translated into improvements in our credit rating. Regaining an investment-grade capital structure is one of our main priorities.

5 REGULATORY CHANGES AND INCREASED SCRUTINY

We are subject to the laws and regulations of the countries where we operate. Any material changes in such laws and regulations and/or any delay in assessing the impact and/or adapting to such changes may have an adverse effect on our business.

If not complied with, these laws and regulations expose us to the risk of potential costs in the form of fines and other sanctions, compensation payments to third parties, remediation costs, and damage to our reputation.

CEMEX MITIGATION ACTIONS

We continuously work to comply with changes in laws and regulations in all of the countries where we operate. We devote significant time and resources to assess and, if required, adjust our operations to any such changes.

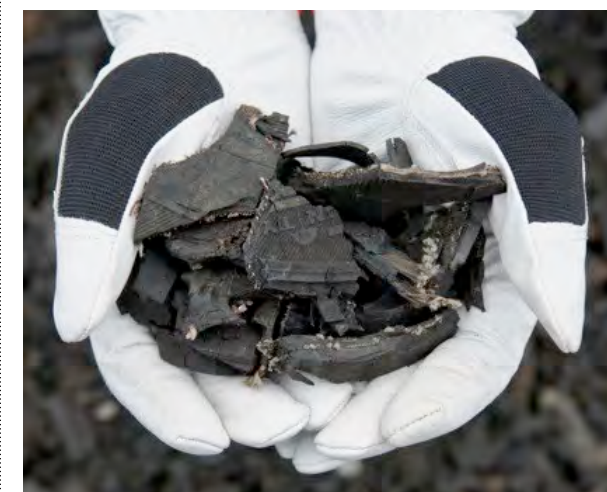
Our employees abide by our Code of Ethics and Business Conduct. The Code addresses anti-bribery, related-person transactions, health and safety, environmental responsibility, confidentiality, conflicts of interest, financial controls, and preservation of assets.

6 PRICE VOLATILITY AND UNCERTAIN AVAILABILITY OF MATERIALS REQUIRED TO RUN OUR BUSINESS

Should existing suppliers cease operations or reduce/eliminate production of these materials, sourcing costs could increase significantly or require us to find alternatives, which could have a material adverse effect on our business. Additionally, scarcity of natural resources, such as water and aggregates reserves, in some countries where we operate could have a material adverse effect on our costs and operations' results.

CEMEX MITIGATION ACTIONS

We are not dependent on our suppliers, and we aim to secure the supply of required materials through long-term renewable contracts and framework agreements, which ensures better supply management.



7 VOLATILITY IN ENERGY MARKETS

Our operations consume significant amounts of power and fuel. Energy prices generally reflect certain volatility, particularly in times of political turbulence in Iran, Iraq, Egypt, and other countries in South America, the Middle East, and Africa. Even though power and fuel prices have recently decreased, future cost increases may have an adverse material effect on our business.



CEMEX MITIGATION ACTIONS

We have continued efforts to increase our use of alternative fuels, which has resulted in reduced energy costs. In addition, we have developed processes and products that allow us to reduce heat consumption in our kilns, which also reduce energy costs.

Finally, we have developed a large portfolio of clean power projects that not only provide low-cost energy, but also provide certainty in future energy costs.

8 ADVERSE WEATHER CONDITIONS

Construction activity, and thus demand for our products, decreases substantially during periods of cold weather, when it snows or when heavy or sustained rainfalls occur. Consequently, demand for our products is significantly lower during the winter in temperate countries and during the rainy season in tropical countries. Such adverse weather conditions can negatively affect our business results if they occur with unusual intensity or last longer than usual in our major markets, especially during peak construction periods.

Additionally, severe adverse weather conditions (e.g., floods, typhoons, hurricanes) have the potential to damage our assets and disrupt our operations.

CEMEX MITIGATION ACTIONS

We have business continuity plans in place at our main operations designed to avoid major disruptions to our business. In addition, some of our main operations and assets are insured against such events. Although in most cases, the insurance policy does not cover the total impact that an adverse event could have, which limits its effect.

WE TAKE PROACTIVE MEASURES TO REDUCE THE POTENTIAL IMPACT OF ADVERSE EVENTS.

9 CYBER AND INFORMATION SECURITY

We rely on several information technologies and automated operating systems to manage or support our operations. To maintain business efficiencies, it is critical these systems function properly. In addition, our systems, as well as those provided by our third-party service providers, may be vulnerable to damage, disruption or intrusion, caused by circumstances beyond our control, such as physical or electronic break-ins, power outages, natural disasters, computer system or network failures, viruses or malware, unauthorized access, and cyber-attacks.

CEMEX MITIGATION ACTIONS

We take proactive measures to secure our IT systems and electronic information and have business continuity plans in place if any business disruption occurs.



10 HEALTH AND SAFETY RELATED RISKS

Activities in our business can be hazardous and can cause injury to people or damage to property in certain circumstances. Our production facilities require individuals to work with chemicals, equipment, and other materials that may potentially cause harm, injury or fatalities when used without due care. Accidents or injuries that occur at our facilities could result in disruptions to our business and may have legal and regulatory consequences.

CEMEX MITIGATION ACTIONS

Health and safety (H&S) is a top priority for CEMEX. We strive to have zero EHS incidents by improving how we reinforce safe behaviors with our employees and contractors, strengthening the accountability of management for ensuring safe behavior, implementing workplace improvements on a regular basis and promoting a safety culture in our every day activities.

3 OUR STRATEGY

The path to achieve our mission



3.1 | Value people as our main competitive advantage

What makes CEMEX flourish as a global organization? It's our people. We take great pride in hiring the best and brightest talent and supporting them with a safe, healthy work environment and opportunities for growth and development.

PLACING HEALTH AND SAFETY FIRST

Safety is our top priority. To ensure we're meeting our goals, four core principles guide every decision we make and action we take:

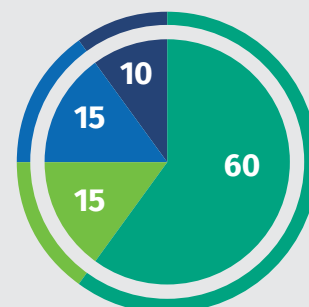
- ▶ Ensure nothing comes before the health and safety of our people, contractors, and the community
- ▶ Make health and safety a personal responsibility by looking after ourselves and each other
- ▶ Strive to create a workplace with zero harm
- ▶ Maintain accountability for health and safety practices.

Our Zero4Life commitment

We are constantly working towards our ultimate target of zero injuries worldwide—our Zero4Life commitment.

In 2016, our Employee Lost-Time Injury (LTI) Frequency Rate was 0.6, bringing us closer to our goal of reducing it to 0.3 or less by 2020. We are encouraged to see that 95% of CEMEX operations were fatality and lost-time-injury free for the year. We recognize the remaining 5% is still considerable. However, the overall direction is positive.

FATALITIES EVENT TYPE (percentage)



Most of 2016 fatalities occurred off-site and were related to road traffic.

- INCIDENTS INVOLVING MOVING VEHICLES
- CONTACT WITH MOVING MACHINERY
- FALL FROM A HEIGHT
- OTHER KIND OF INCIDENT



Also in 2016, CEMEX Total Recordable Injury (TRI) Frequency Rate continued to decline, reaching 4.1 compared to 4.5 in 2015 and 5.6 in 2014. Two regions and 13 countries reduced their TRI Rates, with six countries maintaining a rate of zero. In addition, the global Employee Sickness Absence Rate for CEMEX improved from 2.1 to 1.8 in 2016.

We are deeply saddened to report 20 fatalities in 2016—3 employees, 10 contractors and 7 third parties. From these, 75% occurred away from our installations (off-site) and 60% were road traffic related. One fatality is one too many, and we will not be satisfied until we reach our goal of zero injuries and fatalities. To reach this objective, we are actively working to identify and mitigate risks. Each injury and fatality is analyzed to determine the root cause and prevent future incidents.

Most of the fatalities derived from moving vehicle incidents (i.e., collisions involving contractors' trucks). That is why we invest in technology and training programs to try to eliminate these types of events in our operations by encouraging our employees and contractors to use the right driving techniques to take care of themselves and third parties. For example, we are reinforcing our countries' defensive driver

3.1 | Value people as our main competitive advantage

training while introducing a stronger driver certification scheme. We acknowledge we need to continue to work hard and drive forward with our initiatives.

H&S training: A top focus

At CEMEX, we ensure that all of our employees have the correct knowledge, skills, and experience to perform their jobs safely through our investment in programs that provide employees at all levels with health and safety training. As part of our manager-training program, executives and supervisors must complete our Health and Safety (H&S) Academy.

Employees must complete E-LEGACY training—the “E” stands for “everyone.” This is a non-technical, interactive program that helps front-line employees assess risks and integrate safe and healthy practices into their day-to-day activities, promoting a strong H&S culture within our organization. In our operations, our H&S committees—with representatives from front-line workers, line supervisors, managers, and unions—meet regularly to discuss any concerns and to help reinforce H&S practices and programs.



H&S Academy: Taking the lead

In 2016, we launched our global H&S Academy. Designed to enhance the leadership skills of our line managers and supervisors, the Academy’s objective is to ensure that H&S is our top priority at any site across our organization, from our production plants to our corporate offices.

Already commenced in 21 countries, the Academy’s two-day “Foundation” module is working to prepare executives from different roles and backgrounds to share and deliver the practices and experiences they gain from the H&S Academy with their teams throughout the company. Thus far, feedback is very positive, and the rollout will continue into 2017 and beyond—with the introduction of a second and third module.

H&S Networks: One CEMEX working together

As One CEMEX, we have established interconnected global H&S networks, taskforces, and forums to ensure that we work together through a coordinated, consistent, and collaborative approach to reach our companywide goal of zero injuries:

- ▶ **The H&S Functional Network**, comprised of all of our national H&S specialists
- ▶ **The Global H&S Council**, composed of corporate and regional representatives who interact with our extended global H&S networks and our main sector Global Networks
- ▶ **Six Global Taskforces**, consisting of senior operational people supported by at least one member of our corporate H&S team: Road Transportation; Grow the Pie (Paving); Grow the Pie (Housing); Cement Operations; Ready-mix; and Aggregates
- ▶ **A Global Health Forum** of experts who work on various initiatives and materials to help our employees and contractors lead a healthy lifestyle.

THE ACADEMY’S OBJECTIVE IS TO ENSURE THAT H&S IS OUR TOP PRIORITY AT ANY SITE ACROSS OUR ORGANIZATION.



H&S initiatives: Around our operations

Across our operations, we continue to enhance our healthy practices and reduce our safety risks to strengthen our H&S culture.

Sticking together

Under our award-winning ¡Avisame! (“Warn me!”) campaign in Spain, we make everyone responsible for the safety of others. Beyond focusing on their own safety, this campaign enables our employees to take the initiative to warn their colleagues of any potential risks that they might encounter, while encouraging them to speak up as well. By placing the ¡Avisame! sticker on their helmet, our employees signify that they are receptive to correction or warning from their peers whenever they encounter hazardous situations.

3.1 | Value people as our main competitive advantage



OUR WORLDWIDE OPERATIONS HAVE SHARED MORE THAN 1,000 GREAT EXAMPLES OF POSITIVE HEALTH AND SAFETY INITIATIVES THROUGH OUR GOOD PRACTICES PROGRAM.

WE ARE PROUD OF THE WORK WE HAVE DONE AND CONTINUE TO DO TO PROMOTE A STRONG H&S CULTURE.

Shielding everyone

Through our SHIELD (Safety and Health Initiatives for Enablers, Leaders, and Doers) program in the Philippines, we extend our H&S values to our retail customers and contractors. As part of this program, we provide hardware store workers with “Health Wallets” that they can use to redeem medical services, including consultations and checkups. We also installed first-aid cabinets for employees in almost 100 hardware stores across the country. We further furnished construction sites with essential safety signage.

Fighting fatigue

Our Malaysian operations team is taking serious measures to minimize road accidents resulting from physically tired drivers. In addition to controlling hours of work, their Fatigue Management system provides an air-conditioned room with beds for drivers to sleep or take a nap if needed. Our team also installed a Biometric Facial Recognition Scanner at the door to gather data on the room’s usage for later analysis. For its initial trial, we chose the busiest concrete plant in Malaysia as the first venue for this system, designed to ensure a well-rested team.

End-to-end product safety

Health and Safety is considered in each and every phase of product development, from design to disposal. We abide by all applicable legislation and H&S requirements when designing our products and have developed Material Safety Data Sheets that describe potential hazards and precautions to take when handling each of our products.

We are proud of the work we have done and continue to do to promote a strong H&S culture.

CEMEX SAFETY DAYS

At CEMEX, we constantly look for creative and fun ways to get our safety message out. In many of our operations, our H&S teams and managers organized a full schedule of immersive and experiential activities for our employees and their families to learn about best safety practices and test their own skills.

For our Employee Safety Days in Germany and Poland, special crash simulators demonstrated the effectiveness of seat belts. By personally experiencing a vehicle roll-over in a simulator, our employees learned about the very dangerous forces that act on a driver during a crash under safe, controlled conditions. In various operations throughout Spain, our employees enjoyed a full day of activities, including a simulated rescue with the support of the local fire department, which also offered a workshop on extinguishing fires.



3.1 | Value people as our main competitive advantage

BUILDING A BETTER WORKPLACE TOGETHER

With more than 41,000 employees around the world, we strive to offer the programs, benefits, and work environment that attract and retain great talent. Our approach to talent management is founded on three pillars:

- ▶ **Employ the right people, in the right place, at the right time to perform the right job to achieve our strategy**
- ▶ **Enable a high-performing and rewarding culture to deliver sustainable business value in a safe, ethical workplace**
- ▶ **Build and develop our workforce capabilities to confront challenges and pursue excellence.**

Right people, right place, right time

Our people are our competitive advantage and the reason for our success. That is why we hire the best and work hard to develop and support each and every one of them—so that we all grow successfully.



Succession management

As we constantly transform and expand, one of our main objectives is to develop people with the potential to fill key leadership positions—increasing their experience and capabilities to equip them to succeed in even more challenging roles while strengthening our talent up and down our pipelines. Through this process, we make every effort to improve our employees' commitment to our company by helping them meet their own career development expectations and preparing them for key roles as they face critical challenges in their professional development. Our succession management process enables us to build a talented pool of leaders with the skills and deep understanding of our business fundamentals to continue our pursuit of excellence.

Competitive compensation

We know that if our employees have the resources they need to live healthy, fulfilling lives, they will bring their best to the workplace, and our competitive compensation and employee benefit packages are key contributors.

More than 80% of our global workforce receives health and life insurance benefits beyond those required by local law. Approximately half of our global workforce receives retirement provision benefits above local requirements, and more than 60% of our operations receive additional funds for disability and invalidity coverage than what is required by law.

We regularly communicate these benefits to our operations—which span all of our organizational levels—to ensure all of our employees understand the opportunities available to them.

High performing, rewarding culture

We foster a dynamic, high-performance environment, where open dialogue is encouraged and rewarded. In this way, we hear our employees' needs and expectations, ensure they feel engaged, and enable them to meet their career goals through our institutional processes.

WE FOSTER A DYNAMIC, HIGH-PERFORMANCE ENVIRONMENT, WHERE OPEN DIALOGUE IS ENCOURAGED AND REWARDED.



More than 80% of our global workforce receives health and life insurance benefits beyond those required by local law.

COMPARATIVE WAGE RATE 2016

CEMEX entry level vs. local minimum wage ratio

Argentina	1.6
Bahamas	1.7
Brazil	1.0
Central	4.9
Colombia	1.0
Costa Rica	1.2
Czech Republic	1.0
Dominican Republic	1.0
Egypt	1.6
El Salvador	1.5
France	1.1
Germany	1.0
Guatemala	1.3
Haiti	1.0
Israel	1.0
Jamaica	8.4
Latvia	2.0
Malaysia	1.0
Mexico	3.9
Nicaragua	1.1
Panama	1.0
Peru	1.0
Philippines	1.3
Poland	1.1
Puerto Rico	1.0
Spain	2.0
UK	1.4
USA	1.4

CEMEX overall ratio 1.35

3.1 | Value people as our main competitive advantage

Enabling employee engagement

To keep our efforts on track, our Engagement Survey enables us to collect employee feedback on key topics such as development, compensation, leadership communication, and work-life balance, among others. In our latest survey, 75% of the 38,000 employees invited to participate responded the questionnaire. The results were structured around two main themes—engagement and enablement—and shared with our top management, functional leaders, and HR staff to equip them with the knowledge needed to identify areas of improvement and better serve all of our employees globally.

Using this feedback, in 2016, we developed and implemented approximately 600 initiatives that reached almost 90% of our total staff, providing opportunities to collaborate with others, share experiences, and implement ideas. Distributed every two years across CEMEX worldwide operations, we will conduct our next survey in 2017.

Fostering positive, productive interactions

Open communication keeps everyone on the same page and our priorities on track. In 2016, 80% of our employees with access to our online system to register objectives and performance evaluations received performance feedback and career development advice from their supervisors. Employees without computer access worked with their supervisor directly to conduct evaluations and receive input.

Evolving career building, talent management

Our evolving approach to talent management works to ensure a more efficient, more connected talent cycle, offering clearer benefits and outcomes for our employees' career development. Through our integrated performance, talent review, and succession planning processes, we enable superior career decisions and professional growth. As a result, we help our employees and supervisors to set and align team goals with our company's business objectives. We ensure that all of our

CONTINUING EDUCATION BY THE NUMBERS

US\$24.7 million invested in employee training

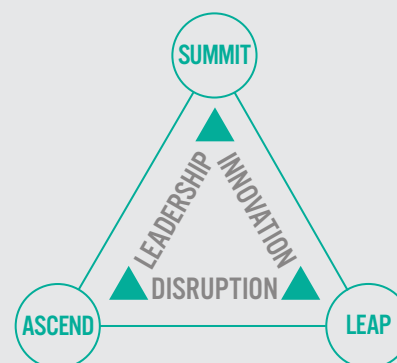
US\$1.1 million in scholarships for 280 employees

> 260 training courses offered

> 575,000 hours invested in online and instructor-led training



ENVISION PROGRAM IS DIVIDED INTO THREE PARTS



DURING THE YEAR, MORE THAN 575,000 HOURS WERE DEDICATED TO EMPLOYEE TRAINING.

employees' and managers' behavior is aligned with our core values. Additionally, we identify areas of opportunity and development while delivering meaningful reviews that reinforce employee engagement and retention.

Capabilities to confront challenges, pursue excellence

We craft career experiences for our employees to develop their inner fire for CEMEX—espousing our values and living by our mission and vision. Our success stems from our employees' hard work and dedication, so we are committed to providing them with the best professional experience.

Continuing education and development

We have seen firsthand that employees who are supported by their company are inspired to excel. Through ongoing training and development opportunities, we teach them new skills and deepen their expertise in several critical areas, including H&S, customer-centric capabilities, environmental conservation and awareness, leadership development, and stakeholder engagement.

Developing effective leaders

It takes sound, strong direction to propel a company our size forward and to ensure we meet our customers' needs. That's why we invest in development programs for leaders at different levels.

- ▶ Launched in 2016, **ENVISION** is a highly immersive program that recognizes leaders who've already made a significant impact on the organization and encompasses two main themes: the leaders own personal course and their role in CEMEX's course. Along with deep introspection, leaders must develop specific skills to manage the tension between capitalizing on what is known and certain to maximize value for our business today and exploring opportunities to create new sources of value for our company in the future. With this approach, ENVISION is divided into three parts—LEAP, ASCEND, and

3.1 | Value people as our main competitive advantage

SUMMIT—where participants engage in topics focusing on leadership, innovation, and disruption to tackle challenges that our organization is currently facing. During 2016, 15 global leaders engaged in this engrossing program.

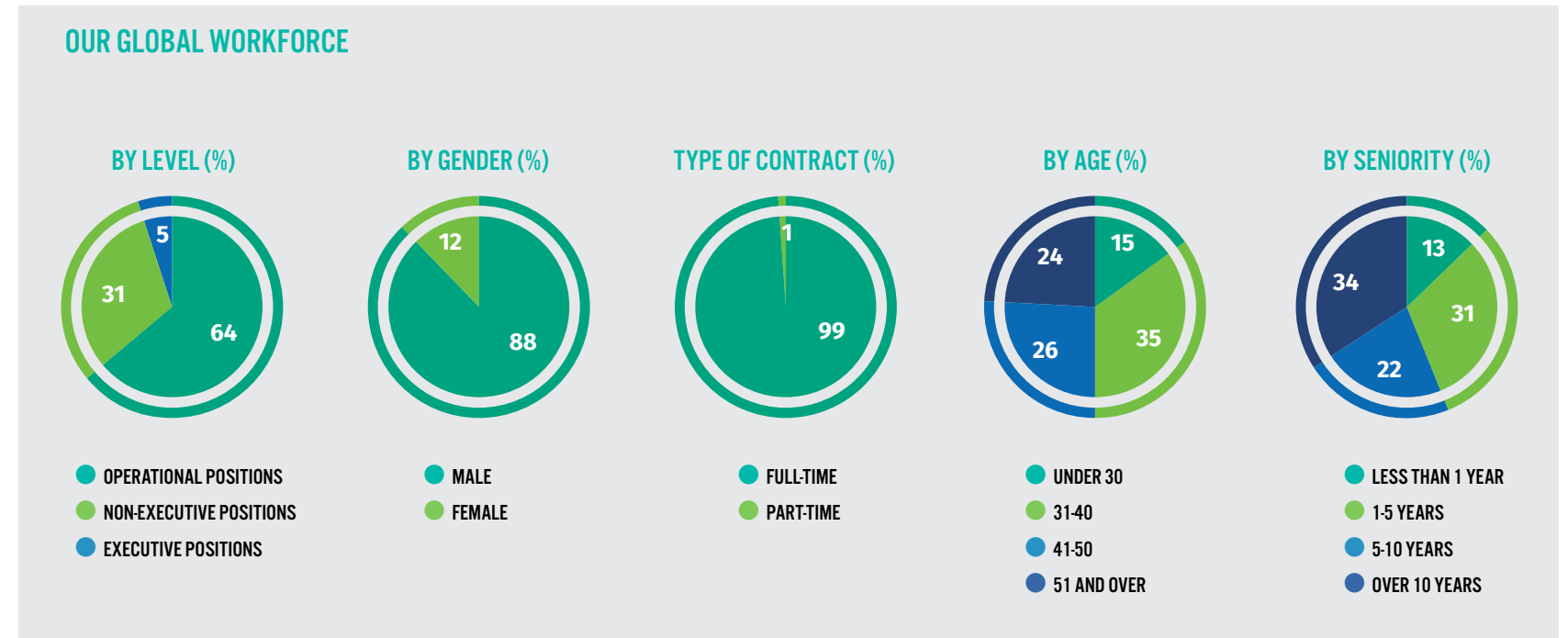
- ▶ Our **ACHIEVE** program is specifically targeted to top-tier managers and newly appointed directors. Comprised of two cornerstones—customer centricity and leadership capability—it is designed to provide new opportunities to learn and practice leadership skills on real work projects. One of our company's strategic priorities, customer centricity is a powerful source of competitive advantage going forward. In addition to cultural change, ACHIEVE enables exceptional contributions along three dimensions of value-based core design principles: value created for our company, value created for our company's customers, and the value of the learning and working process. In 2016, 57 leaders from 17 business units across CEMEX regions participated and presented their projects in the fifth edition of ACHIEVE.

- ▶ **Leader-to-Leader** is a unique initiative that connects current and future CEMEX leaders. Mentors from this program work with employees throughout the year and participate in ACHIEVE activities to offer support. During 2016, 45 senior management leaders enrolled in this mentoring program.

Building institutional capabilities

Thanks to the success of our Commercial Academy, in 2016 we also established the Health & Safety Academy, an innovative three-module learning experience given over the course of 18 months focused on developing critical leadership skills in managers to promote the right H&S behaviors in their teams, as well as the Supply Chain Academy, focused on developing a highly integrated and globally consistent approach to supply chain management in our company.

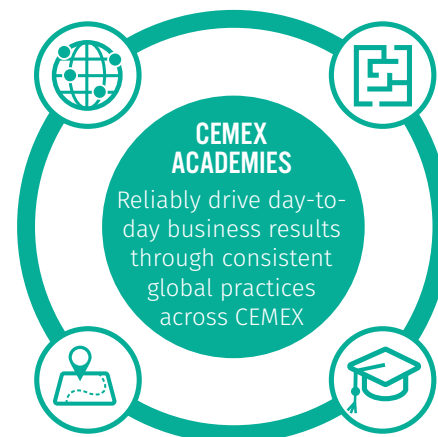
OUR PEOPLE ARE OUR COMPETITIVE ADVANTAGE AND THE REASON FOR OUR SUCCESS.



CEMEX ACADEMIES DRIVE STRATEGIC CAPABILITIES DEVELOPMENT

Enable consistent learning experiences and initiatives across the globe

Create a structured forum for business leaders' involvement in shaping learning initiatives



Apply a clear and proven approach to develop and deliver learning programs

Organize learning efforts around a topic (e.g., commercial excellence)

These institutional Academies are the vehicle through which we develop our company's strategic capabilities and are designed to work together to drive CEMEX priorities and help shape our "One CEMEX" culture.

During 2016, the Academies delivered 70 training sessions in all 5 CEMEX regions reaching 2,500 employees and 9 Train-The-Trainer sessions developing 140 internal instructors, key to maintaining our sustainable "Leaders-As-Teachers" model.

3.2 | Help our customers succeed

Our core strategic goal is to become the most customer-oriented company in our industry—serving as our clients' best option in every market while delivering a superior customer experience. To achieve this goal, we shifted our center of gravity toward the customer, created the Customer Centricity Global Network, and kick-started a journey of digital transformation.



WE HAVE CREATED NEW ROLES FOCUSED ON ENSURING A SUPERIOR CUSTOMER EXPERIENCE.

FOSTERING A CUSTOMER-CENTRIC ORGANIZATION

We are embarking on a bold path of transformation to enable us to meet our customers' rapidly changing expectations. We are putting our clients at the center of everything we do—with the goal of consistently delivering a superior customer experience, everywhere, every time.

As we work toward this goal, we are focusing on five key areas:

- ▶ **Align our organization** to achieve a superior customer experience
- ▶ Update and simplify key internal **processes** and **policies**
- ▶ Develop and implement **digital solutions**
- ▶ **Measure** customer satisfaction systematically
- ▶ Continuously **innovate** and **add value** for our customers.

Align our organization

To create a superior customer experience, we are strengthening our capabilities and leadership style, involving our clients in our decision-making, and implementing new ways to work and collaborate that focus on problem solving and innovation. We are also reinforcing our training and aligning our performance measurement to deliver on our customers' expectations.

Segmentation and value proposition

To continually satisfy and better understand our customers, we conduct a thorough analysis of our clients in our key markets and classify them in segments and sub-segments. We identify their most relevant product and service attributes. We also identify segments and opportunities where we could better serve our customers, while improving our profitability. We then customize our value propositions based on segment characteristics and needs, so they are tailored to the unique requirements of each individual customer.



Our customer focus already shapes our organization. Our commercial efforts are organized by customer segments in most of our markets—where a single point of contact is responsible for the delivery of every product, service, and solution that CEMEX has to offer. Additionally, we created new roles focused on ensuring a superior customer experience. Moreover, to make sure our commercial decisions are executed properly, we designed a robust, disciplined sales management process, which establishes clear roles, profiles, attitudes, and performance indicators.

Commercial Academy

Through our Commercial Academy—an internal university focused on commercial excellence—we offer a unique approach that prepares our people to make the key choices required to create the best customer experience.

Our Commercial Academy's decision-making framework focuses on:

Where to play – Who are the right customers?

How to win – What is important to them?

What to do – How to sell and deliver our products and services?

How to empower – How to enable the organization to better serve our customers?

Customer Centricity Foundations

To further enhance our customer-centric organizational culture, we launched the Customer Centricity Foundations track with three main objectives:

- ▶ **Foster a customer-centric organization by engraining customers' needs into the core work philosophy throughout CEMEX**
- ▶ **Make doing business with CEMEX an effective, easy, and enjoyable experience for all of our customers, while striving to exceed their needs every day**

OUR COMMERCIAL ACADEMY'S DECISION-MAKING FRAMEWORK FOCUSES ON:

The commercial and business objectives to set the direction for our choices

The delivery of these products, services, and solutions to the market



The sets of customers and channels to focus on to achieve our objectives

The products, services, and solutions to provide for each customer and channel set



- ▶ Set the management system to enable a CEMEX customer-centric evolution that incorporates ongoing monitoring, measurement, and improvement to achieve a superior customer experience.

Change our processes and policies

We are changing some of our internal processes and policies to simplify and streamline how we work for the benefit of our customers. To solve our clients' challenges, our targeted changes include:

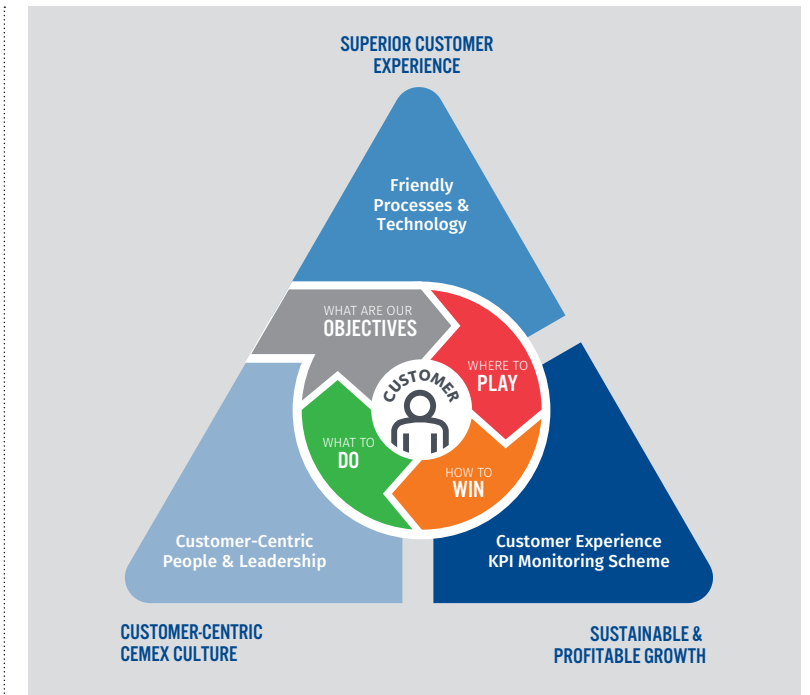
- ▶ New customer registration
- ▶ Credit approvals
- ▶ Order placing
- ▶ Delivery logistics
- ▶ Invoicing and payments
- ▶ Complaints management.

Develop digital solutions

We are undertaking a sweeping digital transformation designed to substantially improve our customer experience, while enhancing our operations and increasing our business efficiencies. Our digital solutions, including mobile apps, will improve our interaction and enable real-time engagement with our customers across a range of online transactions—including registering and requesting credit, placing orders, receiving products and services, invoicing, and complaint resolution.

Beyond leveraging our own development experience, we are working with best-in-class process and technology experts from Apple, IBM, and Neoris. For example, beginning in early 2017, we will team with IBM iX (Interactive Experience) to launch a suite of customized apps to create the best mobile-led customer experience in the building materials industry. Following a “speed-to-market” approach, we will pilot

WE HAVE TRAINED APPROXIMATELY 5,600 CEMEX PROFESSIONALS THROUGH THE ACADEMY, INCLUDING OVER 1,400 IN 2016.



launch, user test, and adjust solutions to meet our clients' needs before scaling the apps for worldwide deployment.

Our digital transformation will fundamentally change not only how our entire company does business, but also how foremen, field operations managers, cement masons, concrete finishers, and other construction professionals do their jobs and interact with CEMEX.

Systematically measure our customer satisfaction

To ensure our success, we must track our progress systematically. With this in mind, we will use a metric called Net Promoter Score® (NPS). Beyond measuring customer satisfaction, NPS will help us to identify how willing our customers are to recommend us—a major indicator of customer loyalty.

After analyzing the most relevant drivers of our customers' satisfaction, we are establishing a rigorous system of key performance indicators (KPIs) to measure our performance, including both NPS and KPIs:

3.2 | Help our customers to succeed

- ▶ **Overall Customer Satisfaction** – Using NPS to measure customer experience and loyalty toward CEMEX as promoters or detractors
- ▶ **Customer Experience Drivers** – Understanding the rationale underlying customer perceptions (e.g., punctuality, product quality and availability, and invoice accuracy)
- ▶ **Customer Impact** – Measuring the consequences of our efforts on customers (e.g., churn or complaints ratio)
- ▶ **Segment Profitability** – Visualizing traditional indicators in a segmented way, such as price, volume, market share, and profitability
- ▶ **Customer Retention** – Regularly monitoring customer acquisition and retention rate over time.

Continuously innovate, add value

As we move forward, we will always look for ways to add value for our customers. To this end, we will listen carefully to each of our customers to truly understand their underlying needs and identify ways we can help them to succeed. We will leverage our research and development centers—one of our core strengths—to develop value-added products and solutions. We will also proactively recommend alternative solutions and share best practices across our company to enhance our competitive advantage, lower our costs, and create a stronger, more profitable company.

WE HELP OUR CUSTOMERS SUCCEED BY DELIVERING QUALITY PRODUCTS, INNOVATIVE SOLUTIONS, AND SUPERIOR CUSTOMER SERVICE IN ALL MAJOR CONSTRUCTION SEGMENTS.

During 2016, we achieved many of our customer-centric goals:

DIGITAL COMMERCIAL MODEL	<ul style="list-style-type: none"> • Launched CEMEX Digital Commercial Model (DCM), identifying customer pain points while integrating a 360-degree expertise approach to solution design, development, and deployment
CUSTOMER CENTRICITY FOUNDATIONS	<ul style="list-style-type: none"> • Defined Customer Centricity framework, incorporating Customer Journey Experience and DCM • Established Customer Centricity Management System • Identified main attributes that should characterize CEMEX’s Superior Customer Experience • Established Customer Experience (CEX) Monitoring Scheme • Designed Customer Journey Experience Program
CUSTOMER SEGMENTATION	<ul style="list-style-type: none"> • Global deployment for Europe, South/Central America and the Caribbean (SCA&C), U.S., and Asia, Middle East and Africa (AMEA) regions • Alignment workshop, segmentation map, customer allocation, system enablement, value propositions fine tuning, and business case for each country/region
SALES FORCE MANAGEMENT	<ul style="list-style-type: none"> • Institutional Sales Management processes based on standard commercial practices • Implementation of Weekly Tactical Sales Plan (Agenda) and Sales Prospects & Opportunities Follow-Up in SCA&C, U.S. (80%), Philippines, and Mexico
VALUE BEFORE VOLUME	<ul style="list-style-type: none"> • Playbook implementation of Value before Volume elements and best practice sharing among operations



3.2 | Help our customers to succeed

PROVIDING SUSTAINABLE PRODUCTS, SOLUTIONS, AND SERVICES

CEMEX Research & Development's (R&D) approach is evolving and dynamic, continuously aligned with global market trends and needs, as well as with the company's strategic priorities and global networks. Consequently, there has been an important impetus toward Customer Centricity. The synergy of these driving forces and our participation in collaborative research projects maintains our essence as a forward-thinking organization. Some of the collaborative projects on which we are working—funded by the EU—address areas such as carbon capture, alternative raw materials, high temperature solar industrial processes, and energy efficiency, among others.

Our product development team is composed of experts and researchers with backgrounds that range from engineers and commercial strategists, who have worked and excelled in our operations, to sociologists and marketers, who continuously study and explore new ways of reaching our stakeholders. The knowledge base created by such a diverse team allows for a richer and more comprehensive understanding of our customers.

Beyond providing information about our products and services, we have implemented novel methods to engage our customers in order for them to experience our way of working and performing research. Through invitations to our facilities, workshops on specialized topics, and conferences designed for unique audiences, we actively create bonds with our current and future clients with the objective of understanding their needs and identify opportunities for collaboration.

We continue to develop new concrete technologies and value-added aggregates, improve construction systems, and provide novel building and paving solutions. However, in addition to launching new products, we are interested in following the adoption of solutions that we presented in previous years. For us, sustainability is being conscious not only of the way

our solutions affect the environment, but also of their impact on society's day-to-day life. Indeed, this constant underlying motif led to the International Finance Corporation's (IFC) decision to grant funding for CEMEX R&D projects that are focused on sustainability—providing “climate-smart” solutions across emerging markets.

Superior performing building products

We leverage our leading-edge innovation and agility to develop superior building products and solutions that perform at the highest standards across all applications.

Led by CEMEX Global R&D in Switzerland in collaboration with our Cement and Ready-Mix Technology Center in Mexico, our team of experts works to anticipate and understand society's trends in order to create innovative, sustainable construction solutions that satisfy our customers' current and future needs, while truly challenging the current state of the art.

WE LEVERAGE OUR LEADING-EDGE INNOVATION AND AGILITY TO DEVELOP SUPERIOR BUILDING PRODUCTS AND SOLUTIONS.



CEMEX Global R&D, Switzerland

CEMEX GLOBAL VALUE-ADDED READY-MIX PRODUCTS

Promptis

Rapid hardening concrete that allows for at least 90 minutes workability.

Insularis

A 100% concrete solution for thermal insulation, acoustic insulation, and fire resistance that eliminates thermal bridges.

Resilia

Fiber-reinforced concrete with hyper strength and ductility that can replace steel reinforcements in concrete.

Hidratium

Self-curing concrete that tolerates extreme conditions (e.g., wind, heat, direct sunlight) through sealing, water-retention, and low-shrinkage mechanisms.

Pervia

Structural pervious concrete (>4 MPa Tensile strength) that can manage water permeation to offer drainage solutions for pavements, even in high traffic areas.

evolution

A highly flowable concrete that can spread into place under its own weight to achieve excellent consolidation without vibration or exhibiting defects due to segregation and blocking.

3.2 | Help our customers to succeed

As part of this R&D by design process, they work closely with our customers to offer them unique, integrated, cost-effective solutions that fulfill their specific performance requirements, including a growing portfolio of value-added concretes.

Customer interactions

Our core strategic goal is to become the most customer-oriented company in our industry—serving as our clients' best option in all of our markets.

The following are some of the key ways in which we interact with our customers to ensure they are part of our journey of discovery.

Research Center facilities

In 2016, CEMEX Global R&D received numerous stakeholders in its facilities. Architects, engineers, builders, and designers experienced the concrete possibilities of our building solutions, which enriched their perception of our materials for their future designs.

In addition, workshops were hosted for students from various disciplines and universities, who wished to further understand and explore our concrete solutions.

Operations

Together, Global R&D and Operations have defined "Expert Workshops" in which the customers become the protagonists. The first ones were held in Madrid and Bogota, immersing customers in a hands-on learning environment, where they were able to test the capabilities of our products in entertaining, yet eye-opening experiments. With the acquired knowledge, they were then able to become spokespeople of our products for their colleagues.



A similar workshop was created for architectural students from the European Architecture Student Association (EASA), who gathered in Madrid. Through their senses, they were able to experience the power of concrete. This creative workshop explored the compelling characteristics of concrete technologies through sound, texture, and a range of properties that provided the audience with a clear picture of what the future could look like with these innovative solutions.

In Cebu, Philippines, we participated in the "Experts Forum" and addressed the topic "Fast Forward," in which we gave customers a glimpse of the key role that concrete will play in the world's continuous modernization—pointing out that the possibilities of advanced concrete technology are available today. Our goal was to open the eyes of our customers to how CEMEX can lead the way to innovation in the construction world, while navigating a maze-like environment.

In Cartagena, Colombia, we attended Latin America's largest construction fair, "the Concrete Reunion," showcasing CEMEX's innovative solutions such as our unique Rhizolith Island.

OUR CORE STRATEGIC GOAL IS TO BECOME THE MOST CUSTOMER-ORIENTED COMPANY IN OUR INDUSTRY—SERVING AS OUR CLIENTS' BEST OPTION IN ALL OF OUR MARKETS.



Training our spokespeople

Our Global R&D team works closely with the technical and commercial teams across our operations in workshops that provide them with the most updated developments on our value-added products and solutions. Their knowledge on our offering allows us to continuously improve our customer's experience throughout their construction projects.

3.2 | Help our customers to succeed

Green Building Solutions

At CEMEX, we believe in leading by example. With this in mind, we established a new [Green Building Management and Certification Policy](#) to mitigate potential environmental impacts associated with the design, construction, and operation of our buildings. The policy guides that the planning, design, construction, management, renovation, and demolition activities of all company-owned and leased facilities are carried out in a sustainable way:

- ▶ Considering triple bottom-line social, economic, and environmental impacts
- ▶ Enhancing CEMEX's reputation as a socially and environmentally responsible company
- ▶ Addressing the health and safety of the people who occupy CEMEX buildings.

The policy also mandates that new facilities achieve a green building certification, such as LEED or BREEAM.

We also work collaboratively across the construction value chain to optimize results and maximize profits, partnering with national and international experts to complement our skills and provide a complete array of specialized services in sustainable construction. During the year, we provided products and solutions to more than 1,200 projects which attained a green building certification, representing almost 10 million m² of construction space.

DURING THE YEAR, WE PROVIDED PRODUCTS AND SOLUTIONS TO MORE THAN 1,200 PROJECTS WHICH ATTAINED A GREEN BUILDING CERTIFICATION.

OUR GREEN BUILDING SERVICES INCLUDE:



Green building certifications (LEED, BREEAM, etc.)



Bioclimatic architecture



Energy-efficient engineering



Sustainable materials and solutions development

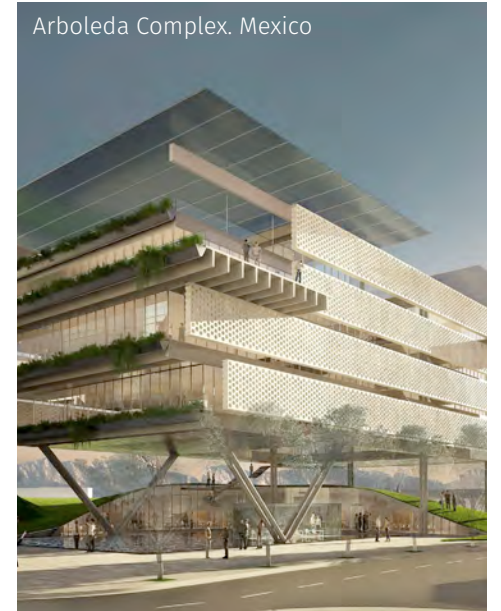


ecoperating™ building certification and product seal



Urban development consultancy

Arboleda Complex. Mexico



GREEN BUILDING CERTIFICATION SERVICE – CURRENT PROJECTS PORTFOLIO

PROJECT	LOCATION	TYPE	CONSTRUCTION AREA	CERTIFICATION TARGET	COMPLETION YEAR
Sofia Residential Tower	Monterrey, Mexico	Mixed use	98,600 m ²	LEED Gold	2015
Torre Cosmopolitan	Tijuana, Mexico	Offices	13,950 m ²	LEED Platinum	2015
Casa 200–Sorteo TEC	Monterrey, Mexico	Residential	500 m ²	ecoperating™	2016
Casa 201–Sorteo TEC	Monterrey, Mexico	Residential	500 m ²	ecoperating™	2016
Casa 202–Sorteo TEC	Monterrey, Mexico	Residential	739 m ²	ecoperating™	2017
ICA Reserva Escondida	Mexico City, Mexico	Residential	22,584 m ²	LEED Certified	Ongoing
SEMARNAT 223	Mexico City, Mexico	Offices	32,000 m ²	LEED Certified	Ongoing
Esfera City Center	Monterrey, Mexico	Commercial	276,925 m ²	LEED Platinum	Ongoing
Casa 203–Sorteo TEC	Monterrey, Mexico	Residential	666 m ²	ecoperating PLUS™	Ongoing

3.2 | Help our customers to succeed

FIRST NET ZERO ENERGY BUILDING REGISTERED IN LATIN AMERICA

The first building to obtain Net Zero Energy Building (NZEB) Certification in Mexico and Latin America was registered by the Net Zero Energy Buildings Consortium, created in 2016 under the tutelage of the Private Sector's Commission for Studies on Sustainable Development (CESPEDES). The Consortium is comprised of companies and organizations that are specialists in providing innovative and high-performance solutions, including Bioconstrucción y Energía Alternativa, Carrier, CEMEX, Centro Mario Molina, Citibanamex, Cuprum, Galt, GE, JCI, McKinsey, Owens Corning, PGI Group, Pich-Aguilera Arquitectos, and WRI Mexico.

NZEB Certification is based on the Living Building Challenge's rigorous performance standard for sustainable buildings. The Living Building Challenge Standard is part of the renowned International Living Future Institute, an organization that promotes the regenerative transition to social and ecologically sustainable cities and communities.

To merit NZEB Certification, building projects must demonstrate zero energy balance during their first year of operations. This means that they must achieve significant energy savings, and all of the energy used in the building must be comprised entirely of renewable energy generated on or near the site of the building.



Recognizing innovative ideas that build life

The CEMEX Building Award is a long-standing initiative created and organized by CEMEX for the purpose of distinguishing the best architecture and construction around the world. Each year, CEMEX honors the best construction projects and the architects, engineers, builders, and investors who make them possible.

The first place winners for the 2016 International Edition were:



Residential Housing:
Lumina
San Francisco, USA



Affordable Housing:
Altos de la Sabana
Guatemala City, Guatemala



Building:
Amanera by Aman Resorts
Rio San Juan, Dominican Rep.



Collective Space and
SPECIAL PRIZE
Construction Innovation:
MIB
Cholula, Mexico



Infrastructure:
Restitution of Embankment in Tijuana-Ensenada Highway at KM 93
Ensenada, Mexico



SPECIAL PRIZE
Universal Accessibility:
CKK Jordanki
Toruń, Poland



SPECIAL PRIZE
Sustainable Building:
Oak House School
Barcelona, Spain



SPECIAL PRIZE
Social Value:
Guild House Slavonice
Slavonice, Czech Republic

The CEMEX Building Award recognizes the best projects in Mexico and the rest of the world in five categories and with four special prizes. In 2016, we celebrated the 25th anniversary of the CEMEX Building Award. A total of 480 projects competed in the national awards, while 62 projects from 20 different countries competed in the international awards.

Visit www.cemex.com for a full list of projects honored during the XXV Building Awards.

3.2 | Help our customers to succeed

Innovative, sustainable, and resilient infrastructure

Around the globe, the need for resilient infrastructure to support growing urban populations is critical, especially as climate change creates more extreme weather. As such, CEMEX supports the development of durable infrastructure with quality products, construction practices, and maintenance that have minimal environmental impact.

Through revolutionary advances in concrete technology, CEMEX is positioning itself at the forefront of the industry, designing and developing unique, integrated, value-added construction solutions that defy the status quo and meet its clients' evolving needs now and into the future.

The following are a series of successful projects worldwide that demonstrate the distinctive appeal of our diverse concrete technologies.

Rhizolith Island: Revitalizing mangrove shorelines

Mangroves are vital for stabilizing shorelines, but their recent depletion presents impending doom for coastal habitats. The Rhizolith Island, an ingenious solution designed in collaboration with APTUM Architecture and Syracuse University, uses our specialty concretes to revitalize mangrove forests while

simultaneously preventing flooding in urban areas. It consists of a mosaic of floating concrete structures with a “head” and a “fin” that function as a seed carrier for mangroves. The head was crafted with our special lightweight concrete—lighter than water, so it would float despite the holes that puncture the structure’s design. The fin, which was designed to function as a marine habitat offering shelter for fish and surfaces for barnacles, was cast in our high-strength, ductile concrete.

The Rhizolith Island project was tested in Cartagena, Colombia, where a prototype was built and exhibited during Concrete Conference 2016. The data acquired is offering input for the construction of prototypes that will be tested further as research continues at two additional locations in Colombia.

CEMEX provides Pervious concrete solution for M65 Motorway

In the UK, we utilized our Permaflow permeable concrete product as an alternative solution for a tricky drainage challenge along the central reservation channel of the busy M65 Motorway. This is the first case in which this solution was recommended and applied successfully on a highway prone to frequent flooding. In addition to offering a more economical alternative to a conventional “V” channel drainage system,

our permeable concrete allowed for the sub-base to absorb water (minimum infiltration rate of 30 liters/min/m²), while maintaining the structural strength to withstand cars’ weight. For this project, we provided 1,000 m³ of Permaflow, and opened the way for the application of this solution on future motorway renovations.

CEMEX’s Insularis® enables new state-of-the-art structure for eco-friendly school

Our Insularis® concrete technology offered the Oak House School Foundation in Barcelona, Spain, a construction solution addressing their desired aesthetic, thermal insulation, and energy efficiency requirements. CEMEX Global R&D met the challenge, formulating and tailoring their advanced Insularis® concrete technology to fulfill the project’s specific needs. Utilizing advanced mix design principles and proprietary admixtures, our solution resulted in a lightweight structural, self-consolidating white concrete, with thermal insulation 4.4 times better than current state-of-the-art concrete.

Due to its unique sustainable construction and design, the building is positioned as the first school in Spain to potentially receive Green Certification from the Green Building Council—an

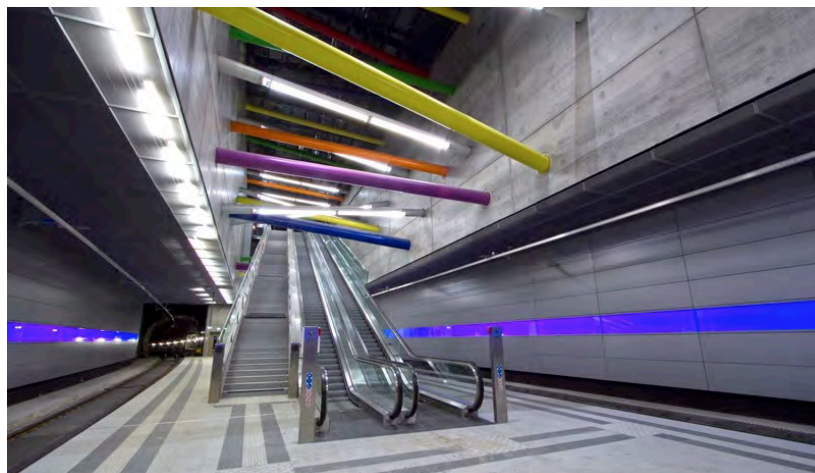


It consists of a mosaic of floating concrete structures with a “head” and a “fin” that function as a seed carrier for mangroves.

For further details on this project, please [view this video](#).



3.2 | Help our customers to succeed



Top: We supplied specially formulated concrete for the extensions of line 4 and 15 of the Paris underground.

Bottom: We provided self-compacting architectural concrete for the four underground stations of the Leipzig City Tunnel.

Right: We designed and delivered 100% of the ready-mix concrete for the tallest building ever constructed in Colombia.

CEMEX SUPPORTS THE DEVELOPMENT OF DURABLE INFRASTRUCTURE WITH QUALITY PRODUCTS, CONSTRUCTION PRACTICES, AND MAINTENANCE THAT HAVE MINIMAL ENVIRONMENTAL IMPACT.

entity that recognizes environmentally sustainable construction to improve users' quality of life.

CEMEX's Building Solutions contribute to largest infrastructure project underway in France

We are delivering a wide range of building materials, together with our technical and logistical expertise, for several stages of the monumental Grand Paris development project. Designed to improve the quality of life of Paris's inhabitants while reshaping the iconic city in a sustainable way, the project will include 205 km of new automatic underground metro lines, 68 new stations, and other urban infrastructure improvements by its expected completion in 2030. Thus far, one of our main contributions to this massive project is for the foundations and civil engineering of a significant section of the Grand Paris Express. Specifically, we supplied over 55,000 m³ of specially formulated concrete to build the cast walls and technical and slab floors for the extension of lines 4 and 15 of the Paris underground—which is expected to serve 60,000 passengers daily by 2020.

Leipzig Germany's 21st century landmarks

Our dedication to all aspects of urban development is illustrated by three buildings with widely different functions—all of which characterize the city of Leipzig in their own unique way.

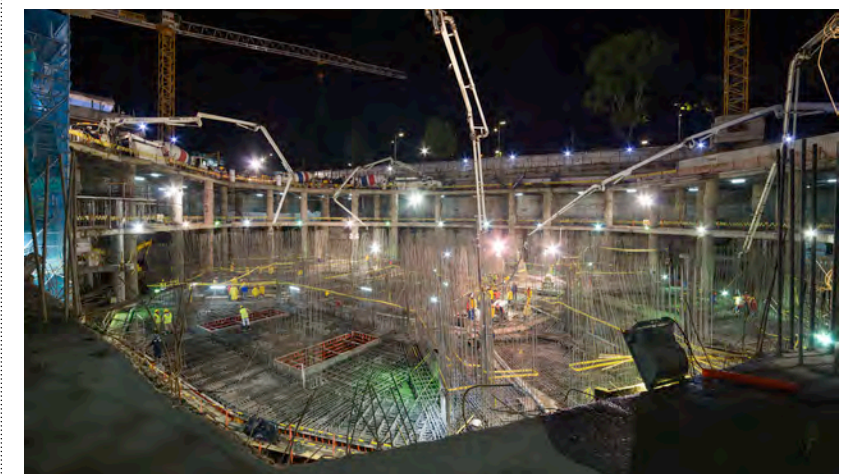
- For the Leipzig City Tunnel, we not only provided the high level of technical and logistical expertise required for an engineering project of this scale, but also 350,000 m³ of concrete—from underwater concrete for the tunnel floors to self-compacting architectural concrete for the four underground stations—over the course of this five-year project.
- We also supplied 85,000 m³ of ready-mix concrete for the large-scale Höfe am Brühl shopping center in the heart of Leipzig. CEMEX solutions included construction concrete for the floor slab and ceiling, as well as high-strength concrete for the supports.

- The bold design of the central building of the flagship BMW™ automobile plant demonstrates how our exposed concrete can offer a beautiful stylistic element in a contemporary architectural complex.

CEMEX participates in Colombia's tallest building and longest bridge

We are participating in the construction of the Atrio project, a 250,000-m² multipurpose complex located in Bogota, which will house the tallest building in Colombia. In 2016, we supplied the necessary concrete, team, and equipment for casting the first tower's foundation plate. This process, performed 22 m below street level, consisted of the construction of a single 2,400-m² and 3-m tall slab. We contributed to this process by delivering over 7,380 m³ of ready-mix concrete, pumped uninterruptedly for 38 hours. This is the first time that a project of this magnitude was performed for a building in Colombia. It involved the participation of over 300 people, around 1,000 ready-mix concrete truck trips in less than 48 hours, and the simultaneous, continuous operation of six ready-mix concrete plants.

Additionally, we designed and delivered 100% of the ready-mix concrete for one of the most important infrastructure projects in Colombia—the longest bridge ever constructed in the



3.2 | Help our customers to succeed



El Quimbo Hydroelectric project, Colombia

country. The El Quimbo Hydroelectric project encompasses approximately 37,000 m³ of tailor-made ready-mix concrete and prefabricated concrete beams. This project's four alternative routes, collectively 13 km long, were comprised of nine bridges traversing mountainous land terrain and the Magdalena River. Given that a unique solution was required, CEMEX developed a specialty high-strength ready-mix concrete that could sustain heavy loads and the effects of the river.

CEMEX creates fire and explosion proof concrete

We designed this fire- and explosion-resistant concrete solution specifically to safeguard the Data Processing Center, Proyecto Q, of the Santander Group. Located in Queretaro, Mexico, this is Santander Group's most technologically intensive and energy-efficient data processing center in the world. For this project, we supplied 3,000 m³ of a high-strength structural concrete with special raw materials that increase its fire resistance. Additionally, its durable and curable auto-compacting specifications facilitate the project's ecological and economic viability.

For further details on this customized concrete solution, please view this [video](#).

DELIVERING SOLUTIONS FOR AFFORDABLE HOUSING AND EFFICIENT BUILDINGS

City planners are constantly challenged to provide ways to efficiently and affordably house rapidly growing urban populations. CEMEX supports the social and economic development of communities around the globe. Providing expertise in building efficient homes with tailor-made and adaptable systems, we are delivering housing for all socioeconomic markets.

OUR INTEGRATED HOUSING SOLUTIONS

We integrate design, products, and wall systems into housing solutions that are flexible and replicable:

- ▶ **Industrialized Housing:** Fast, efficient, and large-scale housing construction
- ▶ **Disaster Relief Housing:** The best response for reconstruction after natural disasters
- ▶ **Energy-Efficient Housing:** Most competitive solution for high-performance buildings
- ▶ **Affordable Housing:** The lowest possible cost without giving up quality
- ▶ **Vertical Housing:** Fast and efficient construction for high-rise and mid-rise residential.



Real Residencial, Estado de Mexico, Mexico

OUR WALL SYSTEMS

Our energy-efficient wall solutions provide multiple benefits that improve the sustainability, speed, and economics of housing construction:

- ▶ **Cast-in-place form works:** The best for mass production and speed
- ▶ **Wired EPS (Expanded Polystyrene System) panels:** High flexibility to accommodate design
- ▶ **ICF (Insulated Concrete Form):** Perfect for high performance energy efficiency
- ▶ **Precast systems:** Most rational and efficient manufacturing process.

CEMEX SUPPORTS THE SOCIAL AND ECONOMIC DEVELOPMENT OF COMMUNITIES BY PROVIDING EXPERTISE IN BUILDING EFFICIENT HOMES.

3.2 | Help our customers to succeed

OUR HOUSING SOLUTIONS ATTRIBUTES



Flexible design
Easily adapted to construction and design requirements



Minimum waste
Less waste at construction site



Resilient
Resilient to natural disaster



Fast building
Significant construction time reduction



Thermal insulation
High thermal mass and insulation

Providing affordable and efficient housing systems

Our expertise in building efficient homes with tailor-made, adaptable systems contributed to the construction of more than 4,100 affordable homes and/or energy-efficient buildings, representing approximately 75,000 m² of livable space.

Our wall systems and integrated housing solutions offer multiple advantages that improve the sustainability, speed, efficiency, and economics of housing construction.

Delivering cast-in-place solution for residential towers in Costa Rica

For the Los Volcanes residential towers in San Pablo, Costa Rica, our client sought a superior “monolithic” structural solution instead of traditional masonry buildings. Applying value-added engineering to reduce costs and utilize available resources more efficiently, we employed our cast-in-place housing solution: a system that uses formwork molds for the construction of walls and slabs to enable fast, efficient, and large-scale project completion.



Los Volcanes Residential Tower. San Pablo, Costa Rica

Thanks to this solution, we met all of our customer’s primary needs: time, cost, and quality. We reduced construction time, resulting in an earlier delivery date and thus reducing the time to recover their investment. We also achieved additional cost savings on finishes and rework, as well as on labor. Our cast-in-place system further enabled higher quality by allowing superior input control, better process supervision, and geometric standardization. Additionally, this type of housing is resistant to natural disasters and creates less waste than masonry buildings.

Expanding opportunities for underprivileged Colombian families

We joined forces with Compensar, a private, nonprofit compensation fund in Colombia, to launch the “Renew Your Home” program. Through this program, qualifying families who lack access to bank loans receive a credit to purchase quality building materials, as well as comprehensive advice from experts, for the construction of safe homes that support their health and well-being.

OUR EXPERTISE IN BUILDING EFFICIENT HOMES CONTRIBUTED TO THE CONSTRUCTION OF MORE THAN 4,100 AFFORDABLE HOMES AND ENERGY-EFFICIENT BUILDINGS.



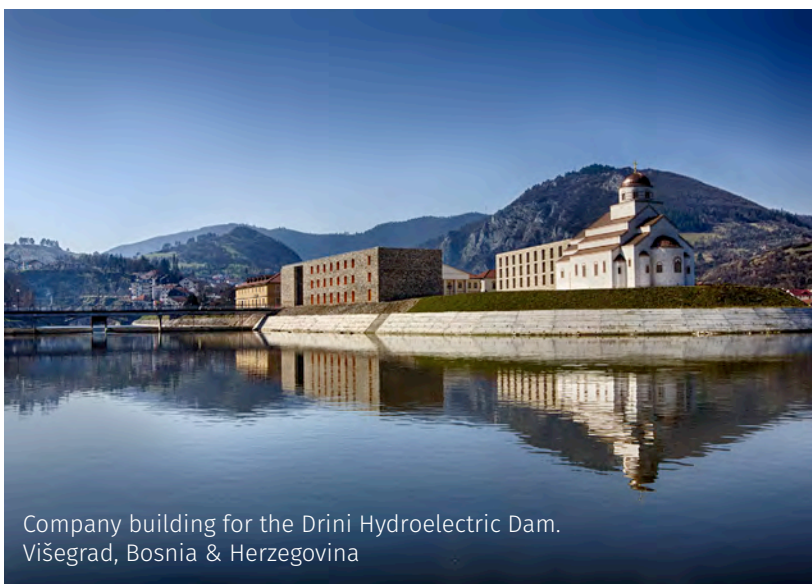
Palmar. Madrid, Colombia

Additionally, we continued our participation in the Colombian Government’s “Social Interest Housing for Savers” (VIPA) program. VIPA allows families to purchase their own home without spending more than 30% of their income on credit fees, thereby enabling households whose members do not earn more than minimum wage to realize their dreams of home ownership.

We estimate that 5.3 million families in the country are unable to access VIPA, so it is critical that we work with developers to ensure those who need access will get it. Homes developed with our solutions provide sustainability benefits, including quality products and higher roofs that offer greater comfort and better thermal insulation.

3.3 | Pursue markets that offer long-term profitability

CEMEX does business in markets where we can add value for our employees, our customers, and our shareholders. We will focus on those markets that offer long-term profitability.



Company building for the Drini Hydroelectric Dam. Višegrad, Bosnia & Herzegovina

Our geographically diverse portfolio of assets provides us with the opportunity for significant value creation through profitable organic growth over the medium to long term.

Consequently, we are selective and strategic about where we do business. We will not chase growth simply for the sake of growth. We also will continue to optimize our portfolio so that we are in the businesses and markets where we can generate significant returns.

Leveraging our global presence and extensive operations worldwide, we will continue to focus on what we do best: our core cement, aggregates, ready-mix concrete, and related businesses. By managing our core operations as one vertically integrated business, we not only capture a greater portion of the cement value chain, but also get closer to our customers by offering comprehensive building solutions.

Historically, this strategic focus has enabled us to grow our existing businesses, particularly in high-growth markets and with specialized, higher margin products. We will venture beyond our core strengths when it is essential to better market our products and serve our customers.

BUSINESS PORTFOLIO

We are focused on three core businesses within the heavy building materials industry—cement, ready-mix concrete, and aggregates—which have enabled us to develop deep expertise, knowledge, and practices. We also participate selectively in complementary businesses that enable us to become closer to our customers, grow our core business, develop a competitive advantage, and improve our performance.

- ▶ **Execute globally and replicate best practices** through our Global Networks
- ▶ **Focused and specialized on what we do best.** Allows us to develop a profound expertise in manufacturing and marketing our products. This expertise is fundamental to enable CEMEX to deliver value for both current and new markets.
- ▶ **Attractive organic growth** – Our three core businesses are intimately related to economic and infrastructure development, which provides an attractive opportunity to achieve organic growth in many markets.
- ▶ **Vertical integration** – Cement and aggregates are key materials used to produce ready-mix concrete.

CORE BUSINESSES

CEMENT

AGGREGATES

READY-MIX CONCRETE

COMPLEMENTARY BUSINESSES

CEMEX participates selectively in complementary businesses, such as the development of alternative and renewable sources of energy, concrete pavement solutions, housing, prefabricated concrete products, admixtures, and more.

- ▶ **Allows us to be closer to our customers** and offer comprehensive solutions, which enables us to better understand market gaps and opportunities.
- ▶ **Helps us grow our core markets.** Many of the building solutions we offer within markets, such as concrete pavements or commercial products, allow us to increase demand and use of our core products.

WE WILL CONTINUE TO OPTIMIZE OUR PORTFOLIO SO THAT WE ARE IN THE BUSINESSES AND MARKETS WHERE WE CAN GENERATE THE GREATEST RETURNS.

3.3 | Pursue markets that offer long-term profitability

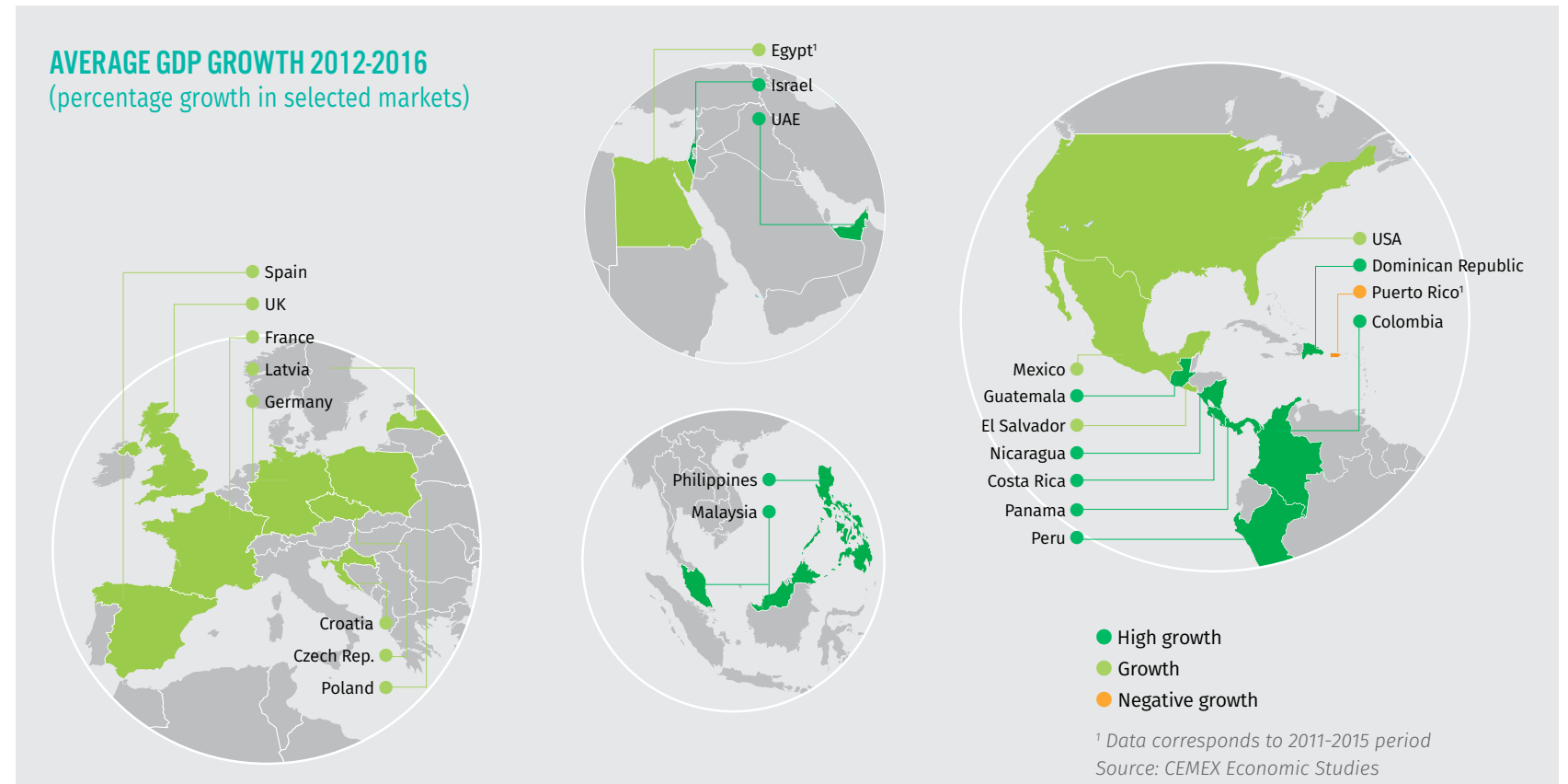
- ▶ **Develops a competitive advantage** and increases our ability to differentiate our products and solutions.
- ▶ **Improves performance.** Certain business segments result from a need to reduce costs or increase our efficiency. For example, we have invested significantly in the use of alternative fuels and renewable power sources.

GEOGRAPHIC STRUCTURE

Our business portfolio is particularly focused on geographies that combine strong fundamentals, ranging from economic growth potential to cement per-capita consumption, population growth, degree of urbanization development, and political stability. Key performance metrics include:

GROWTH POTENTIAL	Based on five-year growth horizon
HISTORICAL PER-CAPITA CEMENT CONSUMPTION	An important measure of the potential for growth in construction and cement demand going forward
POPULATION GROWTH	Indicates need for housing, infrastructure, and economic growth
DEGREE OF URBAN DEVELOPMENT	Potential for increased population living in urban centers and, therefore, need for housing, commercial, and infrastructure development.

WE ARE FOCUSED ON THREE CORE BUSINESSES WITHIN THE HEAVY BUILDING MATERIALS INDUSTRY—CEMENT, READY-MIX CONCRETE, AND AGGREGATES.



CEMEX ACQUIRES MAJORITY STAKE IN TCL

In January 2017, CEMEX announced the successful acquisition of a majority stake in Trinidad Cement Limited (TCL), a company with operations in Trinidad and Tobago, Jamaica, and Barbados. By capitalizing on these markets strong fundamentals for growth, this acquisition represents a great opportunity for CEMEX to add value across TCL. A key source of value is the application of CEMEX's world-class management practices—from improving TCL's operational and commercial practices to developing its cement, ready-mix concrete, and aggregates businesses. This transaction also offers a great opportunity to build TCL's trading capabilities through better synchronization with CEMEX's regional trading network. As part of CEMEX Global Networks, TCL will further benefit from the application of identified synergies and best practices. Finally, the acquisition represents an opportunity for TCL to deliver a superior experience for its customers, provide its employees with a platform for growth, and build stronger, more resilient communities.

3.4 | Sustainability is fully embedded in our business

With the global population rising and urban infrastructure expanding, building sustainable cities is as much a challenge as it is a priority. As a global company, we have the power to make a real impact through our innovative services and solutions.

OUR SUSTAINABILITY APPROACH

For CEMEX, sustainability starts with our Board of Directors and is then rolled out across our entire organization. Our Sustainability Committee is comprised of three board members reporting directly to the Board of Directors, along with the Audit and the Corporate Practices & Finance Committees. It is supported by our Corporate Sustainability function, which reports to a member of our Executive Committee. To ensure sustainability is embedded into our entire business strategy, we have coordinators representing each geographical region where CEMEX operates. In parallel, our Global Sustainability Functional Network works to implement our core sustainability initiatives across all of our countries and business lines.

SUSTAINABILITY MANAGEMENT STRUCTURE¹



CEMEX's Board-level Sustainability Committee meets quarterly to assess and guide our company's sustainability efforts. It is responsible for:

- ▶ Verifying that sustainable development is embedded in CEMEX's short- and long-term strategy
- ▶ Assisting the Board in its responsibilities to shareholders relating to the policies and practices that pertain to our company's sustainable growth
- ▶ Endorsing CEMEX's Sustainability Model, priorities, and core KPIs
- ▶ Assessing the effectiveness of our sustainability initiatives and their implementation progress
- ▶ Providing guidance to our CEO and Executive Committee on key strategic sustainability decisions.

Some discussion topics from the Sustainability Committee's meetings during the year include:

- ▶ Sustainability KPI targets and progress by region
- ▶ Updates on H&S management
- ▶ Suppliers Sustainability Program
- ▶ Sustainability risks agenda
- ▶ CEMEX's high-impact social strategy.

¹ As of December 31, 2016.



3.4 | Sustainability is fully embedded in our business

CEMEX sustainability material issues

Our Sustainability Materiality Matrix enables us to: Identify the issues most important to CEMEX and our stakeholders; define risks, opportunities, and KPIs; and report and set targets. Fostering an inclusive dialogue with our worldwide stakeholders—employees, customers, suppliers, investors, universities, government and community leaders—ensures top priorities are consistent. Basing our Sustainability Materiality Matrix on stakeholder analysis helps us align our time, resources, and investment accordingly.

In 2016, we updated our Materiality Matrix. The following stages summarize this process:

1. Identification of most relevant aspects for materiality survey

In order to carry out a materiality survey, it is necessary to make a list of material aspects that will be prioritized according to respondents' choices. In our case, this list was made specifically for the industry and regions in which CEMEX participates. Accordingly, our first step was the identification of a robust list of material topics, considering gaps already identified from previous materiality analysis, benchmark sectorial issues, ESG and financial analysts' concerns and interests, global megatrends, as well as societal challenges where CEMEX can contribute the most.

After identifying this exhaustive list of potential material issues, we arrived at a list of 23 aspects that reflected the most important impacts we could face as a company, as well as the issues that would most influence the assessment and decisions of our stakeholders. This delimitation exercise was executed after a series of evaluations and discussions of key functional areas in our company and was derived from the final version of the survey circulated among our stakeholders for voting and ranking.



2. Definition and participation of target audience

Our materiality survey was translated into English, Spanish, German, French, Polish, Latvian, and Arabic; 19,000 invitations were issued to stakeholders across all of the geographical regions where CEMEX is present (62% more vs. previous survey). From these evaluation requests, we received 1,558 responses that shaped CEMEX's new Materiality Matrix.

MORE THAN 1,550 SURVEY RESPONSES SHAPED CEMEX'S NEW MATERIALITY MATRIX.

Surveys were completed by:

- ▶ Key CEMEX directors/managers
- ▶ Four main stakeholder categories:
 - ▶ CEMEX Employees
 - ▶ CEMEX Clients
 - ▶ CEMEX Suppliers
 - ▶ Non-market Stakeholders (divided into four sub-categories):
 - > Community/Communication Leaders
 - > Analysts/Investors/Shareholders
 - > Government/Administrations
 - > NGOs/Associations/Foundations/Universities.

3. Prioritization of material issues

The consolidation methodology for the survey results was based on:

- ▶ Frequency of mention and importance to internal and external stakeholders: Results from the four main stakeholder categories—employee, client, supplier, and community—were used to construct the vertical axis within the Materiality Matrix, weighting them equally (25% each)
- ▶ The megatrends we identified.

3.4 | Sustainability is fully embedded in our business



4. Results and materiality matrix

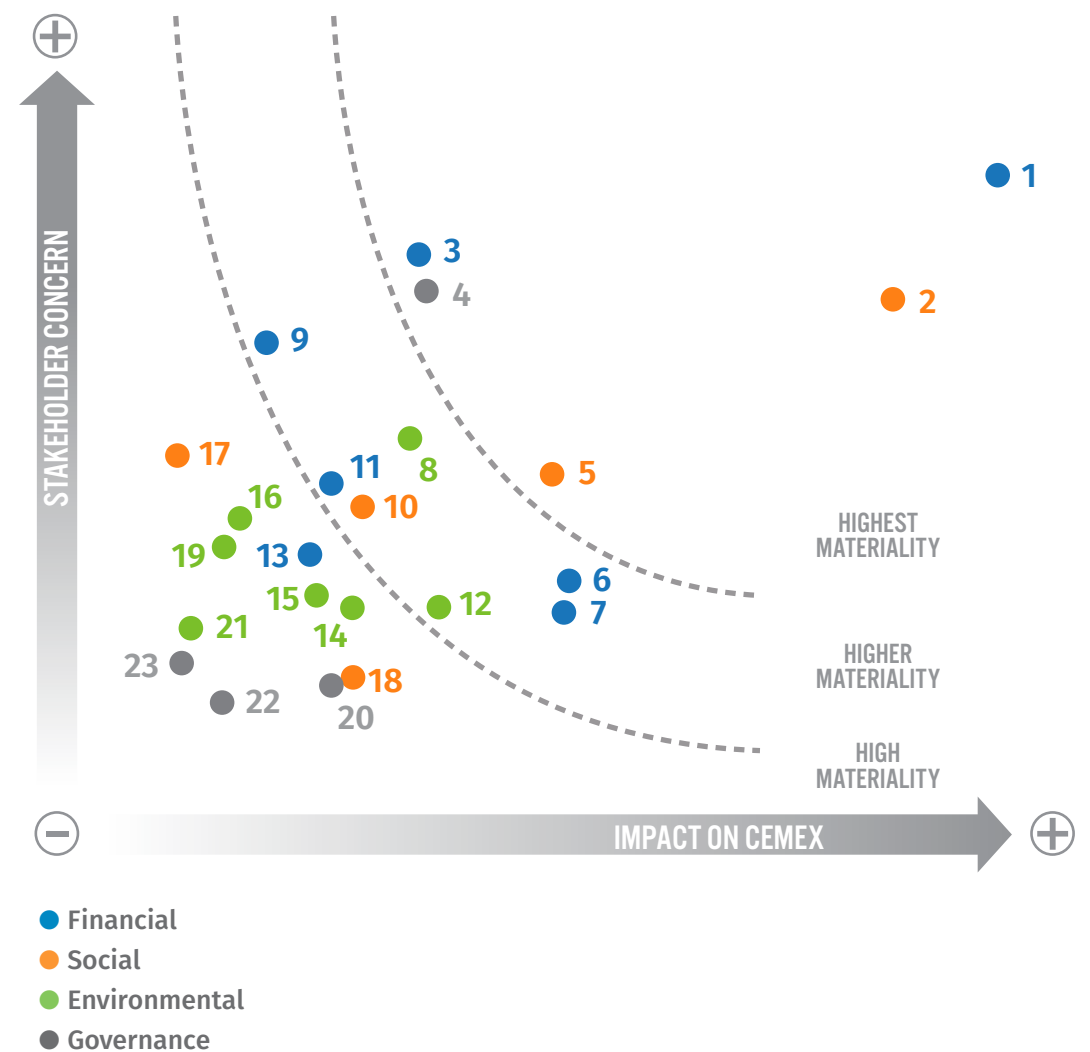
The listed issues and their resulting ratings by stakeholders were plotted into a materiality matrix, which maps each issue based on the prioritization accorded to it. The y-axis represents concern to stakeholders, increasing from bottom to top. The x-axis represents increasing impact to CEMEX, from left to right.

We have classified the material issues into three categories: high, higher, and highest materiality. This report focuses on them and reflects our top priorities based on our comprehensive stakeholder consultation.

MATERIALITY MATRIX

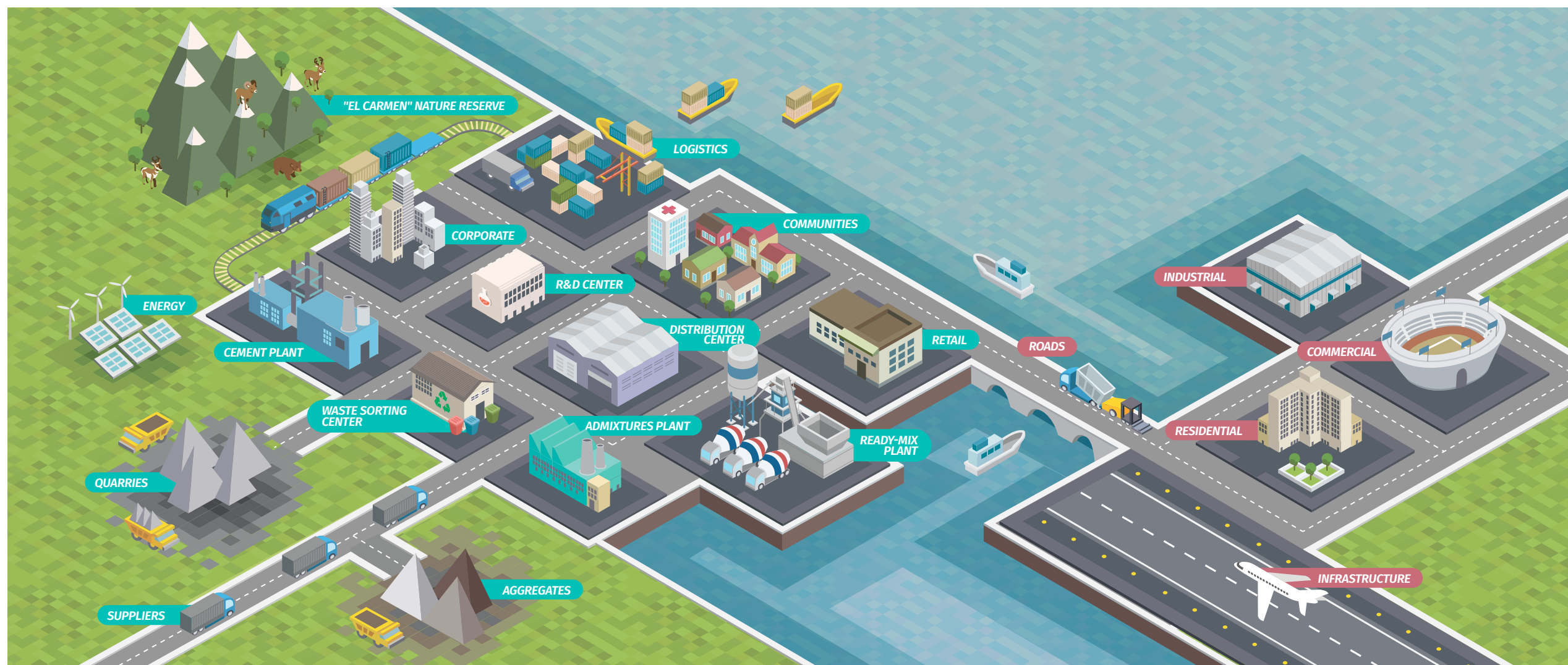
1. Customer Experience and Satisfaction
2. Health and Safety
3. Product Quality and Innovation
4. Business Ethics and Transparency
5. Employee Engagement and Development
6. Growth in Existing Markets and Countries
7. Return on Capital Employed
8. Environmental and Air Emissions Management
9. Transport and Logistics Optimization
10. Local Community Development
11. Products and Solutions for Sustainable Construction
12. CO₂ Management Strategy
13. Direct Economic Impact on Stakeholders
14. Energy Sourcing, Efficiency and Cost
15. Materials Recycling and Circular Economy
16. Biodiversity Preservation
17. Supplier Management
18. Public Affairs and Stakeholder Engagement
19. Water Management
20. Corporate Governance
21. Waste Management
22. Risk Management
23. Human Rights

CUSTOMER EXPERIENCE AND SATISFACTION AND HEALTH AND SAFETY WERE THE TWO HIGHEST MATERIALITY ISSUES IN OUR LATEST SURVEY.



3.4 | Sustainability is fully embedded in our business

MATERIAL ISSUES ACROSS OUR VALUE CHAIN



"EL CARMEN" NATURE RESERVE

We restore habitats in an area 8.4 times larger than our worldwide quarrying activities.
M.I.: 8, 10, 12, 16.

ENERGY

25% of our power supply for cement operations comes from renewable energy sources.
M.I.: 8, 9, 10, 11, 12, 14, 15, 17, 21, 22.

CEMENT PLANT

We reached 89% as consolidated operating efficiency of our kilns.
M.I.: 1, 2, 3, 5, 6, 7, 8, 10, 12, 13, 15, 18, 19, 21, 22, 23.

QUARRIES

+90% of our quarries have implemented a rehabilitation plan.
M.I.: 5, 8, 9, 15, 16, 18, 22.

SUPPLIERS

+6,200 suppliers have been evaluated through our *Global Supplier Sustainability Program*.
M.I.: 2, 3, 4, 9, 10, 13, 17, 22, 23.

CORPORATE

Highest EBITDA since 2008 and highest operating EBITDA margin since 2007.
M.I.: 1, 2, 4, 5, 6, 7, 12, 18, 20, 22, 23.

LOGISTICS

Our trading network is one of the largest in the industry with relationships in +100 nations.
M.I.: 1, 2, 5, 6, 9, 10, 14, 15, 17, 22, 23.

WASTE SORTING CENTER

+2.7 million tons of solid waste annually co-processed as alternative fuels by our cement operations.
M.I.: 8, 11, 12, 14, 15, 17, 18, 21.

RESEARCH & DEVELOPMENT

Around US\$40 million annually invested in R&D efforts.
M.I.: 1, 2, 3, 6, 8, 11, 12, 14, 15, 19, 21.

COMMUNITIES

+12.6 million beneficiaries from our high-impact social strategy since 1998.
M.I.: 2, 4, 5, 8, 10, 13, 16, 18, 20, 22, 23.

RETAIL

We partner with our distribution network to offer customers an extensive range of brand-name products.
M.I.: 1, 6, 9.

READY-MIX PLANT

US\$186 million of incremental revenues from ready-mix services and fees realized for the year.
M.I.: 1, 2, 3, 5, 6, 7, 8, 10, 11, 13, 15, 18, 19, 22, 23.

AGGREGATES

Represents 16% of our annual sales for the year.
M.I.: 1, 2, 5, 6, 7, 8, 10, 13, 15, 18, 19, 22, 23.

ADMIXTURES PLANT

We develop admixtures solutions for all our associated businesses enabling high performance products.
M.I.: 1, 2, 3, 5, 6, 7, 11, 22, 23.

DISTRIBUTION CENTER

+240 centers distributed across all geographic regions where we have presence.
M.I.: 1, 6, 9.

CUSTOMERS

Our strategic goal is to become the most customer-oriented company in our industry.
M.I.: 1, 3, 6, 11.

• **RESIDENTIAL**

We offer affordable housing and energy-efficient building solutions across 13 countries.

• **COMMERCIAL / INDUSTRIAL**

CEMEX products used in 2016 in more than 1,200 projects under Green Building certifications.

• **INFRASTRUCTURE**

+10 million m² of concrete supplied for 176 building solutions projects for the year.

• **ROADS**

+20 million m² of concrete pavement installed by CEMEX in the last 3 years.





M.I. = Material issues numbered in CEMEX Materiality Matrix

3.4 | Sustainability is fully embedded in our business

PROGRESS AGAINST OUR TARGETS

Anchored by four main objectives under the economic, environmental, social and governance pillars, our sustainability model ensures sustainability is embedded into our business and value is created for our stakeholders.

To keep our sustainability objectives on track, we have set targets for our core KPIs that are strategically aligned to our sustainability model and linked to the material issues identified by the company and our stakeholders.

CHALLENGES TO ADDRESS	MAIN OBJECTIVES	CORE SUSTAINABILITY KPIs	2016	2020 TARGET	ANNUAL TARGET
 Economic	Provide Resilient Infrastructure and Energy-Efficient Building Solutions	Annual ready-mix sales derived from products with outstanding sustainable attributes (%)	33.7		≥ 25
 Environmental	Enable a Low-Carbon and Resource-Efficient Industry	Alternative fuels rate (%)	23.3	35	
		Reduction in CO ₂ emissions per ton of cementitious product from 1990 baseline (%)	20	25	
		Clinker produced with continuous monitoring of major emissions: dust, NO _x , SO _x (%)	84	100	
		Annual reduction in dust emissions per ton of clinker from 2005 baseline (%)	78		≥ 50
		Annual reduction in NO _x emissions per ton of clinker from 2005 baseline (%)	26		≥ 30
		Annual reduction in SO _x emissions per ton of clinker from 2005 baseline (%)	61		≥ 20
Active quarries with high biodiversity where BAPs are actively implemented (%)	63	100			
 Social	Implement a High-Impact Social Strategy to Empower Communities	Total individuals benefited from our social initiatives (million)	12.6	≥ 15	
 Governance	Embed Our Core Values into Every Action	Total fatalities (employees, contractors and third parties)	20	0	
		Lost Time Injury Frequency Rate (LTI FR), employees (per million hours worked)	0.6	0.3	
		Countries that conduct regular customer satisfaction surveys (%)	88	≥ 90	
		Global procurement spend assessed under the <i>Supplier Sustainability Program</i> (%)	17	≥ 55	
		Employees that perceive they are enabled to perform their job effectively (%)	76	83	
		Employees that are engaged with the company (%)	76	80	
		Executives and employees actively aware of our Code of Ethics (%)	77	≥ 90	
		Target countries that participated in the <i>Global Compliance Program</i> covering antitrust, anti-bribery and insider trading (%)	100		≥ 90
Ethics and compliance cases reported during the year that were investigated and closed (%)	68		≥ 90		

3.4 | Sustainability is fully embedded in our business

IMPLEMENTING A HIGH-IMPACT SOCIAL STRATEGY Contributing to a better future by addressing social expectations

As a global company, we have long included Corporate Social Responsibility (CSR) as a fundamental component of our business model—aligned with our mission to build a better future by creating lasting value for all of our stakeholders. As we provide top-quality, innovative building materials and wide-ranging construction solutions for our customers, we must also support society's development needs and contribute to the wellbeing of the communities where we live and work.

In a resource-constrained world, where humanity faces challenges like poverty, inequality, and climate change, no single organization—from governments to industries, universities, and citizens' groups—can provide truly comprehensive solutions when presented in isolation. Each sector has a role to play, contributing not only their guidelines or financial resources, but also their expertise and dedication to more sustainable, inclusive development.

Importantly, it will take all sectors to realize the ambitious agenda put forth in the United Nations' Sustainable Development Goals (SDGs). At CEMEX, we are committed to play a leading role in advancing constructive change. Achieving the SDGs is not simply the responsible thing to do; it is also strategically relevant from a growth standpoint, as their attainment fosters new business opportunities, builds markets and relationships, and improves our environment and society's quality of life.

Aligned precisely with SDGs 1, 4, 5, 8, and 11, our sustainability strategy's social priorities are particularly focused on our contribution to end poverty, achieve gender equality, provide decent work, foster economic growth, and develop sustainable communities. To that end, we have established a high-impact



Film school. Gdynia, Poland

social strategy that fosters societal intelligence, guides our participation in international and business organizations' initiatives, develops programs designed to create greater benefits for our communities, incorporates knowledge for our commercial endeavors, and ultimately, adds to our reputation as a socially responsible company.

Our efforts are channeled through the co-creation of social models that enable solutions to alleviate significant challenges around the world. To achieve our goals, we create strategic alliances that foster collaboration with key partners—multiplying the benefits for our communities.

Started almost two decades ago, by the end of 2016 our social actions and initiatives had positively impacted more than 12.6 million people around the world—in line with our internal target to improve the quality of life of at least 15 million people by 2020.

CORPORATE SOCIAL RESPONSIBILITY IS A FUNDAMENTAL COMPONENT OF OUR BUSINESS MODEL.

Promoting the development of sustainable communities

At CEMEX, we are committed to bolstering our communities' fundamental capacities for long-term self-support and upward mobility. Our mission is to serve as a key contributor to community development and an engine of economic growth through innovative and sustainable solutions.

Through our community-involvement efforts across the globe, we have learned that self-sufficiency and practical skills development are integral to the long-term prosperity of individuals and communities. However, in many of our markets, poor access to jobs, skills training, and education opportunities limit individuals' ability to meet their basic needs. To address these challenges, we have developed a number of programs that increase communities' access to building materials for their homes, while providing mechanisms to improve training and employment options.



3.4 | Sustainability is fully embedded in our business

We are generating progress in our communities through our corporate citizenship priorities:

- ▶ **Investing in infrastructure development, disaster relief, environment, and social innovation**
- ▶ **Empowering key social groups through education and capacity-building**
- ▶ **Generating cohesion between our communities and our company through different efforts, including employee volunteering.**

Community Centers

To develop sustainable communities, members must have access to the information and resources they need for success. That is why we created CEMEX Community Centers. These centers serve as central locations for our workshops and courses focused on developing skills that will help participants secure employment or start a small business.

Additionally, to increase environmental awareness, we recently began construction of Community and Environmental Education Centers to foster discussion and solutions to protect the environment and improve the quality of life of community members.

As of 2016, almost 500,000 people have participated in approximately 2,600 workshops conducted at our Community Centers.

Promoting values and leadership through sports, arts, and education

Through our dedicated efforts worldwide, we provide the opportunity for our neighboring communities' children and young people to make valuable use of their free time by encouraging sports and exercise as an integral element of their development. We also work to strengthen their values and contribute to their academic improvement.

CEMEX FOSTERS A FLOURISHING FUTURE FOR CHILDREN

A decade ago, CEMEX Dominican Republic started "A Flourishing Future" program to help reduce rates of absenteeism and dropouts from school by developing whole young people who serve as an example for their families and their community.

This program offers extracurricular activities to sponsored schools, as well as instructional material, psychological counseling, art workshops, and educational support. The projects that comprise this initiative promote a positive childhood through the values and leadership skills derived from educational and artistic activities, including the benefits of reading, writing, and mathematics.



ANNUALLY, APPROXIMATELY 10,000 BOYS AND GIRLS PARTICIPATE IN OUR CULTURAL AND HEALTHY LIFESTYLE PROGRAMS.



To this end, we establish strategic alliances with social organizations and enterprises across our geographies.

CEMEX sports and cultural academies are designed to provide our communities' children and youth with facilities, outfits, and coaching necessary for activities such as football, baseball, swimming, dance, and book clubs. We promote values such as respect, tolerance, honesty, and solidarity, as well as skills required to unleash their potential. In some communities, we also provide scholarships to give talented children the training required to play baseball, softball or soccer.

3.4 | Sustainability is fully embedded in our business



Generating empowerment, diversity, and capacity-building

Aligned with SDG 4, “Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all,” we leverage our business capabilities, our network of employees, and strategic alliances to create public value and provide diverse groups with numerous opportunities to achieve their potential for growth and prosperity.

To this end, we join multisectoral initiatives that promote development opportunities to:

- Strengthen the role of women in society, including opportunities for personal and financial growth, self-esteem, family, education and health
- Generate the skills and capabilities required for young people’s integration into the workforce, especially in our industry and associated sectors
- Strengthen and expand the reach of our initiatives through national and international alliances.

Creating employment opportunities for youth

Some of our global capacity-building initiatives for young people across our different regions include:

- *New Employment Opportunities (NEO)* is a multi-stakeholder alliance—involving government, civil society, academic, and private sector organizations—to enhance employment and training opportunities for youth. As a member of NEO, we are committed to boost employment opportunities for young people between the ages of 18 and 29 through scholarships, guidance, and employment training. As of 2016, our NEO initiatives have benefited more than 37,000 young people.
- Managed by the CEMEX-Tec Center for Sustainable Development, the *I Build (Yo Construyo)*, in Spanish) program aims to generate employment opportunities, increase access to housing, and ensure quality self-construction in line with sustainable criteria through professional technical and administrative training for the creation of microenterprises in the building field. To this end, the program provides a series of step-by-step training sessions that teach the entire construction process to build quality, sustainable homes—from leveling and foundations to the erection and installation of walls, slabs, and finishes. All of the participants are awarded a certificate, an official accreditation that facilitates employment opportunities in the construction sector. Thus far, the program has trained more than 1,300 men and women.
- Similarly, CEMEX Philippines *Experto Ako!* program offers free 33-day masonry skills training. In partnership with the Philippines’ Technical Education and Skills Development Authority, this program contributes to the generation of new and better careers in the construction field. The training includes instruction on proper cement application and equipment, values formation, and teamwork. Masons are also taught how to market their skills to gain more customers and build trust, which improves their chances of employment with large construction firms. At their graduation, each *Experto Ako!* scholar receives a personal masonry kit and tools to begin work on related jobs. Over 200 masons have graduated from the program.



Centro CEMEX-Tec de Monterrey
para el Desarrollo Sostenible

CEMEX-TEC CENTER FOR SUSTAINABLE DEVELOPMENT

Since its foundation in 2010, the Center has fostered the development of sustainable communities as a result of multisectoral action among government, business, academia, and civil society. Through its Sustainable Communities Model, 10 local sustainable development plans have been implemented in eight Mexican states. Based on applied research on a range of topics—from socioeconomic development to ethics and citizenship, environmental improvement, and urbanism—this model materialized in a collective long-term sustainable development project, which ignites productive activities under a framework of community participation.

Additionally, the Center offers a wide portfolio of programs, including *Community Environmental Restoration*, *I Build (Yo Construyo)*, in Spanish), and the *CEMEX-Tec Award*. The latter promotes entrepreneurship and innovation through its annual recognition of high-impact sustainable development projects. Specifically, the *CEMEX-TEC Award* is aimed at change agents, social and environmental entrepreneurs who design proposals in three categories: Transforming Communities, Innovation in Construction, and Social Entrepreneurs. Over six editions, the *CEMEX-Tec Award* has received more than 1,200 projects from 16 Latin American countries, benefiting 21,000 people.

Click [here](#) for more information on the Center.

THE CEMEX-TEC AWARD HAS RECEIVED MORE THAN 1,200 PROJECTS FROM 16 DIFFERENT LATIN AMERICAN COUNTRIES.

3.4 | Sustainability is fully embedded in our business

- Through our *Community Environmental Restoration* program, we train young people to promote environmental best practices within their communities, building awareness and helping restore their region. During 2016, we launched four new editions of the program. Moreover, we received the Wildlife Habitat Council Best Project Award in the “Awareness and Community Engagement” category for this initiative in the community of Atotonilco, Mexico. Overall, we have enrolled more than 420 young promoters to lead environmental awareness and restoration activities in their communities.

Empowering women in our communities

At CEMEX, we recognize and respect the diversity of the world in which we live and work. Women’s economic equality benefits not only society in general, but also the business community—which gains greatly from increasing leadership opportunities for women. When more women work, economies grow while society moves toward SDG 5, “Achieve gender equality and empower all women and girls.”

Several initiatives demonstrate our commitment to integrating women into our communities’ local labor markets by empowering them through targeted skills development. For example, our strong, ongoing partnership with ANSPAC, a non-profit organization, provides women who live near our cement plants with technical training, as well as guidance on personal growth—including topics such as family, values, and self-esteem—to enable them to start their own business and contribute to their family’s income.

In 2016, more than 6,000 women benefited from workshops offered by CEMEX in partnership with ANSPAC across a number of countries, including Mexico, Colombia, Costa Rica, the Dominican Republic, Guatemala, Nicaragua, and Panama.

Expanding our volunteering programs

We strongly believe that volunteering has a meaningful, positive impact on our communities. Strategic corporate volunteer programs contribute to increasing employee engagement, as well as improving our company’s visibility in community needs and concerns. Through our numerous volunteer programs, our employees are giving back to their communities.

In 75% of the countries in which we operate, we have volunteer programs in place. In 2016, approximately 5,200 employees worldwide donated more than 27,000 hours in almost 100 volunteer initiatives that benefited 1.4 million people from our communities.

GREAT CEMEX TEAMWORK HELPS LOCAL SCHOOLS REPAIR PLAYGROUNDS

Through CEMEX UK’s *Lend-a-Hand* program, all of our employees are granted one community service day a year to spend on a volunteer initiative of their choice. In 2016, teams from CEMEX UK Paving Solutions and Ready-Mix South Wales joined forces to carry out repairs to Pontllanfraith School’s local playground areas, making them safe for the children.

Additionally, CEMEX UK’s Cement Management team collaborated with Rugby’s Brooke School for special needs children to improve its small farm and forest area. The team’s efforts included:

- ▶ Laying 15 m³ of wood chips on the pathways to make them more accessible for those with mobility issues
- ▶ Painting the pavilion
- ▶ Constructing a wooden floor
- ▶ Installing four log benches and 20 log seats
- ▶ Constructing a bug hotel and a hedgehog hibernation box
- ▶ Installing a cooking rack for the open fire.



IN 2016, MORE THAN 6,000 WOMEN BENEFITED FROM WORKSHOPS OFFERED BY CEMEX IN PARTNERSHIP WITH ANSPAC.

3.4 | Sustainability is fully embedded in our business

Our volunteer efforts are aligned with our social programs and primarily dedicated to sustainable community development activities, including reforestation; natural ecosystem cleanup; community infrastructure improvement and construction; and environmental, health, and safety awareness, among others.

Creating social and inclusive business opportunities

CEMEX recognizes the challenge posed by SDG 11, “Make cities and human settlements inclusive, safe, resilient and sustainable.” To help address this undeniable social need, we have developed social and inclusive businesses through models co-created with the community to provide specific solutions for public space and affordable housing that simultaneously combat urban poverty and contribute to the achievement of SDG 1, “End poverty in all its forms everywhere.”

Our *Growing* platform encompasses the inception, development, and promotion of social and inclusive business models that work with governments, think tanks, NGOs, low-income communities, and social entrepreneurs. This platform enables us to contribute to solving essential needs—including housing and land ownership, access to basic services, employment, and financial inclusion—in which microfinance plays a key role.

Our inclusive and social business opportunities go beyond self-construction programs that enable millions of people to put a roof over their heads. They also tackle the many side effects of poverty, providing families with the space and privacy that all humans need to live in harmony and foster a peaceful, respectful home environment that provides children with healthy living and learning conditions.

Patrimonio Hoy

The lack of affordable housing is a severe problem for low-income families in many countries. *Patrimonio Hoy*, our flagship inclusive business, was founded to provide these families with access to financing, building materials, technical advice,



and logistical support—allowing them to build or expand their homes more quickly and efficiently. Started in Mexico, *Patrimonio Hoy* has expanded to more than 100 offices across Latin America, including Costa Rica, Colombia, the Dominican Republic, and Nicaragua.

Patrimonio Hoy tailors solutions to suit users, according to their construction needs and ability to repay. As long as they have a lot on which to build, those interested in participating receive comprehensive advice from an architect who works directly with them to design a custom plan. Through a microcredit loan without prerequisites and with comfortable fixed weekly or bimonthly payments, families can transform their home with a concrete program. The result of this innovative approach is a self-constructed housing unit built with high-quality materials and a one-third reduction in time and cost compared to what a typical home-improvement effort would imply for poor families in need. Notably, the program’s financing is designed to fit customers’ needs, with flexible deadlines and specialized construction services until their keys are in hand.

WE HAVE POSITIVELY IMPACTED MORE THAN 3.2 MILLION PEOPLE THROUGH OUR SOCIAL AND INCLUSIVE BUSINESSES.

CORPORAIID RECOGNIZES CEMEX'S POSITIVE IMPACT THROUGH PATRIMONIO HOY

Patrimonio Hoy is a CEMEX program targeting the housing needs of the low-income population. Originally conceived as a project to understand customers in the self-construction segment—a major component of Latin America’s home building is concentrated in low-income neighborhoods—*Patrimonio Hoy* has generated international recognition and goodwill for the company.

In 2016, the Austrian magazine *CorporAID* included *Patrimonio Hoy* in its *Four Walls for the World* report, showcasing significant efforts from companies across the world to increase low-income families’ access to affordable housing and home improvement alternatives. The magazine recognizes CEMEX as a pioneer in its work to enable those in need to expand or repair their houses when limited financial resources usually prevent them. It also highlights *Patrimonio Hoy*’s offering of consulting plus financing as key success factors in this inclusive business.



3.4 | Sustainability is fully embedded in our business

More than 570,000 families have received support from the program. That's 4.3 million m² of livable space acquired through microcredits exceeding US\$300 million. This means that *Patrimonio Hoy* has improved the living conditions of more than 2.7 million people in Latin America. To see some family testimonials on the positive impact of our award-winning inclusive business, please view this [video](#).

Productive Centers of Self-Employment

CEMEX has promoted *Productive Centers of Self-Employment* (PCS) for several years. Through alliances with governments, this social business makes technical assistance and training available to low-income families, so they can become involved in the production of building materials, including concrete blocks that they can use to build or expand their homes. These government partnerships facilitate job creation and promote self-employment.



We currently operate 154 PCS across Nicaragua, Mexico, Colombia, Costa Rica, and Panama, and the program continues to grow. More than 225,000 people have benefited from this social business.

ConstruApoyo

When money is tight, but homes are in need of repair, our *ConstruApoyo* program steps in to help. It provides families with a prepaid debit card, creating a transparent process through which aid recipients can purchase the building materials they need to fix damages to their homes due to natural disasters.

Construyo Contigo

Based on closely coordinated public-private partnerships with governments, non-profit organizations, universities, and communities, this program empowers low-income families to improve their housing conditions. By combining PCS and *ConstruApoyo*, together with technical assistance and psychosocial intervention, we support families' network creation with their community.

Green technologies provide access to basic services

We have joined forces with social entrepreneurs to develop innovative solutions that allow more members of our communities to have access to basic services, including clean water, waste management, and energy.

As of 2016, more than 18,000 CEMEX eko-stoves have been installed. This enables us to move forward with our commitments to the Global Alliance for Clean Cookstoves, an initiative that seeks to foster the adoption of clean cookstoves and fuels in 100 million households globally by 2020.

Enhancing our suppliers sustainability

We have developed a strong relationship with our supplier network. Since its inception in 2010, our *Supplier Sustainability Program* has extended our commitment to sustainability to our value chain, communicating and promoting responsible practices. This program integrates the basic sustainability

AT THE END OF 2016, ALMOST 30,000 PEOPLE IN MEXICO AND COLOMBIA HAD BENEFITED FROM CONSTRUYO CONTIGO.

requirements with which our suppliers must comply. They express our corporate sustainability value statements, included in our [Human Rights Policy](#), [Code of Conduct when Doing Business with Us](#), and [Code of Ethics](#).

Our ambitious goal is to evaluate at least 55% of our company's procurement and energy spending by 2020. By the close of 2016, we had evaluated 17% of this spending.

QUANTIFYING OUR IMPACTS AND THE BENEFITS OF OUR SOCIAL INITIATIVES

What is the cost to society of a ton of CO₂ that we emit? A kilogram of dust? An acre of land disturbed to extract minerals for our products? Likewise, what is the value of our high-impact social programs such as *Patrimonio Hoy*? Or the volunteering work that many of our employees do around the world? Answering these questions in a consistent way will allow us to estimate the true net value that we contribute to society, and also significantly enhance our ability to optimize that value creation by focusing on the levers that have the greatest impact.

At CEMEX, we have made great progress in the development of an approach that allows us to consistently quantify the benefits of our environmental and social impacts. After developing our own methodology and piloting it in our UK operations with results that beat our most ambitious expectations, CEMEX is now taking this kind of analysis at the corporate level.

As a first step we started estimating the net value of our social initiatives. According to our calculations our *Patrimonio Hoy* initiative generated an external social value of some US\$65 million.

3.4 | Sustainability is fully embedded in our business



Responsible Sourcing for a better world!

Supplier Sustainability Program

Additionally, to obtain an objective evaluation of our business partners, we work with an external sustainability supply management firm to evaluate our suppliers in terms of their social, environmental, H&S, business ethics, stakeholder relationships, and financial performance. After suppliers go through the sustainability assessment, a third party analyzes the information and creates a consolidated report, including conclusions from the evaluation, identified areas of opportunity, and a clear action plan to close the gaps. This report also includes a benchmark with the average score of the corresponding business sector to provide information on the supplier's position in comparison with their industry peers. Moreover, suppliers are expected to improve their grade in future assessments. This grade is integrated into the supplier's scorecard to track and reward suppliers that demonstrate advanced sustainability practices.

This year, we want to recognize the following companies for their notable performance in our *Supplier Sustainability Program* evaluation and high level of engagement in their sustainability practices:

- ▶ Casa Pellas SA
- ▶ Dyno Nobel Inc.
- ▶ Canon Business Solutions
- ▶ Staples, Inc.
- ▶ Biffa Waste Services Ltd.

OUR GOAL IS TO EVALUATE AT LEAST 55% OF OUR COMPANY'S PROCUREMENT AND ENERGY SPENDING BY 2020.

During 2016, almost 1,300 suppliers were assessed using sustainability criteria. Additionally, to reinforce our sustainability expectations, we include Human Rights, Labor, Antitrust, and Sustainability clauses in contracts and purchase orders.

As of December 31, 2016:

- All procurement countries consider Ethics and H&S standards in the selection and regular screening of suppliers.
- Countries representing more than 72% of CEMEX's spending have a formal program in place to train suppliers and contractors on sustainability issues.

Taking an active and transforming role

We are active members of the UN Global Compact's Advisory Group on Supply Chain Sustainability and the Cement Sustainability Initiative's supply chain group. This keeps us involved in changing policies, metrics, and practices within the industry.

Local products and service supply

Local sourcing helps us build closer relationships with our suppliers and helps stimulate local jobs and the economy near our areas of operation. In 2016, 95% of our purchases were from locally and nationally based suppliers.

Supplier development programs

As part of the Supplier Certification Process in Mexico, two new projects were launched:

- ▶ **Lean-Six Sigma black belt training** – This program focuses on suppliers' implementation of projects to reduce their costs, and additionally, reduce our prices. Each supplier is accompanied by one CEMEX Mexico Procurement negotiator and is sponsored by *Centro de Competitividad Monterrey*.

- ▶ **Raw material suppliers development program** – This program targets small- and medium-sized enterprises (SMEs)—which supply raw materials—to promote their growth and development. It includes basic consulting advice, specialized training, and financial aid. With the support of *Centro de Competitividad Mexico*, this program looks to optimize these suppliers' operations to reduce our costs.

Integrating Suppliers' Ideas

Our *INTEGRATE Suppliers Innovation Program* fosters collaboration between our company and our suppliers by generating innovative new ideas to enable us to improve our practices throughout the value chain, while supporting our operations' cost-reduction strategies. From a field of 28 suppliers in the Mexican edition of *INTEGRATE*, Grupo Kopar was selected as the 2016 first place winner. Their idea, "High Efficiency Valve for Dust Collectors," makes dust collectors more efficient by redefining the Pulse filter cleaning valve system—migrating from traditional diaphragm valve technology to efficient Mac spool valves.



3.4 | Sustainability is fully embedded in our business

PURSuing EXCELLENCE IN ENVIRONMENTAL MANAGEMENT

One of our main objectives is to pursue environmental excellence for sustainable growth. In addition to our Board-level Sustainability Committee, our Global Environmental Council—composed of the main environmental executives responsible for each of CEMEX regions—shares new trends, proposals, and best practices to identify, inform, and tackle key environmental management concerns.

Optimizing our carbon footprint

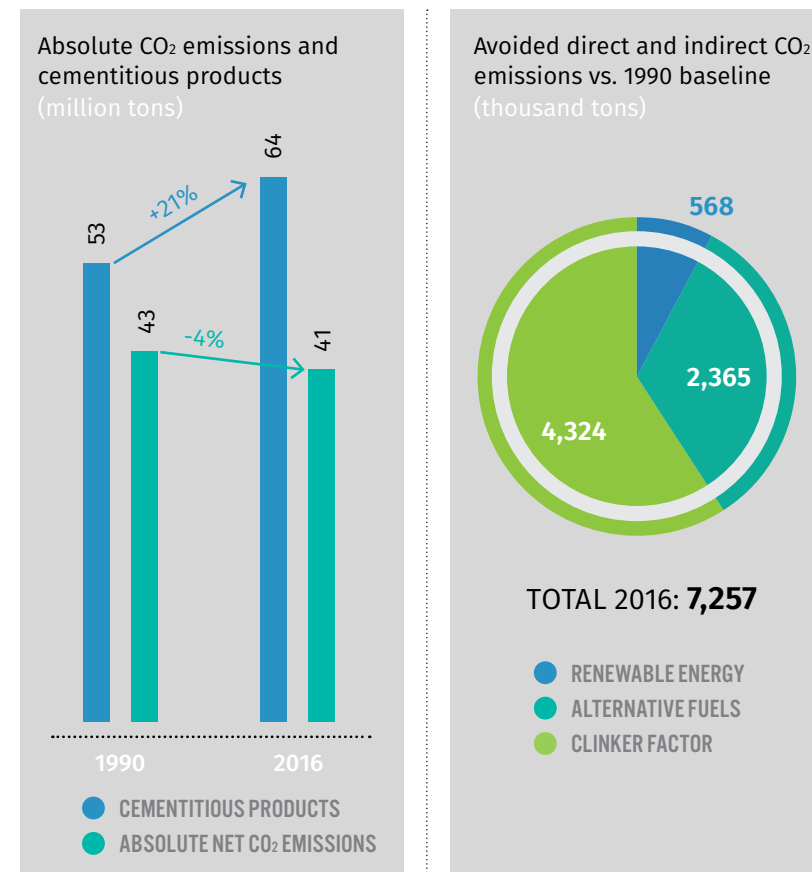
We are committed to contribute to climate change mitigation and its consequences. For decades, as part of our carbon emissions reduction strategy, we have focused on using low-emission alternatives to traditional fossil fuels, decreasing our clinker factor, promoting clean energy, and increasing energy efficiency across our operations. To this end, we have continuously seek to increase the use of low-carbon alternative fuels, which represented 23.3% of our total fuel mix in 2016.

We reduce the CO₂ footprint of our cementitious products by replacing traditional energy-intensive clinker with alternative raw materials, such as slag, fly ash, and pozzolans. In 2016, our overall clinker factor was 78.4%, around 7 percentage points less than 1990. Also, our emissions of CO₂ per ton of cementitious products dropped by 20% compared to 1990.

Overall, in 2016, we avoided almost 7.3 million tons of CO₂ emissions as a result of our mitigation efforts—comparable to the annual average carbon emissions from 1.3 million passenger vehicles.

In 2016, we received an A- from CDP (formerly the Carbon Disclosure Project) under their new evaluation system. The change in CDP's scoring methodology, applicable as of this reporting cycle, means that companies now receive a single letter score from A to D-. These scores represent the steps a company moves through as it progresses towards environmental stewardship: Disclosure (D- and D), Awareness

(C- and C), Management (B- and B), and Leadership (A- and A). With this excellent result, CDP recognizes that CEMEX is among the leading group of companies in the field of climate change. This evaluation represents a seamless continuation of the very good ratings that we received over the past couple of years under CDP's prior rating system.



Cementitious products as defined by CSI.

OUR CARBON STRATEGY ALLOWED US TO DELIVER 21% MORE CEMENTITIOUS PRODUCTS IN 2016 REDUCING OUR NET CO₂ EMISSIONS ABOUT 4% VS. 1990.



SEVENTEEN CEMEX USA INSTALLATIONS EARN ENERGY STAR® EPA CERTIFICATION

Five of our cement plants in the United States have earned the U.S. Environmental Protection Agency (EPA) ENERGY STAR® certification, ranking among the top 25% of similar U.S. facilities for energy conservation. The recognized facilities include:

- Miami, Florida (sixth certification)
- Clinchfield, Georgia (tenth consecutive certification, a milestone achieved by only one other cement plant in the U.S.)
- Fairborn, Ohio, and Victorville, California (each received their fifth certifications)
- Brooksville, Florida (fourth certification).

Additionally, 12 of our ready-mix concrete plants in Texas have met the EPA ENERGY STAR Challenge for Industry by reducing their energy intensity by 10% within five years or less. Collectively, these ready-mix facilities cut their energy intensity by an average of 21%. Also, two of our ready-mix concrete plants in New Mexico had met the Challenge previously.

Through this initiative, we are creating value for our shareholders by reducing our energy bills. At the same time, we are contributing to the betterment of our communities and society through our reduction of greenhouse gas emissions and our utilization of fewer resources.

At CEMEX, we are committed to sustainable business practices across our operations and to building a better future for our communities through our environmental initiatives. It's truly an honor to receive this recognition from the EPA and ENERGY STAR®, and we look forward to many more years of participation in this important program.

3.4 | Sustainability is fully embedded in our business

Expanding our renewable energy portfolio

Recognizing that increasing urbanization and its related construction produce greenhouse gas emissions, we leverage our industry-leading technical expertise to develop a strong clean energy portfolio that we continue to expand.

In 2016, 25% of our cement operations' power supply came from renewable sources. This percentage includes all electricity from renewable sources that CEMEX has contracted directly, plus the renewable energy share of the grid power that our plants consume.

CLEANEST PRODUCTION PROCESS IN THE DOMINICAN REPUBLIC

Our cement plant in San Pedro de Macoris garnered from the Dominican Republic's Ministry of the Environment and Natural Resources the third national award for "Cleanest Production Process." The award highlighted our plant's ISO 14001:2004 certification, which made us one of the first companies in the country's construction industry to have a sustainability policy to manage environmental aspects associated with our production processes. As part of its commitment to sustainability, the plant has an on-site 1.5 MW solar facility and sources more than three quarters of its power consumption from the Los Cocos wind farm.

Solar energy installations. Santo Domingo Cement Plant. Dominican Republic



Some of our clean power projects and purchase agreements include:

- ▶ 250 MW Eurus wind farm in Mexico
- ▶ 252 MW Ventika and Ventika II wind farms in Mexico
- ▶ 7 MW wind portfolio in California, USA
- ▶ 30 MW waste-to-energy plant in Rüdersdorf, Germany
- ▶ 6 MW hydro power portfolio in Colombia
- ▶ 6 MW waste heat recovery facility in Solid, Philippines
- ▶ Enel Fortuna hydroelectric plant in Panama
- ▶ 1.5 MW solar project in the Dominican Republic
- ▶ EGE Haina Los Cocos wind farm in the Dominican Republic

CEMEX FACILITIES ARE FIRST PHILIPPINE CEMENT PLANTS ENDORSED FOR INTERNATIONAL ENERGY EFFICIENCY SEAL

CEMEX Solid and APO plants became the first cement plants in the Philippines recommended for certification under the ISO 50001:2011 Energy Management System (EnMS). The SGS Philippines' endorsement for EnMS certification recognizes CEMEX's commitment to energy optimization and climate change mitigation.

Our carbon offsets projects portfolio

For more than a decade, CEMEX has worked to identify, document, and register projects that mitigate carbon emissions and generate equivalent offsets. CEMEX has achieved approval for 19 CO₂ offset projects registered under the Clean Development Mechanism and four under the Verified Carbon Standard, representing a total reduction potential of nearly 3 million tons of CO₂ per year. These initiatives are located in Colombia, Costa Rica, Mexico, Panama, the Dominican Republic, Egypt, and the United States.

WE LEVERAGE OUR INDUSTRY-LEADING TECHNICAL EXPERTISE AND SKILLS TO EXPAND OUR CLEAN ENERGY PORTFOLIO.

From waste to fuel

We are determined to meet the demands of a growing society through effective and secure ways to alleviate the social, economic, and environmental issues associated with municipal waste management.

At CEMEX, we lead by example. We are building global support for the enactment and enforcement of legislation that promotes co-processing of waste, which cannot otherwise be reduced, reused or recycled.

CEMEX is a prominent industry advocate and user of alternative fuels, displacing traditional fuels like petcoke and coal with low- or even zero-carbon alternatives such as municipal solid waste, tires, and biomass residues. At year-end 2016, 92% of our cement plants co-processed alternative fuels for a total fossil fuel substitution rate of 23.3%—avoiding the use of 1.6 million tons of coal. Moreover, eight of our cement plants that use alternative fuels surpassed a substitution rate of 50% in their fuel mix.

For the year, our top performers in alternative fuel use included our Chelm cement plant in Poland, Prachovice cement plant in the Czech Republic, Broceni cement plant in Latvia, Clinchfield cement plant in the U.S., and Rüdersdorf cement plant in Germany. Overall, they disposed more than 800 kilotons of waste as fuel in an environmentally friendly manner. In 2016, our company generated savings of US\$90 million by co-processing alternative fuels.

CEMEX has the know-how to source, process, store, and recover energy from alternative fuels in a responsible way. By increasing the co-processing of these fuels in our cement plants, we will help overcome challenges such as climate change, waste management, and fossil fuel depletion—utilizing the principles of a circular economy. Despite our more than a decade of work and significant investment, considerable challenges delay our progress to our alternative

3.4 | Sustainability is fully embedded in our business

fuels targets. Some of the barriers include suitable waste availability, waste infrastructure and logistics, co-processing regulations, and technical limitations. Particularly, the drop in the oil market price made alternative fuels no longer economically competitive in some of our markets. Moreover, some of our highest performing kilns were out of service during a significant part of the year. Nevertheless, we will continue our efforts to reach our 35% Alternative Fuels Target by 2020.

Advancing towards a circular economy

We dispose of waste generated in our production processes in accordance with local regulations. To reduce most of the waste generated from our processes, we maximize our reuse of clinker kiln dust in the production loop, largely avoiding its landfill disposal. To realize the financial and

environmental benefits of waste, we monitor, minimize, reuse, and recycle all of our wastes, whenever possible. Among our disposal efforts, we:

- Monitor hazardous and non-hazardous waste generated in all of our operations
- Replace primary aggregates with other discarded materials, including demolished concrete
- Reuse and recycle fresh concrete returned from construction sites.

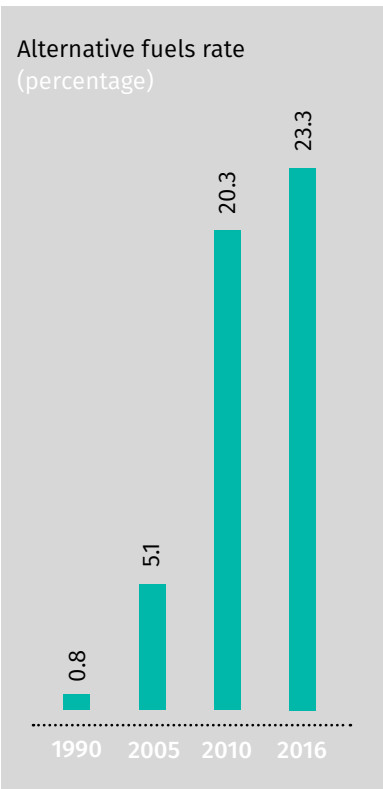
In 2016, 94% of the waste generated by our production processes was recovered, reused or recycled. The remaining material was sent to disposal sites. Moreover, the disposal of our non-hazardous waste—the most abundant waste

TO REACH ITS ALTERNATIVE FUELS RATE, CEMEX HAS INVESTED APPROXIMATELY US\$236 MILLION SINCE 2005.

we generate—decreased approximately 40% year over year, while our hazardous waste disposal declined by 9%.

Enhancing environmental management

We use CEMEX Environmental Management System (EMS) to evaluate and facilitate consistent, complete implementation of risk-based environmental management tools across our operations. CEMEX EMS consists of key mechanisms for environmental impact assessment, stakeholder engagement, and accident response based upon input from a range of environmental and biodiversity specialists.



CEMEX POLAND'S CHELM PLANT BENEFITS FROM NEW RDF SHREDDERS

To satisfy CEMEX Chelm cement plant's growing demand for refused-derived fuel (RDF), EKoPaliwa, a local waste recycling company, recently installed the second Weima PowerLine 3000 single-shaft shredder, with a 350 kW hydraulic drive capacity. Thanks to this expanded capacity, the Chelm plant will ensure fuel supply self-sufficiency.

Monitored by four teams around the clock, the EKoPaliwa waste recycling plant processes around 18,000 tons of material from local waste disposal facilities and private companies every month.



The 12 Elements of the CEMEX Environmental Management System Framework



3.4 | Sustainability is fully embedded in our business

The system meets ISO 14001 and EU Eco-Management and Audit Scheme (EMAS) certification and applies to all of CEMEX business activities, products, and services globally, including companies and joint ventures controlled by and/or operated by CEMEX.

At the end of 2016, 98% of our cement plants, 88% of our ready-mix concrete operations, and 86% of our aggregates quarries had implemented either CEMEX EMS or equivalent programs. As we approach full implementation of our global EMS in 2020, our goal is for all of CEMEX facilities to be 100% compliant with our internal environmental criteria.

Managing our air emissions

We are committed to reducing our environmental footprint, by working to:

- Monitor major and minor emissions
- Improve our measurement methods
- Adapt to new and more stringent air emissions regulations, invest accordingly, and execute required training
- Go beyond local regulations and set ambitious targets for emissions mitigation.

The release of nitrogen oxides (NO_x), sulfur compounds (SO_x), and dust occurs during cement manufacturing. Other emissions, including dioxins, furans, volatile organic compounds, and heavy metals, are released in very small or negligible quantities. To control our stack emissions and remain compliant with local regulations, we have expanded emissions monitoring at our cement plants. In 2016, 84% of our clinker was produced with continuous emissions monitoring systems in place. Our 2020 target is 100% continuous monitoring of major emissions.

In 2016, we invested US\$80 million in sustainability-related projects at our global operations, including more than 70 projects to monitor and reduce our air emissions.

Through our EMS, we monitor major emissions to ensure compliance with local regulations. To improve these efforts, we have set minimum performance levels for major emissions that we fulfill annually. These annual goals ensure CEMEX consistently performs below required levels. Additionally, an external party verifies our air emission KPIs annually.

CEMEX OBTAINS “GREEN” FINANCING FROM IFC

In 2016, the International Finance Corporation (“IFC”), a member of the World Bank Group, granted CEMEX a loan of approximately €106 million to support the company’s sustainable investment programs in emerging markets.

After a thorough assessment of CEMEX’s environmental, governance, and social practices, the IFC granted CEMEX funding for projects designed to enhance environmental performance. Approximately 60% of the funds were allocated for projects related to the reduction of CEMEX’s greenhouse gas emissions, while the remainder was allocated to cover improvements to CEMEX’s overall air emission controls.

CEMEX sees many additional areas for collaboration. The IFC is an ideal partner, who shares our values and can help us fulfill our long-term strategic goals.

“We are encouraged by CEMEX’s innovative initiatives and look forward to the company’s leadership expanding the climate change agenda among global key players.”

Liz Bronder, IFC Director for Latin America and the Caribbean

IN 2016, WE INVESTED US\$80 MILLION IN SUSTAINABILITY-RELATED PROJECTS AT OUR OPERATIONS ACROSS THE GLOBE.

CEMEX ACHIEVES CERTIFICATIONS FOR ALL ITS CONCRETE PLANTS IN CZECH REPUBLIC

CEMEX Czech Republic met all the demanding conditions for ISO and OHSAS quality management system certificates in all of its concrete plants in the country. The obtained certificates – ISO 9001, ISO 14001 and OHSAS 18001 – confirm the above-standard quality of production and delivery of transport concrete, wall mortar, coating material and brands as well as special products. CEMEX management systems in the areas of quality, environmental protection and occupational health and safety meet all the demanding requirements specified in both Czech and European norms. The results of the re-certification audit confirmed that the management processes and procedures support compliance with the high standards set forth for the production of concrete.



3.4 | Sustainability is fully embedded in our business

CEMEX environmental incidents management

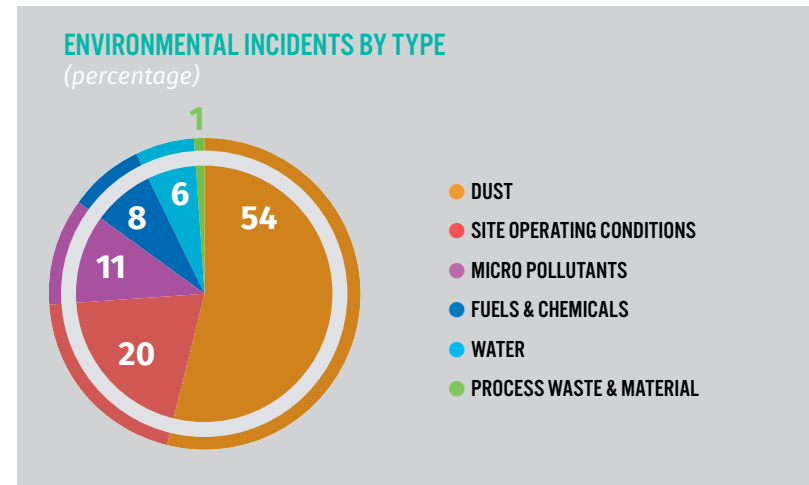
We minimize our emissions and reduce the likelihood of spills and water contamination. We are prepared to respond to any emergency that may pose a threat to our operations and communities:

- Working with our neighbors, law enforcement officials, public agencies, and other stakeholders to develop contingency plans at each of our sites, while contributing to each of our communities' emergency preparedness strategies.
- We created Emergency Response Teams that are trained to address environmental incidents and hold annual emergency drills.
- Consistently record and report incidents at every level of our business to identify recurring root causes and share corrective actions based on best practices.

We recognize that reporting environmental incidents is the first step to reducing their occurrence and severity. Our rigorous efforts to standardize the implementation of our environmental management processes enabled us to avoid the occurrence of Category 1 incidents during 2016.

Moreover, our Category 2 incidents decreased significantly, from 436 in 2015 to 64 in 2016. This significant drop was mainly due to updating CEMEX Environmental Incident Reporting Procedure, wherein the circumstances of specific incidents were recorded in the context of their corrective action to ensure better follow-up and corresponding remediation.

At CEMEX, we will continue to openly disclose our progress, and will work with governments and community groups that support environmental improvement.



ENVIRONMENTAL INCIDENTS STATISTICS	2014	2015	2016
Category 1 Incidents	0	2	0
Category 2 Incidents	39	436	64
Category 3 Incidents	313	227	224
Complaints	81	88	77
TOTAL	433	753	365

Preserving land, biodiversity and water

The preservation of land, biodiversity, and water plays a key role in our long-term resource management strategy.

Managing water to minimize use

Water is critical to our company's operations, comprising nearly 25% of our concrete mixtures. We also use water in our cement and aggregates production processes, as well as for cleaning our plants, trucks, and equipment.

To protect this natural resource and enable our business to succeed, we are increasing our water efficiency and minimizing our water waste through the implementation of our [Corporate Water Policy](#). This policy includes standardization of



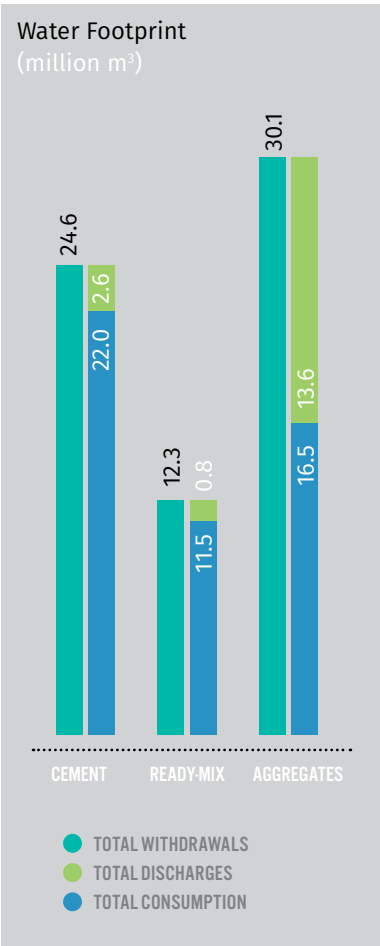
Huichapan Cement Plant, Mexico

our water measurement based on the Water Protocol developed in coordination with the International Union for Conservation of Nature (IUCN).

Additionally, we comply with the Cement Sustainability Initiative's (CSI) Guidelines for Environmental & Social Impact Assessment for all of our quarry developments. According to these guidelines, we assess all of our social and environmental impacts using different methods and techniques, including the requirement to evaluate cumulative effects on biodiversity.

Approximately 9% of CEMEX operations are located in officially designated water stressed areas. We provide guidance to our operations through the creation of a holistic water management plan that prioritizes countries and sites where water-related risks are highest. Ultimately, our work will enable us to set targets that allow for more efficient water management.

3.4 | Sustainability is fully embedded in our business



2016 SPECIFIC WATER CONSUMPTION

Cement:	352 l/ton
Ready-mix:	222 l/m ³
Aggregates:	131 l/ton



Global water conservation initiatives

Throughout our operations, we are working to increase our efficient use of water, rate of recycling, and careful control of water emissions. For example, we have implemented a number of initiatives, including:

- ▶ **Spain:** The San Fermin and Vicalvaro III ready-mix plants utilize a water canalization system with slopes that collect the water used during the washing and fabrication processes, accumulating it in a deposit for reuse. This initiative ensures 0% water waste during the concrete production process. Also, in Madrid's Corporate Offices, the cisterns for all water used inside the building were transformed into eco-cisterns. With this new measure, a 50% reduction in water consumption was achieved, as well as energy savings resulting from heating water.
- ▶ **USA:** Our Balcones quarry completed a new state-of-the-art water recycling system that will decrease our environmental impact and reduce our reliance on local water sources by using 90% less water annually than previously consumed by the quarry's wash plant. The fully automated system uses and recycles 12,000 gallons of water per minute to separate fine aggregate sands—saving the equivalent of 2,000 Olympic-size swimming pools annually.
- ▶ **Panama:** The Bayano cement plant integrated an automated wireless communication system to pump water between the plant and a local creek to reduce this operation's vital liquid usage. The new system's benefits include: reduced water consumption of 35%; electricity savings of 66%; and total energy savings of around US\$34,000 per year.



Implementing biodiversity action plans

Biodiversity Action Plans (BAPs) are the principal tool CEMEX uses to achieve a net positive impact on biodiversity. CEMEX and BirdLife International have created a BAP development standard to ensure individual operations can systematically produce their own BAP, tailored to the particular biodiversity values and challenges associated with their operations. This work is guided by our Corporate Biodiversity Policy—which is fully integrated into our business model in all of our countries and operations. The policy is aligned with the Convention on Biological Diversity and its Aichi Biodiversity Targets.

In 2017, we will celebrate the 10th anniversary of the CEMEX-BirdLife global partnership. Since 2007, our operations have worked closely with BirdLife International, optimizing the unique local-global BirdLife network of grassroots NGOs and their rich knowledge of birds and biodiversity.



3.4 | Sustainability is fully embedded in our business

CEMEX REAFFIRMS COMMITMENT TO BIODIVERSITY PROTECTION AT COP13

At the 13th meeting of the Conference of the Parties to the UN Convention on Biological Diversity (COP13), CEMEX reaffirmed its active role in protecting the biodiversity of our planet by signing the *Cancun Business and Biodiversity Pledge*. Through this pledge, CEMEX joined other signatory companies in the pursuit of concrete actions that deliver solutions for the conservation of biodiversity, its sustainable use, and the fair and equitable sharing of benefits from genetic resources.

Comprised of 196 countries, the Conference of the Parties is the highest governing body of the UN Convention on Biological Diversity. At COP13, approximately 10,000 participants, including representatives of the countries' parties, observer countries, international organizations, and other interested parties, met to negotiate agreements and commitments that give impulse to the conservation and sustainable use of biodiversity.



WE CONTINUED TO DEVELOP QUARRY REHABILITATION PLANS FOR ALL OF OUR ACTIVE CEMENT AND AGGREGATES QUARRIES.

Biodiversity action management and quarry rehabilitation progress

In 2016, we continued taking action to enhance biodiversity in and around our quarries—located in or close to high biodiversity value areas—while starting new BAP projects at other key quarries. We also continued to develop quarry rehabilitation plans for all of our active cement and aggregates quarries.

Our rehabilitation process starts early in the quarry life cycle, and is reviewed and updated on an ongoing basis. Rehabilitation and closure plans are established according to the CSI's Guidelines on Quarry Rehabilitation.

As of 2016, 94% of our active quarries have a rehabilitation plan in place, with a significant percentage comprised of biodiversity-focused end-use plans, given their proximity to key biodiversity areas. Additionally, 63% of our 63 active quarries located within or adjacent to high biodiversity value areas have a BAP in place in conjunction with their rehabilitation plan. Some recent projects include:

- **Conserving Mexico's golden eagle:** CEMEX Mexico and Pronatura Noroeste are conducting an ongoing project to discover crucial information for the conservation of the country's poorly-understood national bird, including five new breeding territories near a CEMEX quarry in Sonora. This work not only determined Golden Eagle numbers and reproductive output within the area of influence of the quarry—its "home range"—but also its population nationally. The insights generated will help the project team to monitor planned improvements to the ecosystem's health over the next phase of the project. A video featuring both the Golden Eagle and the nursery is available on our [website](#).



Hispaniolan slider turtle

- **Saving endemic species and improving livelihoods in the Dominican Republic:** CEMEX Dominican Republic has been working with Grupo Jaragua at its Las Salinas quarry to restore dry forest, conserve water resources, and preserve priority species: the Hispaniolan Slider Turtle and the Rhinoceros Iguana. Up to 500 adult iguanas live within the area of influence of CEMEX's operations, presenting a unique opportunity not only to help protect an iconic endemic species, but also to facilitate the promotion of natural quarry regeneration. Red-listed by the IUCN as a vulnerable species, the globally threatened Rhinoceros Iguana is also an important distributor of seeds from different plant species. One of the main threats to both species is over-exploitation; something the team is working to address. Meanwhile, the win-win solution identified in the case of the Rhinoceros Iguana—quarry restoration and species conservation— is not only innovative, but also will provide a cost-effective mechanism for quarry restoration.

3.4 | Sustainability is fully embedded in our business



Turtle Dove

Spoon-billed Sandpiper
See BirdLife's campaign to protect the flyway [here](#)

Yellow-bellied Toad

- **Creating wildlife habitat at former UK quarries:** Working with the Royal Society for the Protection of Birds (RSPB, BirdLife in the UK), CEMEX continues to conserve nature at its quarry operations. In 2016, the globally threatened Turtle Dove was breeding at three sites, where CEMEX created forage crops and managed thick scrub habitat. Chough successfully returned to breed for the second year at Raynes Quarry, the UK's pilot priority BAP site. Additionally, CEMEX UK presented Lade Pits, a more than 172-acre area formerly known as Denge Quarry, to RSPB.
- **Conserving a globally important migratory flyway in Malaysia:** Since 2013, CEMEX Malaysia and the Malaysian Nature Society (MNS, BirdLife in Malaysia) have worked together to protect an internationally Important Bird & Biodiversity Area (IBA) in the Penang region of Malaysia, where CEMEX's Bukit Tambun Quarry is located. In 2016, the team produced the first ever ecosystem service assessment by a company like CEMEX for a coastal IBA, which highlighted the numerous benefits the IBA provides to society. The outcomes of this analysis have helped to protect this area from poorly planned development,

which otherwise would have adversely affected the site's ability to support shorebirds during migration. Provided that protection is in place over the long term, the CEMEX Bukit Tambun BAP will deliver a net positive impact on biodiversity.

- **Protecting the Châtelet Quarry: One of the yellow-bellied toad's last strongholds in western France:** CEMEX France and LPO Sarthe (BirdLife in France) have collaborated for 10 years to protect the Yellow-bellied toad, *Bombina variegata*. Listed as critically endangered in the Pays de la Loire Red List, the Yellow-bellied toad population at the Châtelet Quarry is now one of the most important in western France, with approximately 200 recorded in 2016. CEMEX France and LPO regularly work to protect the Yellow-bellied toad, holding frequent meetings throughout the year to help adapt operations' planning according to the Yellow-bellied toad's preferred habitat. Critical habitat areas are delineated and protected with barriers and signboards, while habitat management activities limit vegetation overgrowth. LPO Sarthe and CEMEX France further work to create new habitats not only

to replace those that may be lost to operational activities, but also to encourage the species to move within the quarry and the surrounding environment. To ensure the long-term viability of the population, the species is monitored yearly—including during the breeding season—and crossbreeding with other populations is facilitated. As a result of these activities, the Châtelet Quarry population has increased since 2013.

- **Enhancing habitat within an active quarry in Spain:** SEO/BirdLife (BirdLife in Spain) has constructed and launched a floating island to provide safe breeding refuge for waterbirds on a lake at CEMEX Spain's Soto Pajares Quarry. Moreover, 75 nest boxes have been erected on trees to improve nesting opportunities for Passeriforme birds, and more space for nature is being provided—460 trees and shrubs have been re-planted to restore riparian forest. Meanwhile in the area already restored for agriculture, 190 seedlings have been planted to restore hedgerows along the field boundaries, which will support farmland bird populations.

3.4 | Sustainability is fully embedded in our business

Promoting collaborative, cross-sector approaches to biodiversity conservation

Working with BirdLife International, Pronatura, Banamex, and CESPEDS, CEMEX designed and delivered the first ever Mexican Alliance for Business & Biodiversity (AMEBIN). Designed to promote dialogue and action among businesses, financial institutions, and civil society organizations, the event aimed to boost ecosystem preservation, sustainable resource utilization, and biodiversity conservation. During one of the panel discussions, CEMEX profiled its conservation efforts at El Carmen and launched its new conservation book—which focuses on protecting our planet’s primary forests.

Celebrating El Carmen’s 15th anniversary

In 2016, we celebrated the 15th anniversary of continued conservation, scientific research, habitat preservation, and species restoration at El Carmen Nature Reserve. Located along the border between Mexico and the U.S., this private cross-border conservation region is one of the most important biodiversity hotspots and transboundary ecosystems in the world.

Comprising five different ecosystems, the wilderness reserve is home to more than 1,500 plant species, 289 avian species, 80 types of reptiles and amphibians, and 78 mammal species. With more than 140,000 hectares, El Carmen enables us to restore habitats and wildlife in an area that is 8.4 times larger in size than the total sum of the areas impacted by our operations worldwide.

Over the past 15 years, the El Carmen Nature Reserve has provided abundant wildlife management, research and education, and collaboration opportunities:

- **Wildlife management:** Among the highlights of its protection efforts is the reintroduction of locally extirpated species in the region, such as the bighorn and pronghorn sheep. Other species with considerably increased populations include the desert mule deer, the white-tailed deer, and the black bear, which is the largest population of this species of bear in Mexico.
- **Research and education:** El Carmen has provided research and educational opportunities to more than 900 students and academics, who monitor the region’s biodiversity and contribute to its conservation. It has also served as the scene for 16 Master’s and PhD Thesis projects of candidates from prestigious universities across Mexico and the United States. Their study of El Carmen has resulted in the publication of 60 scientific and popular papers.
- **Collaboration:** El Carmen holds active cooperation agreements with several conservation NGOs such as Cuenca Los Ojos A.C., The Texas Bighorn Society, and The Wild Sheep Foundation, as well as partnerships with such institutions as Agrupacion Sierra Madre, Unidos Para La Conservacion, Birdlife International, Conservation International, and The Wild Foundation. The Mexican and U.S. governments also participate in this conservation initiative through agencies ranging from SEMARNAT, CONANP, CONAFOR, and SEMA in Mexico to the National Park Service, the U.S. Fish and Wildlife Service, and the Texas Parks and Wildlife Department in the U.S.



Photo: Santiago Gibert

We invite you to check El Carmen 15th Anniversary Report [here](#).

3.4 | Sustainability is fully embedded in our business

CEMEX EARNS WILDLIFE HABITAT COUNCIL'S HIGHEST RECOGNITION FOR BIODIVERSITY CONSERVATION

The Wildlife Habitat Council (WHC) awarded CEMEX the 2016 Gold Tier Program of the Year for the company's biodiversity conservation efforts at the El Carmen ecological reserve. Beyond this recognition, El Carmen received the Species of Concern Project Award, the Mammals Project Award, the Desert Project Award, and the Forest Project Award. Additionally, CEMEX's conservation programs at its Atotonilco Cement Plant in Mexico earned the WHC's Awareness and Community Engagement Project Award.

CEMEX's facilities in the USA and Mexico have earned WHC Certification for 18 of their conservation programs. WHC certification recognizes programs for their exemplary conservation education, habitat restoration, community outreach, wildlife management and enhancement, and land stewardship.

The certified facilities include the company's Center Hill Mine (FL), Clinchfield Cement Plant (GA), and Victorville Cement Plant (CA) in the USA and its Atotonilco Cement Plant, Huichapan Cement Plant, and flagship El Carmen Conservation Program in Mexico.



In addition to the Wildlife Habitat Council's highest award, CEMEX's El Carmen Conservation Program earned a number of important honors during 2016. In August, Mexico's Secretariat of Environment and Natural Resources granted CEMEX Honorable Mention for the 2016 National Award of Ecological Merit, the country's most important environmental recognition. In January, The Wild Sheep Foundation granted CEMEX its Special Conservation Award in recognition of the initiatives undertaken by the company to protect the desert bighorn sheep as part of its El Carmen Conservation Program.

A geography of hope: Saving the last primary forests

The fourth edition of CEMEX Nature Series builds on the more than two-decade tradition of CEMEX's celebrated Conservation Book Series. This new volume combines extraordinary photography with direct prose to warn us about the urgent need to preserve our primary forests and their rich biodiversity. The protection, restoration, and reforestation of primary tropical forests alone could provide 50% of the climate change mitigation scientists deem necessary over the next 50 years.

This year's book is presented in collaboration with Conservation International, Earth In Focus, and The Wild Foundation. These organizations enabled our shared commitment to the environment to reach millions of people and encourage them to join the growing wave of conservation actions throughout every corner of our planet.

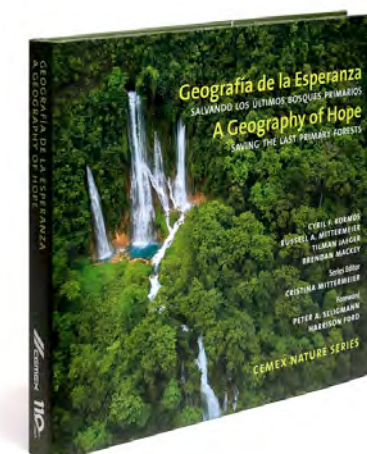
CEMEX NATURE

We launched CEMEX Nature to promote a culture of appreciation and respect for nature among our stakeholders and across the global community. Utilizing the dynamics of social media channels, this new site not only reinforces the impact of our published conservation books, but also includes information about our other biodiversity and environmental projects.

For more information, visit www.cemexnature.com and follow us at:



THIS NEW VOLUME COMBINES EXTRAORDINARY PHOTOGRAPHY WITH DIRECT PROSE TO WARN US ABOUT THE URGENT NEED TO PRESERVE OUR PRIMARY FORESTS.



3.4 | Sustainability is fully embedded in our business

ENHANCING OUR ENGAGEMENT WITH STAKEHOLDERS

We understand that, to solve many of the challenges we face as a community, we must tackle issues alongside other stakeholders to truly maximize our impact.

Stakeholder engagement is key to the execution of our strategy. Our stakeholders are directly linked to the most significant issues of our materiality assessment and, by definition, are integral to our business. In recent years, we have strengthened the way we work with stakeholders. We have taken steps to become more proactive, communicate better, and find more opportunities to collaborate directly.

This is reflected in our Stakeholder Engagement Policy, launched in May 2016. The policy establishes the role that stakeholder engagement and public affairs play in our company's strategy and ongoing business management.

At CEMEX, we define public affairs as the proactive engagement of our stakeholders to identify business opportunities and reduce the risk to our operations. We are committed to open and constant engagement. Ultimately, our objective is to become and be perceived as a proactive, positive neighbor and partner.

Our unified Stakeholder Management Model guides our management team in the identification of our main stakeholders; afterwards, an engagement and communication roadmap is established. In 2016, we conducted training sessions in 14 countries with the participation of more than 170 business leaders to ensure that stakeholder engagement is an integral part of our business agenda and daily management. As a result, our global Public Affairs network grew significantly over the past year.

Strengthening partnerships

With the understanding that in many cases we are more effective working with others, we continued our collaborative partnerships with local and global organizations during 2016. These include NGOs, business and trade associations, academic institutions, multilateral organizations, and development agencies.

Partnerships

We promote well-designed economic, environmental, energy, and commercial regulations that address some of the trends and challenges our society and our industry are facing. We

OUR STAKEHOLDER MANAGEMENT MODEL
CONTINUES TO BE ROLLED OUT ACROSS
OUR OPERATIONS.

OUR PUBLIC AFFAIRS AND STAKEHOLDER
ENGAGEMENT POLICY WAS RELEASED IN
2016.

CEMEX CEO AS CHAIR OF THE CSI

In 2016 Fernando A. González, CEO of CEMEX, was Chair of the Cement Sustainability Initiative (CSI), a sector project within the World Business Council for Sustainable Development (WBCSD). During his tenure, our CEO focused on the development and implementation of a new Operating Model that will allow the CSI to become more agile and efficient.

In addition, in December 2016 CEMEX co-hosted the CSI's 10th annual Forum, a conference on the theme of Climate Change (mitigation and adaptation) to openly discuss, both internally and with key external experts from the regulatory and financial domains, the challenges and opportunities created by the implementation of the Paris agreement for the sector.



World Business Council for Sustainable Development

Cement Sustainability Initiative

also advance policies that support economic development, community wellbeing, and fair market conditions, taking into account considerations from relevant stakeholders. When we can, we provide independent research and guidance in our areas of expertise to support the creation of sound public policies and regulations.

Environment partners

We work closely with several partners to protect the environment and biodiversity of the countries in which we operate.

Around the globe, we engage in fruitful partnerships with both global and local organizations. For example, in the U.S., our collaborative wildlife enhancement and land conservation projects with the Wildlife Habitat Council transform our corporate



3.4 | Sustainability is fully embedded in our business

sustainability objectives into tangible actions. We are currently taking steps to expand this partnership outside of the U.S.

We also partner with national governments on public projects to achieve our sustainability goals. In the Dominican Republic, we are collaborating with the National Botanical Garden to reproduce species of native plants from the country's eastern region for the rehabilitation of our quarries in Quisqueya, Los Llanos, and San Cristobal. Similarly, we are partnering with Egypt's Environmental Studies & Civil Service Council to jointly assess and mitigate the impact of our plants, quarries, and logistics on surrounding communities.

Knowledge and learning partners

We often leverage the knowledge and expertise from our partnerships with academic and research institutions such as Brno University of Technology in the Czech Republic, Instituto Tecnológico de Santo Domingo in the Dominican Republic, Assiut University in Egypt, and the University of Barcelona, the Polytechnic University of Madrid, and the University of Zaragoza in Spain—providing the technical foundations for projects supported by solid research.

In 2013, we began a productive collaboration with the Earth Engineering Center of Columbia University and The City College of New York to conduct a yearlong study on the life-cycle effects of alternative fuels in cement manufacturing. Focused on our waste combustion technologies, the study included multiple visits to our cement plants in the U.S. and Mexico, as well as thorough analysis of operating data. The study concluded that the use of fuels derived from municipal solid wastes (MSW) in cement production reduces greenhouse gas emissions significantly compared with the use of high-quality coal due to the biogenic content of MSW-derived fuels.

We continue to support the Massachusetts Institute of Technology (MIT) Concrete Sustainability Hub (CSHub) through our membership in the Portland Cement Association (PCA) and

WE LEVERAGE THE KNOWLEDGE AND EXPERTISE FROM OUR PARTNERSHIPS WITH ACADEMIC AND RESEARCH INSTITUTIONS.



National Ready Mixed Concrete Association (NRMCA), as well as our participation in the Executive Oversight Committee and a number of advisory groups. By conducting ongoing research, the mission of the MIT CSHub is to develop breakthroughs that will achieve sustainable and durable homes, buildings, and infrastructure through advances in concrete technology.

Additionally, we are particularly active via our largest trade associations such as the European Cement (CEMBUREAU), Aggregates (UEPG), and Ready Mixed Concrete (ERMCO) Associations. Through these organizations, we speak with one voice on key issues across our industry by promoting best practices in H&S and sustainability. Key objectives include raising awareness of our industry's essential role as a driver of economic development and educating decision-makers about concrete's sustainability and resiliency.

Best practice partners

We seek to gain and share best practices that benefit society by partnering with organizations across our global operations—from the Inter-American Development Bank in Mexico to the Corporate Social Responsibility Institute in Latvia.

As a partner in the 100 Resilient Cities Platform, we promote sustainable urban construction in the cities where we operate. Drawing upon our know-how and experience, we offer a compelling value proposition to local authorities for resilient infrastructure projects that looks to leave a positive, long-lasting legacy for their cities. Through a collaborative approach, we allow member cities to explore, conceive, evaluate, and plan tangible solutions to accelerate their progress in four key areas: mobility and infrastructure; buildings and housing; waste and energy; and inclusive business and social development. We also offer our expertise to guide resilient infrastructure planning workshops.



3.4 | Sustainability is fully embedded in our business



Moreover, our involvement in the Grand Paris development project will help improve the quality of life of the residents of this iconic metropolitan area by addressing regional inequalities, while building a sustainable city. Our participation in multiple stages of this large-scale project demonstrates the technical, logistical, and professional capabilities of our company.

Additionally, we remain a corporate member of the Club of Transparency International in the Czech Republic. As a member of the club, we join other corporations in the fight against corruption while actively supporting honest business behavior.

CEMEX is one of the initial members of the Carbon Pricing Leadership Coalition (CPLC), a World Bank-led initiative that integrates governments, the private sector and civil society in an effort to promote the use of well-designed carbon pricing mechanisms, and co-chairs one of its three Working Groups.

The Concrete Sustainability Council (CSC) is an organization that has developed a certification system for responsibly sourced concrete. Covering the full value chain, including mining and production of raw materials, as well as actual concrete plants, the CSC seal will allow our operations to differentiate themselves in the market, allow clients to get recognition under certain green building rating systems, and drive the sector towards ever more sustainable practices. CEMEX is proud not only of being a founding member of the CSC, but also of providing the organization's first chair.

Social impact partners

We look to ensure that we are a socially active, positive part of every country and community in which we operate. To this end, we carry on our partnership with the UN World Food Program's (WFP) Food-for-Education initiative in Assiut, Egypt. Through this initiative, the WFP complements the government's school feeding program by providing food incentives—including daily nutritious snacks and monthly take-home rations—in community schools to encourage parents to send their children to school and keep them there.

By virtue of our collaborative partnership with Habitat for Humanity, we promote access to adequate and affordable housing for disadvantaged social groups. This alliance strengthens the sustainable growth of cities and the ecosystem. The partnership's priorities include:

- ▶ Increasing access to adequate and affordable housing
- ▶ Developing new markets
- ▶ Promoting financial and social inclusion
- ▶ Building a volunteer program for creating adequate housing and social infrastructure.

WE LOOK TO ENSURE THAT WE ARE A SOCIALLY ACTIVE, POSITIVE PART OF EVERY COUNTRY AND COMMUNITY IN WHICH WE OPERATE.

After typhoon Yolanda hit the Philippines, we helped to rebuild and rehabilitate affected communities in the northern part of Cebu province through our *Build Unity* program, a disaster response network of local government and non-profit organizations, including Gawad Kalinga. Among other high-priority rebuilding projects, the program provided houses in safer areas for displaced families, newly repaired classrooms for public school students, accessible medical care and equipment, and safer shelter for children.

Similarly, our development agreement with Mexico's National Civil Protection Agency aims to design programs that increase cities' resilience to natural disasters. Both parties pledge to promote civil protection in the national education system and, thereby, create greater awareness of appropriate behavior in the event of a natural disaster.



3.4 | Sustainability is fully embedded in our business

STAKEHOLDER ENGAGEMENT AND COMMUNICATION MECHANISMS

CEMEX has established several communications mechanisms for our most important stakeholder groups to maintain an open channel of communication.

STAKEHOLDERS	KEY CONCERNS	COMMUNICATION CHANNELS AND FREQUENCY	OUTCOMES
Top Managers and Employees	<ul style="list-style-type: none"> Health and safety Company's economic performance in mid and long term Customer engagement and satisfaction Career growth and development 	<ul style="list-style-type: none"> Monthly newsletter Quarterly internal magazines Periodic site visits/dialogue sessions with management Periodic town halls and webcasts Ongoing leadership engagement and communications, Shift (intranet), email, on-site, message boards, and training programs Annual performance appraisal mechanisms and dialogues Engagement survey (biennially) 	<ul style="list-style-type: none"> Worldwide permanent efforts to reach our zero fatalities and zero injuries goal Better understanding of employees needs and professional growth expectations
Clients	<ul style="list-style-type: none"> Customer engagement and satisfaction Company's economic performance in mid and long term Quality products, services and solutions Sustainability management practices 	<ul style="list-style-type: none"> Ongoing customer relationship management through sales representative Annual commercial events Annual customer-satisfaction surveys Customer service centers and help lines 	<ul style="list-style-type: none"> Customer centricity strategy Clear understanding of our customers needs and concerns
Suppliers	<ul style="list-style-type: none"> Health and safety Company's economic performance in mid and long term Fair business conditions Sustainability management practices 	<ul style="list-style-type: none"> Daily procurement interactions Ongoing capacity building programs (i.e. Supplier portal) Supplier sustainability guidance 	<ul style="list-style-type: none"> CEMEX Supplier Sustainability Program Inclusion of human rights, labor, antitrust and sustainability clauses in our contracts and purchase orders Promotion of local suppliers
NGOs and Academic Institutions	<ul style="list-style-type: none"> Quarry rehabilitation, biodiversity preservation and ecosystem management Company's economic performance in mid and long term 	<ul style="list-style-type: none"> Annual integrated report and conservation books Project specific and partnership collaboration 	<ul style="list-style-type: none"> Knowledge generation and sharing Strategic partnerships and alliances to multiply our efforts and achieve our goals
Communities	<ul style="list-style-type: none"> Company's economic performance in mid and long term Environmental impact mitigation and management Health and safety Human Rights Quarry rehabilitation, biodiversity preservation and ecosystem management Transparent communication Contribution to community well-being and development Local employment opportunities 	<ul style="list-style-type: none"> Ongoing one-to-one meetings with community leaders, government officials and organizations Quarterly community advisory panels, dialogue sessions and town hall meetings Annual open house days at operating sites Ongoing educational programs on sustainability and capacity and skills training Participation in local career events Development of community infrastructure, volunteering and social investment initiatives Development of inclusive business programs 	<ul style="list-style-type: none"> Creation of social and inclusive businesses Generation of empowerment, and capacity-building Improvement to community infrastructure and well-being Development of learning opportunities Open communication and feedback
Analysts, Investors, Shareholders	<ul style="list-style-type: none"> Company's economic performance in mid and long term Corporate Governance Environmental, Social and Governance (ESG) disclosure and performance 	<ul style="list-style-type: none"> Regular meetings, webcasts and conference calls Quarterly financial updates and guidance Annual integrated report Ongoing website updates and press releases Annual CEMEX Day investor event 	<ul style="list-style-type: none"> Understanding of CEMEX financial position, performance and business perspectives and risks Understanding of management and corporate ESG practices
Local, National and Regional Governments and Regulatory Bodies	<ul style="list-style-type: none"> Environmental impact mitigation and management Company's economic performance in mid and long term Health and safety Climate change and CO₂ emissions policy Infrastructure and housing solutions Local employment opportunities 	<ul style="list-style-type: none"> Annual integrated report and conservation books Ongoing public policy discussions Long-term partnerships Periodic meetings and working groups Periodic plant visits Events and conferences 	<ul style="list-style-type: none"> Collaboration and communication with governments and regulatory bodies Successful adaptations to new local, national and regional regulations
Business Associations and Trade Organizations	<ul style="list-style-type: none"> Active engagement and guidance 	<ul style="list-style-type: none"> Periodic Meetings Annual conferences Ongoing working groups Ongoing research studies 	<ul style="list-style-type: none"> Development of coordinated initiatives with trade associations Best practices sharing



4 OUR OPERATING MODEL

Leveraging our global network



4 | Our operating model

We leverage our global knowledge and scale to establish best practices and common processes worldwide in order to operate more effectively and achieve the greatest value. We accomplish this by sharing what we know, supporting each other, and eliminating any boundaries that may separate us.

OUR OPERATING MODEL

WE STRIVE TO CREATE SOLID RELATIONSHIPS WITH OUR CUSTOMERS, BUILDING THE FOUNDATIONS FOR LONG-LASTING PARTNERSHIPS.

This philosophy is the foundation upon which we built CEMEX Operating Model. We developed the model so that every function—corporate, regional, and country (business unit) level—is united toward a common objective. The model consists of four integrated building blocks:

1. VALUE CHAIN

Through local execution, our business units deliver the greatest value to our customers and achieve the greatest value for CEMEX. The value chain represents the core of our business with P&L responsibility.

2. GLOBAL NETWORKS

Established to maximize value chain performance across business units (BUs)—operating as “One CEMEX”—these networks leverage our worldwide scale to create a competitive advantage. Using a common blueprint, they mobilize the organization to coordinate and launch high priority, global initiatives.

3. SUPPORT FUNCTIONS

Our Strategic, Governance, and Compliance functions, as well as our Centers of Excellence, help enhance value delivery by enabling our business units to focus on value chain execution and achieving our strategic goals. Collectively, they define and enforce global policies, and they provide technical knowledge and specialized tools for continuous improvement.

4. TRANSACTIONAL FUNCTIONS

These functions provide centralized support to improve execution efficiency. Key goals are to maximize standardization of processes and minimize transactional costs of doing business.

Value Chain

As the core of our business, our business units are the platform on which our management team executes and delivers value for our stakeholders. Fundamentally, our business units translate our strategy into results throughout the supply chain—from raw materials supply to delivery of our products and solutions. This includes all of our interactions with our customers, suppliers, and communities. Intimately connected through our different Global Networks and guided by our Support and Transactional Functions, our business units (BUs) are grouped into five regions: USA, Mexico, South, Central America and the Caribbean (SCA&C), Europe, and Asia, Middle East and Africa (AMEA).

Global Networks

Although each of our regions and businesses are strong, we are even stronger when sharing ideas and working together. Through our Global Networks, we operate as “One CEMEX”—creating value for our stakeholders through global collaboration and integration.



CUSTOMER CENTRICITY

Customer centricity is one of our top priorities. Through the Customer Centricity Global Network, we strive to create solid relationships with our customers, building the foundations for long-lasting partnerships.

We collaborate to identify practices and processes we can replicate and leverage to better serve our customers. We challenge, push, and support local commercial teams to achieve ambitious goals, and ensure we effectively invest in tools and technologies to improve customer service and productivity.

4 | Our operating model

In order to deliver value for our customers, as well as our business, the Customer Centricity network has built an institutional sales management process to standardize commercial management practices across all of our lines of business. Through this process, we can better drive results by ensuring our strategic and tactical commercial decisions are executed according to high standards of excellence.

2016 Key achievements for Customer Centricity

In 2016, we launched CEMEX Digital Commercial Model (DCM), identifying customer pain points while integrating a 360-degree expertise approach to solution design, development, and deployment. Additionally, we defined our Customer Centricity framework, incorporating our Customer Journey Experience and DCM. We further generated US\$339 million in additional EBITDA through our cement Value before Volume track.



CEMENT OPERATIONS

Our goal is to run the safest, most efficient cement operations in the world, while offering the best quality, highest value, customer-oriented products and services. Through the Cement Operations Global Network, we strive to build on our long track record of lean operations to create efficiencies and ensure a high level of customer responsiveness. Our employees are engaged, well trained, and fully committed to working in a sustainable way as one CEMEX team worldwide.

With geographically diverse operations, we dispose of waste generated in our production processes in accordance with local regulations. Cement kiln dust represents the greatest amount of waste produced.

Accordingly, we often reuse this dust in our cement production and other processes. To realize the financial and environmental benefits of waste, we monitor, minimize, reuse, and recycle all of our wastes, whenever possible.

OUR GOAL IS TO RUN THE SAFEST, MOST EFFICIENT CEMENT OPERATIONS IN THE WORLD.



OPERATIVE EFFICIENCY

- Trimmed number of kilns not reaching 90% operating efficiency in half, thus achieving benefits of over US\$10 million due to additional clinker production and reduced need to transfer/import clinker
- Kicked off kiln efficiency task force for the U.S. to define action plans for every kiln not reaching our efficiency objective

OPERATIONAL EXCELLENCE

- Started standard organization project with agreed baseline for benchmark
- Executing cultural change to lean management, with over 3,000 employees trained as “green belts,” while capturing US\$6 million from improvement initiatives

MAINTENANCE

- Globally completed basic reliability centered maintenance (RCM) training
- Deployed outage planning and execution model, resulting in a four-day reduction in global average and US\$11 million in variable cost savings

BEST PRACTICES IMPLEMENTATION

- Successfully deployed fuel optimization initiatives, yielding benefits of over US\$75 million mainly from Egypt’s conversion to petcoke
- Continued deployment of Electricity and Quality tracks to negotiate prices and optimize raw material mix, capturing US\$14 million in variable cost savings

OPERATIONS MODEL

- Completed initial detailed definitions of standard processes and procedures for maintenance, quality, and plant management

4 | Our operating model

The network is committed to achieving synergies across all of our operations. Our main focus is on optimizing our fuel mix, electric, and maintenance costs, while maximizing our kilns' efficiency.

2016 Key achievements for Cement Operations

In 2016, we achieved US\$120 million in benefits with our reductions in variable and fixed costs. Also, the consolidated operating efficiency of our kilns increased 1 percentage point—reaching 89% for the year.



Our main objective is to develop a superior model that enables our aggregates business to grow sustainably and to create greater value for our customers and other stakeholders. Key elements of the Aggregates Global Network model include strategically managing the depletion and replenishment of our reserves, optimizing our operations, using transportation as a lever of value creation, and offering distinct value propositions by customer segment.

Another primary objective of the network is achieving full cost recovery (FCR), including capital costs measured on a normalized reserve base at current market value on a per-ton basis. We have developed detailed action plans per quarry to ensure consistency and enable us to consider all of the factors that will contribute to our 100% FCR goal—from pricing to lowering our asset base, reducing costs, and increasing efficiency.

OUR OBJECTIVE IS TO DEVELOP OUR AGGREGATES BUSINESS TO GROW SUSTAINABLY AND TO CREATE GREATER VALUE.

VALUE BEFORE VOLUME	<ul style="list-style-type: none"> Conducted FCR workshops in 40 quarries, identifying US\$18 million in potential benefits <ul style="list-style-type: none"> Approximately 77% of our volume is at FCR Increased income from Value-Added Aggregates Solutions (VAAS) by 15.4% Internally launched NEOGEM, umbrella brand for VAAS products
ASSET MANAGEMENT	<ul style="list-style-type: none"> Finished aggregates replenishment as planned for the year Identified technologies to reduce slow moving inventories Implemented Aggregates Development Plan
OPERATIONAL EXCELLENCE	<ul style="list-style-type: none"> Executed Standard Organization internal and external benchmarks, opportunities for head-count and maintenance cost savings of US\$17.4 million Progressed on maintenance standards Identified additional productivity benefits of US\$12 million together with FCR workshops
TALENT MANAGEMENT	<ul style="list-style-type: none"> Kicked off new track to ensure talent pipeline Built core team around three work streams: retention, development, and recruitment Outlined roadmap for 2017

We are using a new methodology based on market tiers to guide where to invest and secure replenishment of our aggregates reserves in key markets. Additionally, we set a new stretch inventory optimization target for finished-goods inventory reduction.

2016 key achievements for Aggregates

In 2016, we replenished 115 million tons of our aggregates reserves. We also reduced our inventories by US\$18.8 million or 15% compared with the prior year. We further captured income of US\$17.4 million from services and surcharges.





We offer a wide range of ready-mix products and services, together with technical support for our different types of ready-mix concrete. Depending on the type of application and jobsite requirements, we can design concrete that is stronger, more fluid, develops strength faster, and retains workability longer. At CEMEX's Global Center for Technology and Innovation, our researchers further design special concretes that fulfill the construction industry's increasingly demanding performance requirements.

2016 key achievements for Ready-mix

In 2016, we captured US\$186 million of operating cash flow from services and fees, an incremental improvement of US\$6 million from 2015. Through the global deployment of our Value-Added Products Commercial framework, we realized incremental benefits of US\$15 million compared with the prior year.

Through the Ready Mix Global Network, we help our concrete operations contribute to our company as a profitable, stand-alone business—journeying from a cost-based to a value-driven enterprise. Our goal is to capture the full value of the ready-mix concrete products and services we deliver to our customers and, thus, realize the entire value proposition of our product lines.

VALUE BEFORE VOLUME	<ul style="list-style-type: none"> Progressed in key services and surcharges (i.e., sustainability surcharge, and returned concrete and cancelation fee) Completed and piloted training program on each of the elements of Value before Volume
VALUE-ADDED PRODUCTS	<ul style="list-style-type: none"> Global deployment of Value-Added Products Commercial framework
SMALL-END CUSTOMERS	<ul style="list-style-type: none"> Improved volume and penetration in this important segment, realizing US\$7 million in incremental benefits versus 2015 Replicated different processes across our operations (i.e., Inside Sales Scheme) to enable key business capabilities to better serve this segment Defined Small-End Customers Business Model and Customer Journeys
OPERATIONAL EXCELLENCE	<ul style="list-style-type: none"> Executed Standard Organization benchmarks, theoretical opportunities for headcount savings of US\$16.1 million Completed deployment of basic training skills in key operations through Order Management Certification Program
ASSET MANAGEMENT	<ul style="list-style-type: none"> Defined Asset Footprint and Real State frameworks

OUR GOAL IS TO CAPTURE THE FULL VALUE OF THE READY-MIX CONCRETE PRODUCTS AND SERVICES WE DELIVER TO OUR CUSTOMERS.



With operations in more than 50 countries, the primary focus of the Supply Chain Global Network is to create a competitive advantage and deliver more value to our customers by continuously improving our logistics capabilities. By defining the right logistics model, we can develop global benchmarks with common measurement standards, identify best-in-class practices to replicate where applicable, and foster a global culture of best practice sharing and collaboration.

Through our end-to-end supply chain model, we plan and coordinate activities along the value chain, including:

- ▶ Sales forecasting and operations planning
- ▶ Freight management
- ▶ Network optimization

The network provides a variety of benefits, including:

- ▶ Improved customer service
- ▶ Reduced order cycle times
- ▶ Better forecasting (MAPE)
- ▶ Lower distribution expenses
- ▶ Less inventory

2016 Key Achievements for Supply Chain

In 2016, we launched our Sales and Operations (S&OP) processes and tools in six countries/regions, realizing production and distribution cost benefits of US\$8 million. Moreover, we implemented our freight management process for cement and aggregates in 13 countries, capturing US\$14 million in benefits for the year.

STRATEGIC AND TACTICAL PLANNING

- Developed global S&OP model and playbooks
- Launched S&OP processes and tools in the U.S., Mexico, Colombia, the UK, the Philippines, and Eastern Europe
- Prepared a global standard data extraction model
- Deployed demand tool (SAP IBP) in the U.S. and Mexico
- Developed Supply Planning model (JDA) for the U.S., Mexico, Colombia, the U.K., the Philippines, and Eastern Europe

TRANSPORT MANAGEMENT

- Developed a global methodology and replication playbook
- Implemented freight management process for cement and aggregates in 13 countries
- Identified and documented 63 best practices for replication
- Enabled centralized reporting system to follow up on benefit harvesting

ORDER FULFILLMENT

- Enabled a global track to foster the evolution of our Order and Transportation Management capabilities, aligned with our Digital

ORGANIZATION TRANSFORMATION

- Defined objective mindset and Supply Chain framework
- Developed Supply Chain Foundations course
- Completed Supply Chain Academy proof of concept in Mexico

WE AIM TO CREATE A COMPETITIVE ADVANTAGE AND DELIVER MORE VALUE TO OUR CUSTOMERS BY CONTINUOUSLY IMPROVING OUR LOGISTICS CAPABILITIES.



With more than one million people added to the urban population each week, the world faces incredible infrastructure and housing challenges. At CEMEX, the Grow the Pie Global Network is focused on increasing the market penetration of our products. We seek to make concrete the material of choice for infrastructure, energy-efficient buildings, and low-income housing in all of our markets.

We create more value for our customers by offering them a wide array of innovative construction solutions that help them increase their productivity and profitability, reduce construction cycles, and build more resilient infrastructure and resource-efficient residential, commercial, and industrial buildings. Through the network, we help meet today's challenges by delivering a range of concrete-based solutions, such as:

- ▶ Providing resilient and low-impact infrastructure
- ▶ Contributing to the construction of affordable housing
- ▶ Integrating and promoting innovative solutions for energy-efficient buildings.

2016 Key Achievements for Grow the Pie

Globally, we paved an area equal to 27.1 million m² with our concrete- and cement-based solutions, generating integrated operating cash flow of US\$115 million in 2016. We also constructed an area of almost 11 million m² with our concrete-based building solutions, generating integrated operating cash flow of US\$36 million for the year.

WE COLLECTIVELY MANAGE OUR BUSINESS AS ONE EFFICIENT GLOBAL ENTERPRISE. IN SHORT, WE ASPIRE TO BE A LEAN, EFFICIENT OPERATOR.

PAVING

- Sold 4.4 million m³ of concrete and 619,000 tons of cement through Grow the Pie (GTP) solutions
- Successfully expanded Roller Compacted Concrete (RCC) in Mexico, Egypt, the U.S., the UAE, and the UK
- Reduced the number of turnkey projects by 15% and increased the number of projects through third-parties by 9%

BUILDING SOLUTIONS

- Successfully expanded Insulated Concrete Forms (ICF) in the UK, Germany, and France
- Increased penetration of concrete bricks in the UK, while introducing them in France
- Received very successful reception for Cast-in-Place formworks from housing industry forums in the Philippines

Through our Global Networks, we collectively manage our business as one efficient global enterprise—ensuring that CEMEX is much more than the sum of its parts. In short, we aspire to be a lean, efficient operator.

During 2016, we delivered on our cost and expense reduction target of US\$150 million. We reduced our cost of sales and operating expenses as a share of sales by 1.8 and 0.3 percentage points, respectively, leading to a 1.7 percentage point expansion in our operating EBITDA margin to 20.5% for the year. While that’s good by industry standards, we know we can do even better.

Support functions

Support functions are responsible for the design, institutionalization, and audit of our global policies and processes. They also coordinate and support our Global Networks and their local counterparts to define solutions required by the BUs. These functions further ensure local needs are considered and incorporated into the solutions deployed and determine performance metrics, as well as targets for key local positions and processes. Support functions include human resources, planning, sustainability, energy, and finance, among others.



Distribuidor Vial. Manzanillo, Mexico

Transactional functions

These functions comprise our centralized areas that perform high frequency, standardized activities conducted daily, enabling other CEMEX areas to evolve and deliver additional value. CEMEX’s transactional functions include our distinct Global Service Organization and Vendor Management Office.

ONE SINGLE MODEL

Through our One Single Model initiative, our Global Service Organization is creating value throughout our company by generating cost savings, capturing economies of scale, and improving overall administrative effectiveness and process efficiency. As a result of this initiative, we achieved annual savings of US\$14 million for the year.

Among our accomplishments in the U.S., we centralized and consolidated our organizational structure under one single Operational Support Area. We standardized our commercial administrative support processes, services, and organizational model. We are also aligning our cement and aggregates material valuation and costing process with our global model. Additionally, in Europe, we established a multilingual Expertise Service Center in the Czech Republic, designed to offer qualified accounting and finance support to our regional operations.

Key processes include management of accounts payable and receivable, human resources, and payroll, as well as controllership and financial reporting. The portfolio of services has evolved from mainly transactional services to now incorporate a wide range of knowledge-based services and analytics for decision-making.

The goal of these separate areas is to ensure the highest level of service and optimal control, while achieving economies of scale and minimizing transactional costs. Service Level Agreements are used to measure service performance and ensure reliable information.



5 GOVERNANCE

Committed to the highest standards



5.1 | Corporate governance

CEMEX's Board of Directors and management are committed to maintaining the highest standards of corporate governance. As a public company, we are stewards of other people's money. They invest with us to achieve superior long-term returns at acceptable risk.

As such, it is imperative that we keep a tight reign on risks associated with ethics and compliance and keep our investors fully informed of all activities and ensure our financial disclosures meet the highest ethical standards. Our governance practices represent a key lever to long-term value creation.

Our corporate governance practices are governed by our bylaws and all applicable provisions mainly in both Mexican and U.S. securities laws. We adhere to all applicable Mexican regulations, as well as NYSE and U.S. Securities and Exchange Commission requirements for foreign private issuers, including the Sarbanes-Oxley Act of 2002 (SOX). Also, we voluntarily comply with the Mexican Code of Best Practices, which provides recommendations for better corporate practices for listed companies in Mexico. Beyond compliance and strict adherence to the law, we manage CEMEX with the utmost integrity. Everything we do rests on this foundation.

The CEMEX Board of Directors is composed of qualified directors who provide appropriate oversight, and includes directors that meet the independence criteria under applicable laws. In addition, one member of our audit committee meets the requirements of a “financial expert” as defined by SOX.

In 2016, the board, led by Chairman Rogelio Zambrano, included 13 directors, nine of whom qualify as independent directors according to criteria specified under Mexican Securities Law. During the year, the board met six times to report on a wide range of relevant issues, including sustainability-related concerns and financial strategy, with average board meeting attendance of approximately 92%.

Although our Board of Directors is responsible for supervising the company's overall operation, all CEMEX employees play a critical role in enforcing good governance and financial reporting practices. We have created a collaborative environment that includes: **1)** A system to ensure relevant information reaches senior management in a timely manner; **2)** A system for anonymously and confidentially communicating to the audit committee complaints and concerns regarding accounting and audit issues; **3)** A process for anonymously and confidentially submitting complaints related to unethical conduct and misuse of assets; and **4)** A task force to follow legal requirements and best corporate-governance practices and, when appropriate, propose further improvements. Our Code of Ethics reflects the requirements of SOX.

Our governance and management practices are guided by our relentless commitment to creating long-term shareholder value. These practices are among the reasons we have grown from a regional Mexico-based company to a global industry player. They are also why we are regularly one of the most profitable companies among our global industry peers. And they are a part of the reason that we are well-positioned for continued success.

OUR GOVERNANCE AND MANAGEMENT PRACTICES ARE GUIDED BY OUR RELENTLESS COMMITMENT TO CREATING LONG-TERM SHAREHOLDER VALUE.

BOARD OF DIRECTORS¹

Non-Independent Directors

Rogelio Zambrano Lozano
Chairman of the Board

Fernando Angel González Olivieri

Tomás Milmo Santos

Ian Christian Armstrong Zambrano

Independent Directors

Armando J. García Segovia

Rodolfo García Muriel

Roberto Luis Zambrano Villarreal

Dionisio Garza Medina

José Manuel Rincón Gallardo Purón

Francisco Javier Fernández Carbajal

Armando Garza Sada

David Martínez Guzmán

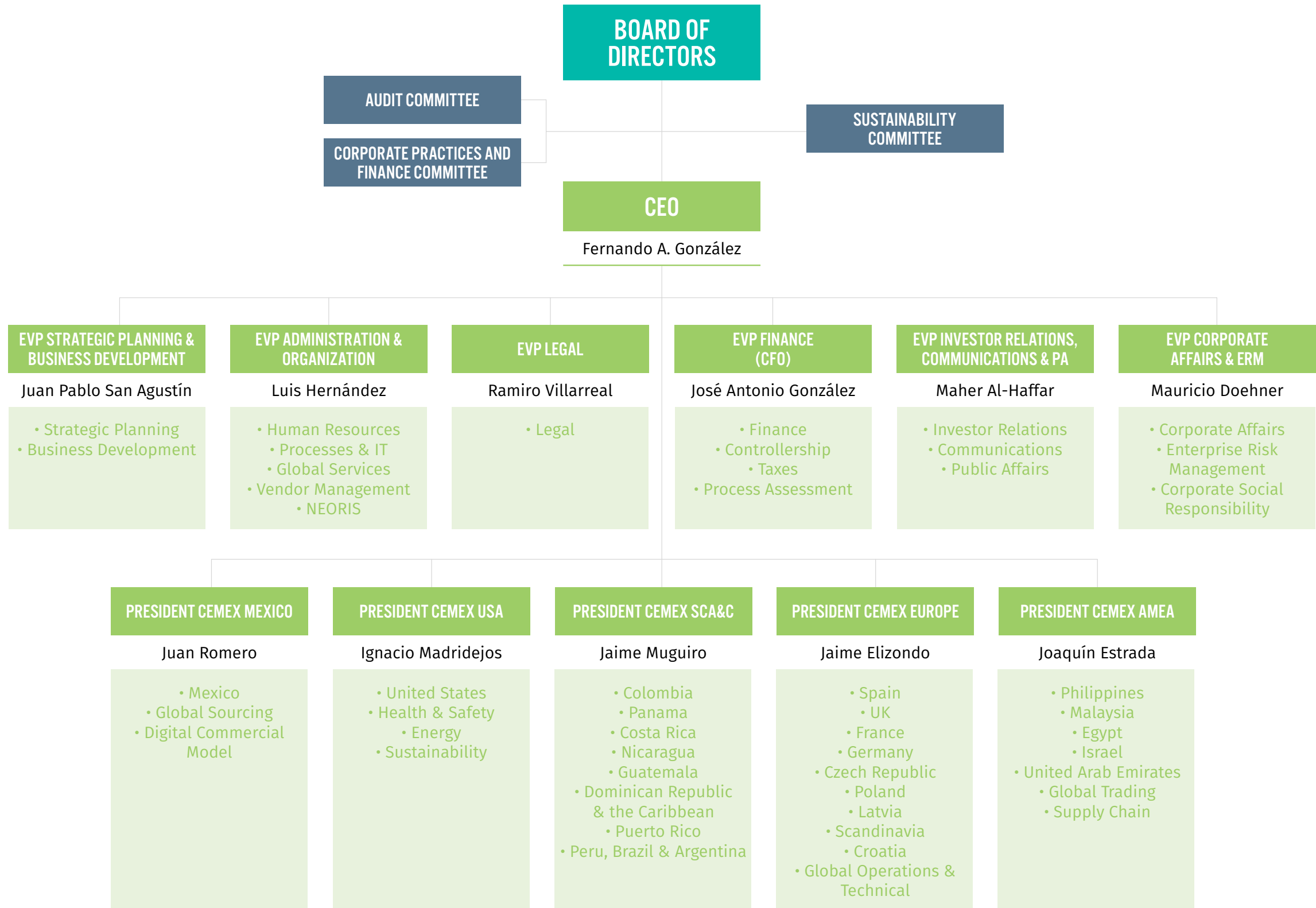
Everardo Elizondo Almaguer

Secretary

Ramiro G. Villarreal Morales
(not a member of the Board)

¹ As of December 31, 2016.

5.1 | Corporate governance



As of December 31, 2016.

AUDIT COMMITTEE¹

The Audit Committee is responsible for evaluating our internal controls and procedures and identifying deficiencies; following up with corrective and preventive measures in response to any non-compliance with our operation and accounting guidelines and policies; evaluating the performance of our external auditors; describing and valuing non-audit services performed by our external auditors; reviewing our financial statements; assessing the effects of any modifications to the accounting policies approved during any fiscal year; and overseeing measures adopted as a result of any observations made by our shareholders, directors, executive officers, employees or any third parties with respect to accounting, internal controls, and internal and external audit, as well as any complaints regarding management irregularities, including anonymous and confidential methods for addressing concerns raised by employees and analyzing the risks identified by CEMEX, S.A.B. de C.V.'s independent auditors, accounting, internal control and process assessment areas. During 2016, the Audit Committee met four times with average meeting attendance of approximately 94%.

José Manuel Rincón Gallardo Purón
President

Roberto Luis Zambrano Villarreal

Rodolfo García Muriel

Francisco Javier Fernández Carbajal

CORPORATE PRACTICES AND FINANCE COMMITTEE¹

CEMEX, S.A.B. de C.V.'s Corporate Practices Committee and Finance Committee is responsible for evaluating the hiring, firing and compensation of CEMEX, S.A.B. de C.V.'s chief executive officer; reviewing the hiring and compensation policies for CEMEX, S.A.B. de C.V.'s executive officers; reviewing related party transactions; reviewing policies regarding use of corporate assets; reviewing unusual or material transactions; evaluating waivers granted to our directors or executive officers regarding seizure of corporate opportunities; identifying, evaluating and following up on the operating risks affecting the company and its subsidiaries; evaluating the company's financial plans; reviewing the company's financial strategy and its implementation; and evaluating mergers, acquisitions, review of market information and financial plans, including financing and related transactions. During 2016, the Corporate Practices and Finance Committee met six times with average meeting attendance of approximately 96%.

Dionisio Garza Medina
President

Francisco Javier Fernández Carbajal

Rodolfo García Muriel

Armando Garza Sada

SUSTAINABILITY COMMITTEE¹

The Sustainability Committee is responsible for ensuring sustainable development in our strategy; supporting our Board of Directors in fulfilling its responsibility to shareholders regarding sustainable growth; evaluating the effectiveness of sustainability programs and initiatives; providing assistance to our Chief Executive Officer and senior management team regarding the strategic direction on sustainability; and endorsing our model of sustainability, priorities, and key indicators. During 2016, the Sustainability Committee met four times with an attendance of 100%.

Armando J. García Segovia
President

Francisco Javier Fernández Carbajal

Ian Christian Armstrong Zambrano

¹ As of December 31, 2016.

EXECUTIVE COMMITTEE



FERNANDO A. GONZÁLEZ (62)
Chief Executive Officer

Since joining CEMEX in 1989, Fernando A. González has held several senior management positions, including President of major operations in South America, Europe, the Middle East, Africa and Asia. He also led several corporate areas including Finance, Planning, Administration, and Human Resources. He was appointed Chief Executive Officer in 2014. Fernando holds a Bachelor's Degree and a Master's Degree in Business Administration from Tecnológico de Monterrey.



JAIME ELIZONDO (53)
President CEMEX Europe

Jaime Elizondo joined CEMEX in 1985, and since then, he has headed several operations, including Panama, Colombia, Venezuela, Mexico, and more recently, our operations in South, Central America and the Caribbean. Currently, he is President of CEMEX Europe, and he is also in charge of the company's global Technology area. He graduated with a B.S. in Chemical and Systems Engineering and an MBA from Tecnológico de Monterrey.



MAHER AL-HAFFAR (58)
Executive Vice President of Investor Relations, Corporate Communications and Public Affairs

Maher Al-Haffar has been with CEMEX since 2000. Prior to his current position, he was Vice President of Investor Relations, Corporate Communications & Public Affairs. He also served as a Managing Director in Finance and Head of Investor Relations for the company. Before joining CEMEX, Maher spent 19 years with Citicorp Securities Inc. and Santander Investment Securities as an investment banker and capital markets professional. Maher holds a B.S. in Economics from the University of Texas and a Master's Degree in International Relations and Finance from Georgetown University.



JOAQUÍN ESTRADA (53)
President CEMEX Asia, Middle East and Africa

Since he joined CEMEX in 1992, Joaquín Estrada has held several executive positions, including head of operations in Egypt and Spain, and more recently, our operations in Asia. Currently, he is President of CEMEX Asia, Middle East, and Africa, and he is also responsible for the company's global Trading area. Joaquín graduated with a B.A. in Economics from the University of Zaragoza, and holds an MBA from the Instituto de Empresa.



MAURICIO DOEHNER (42)
Executive Vice President of Corporate Affairs and Enterprise Risk Management

Mauricio Doehner joined CEMEX in 1996 and has held several executive positions in areas such as Strategic Planning and Enterprise Risk Management for Europe, Asia, the Middle East, South America, and Mexico. He is currently in charge of Corporate Affairs and Enterprise Risk Management. Mauricio has also worked in the public sector within the Mexican Presidency. Mauricio earned a B.A. in Economics from Tecnológico de Monterrey and an MBA from IESE/IPADE. He also has a Professional Certification in Competitive Intelligence from the FULD Academy of Competitive Intelligence in Boston, Massachusetts.



JOSÉ ANTONIO GONZÁLEZ (46)
Chief Financial Officer

Jose Antonio González joined CEMEX in 1998 and since then he has held management positions in corporate and operating areas in Finance, Strategic Planning, and Corporate Communications and Public Affairs. He is currently responsible for CEMEX's Finance, Controllershship, Tax and Process Assessment areas. Mr. González has a B.S. in Industrial and Management Systems Engineering from Tecnológico de Monterrey and an M.B.A. from Stanford University.



LUIS HERNÁNDEZ (53)
Executive Vice President of Administration and Organization

Luis Hernández joined CEMEX in 1996, and he has held senior management positions in the Strategic Planning and Human Resources areas. Currently, he is responsible for global Organization and Human Resources, Processes and IT, Digital Innovation Development, Global Service Organization (GSO), Vendor Management Office (VMO), and Neoris. Luis graduated with a degree in Civil Engineering from Tecnológico de Monterrey, and he holds a Master's degree in Civil Engineering and an MBA from the University of Texas at Austin.



JUAN ROMERO (60)
President CEMEX Mexico

Juan Romero joined CEMEX in 1989, and he has held several positions within the organization, including President of CEMEX operations in Colombia, Mexico, the South America and Caribbean region, and the Europe, Middle East, Africa, and Asia region. Currently, he is President of CEMEX Mexico, and he is also in charge of the company's global Procurement area. Juan Romero graduated from the University of Comillas, where he studied Law, Economics, and Management.



IGNACIO MADRIDEJOS (51)
President CEMEX USA

Ignacio Madrideojos joined CEMEX in 1996, and after holding management positions in the Strategic Planning area, he headed CEMEX operations in Egypt, Spain, Western Europe, and more recently, Northern Europe. Currently, he is President of CEMEX USA, and he is also responsible for the company's global Health & Safety, Energy, and Sustainability areas. Ignacio graduated with an MSc in Civil Engineering from the Polytechnic University of Madrid, and holds an MBA from Stanford University.



JUAN PABLO SAN AGUSTÍN (48)
Executive Vice President of Strategic Planning and New Business Development

Juan Pablo San Agustín joined CEMEX in 1994, and he has held executive positions in the Strategic Planning, Continuous Improvement, e-Business, and Marketing areas. Currently, he is Executive Vice President of Strategic Planning and New Business Development. He graduated with a B.S. from Metropolitan University, and holds an MBA from the Instituto de Empresa.



JAIME MUGUIRO (48)
President CEMEX South, Central America and the Caribbean

Jaime Muguiro joined CEMEX in 1996, and he has held several executive positions in the areas of Strategic Planning, Business Development, Ready-Mix Concrete, Aggregates, and Human Resources. He headed CEMEX operations in Egypt, and more recently, our operations in the Mediterranean region. Currently, he is President of CEMEX South, Central America and the Caribbean. He graduated with a Management degree from San Pablo CEU University, and he holds a Law degree from the Complutense University of Madrid and an MBA from the Massachusetts Institute of Technology.



RAMIRO VILLARREAL (69)
Executive Vice President of Legal and Secretary of the Board of Directors

Ramiro Villarreal joined CEMEX in 1987 and has served as General Counsel since then and as Secretary of CEMEX, S.A.B. de C.V.'s Board of Directors since 1995. Mr. Villarreal will retire as General Counsel of CEMEX effective as of June 1, 2017 and from CEMEX, S.A.B. de C.V. effective as of December 31, 2017. After retiring as General Counsel of CEMEX he will serve as advisor to the Chairman of the Board of Directors and to the Chief Executive Officer of CEMEX, S.A.B. de C.V. He is a graduate of the Universidad Autónoma de Nuevo León with a degree in law with honorary citation. He also received a master of science degree in finance from the University of Wisconsin and was appointed to the Roll of Honor. Prior to joining CEMEX, he served as deputy general director of Grupo Financiero Banpaís from 1985 to 1987.

5.2 | Ethics and transparency

Our governance and management practices are guided by our relentless commitment to creating long-term shareholder value.



STRENGTHENING BUSINESS ETHICS, COMPLIANCE AND TRANSPARENCY

We strive to enhance our reputation as a responsible and sustainable company in order to help attract and retain employees, customers, suppliers, and investors, as well as to maintain good relationships in the communities where we operate.

That is why “Act with Integrity” is one of the five core values driving our company forward.

CEMEX’s Code of Ethics

We established our Code of Ethics and Business Conduct to ensure all of our employees abide by the same high standards of conduct. The Code governs our relationships with all of our stakeholders and addresses anti-bribery, related-person transactions, workplace health and safety, environmental responsibility, confidentiality terms, conflicts of interest, financial controls and records, and preservation of assets. Through our ethics committees, training programs, global integrity campaigns, and secure internal communications channels, we ensure awareness and enforcement of the Code. We periodically evaluate its provisions and update it as needed.

Our reporting mechanism – ETHOS line

If there are concerns or suspected violations pertaining to ethics, governance or compliance, it’s important that employees and the general public have a trusted place to which they can turn. Managed by a third party, our ETHOS line provides an online portal and phone line for sending comments, requesting advice, and submitting complaints on these topics. This secure portal is available 24 hours a day, seven days a week. It is open and free for all to use.

Rather than aiming for zero cases on paper, our goal is to actually find the cases where our Code of Ethics was violated. For example, a reported case at our CEMEX Latam Holdings subsidiary represented an opportunity to continue improving our risk management systems, corporate governance

practices, and internal control and audit processes. In 2016, after receiving a report through ETHOS line, an internal audit identified inadequate accounting procedures that violated our accounting policies relating to our new cement plant under construction in the city of Maceo, Colombia. In addition to our open and transparent disclosure of the internal audit’s results, we brought them to the attention of the Colombian authorities, and issued strict disciplinary sanctions—terminating two executives and accepting the resignation of the former CEO of our subsidiary. Among other corrective measures, we separated the positions of CEO for CEMEX Colombia and for CEMEX Latam Holdings, implemented multiple changes to our management practices, enhanced our internal controls and lines of reporting, strengthened our internal audit processes, and launched a comprehensive internal ethics communications campaign.

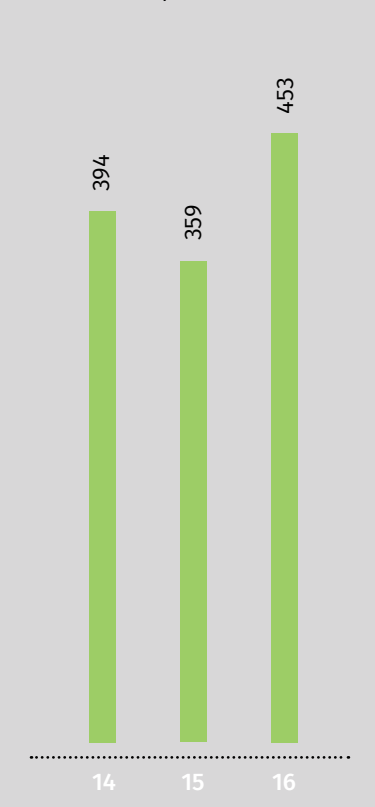
CEMEX POLAND WINS ETHICAL COMPANY AWARD

For the second consecutive year, CEMEX Poland earned the title of *Ethical Company*. From a field of 200 local and global companies across the country, CEMEX Poland was selected for putting in place processes, solutions, and leadership practices that encourage an ethics and values-based culture. Puls Biznesu, a leading Polish business journal, and PwC Poland, who act as auditors, organize the competition.



5.2 | Ethics and transparency

ETHOS line reports statistics



RAISE YOUR VOICE AGAINST DISCRIMINATION!

Among our global ethics communications campaigns, we empowered our employees to identify and take action to prevent workplace discrimination. Recognizing that our strength resides in our multicultural background, we reminded employees of our shared responsibility to report any discriminatory behavior they witnessed on the job.



CATEGORY	TOTAL REPORTED CASES
Human Resources, Diversity, and Workplace Respect	13
Business Integrity	172
Misuse/Misappropriation of Corporate Assets	36
Environmental Health & Safety	44
Other	5
GRAND TOTAL	453

Overall, from a total of 453 cases reported through ETHOS line in 2016, 308 were closed, of which 194 were found to be true and 115 disciplinary actions were taken. From the true cases reported, 52 employees were dismissed as a result of investigations.

Business ethics training and communication

All of our employees are informed of CEMEX business ethics principles in various ways, including via our Code of Ethics, internal communications and displays, face-to-face and online legal training through our intranet Shift ETHOS Policy Center, legal audits, global compliance policies, and other related activities. In 2016, more than 580 communications campaigns to strengthen employees' awareness of business ethics and human rights issues were deployed across all of our business units, including our corporate headquarters, with each of them reaching up to 18,000 employees. These campaigns also help to promote our company values and to inform our employees about unacceptable behavior such as discrimination, improper treatment, mobbing, theft, and workplace harassment, as well as to reinforce our institutional reporting mechanisms.

ALMOST 9,000 HOURS DEDICATED TO BUSINESS ETHICS-RELATED TRAINING IN 2016.

TOPIC	TOTAL TRAINING HOURS
Code of Ethics & Business Conduct and ETHOS line	3,558
Conflict of interest	1,461
Workplace behavior/harassment	1,258
Competition and antitrust	666
Anti-corruption and anti-bribery	616
Noncompliance with company policies	489
Data privacy	128
Discrimination	63
Confidential information	55
Insider trading	17
Other	558
GRAND TOTAL	8,872



5.2 | Ethics and transparency

During 2016, a substantial amount of employees received training related to business ethics, dedicating almost 9,000 hours to subjects such as our Code of Ethics and ETHOS line, anti-bribery, antitrust, and confidential information, among others. Additionally, during the year, approximately 225 relevant executives in 15 targeted countries dedicated 450 hours, receiving training on insider trading and anti-bribery issues.

Global compliance program

We comply with all applicable laws and internal policies, without exception. CEMEX abides by fair trade and competition principles, and we do not tolerate price-fixing, market allocation, predatory pricing or other illegal market practices. Our Anti-Bribery/Anti-Corruption Global Policy, Global Antitrust Policy, Global Conflict of Interest Policy, Related Person Transactions Policy and Insider Trading Policy outline our strict procedures and commitment to global expectations and standards. To further ensure our employees act in a manner consistent with our values, the CEMEX Legal Compliance Department has permanently implemented the Global Compliance Program with a focus on the most sensitive countries related to corruption risks in our business systems and processes. Through this program, internal legal audits (“dawn raids”) and legal trainings for employees are conducted with a focus on antitrust, anti-bribery and insider trading issues. As part of the program, in 2016, we conducted approximately 200 internal legal audits in 15 countries. Our Code of Ethics reflects the requirements of Sarbanes-Oxley Act of 2002 (SOX). We are in compliance with the applicable sections of SOX, including section 404.

Human rights

CEMEX respects all human rights, including those set forth in the International Bill of Human Rights, as well as the principles concerning fundamental labor rights set out in the International Labour Organization’s Declaration on Fundamental Principles and Rights at Work.

WE ALIGN OUR OPERATIONS AND STRATEGIES WITH THE 10 UN GLOBAL COMPACT PRINCIPLES ESTABLISHED AROUND HUMAN RIGHTS, LABOR, ENVIRONMENT AND ANTI-CORRUPTION.

We also embrace the UN Guiding Principles on Business and Human Rights, and as a signatory member of the UN Global Compact, we align our operations and strategies with the 10 Principles established around Human Rights, Labor, Environment and Anti-Corruption. We annually submit an Advanced Communication of Progress (COP) to the Global Compact, demonstrating our strong commitment to the adherence to these principles. This framework and these principles shaped our Corporate Human Rights Policy, signed by our CEO in 2014. In accordance with this policy, CEMEX upholds these principles across our operations, including those in occupied territories. For more information click [here](#).

In addition, employees, stakeholders and other third parties are encouraged to report any potential human rights violation to the Human Resources Department, the Local Ethics Committee or through our ETHOS line.



CEMEX POLAND PROMOTES DIVERSITY BY EXAMPLE

CEMEX Poland developed a Diversity Management Policy designed to implement solutions and to create an engaging work environment with high diversity standards—where diverse groups of people may fully develop their professional potential and deliver value for our company. This policy focuses on three pillars: gender management, generation management, and inclusive workplace. Additionally, CEMEX Poland is a signatory to the Polish Diversity Charter through which it is committed to undertake extraordinary efforts to assure human rights compliance, equality, and diversity across the organization.

Moreover, CEMEX Poland has implemented an Anti-discrimination, Anti-harassment, and Anti-mobbing Policy in the workplace. In this policy, CEMEX’s standpoint is described:

- ▶ We recognize that discrimination, harassment, and mobbing are highly reprehensible actions and any symptoms of these actions will not be accepted under any circumstances
- ▶ This kind of behavior is a strong violation of CEMEX Code of Ethics and Business Conduct
- ▶ Due the great harm of the above-mentioned actions, employees are obliged to counteract them
- ▶ Our goal is to build employees’ awareness that all forms and symptoms of behavior that cause risk of, or are aimed at, harassment, humiliation, discrimination or abuse of another person will not be accepted under any circumstances
- ▶ We will provide support to employees who experience harassment, humiliation or any other reprehensible behavior in the workplace.

5.2 | Ethics and transparency

CEMEX UK LOGISTICS APPRENTICES GRADUATE

Ten young drivers have graduated from the CEMEX Logistics Apprenticeship scheme and have become the latest aggregate tipper and cement tanker drivers at locations across the country. The drivers were the second cohort to take part in the Apprenticeship scheme, which is run over 12 months and helps to address a recognized UK skills gap of an aging driver population by recruiting individuals aged 18 to 23. In the industry, 62% of drivers are aged 45 years or over with only 1% under 25 years old.



WE PROVIDE DIFFERENT AVENUES FOR LISTENING TO EMPLOYEES' OPINIONS AND INVOLVING THEM IN OUR DECISION-MAKING PROCESSES.

To demonstrate our active commitment to pursuing high standards of responsible business conduct, we are going one step further by executing human rights due diligence across the countries in which we operate. An essential part of this process is the ability to define a monitoring plan and a set of mitigation and remediation actions to prevent and address adverse impacts on human rights.

Elimination of discrimination

We forbid all forms of discrimination including, but not limited to, race, creed, gender, marital status, political affiliation and age, and enforce a strict Diversity and Equality Policy. As a predominantly male industry, we make it a top priority to create opportunities for women and openly welcome them to our team. We have initiatives and programs for women in place in approximately half of our operating countries.

We are also committed to creating opportunities for those with disabilities, ensuring our communication and recruitment initiatives reach the members of this community and that our facilities are designed to offer appropriate assistance. Approximately 40% of our operating countries have specific programs to integrate disabled people into the workforce, with a total of 244 disabled employees by the end of 2016.

Freedom of association

CEMEX recognizes, supports, and respects the right of its employees to exercise freedom of association within our operations. Collective agreement clauses vary from country to country depending on the negotiation reached. Basic contracts include labor conditions, compensation and benefits. Other contracts also include notice period, sick pay, overtime pay, maternity leave, retirement, travel expenses and development, among others. Employees are also encouraged to participate in employee councils, company meetings, and projects initiated by employee groups. In 60% of the countries in which we operate, employees are represented by a union

or covered under a collective bargaining agreement that deals with topics such as payment, overtime, life insurance, health care, disability and invalidity coverage, parental leave, and retirement provisions, among others.

Encouraging employee communication

To encourage open communications, we provide different avenues for listening to employees' opinions and involving them in our decision-making processes. Examples include suggestion boxes, discussion forums, council meetings, and engagement surveys—the results of which are prioritized and appropriately acted upon.

Equal opportunity and fair compensation

Hiring decisions are made without regard to gender, race, color, age, religion, mental or physical disability, sexual orientation, political affiliation or national origin.

Child labor

We are strongly committed to the rules regarding child labor in every country where we operate. We do not tolerate the use of child labor by anyone associated with our business, and require official government-issued identification as part of our hiring and selection process.

Forced labor and safe work environment

At CEMEX, no one is forced to perform any task that is hazardous or detrimental to their health or wellbeing. Our operations in every country comply with the local laws, and we take measures to prevent workers from falling into debt bondage through company loans. All of our employees are free to leave the company at any time, and we do not offer any benefit as leverage to force labor. We also have social labor inspectors responsible for following up on workplace environment-related topics. Active social parties (unions, social labor inspectors, employee council) are protected from termination of employment, which assures full independence in relation to the company.

5.2 | Ethics and transparency

Work-life balance

CEMEX abides by the labor laws of each country in which we operate regarding employees' weekly work hours. Working hours exceeding legally stated norms are seen as overtime and paid according to local law. In all the countries where we operate, we have time attendance systems and a policy regarding overtime. We also comply with local laws governing the maximum amount of overtime allowed and have processes in place in each country to monitor and control overtime hours.

More than 80% of the countries in which we operate have established channels for employees to communicate their needs and concerns regarding work-life balance and have implemented initiatives to encourage an appropriate work-life balance based on this feedback.



Cycling team, CEMEX Czech Republic

Approximately 100 initiatives to improve work-life balance were implemented across CEMEX business units in 2016, reaching almost 90% of our total employees. Examples include programs that support child and/or elderly care, allow sabbaticals, and offer parental leave and other benefits such as flex-time, home office, work time reduction on Fridays, sports club memberships or discounts, and activities for families' integration, among others.

MORE THAN 80% OF THE COUNTRIES IN WHICH WE OPERATE HAVE ESTABLISHED CHANNELS FOR EMPLOYEES TO COMMUNICATE THEIR NEEDS AND CONCERNS REGARDING WORK-LIFE BALANCE.

CEMEX PHILIPPINES PROMOTES WORK-LIFE BALANCE

During 2016, CEMEX Philippines implemented a number of initiatives to promote work-life balance, including:

Half-Time Event: In July, employees were treated to a movie screening, where they could bring their family members.

Summer Outing: Employees were treated to a full-day summer activity, giving them a chance to unwind and enjoy the outdoors with colleagues.

Wellness Wars: Employees participated in activities that help improve health and wellbeing.

Sports Tournament: Employees were encouraged to participate in a variety of games, including basketball, bowling, volleyball, tennis, badminton, table tennis, darts, and chess.

Energize: A twice a week program involved various employee wellness activities such as yoga, circuit training, high intensity interval training, knockout, and kickboxing.

Hobby Group: Various groups promoted employee health and wellness activities:

- **Running:** Employees were able to participate in a marathon run every quarter.
- **Biking:** Employees could participate in a quarterly group biking excursion of about 100-150 kilometers.
- **Basketball:** Employees were able to participate in local tournaments.



Employees and families event, CEMEX UK



Thames Challenge, CEMEX UK



6 VALUE CREATION

Driven towards stakeholder value



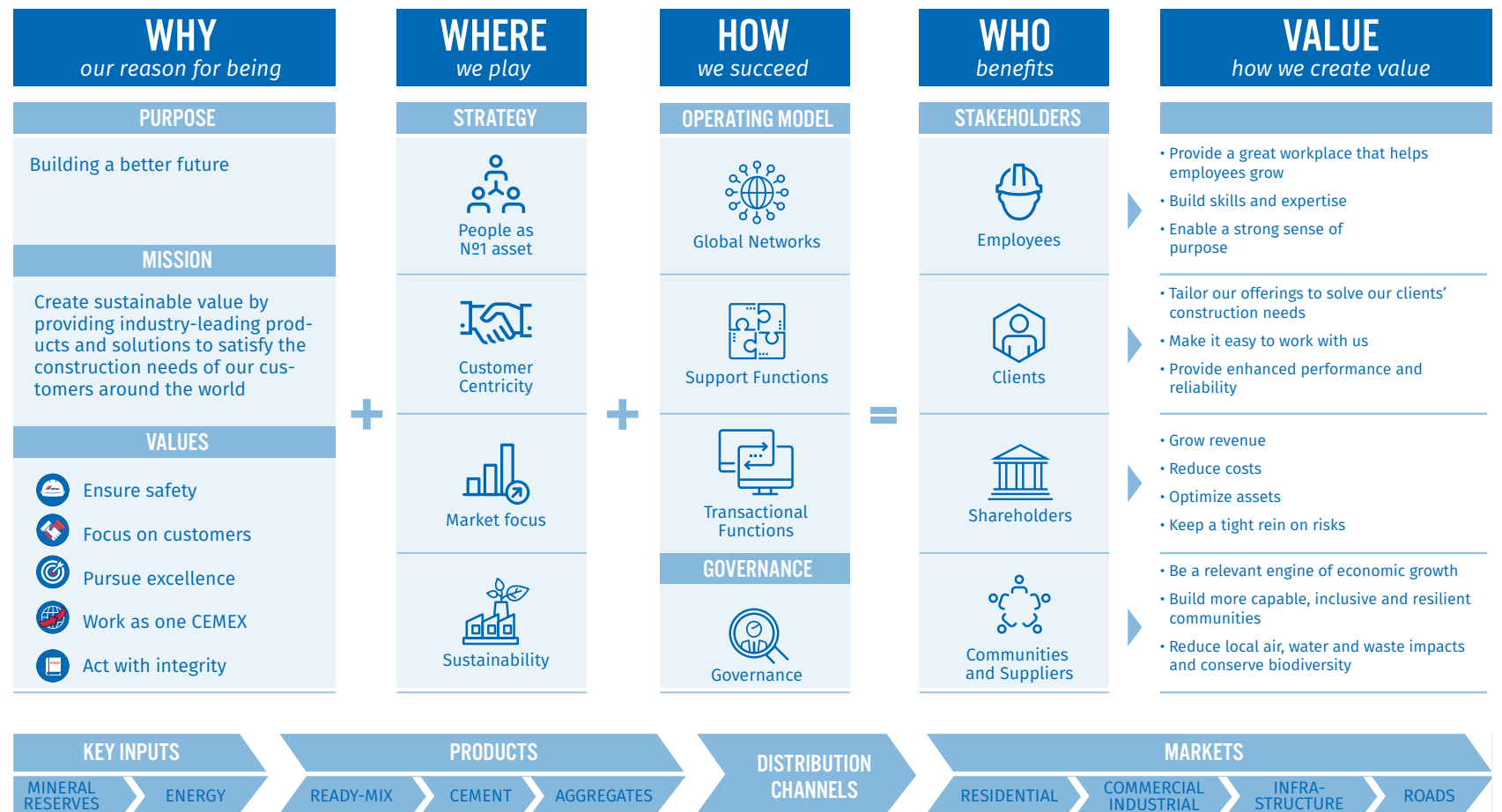
6.1 | How our strategy and operating model deliver value creation

Business begins with value creation. At CEMEX, value creation is formed at the intersection of our business strategy (where we focus), our operating model (how we execute), and our governance model (how we work). When combined, they create short and long-term value for our shareholders, clients, and employees, as well as the communities, suppliers, and organizations with whom we interact.

Value creation touches all aspects of our business from key inputs and products to distribution channels across all our markets. It is a continual process that has a defined purpose and mission based on our core values. This chart summarizes our path to value creation and provides a guide to how each aspect of our business works together to achieve this central goal.

VALUE CREATION IS AT THE INTERSECTION OF OUR BUSINESS STRATEGY AND OUR OPERATING MODEL.

OUR VALUE CREATION MODEL



CEMEX SATISFIES CONSTRUCTION NEEDS AROUND THE WORLD

This overarching theme defines value creation for our entire organization and guides us in our efforts to create unique value for our key stakeholders.

Delivering value that is relevant to each of our stakeholders requires that we first understand their specific challenges, both locally and globally. We must then apply the insights we've gained to deliver value that makes a positive impact on their business or relationship with CEMEX.



Ezeiza Airport, Argentina

6.2 | Creating value for our stakeholders

CEMEX is committed to the philosophy of value creation and doing what's right for our stakeholders—it is embedded in our business. In addition to creating economic value, we also strive to positively benefit the communities in which we are present and to deliver social value.

This chart presents a more detailed overview of how we create real value for each stakeholder group through the various initiatives and practices of our business strategy and operating model. In addition, our governance model guides the way we work each and every day to ensure risk is managed effectively and value is sustained in the longterm.

EMPLOYEES		
VALUE CREATED	HOW OUR BUSINESS STRATEGY CREATES VALUE	HOW OUR OPERATING MODEL CREATES VALUE
Build skills and expertise	Helping grow our employees' skills and drive purpose through the problem-solving process	Making it easy for employees to deepen their subject matter and/or technical expertise
Provide a great workplace that helps employees grow	Providing a safe, rewarding work environment	Improving the overall effectiveness of our safety, compliance and sustainability functions
Enable a stronger sense of purpose	Providing a greater sense of purpose and pride in the company	
CLIENTS		
VALUE CREATED	HOW OUR BUSINESS STRATEGY CREATES VALUE	HOW OUR OPERATING MODEL CREATES VALUE
Tailor our offerings to solve our clients' construction needs	Ensuring we give our clients the innovative products, services and solutions that they really need to improve their productivity and profitability	Ensuring we understand the local nuances of our clients' problems Giving us the ability to bring clients our best solutions, anywhere in the world
Make it easy to work with us	Enabling our employees to provide exemplary customer service	Providing a seamless customer experience
Provide enhanced performance and reliability	Helping us understand the performance and reliability attributes our clients value most	Giving us specialized and differentiated insight into our core markets
SHAREHOLDERS		
VALUE CREATED	HOW OUR BUSINESS STRATEGY CREATES VALUE	HOW OUR OPERATING MODEL CREATES VALUE
Grow revenue	Expanding our margins and share of core markets—cement, ready-mix, and aggregates—and enabling us to move into new, growth markets quickly Helping us improve customer loyalty and attract new customers Driving development of new types of affordable/sustainable construction solutions	Ensuring we continue to increase our footprint in priority locations Improving the overall quality of our products, services and solutions



6.2 | Creating value for our stakeholders

EMPLOYEES



At CEMEX, we value our employees. They are our competitive advantage and the reason for our success. Therefore, we seek to provide the most attractive opportunities for their personal and professional development.

Our dynamic organization provides diverse opportunities to help build our employees' skills and expertise. Through our integrated employee development programs, we aim to make it easy for our people to broaden their technical expertise, deepen their professional subject matter, and hone their problem-solving skills.

We also look to provide a great workplace that enables our employees to achieve their full growth potential. By continually improving the overall effectiveness of our safety, compliance, and sustainability functions, we strive to offer a safe, rewarding work environment that not only allows our employees to thrive, but also inspires a stronger sense of purpose and pride in their company.

CLIENTS

In order to become the most customer-focused company in our industry, we tailor our offerings to solve our clients' evolving construction needs. By fully understanding the local nuances of our customers' demands, we give our clients the innovative products, services, and solutions that they really need to improve their productivity and profitability, while delivering our best solutions anywhere in the world.

WE TAILOR OUR OFFERINGS TO SOLVE OUR CLIENTS' EVOLVING CONSTRUCTION NEEDS.

SHAREHOLDERS

VALUE CREATED	HOW OUR BUSINESS STRATEGY CREATES VALUE	HOW OUR OPERATING MODEL CREATES VALUE
Reduce costs	<p>Making our production and supply chain operations even more lean and cost-efficient</p> <p>Minimizing costs associated with energy/fuel use and maintaining environmental compliance</p> <p>Reducing recruitment costs and improving employee productivity</p>	<p>Helping our businesses identify opportunities for efficiency and cost savings</p> <p>Optimizing costs of core functions like finance, health & safety, HR or legal</p> <p>Streamlining costs of our business transactions</p>
Optimize assets	<p>Deepening our expertise in key markets so we can optimize the asset base—key to our ability to generate return on capital employed (ROCE) and cash value added (CVA)</p>	<p>Enabling knowledge sharing across our businesses so that we can better optimize our assets</p>
Keep a tight rein on risks	<p>Minimizing market risk with a diversified geographic footprint</p> <p>Reducing ethics/compliance and health/safety risks</p> <p>Managing risks of production disruption due to local unrest</p>	<p>Improving the overall effectiveness of our risk management processes</p>

COMMUNITIES AND SUPPLIERS

VALUE CREATED	HOW OUR BUSINESS STRATEGY CREATES VALUE	HOW OUR OPERATING MODEL CREATES VALUE
Be a relevant engine of local economic growth	<p>Growing skills and capabilities in our local communities</p>	<p>Ensuring we take a localized approach to everything we do</p>
Build more capable, inclusive and resilient communities	<p>Improving social and environmental conditions in our local communities through various programs and initiatives</p>	
Reduce local air, water, waste impacts and conserve biodiversity		

6.2 | Creating value for our stakeholders

We also continually work to be our customers' partner of choice. To this end, we make it easy to work with us by enabling our employees to provide not only exemplary client service, but also a seamless, satisfying customer experience—on each and every project.

We further invest considerable time into building strong customer relationships, actively listening to ensure we completely appreciate the attributes that our clients value most. In this



way, we gain specialized and differentiated insights into our core markets that ultimately translate into enhanced performance and reliability for our customers.

SHAREHOLDERS

Our commitment to deliver value to our shareholders rests on a clear recognition that, as a public company, we are stewards of other people's money. Shareholders invest with us to achieve superior long-term returns at acceptable risk.

From a top-line perspective, we look to grow revenue by expanding our margins and share of our core cement, ready-mix concrete, and aggregates markets, increasing our geographic footprint in priority locations, and selectively moving into new growth markets quickly. To accomplish this, we will continue to improve customer loyalty and attract new clients. We will drive the development of new types of affordable, sustainable construction solutions, and we will improve the overall quality of our products and services.



We plan to reduce costs across the board by making both our production and supply chain operations even more lean and cost-efficient. Among other actions, we will continue to minimize our energy and fuel costs, help our businesses identify opportunities for efficiencies and cost savings, and optimize costs of such core functions as finance, health and safety, human resources, and legal.

A key aspect of our ability to generate a positive return on capital employed (ROCE) is the optimization of our asset base. We constantly evaluate our asset footprint within the markets in which we participate.

Finally, in order to keep a tight rein on risks, our approach to risk management is essential to the way we respond to global challenges.

In this regard, we can minimize market risk through our diversified geographic footprint. We also work to reduce ethics/compliance and health/safety risks, while effectively managing risks of production disruption through the continuous improvement of the overall effectiveness of our risk management processes.

COMMUNITIES AND SUPPLIERS

Given the nature of our business, our activities are deeply connected with the communities in which we conduct them. Our own success is intimately related to that of the communities where we are present. Most of the employees we hire and the suppliers from which we purchase products and hire services are part of the community.

OUR OBJECTIVE IS TO BECOME A PROACTIVE AND POSITIVE NEIGHBOR AND PARTNER.

Through our building products, services, and solutions, we support the development of resilient, sustainable communities. To this end, we provide affordable building materials and housing solutions to market segments that lack access to formal credit.

We build capabilities based on our main areas of expertise, from environmental and biodiversity conservation to construction skills and capabilities that are useful in the marketplace to qualify for a job or develop an entrepreneurial venture.

We further work to improve social and environmental conditions locally through the reduction of air, water, and waste emissions and the conservation of biodiversity in the communities in which we operate.



Our objective is to become a proactive and positive neighbor and partner. Thus, wherever we operate, we strive to build mutually beneficial relationships with our stakeholders and communities.

At CEMEX, we are committed to engaging our stakeholders in an open, ongoing, and transparent way. We seek to create value for society through our core business activities by leveraging our employees' expertise and capabilities.

A photograph of a modern building with a concrete facade and a window with a red brick pattern. The building is composed of large, rectangular concrete panels. A window is visible, featuring a red brick pattern above it. The sky is a clear, light blue. The building is set against a clear blue sky. The building's facade is made of large, rectangular concrete panels. A window is visible, featuring a red brick pattern above it. The sky is a clear, light blue. The building is set against a clear blue sky.

7 PERFORMANCE
IN DETAIL

Measuring progress on our vision

7.1 | Financial information

CEMEX, S.A.B. de C.V.
and subsidiaries

(In millions of US dollars,
except per-ADS amounts)

SELECTED CONSOLIDATED FINANCIAL INFORMATION*

OPERATING RESULTS	2007	2008	2009	2010 ⁽¹⁾	2011 ⁽¹⁾	2012 ⁽¹⁾	2013 ^(1,4)	2014 ^(1,4)	2015 ^(1,4)	2016 ^(1,4)
Operating results										
Net sales	20,893	20,131	14,544	14,021	15,215	14,984	14,815	14,975	13,788	13,403
Cost of sales ⁽¹⁾	(13,868)	(13,735)	(10,270)	(10,090)	(10,912)	(10,548)	(10,170)	(10,096)	(9,141)	(8,647)
Gross profit	7,025	6,396	4,274	3,930	4,303	4,436	4,645	4,879	4,647	4,756
Operating expenses	(4,130)	(4,069)	(3,109)	(3,083)	(3,353)	(3,143)	(3,144)	(3,241)	(2,988)	(2,872)
Operating earnings before other expenses, net	2,895	2,327	1,165	847	951	1,293	1,501	1,638	1,658	1,884
Other expenses, net	(273)	(1,909)	(407)	(500)	(419)	(418)	(378)	(350)	(190)	(88)
Financial expense	(807)	(910)	(994)	(1,164)	(1,353)	(1,408)	(1,549)	(1,609)	(1,237)	(1,147)
Other financial (expense) income, net ⁽²⁾	900	(1,617)	(117)	(41)	(177)	74	134	194	(77)	237
Earnings (loss) before income taxes	2,851	(2,031)	(341)	(897)	(1,025)	(403)	(276)	(105)	199	923
Discontinued Operations, net of tax ^(3,4)	26	187	(314)	-	-	-	8	9	80	55
Non-controlling interest net income ⁽⁵⁾	77	4	18	4	2	50	95	(85)	58	63
Controlling interest net income (loss)	2,391	203	104	(1,064)	(1,999)	(913)	(843)	(490)	75	750
Millions of average ADSs outstanding ^(6,7)	743	838	893	1,104	1,109	1,117	1,170	1,256	1,353	1,431
Earnings (loss) per ADS ^(4,7,8)	3.21	0.24	0.11	(0.96)	(1.80)	(0.82)	(0.71)	(0.39)	0.06	0.53
Earnings (loss) per ADS of continuing operations ^(4,7,8)									0.02	0.49
Earnings (loss) per ADS of discontinuing operations ^(4,7,8)									0.04	0.04
Dividends per ADS ^(6,7,9)	0.83	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
BALANCE SHEET INFORMATION										
Cash and cash equivalents	743	939	1,077	676	1,155	971	1,163	854	887	558
Net working capital ⁽¹⁰⁾	1,808	1,504	949	767	915	924	918	640	228	(359)
Assets from operations held for sale ⁽⁴⁾								-	313	1,216
Property, plant, and equipment, net ⁽¹¹⁾	22,895	19,671	19,776	17,902	16,787	16,582	15,764	13,767	12,428	10,961
Total assets	49,662	45,387	44,483	40,848	38,800	37,260	38,018	34,936	31,472	28,944
Liabilities from operations held for sale ⁽⁴⁾								-	39	71
Short-term debt & other financial obligations ⁽¹²⁾	3,311	6,934	565	826	887	589	730	1,765	917	621
Long-term debt & other financial obligations ⁽¹²⁾	16,542	11,849	15,565	16,214	16,976	16,378	16,917	14,818	14,648	12,596
Total liabilities	30,967	28,119	24,806	26,027	26,501	25,149	26,652	24,884	21,967	19,450
Non-controlling interest and perpetual debentures ⁽⁵⁾	3,753	3,390	3,338	1,573	1,189	1,127	1,145	1,158	1,178	1,397
Total controlling interest	14,942	13,879	16,339	13,248	11,111	10,984	10,221	8,894	8,327	8,097
Total stockholders' equity	18,695	17,268	19,677	14,821	12,300	12,111	11,366	10,052	9,505	9,494
Book value per ADS ^(6,7)	19.90	16.34	16.37	12.00	10.02	9.83	8.74	7.08	6.15	5.66
OTHER FINANCIAL DATA										
Operating margin	13.9%	11.6%	8.0%	6.0%	6.2%	8.6%	10.1%	10.9%	12.0%	14.1%
Operating EBITDA margin ⁽¹⁰⁾	21.6%	20.3%	18.3%	16.8%	15.6%	17.5%	17.6%	17.8%	18.8%	20.5%
Operating EBITDA ⁽¹⁰⁾	4,512	4,080	2,657	2,355	2,381	2,624	2,603	2,664	2,588	2,746
Free cash flow after maintenance capital expenditures ⁽¹⁰⁾	2,455	2,600	1,215	455	191	167	(89)	401	881	1,684

NOTES TO SELECTED CONSOLIDATED FINANCIAL INFORMATION

- 1.** Cost of sales includes depreciation, amortization and depletion of assets involved in the production, expenses related to storage in producing plants, and beginning in 2008, freight expenses of raw material in plants and delivery expenses of CEMEX's ready-mix concrete business.
- 2.** Other financial (expense) income, net, includes financial income, realized and unrealized gains and losses from financial instruments, foreign exchange results and the effects of net present value on assets and liabilities.
- 3.** In October 2009, CEMEX completed the sale of its Australian operations for an amount then equivalent to approximately US\$1,700 million. Australia's operating results, net of income tax, for the years ended 2007, 2008 and 2009, were presented in a single line item as "Discontinued Operations" in our consolidated statement of operations.

4. OPERATION	YEARS WITHIN DISCONTINUED OPERATIONS
United States' Concrete Pipe Business *	2016, 2015 and 2014
Thailand & Bangladesh **	2016, 2015 and 2014
Croatia (including assets in Bosnia Herzegovina, Montenegro and Serbia)	2016, 2015, 2014 and 2013
Austria & Hungary ***	2015, 2014 and 2013

* Expected to be sold in the short term, subject to the consent of the respective authorities.

** Sold on May 2016

*** Sold on October 2015

As a result, the statements of operations of 2015, 2014 and 2013 originally reported were restated. Discontinued operations are presented net of income tax. See note 4A to our consolidated financial statements included elsewhere in this annual report."

- 5.** From 2008 through 2016, non-controlling interest includes US\$3,020 million, US\$3,045 million, US\$1,320 million, US\$938 million, US\$473 million, US\$477 million, US\$466 million, US\$440 million and US\$438 million, respectively; of aggregate notional amounts of perpetual debentures issued by consolidated entities. For accounting purposes, these debentures represent equity instruments (See note 20D to the 2016 Annual Report's Financial Statements).

- 6.** The number of ADSs outstanding, stated in millions of ADSs, represents: (i) the total average amount of ADS equivalent units outstanding of each year, (ii) includes the total number of ADS equivalents issued in underlying derivative transactions, and (iii) excludes the total number of ADS equivalents issued by CEMEX and owned by its subsidiaries. Each ADS listed on the New York Stock Exchange represents 10 CPOs.

- 7.** Our shareholders approved stock splits in 2005 and 2006. Consequently, each of our existing CPOs was surrendered in exchange for two new CPOs. The proportional equity interest participation of the stockholders in CEMEX's common stock did not change as a result of the stock splits mentioned above. The number of our ADSs outstanding did not change as a result of the stock splits in 2005. Instead, the ratio of CPOs to ADSs was modified so that each ADS represented 10 new CPOs. As a result of the stock split approved during 2006, one additional ADS was issued in exchange for each existing ADS, each ADS representing 10 new CPOs. Earnings per ADS and the number of ADSs outstanding for the years ending December 31, 2005 and 2006, were adjusted to make the effect of the stock splits retroactive for the correspondent years. In the Consolidated Financial Statements, earnings (loss) per share are presented on a per-share basis (See note 22 to the 2016 Annual Report's Financial Statements).

- 8.** For purposes of the selected financial information for the periods ended December 31, 2007 through 2016, the earnings (loss)-per-ADS amounts were determined by considering the average amount of balance number of ADS equivalent units outstanding during each year. These numbers of ADSs outstanding were not restated retrospectively neither to give effect to stock dividends occurring during the period nor to present the earnings (loss)-per-ADS of continuing and discontinuing operations, as it would be required under MFRS and IFRS for their disclosure in the consolidated financial statements.

- 9.** Dividends declared at each year's annual stockholders' meeting for each period are reflected as dividends for the preceding year. We did not declare a dividend for the years 2008 to 2016. Instead, at our 2009 through 2016 annual shareholders' meetings, CEMEX's stockholders approved a capitalization of retained earnings. New CPOs issued pursuant to the capitalization were allocated to shareholders on a pro-rata basis. As a result, shares equivalent to approximately

384 million CPOs, 401 million CPOs, 419 million CPOs, 437 million CPOs, 468 million CPOs, 500 million CPOs and 539 million CPOs were issued and paid each year from 2010 through 2016, respectively. CPO holders received one new CPO for each 25 CPOs held, and ADS holders received one new ADS for each 25 ADSs held. There was no cash distribution and no entitlement to fractional shares. (See note 20A to the 2016 Annual Report's Financial Statements).

- 10.** This item was not restated to give the effect of discontinued operations. Please refer to page 191 for the definition of terms.

- 11.** In 2016 excludes the assets of Fairborn cement plant, United States; Concrete pumping equipment, Mexico; and Andorra, Spain; that were classified as held for sale. In 2015, excludes the assets of Andorra, Spain as mentioned in the note 12A to the 2016 Annual Report's Financial Statements.

- 12.** From 2010 through 2016, other financial obligations include the liability components associated with CEMEX's financial instruments convertible into CEMEX's CPOs, liabilities secured with accounts receivable as well as CEMEX's capital leases (See note 16B to the 2016 Annual Report's Financial Statements). Prior to 2010, there were no significant transactions concerning capital leases or convertible financial instruments.

(i) As a result of requirements by the National Banking and Exchange Commission, CEMEX prepares its consolidated financial statements using International Financial Reporting Standards ("IFRS"), as issued by the International Accounting Standards Board. Accordingly, CEMEX's consolidated financial statements as of December 31, 2016, 2015, 2014, 2013, 2012, 2011 and 2010 and for the years ended December 31, 2016, 2015, 2014, 2013, 2012, 2011 and 2010, were prepared and presented in accordance with IFRS. Prior years were prepared and presented in accordance with Mexican Financial Reporting Standards ("MFRS"). Reconciling one-time adjustments between IFRS and MFRS were recognized in the opening balance sheet under IFRS as of January 1, 2010 against stockholders' equity

(*) The effects associated with newly issued IFRS are recognized in the year when they become mandatory and are applied retrospectively only for comparative prior periods presented in the set of financial statements issued in the year of adoption. Earlier periods are not restated to give retroactive effect to such new standards.

Consolidated Statements of Operations

CEMEX, S.A.B. DE C.V. AND SUBSIDIARIES

(Millions of Mexican pesos, except for earnings (loss) per share)

		Years ended December 31,		
	Note	2016	2015	2014
Net sales	3	\$ 250,909	220,326	199,942
Cost of sales	2P	(161,883)	(146,068)	(134,742)
Gross profit		89,026	74,258	65,200
Operating expenses	5	(53,762)	(47,769)	(43,347)
Operating earnings before other expenses, net	2A	35,264	26,489	21,853
Other expenses, net	6	(1,646)	(3,043)	(5,045)
Operating earnings		33,618	23,446	16,808
Financial expense	16	(21,468)	(19,767)	(21,483)
Other financial income (expense), net	7	4,441	(1,235)	2,531
Share of profit of equity accounted investees	13A	688	738	294
Earnings (loss) before income tax		17,279	3,182	(1,850)
Income tax	19	(3,096)	(2,328)	(3,920)
Net income (loss) from continuing operations		14,183	854	(5,770)
Discontinued operations	4A	1,024	1,279	90
CONSOLIDATED NET INCOME (LOSS)		15,207	2,133	(5,680)
Non-controlling interest net income		1,174	932	1,103
CONTROLLING INTEREST NET INCOME (LOSS)		\$ 14,033	1,201	(6,783)
Basic earnings (loss) per share	22	\$ 0.33	0.03	(0.16)
Basic earnings (loss) per share from continuing operations	22	\$ 0.31	-	(0.16)
Diluted earnings (loss) per share	22	\$ 0.33	0.03	(0.16)
Diluted earnings (loss) per share from continuing operations	22	\$ 0.31	-	(0.16)

Consolidated Statements of Comprehensive Income (Loss)

CEMEX, S.A.B. DE C.V. AND SUBSIDIARIES
(Millions of Mexican pesos)

	Notes	Years ended December 31,		
		2016	2015	2014
CONSOLIDATED NET INCOME (LOSS)		\$ 15,207	2,133	(5,680)
Items that will not be reclassified subsequently to profit or loss				
Net actuarial losses from remeasurement of defined benefit pension plans	18	(4,019)	(748)	(3,025)
Income tax recognized directly in other comprehensive income	19	788	183	486
		(3,231)	(565)	(2,539)
Items that are or may be reclassified subsequently to profit or loss				
Effects from available-for-sale investments and derivative financial instruments designated as cash flow hedges	13B, 16D	36	335	(94)
Currency translation of foreign subsidiaries	20B	11,629	7,967	501
Income tax recognized directly in other comprehensive income	19	(696)	453	(85)
		10,969	8,755	322
Total items of other comprehensive income (loss)		7,738	8,190	(2,217)
TOTAL COMPREHENSIVE INCOME (LOSS)		22,945	10,323	(7,897)
Non-controlling interest comprehensive income		5,164	3,221	2,129
CONTROLLING INTEREST COMPREHENSIVE INCOME (LOSS)		\$ 17,781	7,102	(10,026)
Out of which:				
COMPREHENSIVE INCOME (LOSS) FROM DISCONTINUED OPERATIONS		\$ 1,965	1,352	721
COMPREHENSIVE INCOME (LOSS) FROM CONTINUING OPERATIONS		\$ 15,816	5,750	(10,747)

Consolidated Balance Sheets

CEMEX, S.A.B. DE C.V. AND SUBSIDIARIES

(Millions of Mexican pesos)

	Note	December 31,	
		2016	2015
ASSETS			
CURRENT ASSETS			
Cash and cash equivalents	8	\$ 11,555	15,280
Trade accounts receivables, net	9	29,949	27,774
Other accounts receivable	10	5,179	4,817
Inventories, net	11	17,862	17,716
Assets held for sale	12A	25,193	5,391
Other current assets	12B	2,292	2,687
Total current assets		92,030	73,665
NON-CURRENT ASSETS			
Equity accounted investees	13A	10,484	12,150
Other investments and non-current accounts receivable	13B	7,049	6,549
Property, machinery and equipment, net	14	227,111	214,133
Goodwill and intangible assets, net	15	247,020	220,318
Deferred income taxes	19B	16,034	15,449
Total non-current assets		507,698	468,599
TOTAL ASSETS		\$ 599,728	542,264
LIABILITIES AND STOCKHOLDERS' EQUITY			
CURRENT LIABILITIES			
Short-term debt	16A	\$ 1,216	218
Other financial obligations	16B	11,658	15,587
Trade payables		39,903	28,709
Income tax payable		5,421	6,619
Other current liabilities	17	22,452	20,769
Liabilities directly related to assets held for sale	12A	1,466	673
Total current liabilities		82,116	72,575
NON-CURRENT LIABILITIES			
Long-term debt	16A	235,016	229,125
Other financial obligations	16B	25,972	23,268
Employee benefits	18	23,365	18,269
Deferred income taxes	19B	19,594	20,385
Other non-current liabilities	17	16,940	14,874
Total non-current liabilities		320,887	305,921
TOTAL LIABILITIES		403,003	378,496
STOCKHOLDERS' EQUITY			
Controlling interest:			
Common stock and additional paid-in capital	20A	127,336	119,624
Other equity reserves	20B	24,793	15,273
Retained earnings	20C	1,612	7,381
Net income		14,033	1,201
Total controlling interest		167,774	143,479
Non-controlling interest and perpetual debentures	20D	28,951	20,289
TOTAL STOCKHOLDERS' EQUITY		196,725	163,768
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY		\$ 599,728	542,264

The accompanying notes are part of these consolidated financial statements.

Consolidated Statements of Cash Flows

CEMEX, S.A.B. DE C.V. AND SUBSIDIARIES

(Millions of Mexican pesos)

		Years ended December 31,		
	Notes	2016	2015	2014
OPERATING ACTIVITIES				
Consolidated net income (loss)		\$ 15,207	2,133	(5,680)
Discontinued operations		1,024	1,279	90
Net income (loss) from continuing operations		\$ 14,183	854	(5,770)
Non-cash items:				
Depreciation and amortization of assets	5	16,147	14,865	13,703
Impairment losses and remeasurement of assets held for sale	6	2,516	1,526	3,848
Share of profit of equity accounted investees	13A	(688)	(738)	(294)
Results on sale of subsidiaries, other disposal groups and others		(2,116)	(194)	(389)
Financial items, net		17,027	21,002	18,952
Income taxes	19	3,096	2,328	3,920
Changes in working capital, excluding income taxes		11,023	3,541	1,475
Net cash flow provided by operating activities from continuing operations before interest, coupons on perpetual debentures and income taxes		61,188	43,184	35,445
Financial expense and coupons on perpetual debentures paid	20D	(18,129)	(17,865)	(16,844)
Income taxes paid		(5,183)	(7,437)	(7,678)
Net cash flow provided by operating activities from continuing operations		37,876	17,882	10,923
Net cash flow provided by operating activities from discontinued operations		1,194	1,213	1,069
Net cash flows provided by operating activities		39,070	19,095	11,992
INVESTING ACTIVITIES				
Property, machinery and equipment, net	14	(4,500)	(8,872)	(5,965)
Disposal of subsidiaries and other disposal groups, net	4A, 12A	1,424	2,722	167
Intangible assets and other deferred charges	15	(1,427)	(908)	(902)
Long term assets and others, net		(899)	(766)	199
Net cash flows used in investing activities from continuing operations		(5,402)	(7,824)	(6,501)
Net cash flows provided by (used in) investing activities from discontinued operations		2	(153)	(161)
Net cash flows used in investing activities		(5,400)	(7,977)	(6,662)
FINANCING ACTIVITIES				
Sale of non-controlling interests in subsidiaries	20D	9,777	-	-
Derivative instruments		399	1,098	1,561
Repayment of debt, net	16A	(37,050)	(11,473)	(6,714)
Other financial obligations, net	16B	(9,773)	177	(4,396)
Securitization of trade receivables		(999)	(506)	2,052
Non-current liabilities, net		(1,972)	(1,763)	(1,128)
Net cash flows used in financing activities		(39,618)	(12,467)	(8,625)
Decrease in cash and cash equivalents from continuing operations		(7,144)	(2,409)	(4,203)
Increase in cash and cash equivalents from discontinued operations		1,196	1,060	908
Cash conversion effect, net		2,223	4,040	708
Cash and cash equivalents at beginning of year		15,280	12,589	15,176
CASH AND CASH EQUIVALENTS AT END OF YEAR	8	\$ 11,555	15,280	12,589
Changes in working capital, excluding income taxes:				
Trade receivables, net		\$ (4,353)	(3,384)	(3,348)
Other accounts receivable and other assets		(276)	(1,961)	1,255
Inventories, net		(1,174)	(1,299)	(2,716)
Trade payables		13,619	7,207	3,807
Other accounts payable and accrued expenses		3,207	2,978	2,477
Changes in working capital, excluding income taxes		\$ 11,023	3,541	1,475

The accompanying notes are part of these consolidated financial statements.

Statements of Changes in Stockholders' Equity

CEMEX, S.A.B. DE C.V. AND SUBSIDIARIES

(Millions of Mexican pesos)

	Notes	Common stock	Additional paid-in Capital	Other equity reserves	Retained earnings	Total controlling interest	Non-controlling interest	Total stockholders' equity
Balance as of December 31, 2013		\$ 4,143	84,800	15,037	29,399	133,379	14,939	148,318
Net loss		-	-	-	(6,783)	(6,783)	1,103	(5,680)
Total other items of comprehensive loss		-	-	(3,243)	-	(3,243)	1,026	(2,217)
Effects of early conversion of convertible subordinated notes	16B	4	8,037	(601)	-	7,440	-	7,440
Capitalization of retained earnings	20A	4	7,614	-	(7,618)	-	-	-
Share-based compensation	20A, 21	-	765	(35)	-	730	-	730
Effects of perpetual debentures	20D	-	-	(420)	-	(420)	-	(420)
Balance as of December 31, 2014		4,151	101,216	10,738	14,998	131,103	17,068	148,171
Net income		-	-	-	1,201	1,201	932	2,133
Total other items of comprehensive income		-	-	5,901	-	5,901	2,289	8,190
Effects of early conversion and issuance of convertible subordinated notes	16B	3	5,982	(934)	-	5,051	-	5,051
Capitalization of retained earnings	20A	4	7,613	-	(7,617)	-	-	-
Share-based compensation	20A, 21	-	655	-	-	655	-	655
Effects of perpetual debentures	20D	-	-	(432)	-	(432)	-	(432)
Balance as of December 31, 2015		4,158	115,466	15,273	8,582	143,479	20,289	163,768
Net income		-	-	-	14,033	14,033	1,174	15,207
Total other items of comprehensive income		-	-	3,748	-	3,748	3,990	7,738
Capitalization of retained earnings	20A	4	6,966	-	(6,970)	-	-	-
Share-based compensation	20A, 21	-	742	-	-	742	-	742
Effects of perpetual debentures	20D	-	-	(507)	-	(507)	-	(507)
Changes in non-controlling interest	20D	-	-	6,279	-	6,279	3,498	9,777
Balance as of December 31, 2016		\$ 4,162	123,174	24,793	15,645	167,774	28,951	196,725

Notes to the Consolidated Financial Statements

1) DESCRIPTION OF BUSINESS

CEMEX, S.A.B. de C.V., a public stock corporation with variable capital (S.A.B. de C.V.) organized under the laws of the United Mexican States, or Mexico, is a holding company (parent) of entities whose main activities are oriented to the construction industry, through the production, marketing, distribution and sale of cement, ready-mix concrete, aggregates and other construction materials. In addition, in order to facilitate the acquisition of financing and to run its operations in Mexico more efficiently considering that there are efficiency and improvement opportunities; beginning on April 1, 2014, CEMEX, S.A.B. de C.V. integrated and carries out all businesses and operational activities of the cement and aggregates sectors in Mexico. Moreover, beginning on January 1, 2015, CEMEX, S.A.B. de C.V. completed the transition, integrated and carries all operating activities related to the sale of ready-mix concrete in Mexico.

CEMEX, S.A.B. de C.V. was founded in 1906 and was registered in the Public Register of Property and Commerce in Monterrey, N.L., Mexico in 1920 for a period of 99 years. In 2002, this period was extended to the year 2100. The shares of CEMEX, S.A.B. de C.V. are listed on the Mexican Stock Exchange (“MSE”) as Ordinary Participation Certificates (“CPOs”) under the symbol “CEMEXCPO”. Each CPO represents two series “A” shares and one series “B” share of common stock of CEMEX, S.A.B. de C.V. In addition, CEMEX, S.A.B. de C.V.’s shares are listed on the New York Stock Exchange (“NYSE”) as American Depositary Shares (“ADSs”) under the symbol “CX”. Each ADS represents ten CPOs.

The terms “CEMEX, S.A.B. de C.V.” and/or the “Parent Company” used in these accompanying notes to the financial statements refer to CEMEX, S.A.B. de C.V. without its consolidated subsidiaries. The terms the “Company” or “CEMEX” refer to CEMEX, S.A.B. de C.V. together with its consolidated subsidiaries. The issuance of these consolidated financial statements was authorized by the Board of Directors of CEMEX, S.A.B. de C.V. on February 2, 2017.

2) SIGNIFICANT ACCOUNTING POLICIES

2A) Basis of presentation and disclosure

The consolidated financial statements as of December 31, 2016 and 2015 and for the years ended December 31, 2016, 2015 and 2014, were prepared in accordance with International Financial Reporting Standards (“IFRS”) as issued by the International Accounting Standards Board (“IASB”).

Presentation currency and definition of terms

The presentation currency of the consolidated financial statements is the Mexican peso, currency in which the Company reports periodically to the MSE. When reference is made to pesos or “\$” it means Mexican pesos. The amounts in the financial statements and the accompanying notes are stated in millions, except when references are made to earnings (loss) per share and/or prices per share. When reference is made to “US\$” or “dollars”, it means dollars of the United States of America (“United States”). When reference is made to “€” or “euros”, it means the currency in circulation in a significant number of European Union (“EU”) countries. When it is deemed relevant, certain amounts in foreign currency presented in the notes to the financial statements include between parentheses a convenience translation into dollars and/or into pesos, as applicable. Previously reported convenience translations of prior years are not restated unless the transaction is still outstanding, in which case those are restated using the closing exchange rates as of the reporting date. These translations should not be construed as representations that the amounts in pesos or dollars, as applicable, actually represent those peso or dollar amounts or could be converted into pesos or dollars at the rate indicated. As of December 31, 2016 and 2015, translations of pesos into dollars and dollars into pesos, were determined for balance sheet amounts using the closing exchange rates of \$20.72 and \$17.23 pesos per dollar, respectively, and for statements of operations amounts, using the average exchange rates of \$18.72, \$15.98 and \$13.37 pesos per dollar for 2016, 2015 and 2014, respectively. When the amounts between parentheses are the peso and the dollar, the amounts were determined by translating the euro amount into dollars using the closing exchange rates at year-end and then translating the dollars into pesos as previously described.

Amounts disclosed in the notes in connection with tax or legal proceedings (notes 19D and 24), which are originated in jurisdictions which currencies are different to the peso or the dollar, are presented in dollar equivalents as of the closing of the most recent year presented. Consequently, without any change in the original currency, such dollar amounts will fluctuate over time due to changes in exchange rates.

Statements of operations

CEMEX includes the line item titled “Operating earnings before other expenses, net” considering that it is a relevant measure for CEMEX’s management as explained in note 4C. Under IFRS, the inclusion of certain subtotals such as “Operating earnings before other expenses, net” and the display of the statement of operations vary significantly by industry and company according to specific needs.

The line item “Other expenses, net” in profit or loss consists primarily of revenues and expenses not directly related to CEMEX’s main activities, or which are of an unusual and/or non-recurring nature, including impairment losses of long-lived assets, results on disposal of assets and restructuring costs, among others (note 6).

Considering the disposal of entire reportable operating segments, for the years 2016, 2015 and 2014, CEMEX presents in the single line item of discontinued operations, the results of its operations in Bangladesh and Thailand, sold in May 2016; for the years 2015 and 2014, the results of its operations in Austria and Hungary, sold in October 2015; for the years 2016, 2015 and 2014, the results of its operations in Croatia, including assets in Bosnia and Herzegovina, Montenegro and Serbia, as well as the results of its Concrete Pipe Business operations in the United States, expected to be sold in the short-term subject to the authorization of the respective authorities (note 4A). As a result, the statements of operations of 2015 and 2014 originally reported were restated. Discontinued operations are presented net of income tax.

Statements of comprehensive income (loss)

The statements of comprehensive income (loss) for 2015 and 2014 were restated in order to give effect to the discontinued operations mentioned above.

Statements of cash flows

The statements of cash flows for 2015 and 2014 were restated in order to give effect to the discontinued operations mentioned above. The statements of cash flows exclude the following transactions that did not represent sources or uses of cash:

- In 2016, 2015 and 2014, the increases in common stock and additional paid-in capital associated with: (i) the capitalization of retained earnings for \$6,970, \$7,617 and \$7,618, respectively (note 20A); and (ii) CPOs issued as part of the executive share-based compensation programs for \$742, \$655 and \$765, respectively (note 20A);
- In 2016, 2015 and 2014, the increases in property, plant and equipment for approximately \$7, \$63 and \$108, respectively, associated with the negotiation of capital leases during the year (note 14);
- In 2016, the increase in debt and in other current accounts receivable for approximately \$148, in connection with a guarantee signed by CEMEX Colombia, S.A. (“CEMEX Colombia”) over the debt of a trust committed to the development of housing projects in Colombia and the related beneficial interest that in turn holds CEMEX Colombia in the assets of such trust, which are comprised by land;
- In 2015, the decrease in debt for \$4,517, the net decrease in other equity reserves for \$934, the increase in common stock for \$3 and the increase in additional paid-in capital for \$5,982, in connection with the issuance of optional convertible subordinated notes due in 2020, which involved, among others, the exchange and early conversion of optional convertible subordinated notes due in 2016, as well as the issuance of approximately 42 million ADSs (note 16B);
- In 2015, the decrease in other current and non-current liabilities and in deferred tax assets in connection with changes in the tax legislation in Mexico effective as of December 31, 2015 (notes 19C and 19D); and
- In 2014, the decrease in debt for \$6,483, the decrease in other equity reserves for \$601, the increase in common stock for \$4 and the increase in additional paid-in capital for \$8,037, in connection with several early conversions of optional convertible subordinated notes due in 2015, incurred in different dates during the year (note 16B).

2B) Principles of consolidation

The consolidated financial statements include those of CEMEX, S.A.B. de C.V. and those of the entities in which the Parent Company exercises control, including structured entities, by means of which the Parent Company is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee's relevant activities. Balances and operations between related parties are eliminated in consolidation.

Equity accounted investees are initially recorded at cost, and are subsequently accounted for by the equity method when CEMEX has significant influence, which is generally presumed with a minimum equity interest of 20%, unless it is proven in unusual cases that significant influence is achieved with a lower percentage. The equity method reflects in the financial statements, the investee's original cost and CEMEX's share of the investee's equity and earnings after acquisition. The financial statements of joint ventures, which relate to those arrangements in which CEMEX and other third-party investors have joint control and have rights to the net assets of the arrangements, are recognized under the equity method. During the reported periods, CEMEX did not have joint operations, referring to those cases in which the parties that have joint control of the arrangement have rights over specific assets and obligations for specific liabilities relating to the arrangements. The equity method is discontinued when the carrying amount of the investment, including any long-term interest in the investee or joint venture, is reduced to zero, unless CEMEX has incurred or guaranteed additional obligations of the investee or joint venture.

Other permanent investments where CEMEX holds equity interests of less than 20% and/or there is no significant influence are carried at their historical cost.

2C) Use of estimates and critical assumptions

The preparation of financial statements in accordance with IFRS requires management to make estimates and assumptions that affect reported amounts of assets and liabilities, and the disclosure of contingent assets and liabilities at the date of the financial statements; as well as the reported amounts of revenues and expenses during the period. These assumptions are reviewed on an ongoing basis using available information. Actual results could differ from these estimates. The main items subject to estimates and assumptions by management include, among others, impairment tests of long-lived assets, allowances for doubtful accounts and obsolescence of inventories, recognition of deferred income tax assets, as well as the measurement of financial instruments at fair value, and the assets and liabilities related to employee benefits. Significant judgment is required by management to appropriately assess the amounts of these concepts.

2D) Foreign currency transactions and translation of foreign currency financial statements

Transactions denominated in foreign currencies are recorded in the functional currency at the exchange rates prevailing on the dates of their execution. Monetary assets and liabilities denominated in foreign currencies are translated into the functional currency at the exchange rates prevailing at the balance sheet date, and the resulting foreign exchange fluctuations are recognized in earnings, except for exchange fluctuations arising from: 1) foreign currency indebtedness associated to the acquisition of foreign entities; and 2) fluctuations associated with related parties' balances denominated in foreign currency, which settlement is neither planned nor likely to occur in the foreseeable future and as a result, such balances are of a permanent investment nature. These fluctuations are recorded against "Other equity reserves", as part of the foreign currency translation adjustment (note 20B) until the disposal of the foreign net investment, at which time, the accumulated amount is recycled through the statement of operations as part of the gain or loss on disposal.

The financial statements of foreign subsidiaries, as determined using their respective functional currency, are translated to pesos at the closing exchange rate for balance sheet accounts and at the closing exchange rates of each month within the period for statements of operations accounts. The functional currency is that in which each consolidated entity primarily generates and expends cash. The corresponding translation effect is included within "Other equity reserves" and is presented in the statement of other comprehensive income (loss) for the period as part of the foreign currency translation adjustment (note 20B) until the disposal of the net investment in the foreign subsidiary.

Considering its integrated activities, for purposes of functional currency, the Parent Company is considered to have two divisions, one related with its financial and holding company activities, in which the functional currency is the dollar for all assets, liabilities and transactions associated with these activities, and another division related with the Parent Company's operating activities in Mexico, in which the functional currency is the peso for all assets, liabilities and transactions associated with these activities.

Notes to the consolidated financial statements

During the reported periods, there were no subsidiaries whose functional currency was the currency of a hyperinflationary economy, which is generally considered to exist when the cumulative inflation rate over the last three years is approaching, or exceeds, 100%. In a hyperinflationary economy, the accounts of the subsidiary's statements of operations should be restated to constant amounts as of the reporting date, in which case, both the balance sheet accounts and profit or loss accounts would be translated to pesos at the closing exchange rates of the year.

The most significant closing exchange rates and the approximate average exchange rates for balance sheet accounts and statement of operations accounts as of December 31, 2016, 2015 and 2014, were as follows:

Currency	2016		2015		2014	
	Closing	Average	Closing	Average	Closing	Average
Dollar	20.7200	18.7200	17.2300	15.9800	14.7400	13.3700
Euro	21.7945	20.6564	18.7181	17.6041	17.8386	17.6306
British Pound Sterling	25.5361	25.0731	25.4130	24.3638	22.9738	21.9931
Colombian Peso	0.0069	0.0062	0.0055	0.0058	0.0062	0.0066
Egyptian Pound	1.1234	1.8261	2.2036	2.0670	2.0584	1.8824
Philippine Peso	0.4167	0.3927	0.3661	0.3504	0.3296	0.3009

The financial statements of foreign subsidiaries are initially translated from their functional currencies into dollars and subsequently into pesos. Therefore, the foreign exchange rates presented in the table above between the functional currency and the peso represent the implied exchange rates resulting from this methodology. The peso to U.S. dollar exchange rate used by CEMEX is an average of free market rates available to settle its foreign currency transactions. No significant differences exist, in any case, between the foreign exchange rates used by CEMEX and those exchange rates published by the Mexican Central Bank.

2E) Cash and cash equivalents (note 8)

The balance in this caption is comprised of available amounts of cash and cash equivalents, mainly represented by highly-liquid short-term investments, which are easily convertible into known amounts of cash, and which are not subject to significant risks of changes in their values, including overnight investments, which yield fixed returns and have maturities of less than three months from the investment date. These fixed-income investments are recorded at cost plus accrued interest. Accrued interest is included in profit or loss as part of "Other financial income (expense), net".

The amount of cash and cash equivalents in the balance sheet includes restricted cash and investments, comprised of deposits in margin accounts that guarantee certain of CEMEX's obligations, to the extent that the restriction will be lifted in less than three months from the balance sheet date. When the restriction period is greater than three months, such restricted cash and investments are not considered cash equivalents and are included within short-term or long-term "Other accounts receivable", as appropriate. When contracts contain provisions for net settlement, these restricted amounts of cash and cash equivalents are offset against the liabilities that CEMEX has with its counterparties.

2F) Financial instruments

Trade accounts receivable and other current accounts receivable (notes 9 and 10)

Instruments under these captions are classified as "loans and receivables" and are recorded at their amortized cost representing the net present value ("NPV") of the consideration receivable or payable as of the transaction date. Due to their short-term nature, CEMEX initially recognizes these receivables at the original invoiced amount less an estimate of doubtful accounts. Allowances for doubtful accounts as well as impairment of other current accounts receivable, are recognized against administrative and selling expenses.

Trade receivables sold under securitization programs, in which CEMEX maintains a residual interest in the trade accounts receivable sold in case of recovery failure, as well as continued involvement in such assets, do not qualify for derecognition and are maintained on the balance sheet.

Other investments and non-current receivables (note 13B)

As part of the category of “loans and receivables”, non-current accounts receivable, as well as investments classified as held to maturity are initially recognized at their amortized cost. Subsequent changes in NPV are recognized in profit or loss as part of “Other financial income (expense), net”.

Investments in financial instruments held for trading, as well as those investments available for sale, are recognized at their estimated fair value, in the first case through profit or loss as part of “Other financial income (expense), net”, and in the second case, changes in valuation are recognized as part of “Other comprehensive income (loss) of the period” within “Other equity reserves” until their time of disposition, when all valuation effects accrued in equity are reclassified to “Other financial income (expense), net”, in profit or loss. These investments are tested for impairment upon the occurrence of a significant adverse change or at least once a year during the last quarter.

Debt and other financial liabilities (notes 16A and 16B)

Bank loans and notes payable are recognized at their amortized cost. Interest accrued on financial instruments is recognized in the balance sheet within “Other accounts payable and accrued expenses” against financial expense. During the reported periods, CEMEX did not have financial liabilities voluntarily recognized at fair value or associated to fair value hedge strategies with derivative financial instruments. Direct costs incurred in debt issuances or borrowings, as well as debt refinancing or non-substantial modifications to debt agreements that did not represent an extinguishment of debt by considering that the holders and the relevant economic terms of the new instrument are not substantially different to the replaced instrument, adjust the carrying amount of related debt are amortized as interest expense as part of the effective interest rate of each transaction over its maturity. These costs include commissions and professional fees. Costs incurred in the extinguishment of debt, as well as debt refinancing or modifications to debt agreements when the new instrument is substantially different to the old instrument according to a qualitative and quantitative analysis are recognized in profit or loss within “Financial expense” as incurred.

Capital leases are recognized as financing liabilities against a corresponding fixed asset for the lesser of the market value of the leased asset and the NPV of future minimum lease payments, using the contract’s implicit interest rate to the extent available, or the incremental borrowing cost. The main factors that determine a capital lease are: a) ownership title of the asset is transferred to CEMEX at the expiration of the contract; b) CEMEX has a bargain purchase option to acquire the asset at the end of the lease term; c) the lease term covers the majority of the useful life of the asset; and/or d) the NPV of minimum payments represents substantially all the fair value of the related asset at the beginning of the lease.

Financial instruments with components of both liabilities and equity (note 16B)

The financial instrument that contains components of both liability and equity, such as notes convertible into a fixed number of the issuer’s shares and denominated in its same functional currency, each component is recognized separately in the balance sheet according to the specific characteristics of each transaction. In the case of instruments mandatorily convertible into shares of the issuer, the liability component represents the NPV of interest payments on the principal amount using a market interest rate, without assuming any early conversion, and is recognized within “Other financial obligations”, whereas the equity component represents the difference between the principal amount and the liability component, and is recognized within “Other equity reserves”, net of commissions. In the case of instruments that are optionally convertible into a fixed number of shares, the liability component represents the difference between the principal amount and the fair value of the conversion option premium, which reflects the equity component (note 2N). When the transaction is denominated in a currency different than the functional currency of the issuer, the conversion option is accounted for as a derivative financial instrument at fair value in the statement of operations.

Derivative financial instruments (note 16D)

CEMEX recognizes all derivative instruments as assets or liabilities in the balance sheet at their estimated fair values, and the changes in such fair values are recognized in profit or loss within "Other financial income (expense), net" for the period in which they occur, except for the effective portion of changes in fair value of derivative instruments associated with cash flow hedges, in which case, such changes in fair value are recognized in stockholders' equity, and are reclassified to earnings as the interest expense of the related debt is accrued, in the case of interest rate swaps, or when the underlying products are consumed in the case of contracts on the price of raw materials and commodities. Likewise, in hedges of the net investment in foreign subsidiaries, changes in fair value are recognized in stockholders' equity as part of the foreign currency translation result (note 2D), which reversal to earnings would take place upon disposal of the foreign investment. During the reported periods, CEMEX did not designate fair value hedges. Derivative instruments are negotiated with institutions with significant financial capacity; therefore, CEMEX believes the risk of non-performance of the obligations agreed to by such counterparties to be minimal.

CEMEX reviews its different contracts to identify the existence of embedded derivatives. Identified embedded derivatives are analyzed to determine if they need to be separated from the host contract and recognized in the balance sheet as assets or liabilities, applying the same valuation rules used for other derivative instruments.

Put options granted for the purchase of non-controlling interests and associates

Represent agreements by means of which a non-controlling interest has the right to sell, at a future date using a predefined price formula or at fair market value, its shares in a subsidiary of CEMEX. When the obligation should be settled in cash or through the delivery of other financial asset, CEMEX recognizes a liability for the NPV of the redemption amount as of the reporting date against the controlling interest within stockholders' equity. A liability is not recognized under these agreements when the redemption amount is determined at fair market value at the exercise date and CEMEX has the election to settle using its own shares.

In respect of a put option granted for the purchase of an associate, CEMEX would recognize a liability against a loss in the statements of operations whenever the estimated purchase price exceeds the fair value of the net assets to be acquired by CEMEX, had the counterparty exercised its right to sell.

Fair value measurements (note 16C)

Under IFRS, fair value represents an "Exit Value" which is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date, considering the counterparty's credit risk in the valuation. The concept of Exit Value is premised on the existence of a market and market participants for the specific asset or liability. When there is no market and/or market participants willing to make a market, IFRS establishes a fair value hierarchy that gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to measurements involving significant unobservable inputs (Level 3 measurements). The three levels of the fair value hierarchy are as follows:

- Level 1.- represent quoted prices (unadjusted) in active markets for identical assets or liabilities that CEMEX has the ability to access at the measurement date. A quote price in an active market provides the most reliable evidence of fair value and is used without adjustment to measure fair value whenever available.
- Level 2.- are inputs other than quoted prices in active markets that are observable for the asset or liability, either directly or indirectly, and are used mainly to determine the fair value of securities, investments or loans that are not actively traded. Level 2 inputs included equity prices, certain interest rates and yield curves, implied volatility and credit spreads, among others, as well as inputs extrapolated from other observable inputs. In the absence of Level 1 inputs, CEMEX determined fair values by iteration of the applicable Level 2 inputs, the number of securities and/or the other relevant terms of the contract, as applicable.
- Level 3.- inputs are unobservable inputs for the asset or liability. CEMEX used unobservable inputs to determine fair values, to the extent there are no Level 1 or Level 2 inputs, in valuation models such as Black-Scholes, binomial, discounted cash flows or multiples of Operative EBITDA, including risk assumptions consistent with what market participants would use to arrive at fair value.

2G) Inventories (note 11)

Inventories are valued using the lower of cost or net realizable value. The cost of inventories includes expenditures incurred in acquiring the inventories, production or conversion costs and other costs incurred in bringing them to their existing location and condition. CEMEX analyzes its inventory balances to determine if, as a result of internal events, such as physical damage, or external events, such as technological changes or market conditions, certain portions of such balances have become obsolete or impaired. When an impairment situation arises, the inventory balance is adjusted to its net realizable value, whereas, if an obsolescence situation occurs, the inventory obsolescence reserve is increased. In both cases, these adjustments are recognized against the results of the period. Advances to suppliers of inventory are presented as part of other current assets.

2H) Property, machinery and equipment (note 14)

Property, machinery and equipment are recognized at their acquisition or construction cost, as applicable, less accumulated depreciation and accumulated impairment losses. Depreciation of fixed assets is recognized as part of cost and operating expenses (note 5), and is calculated using the straight-line method over the estimated useful lives of the assets, except for mineral reserves, which are depleted using the units-of-production method. As of December 31, 2016, the maximum average useful lives by category of fixed assets were as follows:

	Years
Administrative buildings	34
Industrial buildings	32
Machinery and equipment in plant	18
Ready-mix trucks and motor vehicles	7
Office equipment and other assets	6

CEMEX capitalizes, as part of the related cost of fixed assets, interest expense from existing debt during the construction or installation period of significant fixed assets, considering CEMEX's corporate average interest rate and the average balance of investments in process for the period.

All waste removal costs or stripping costs incurred in the operative phase of a surface mine in order to access the mineral reserves are recognized as part of the carrying amount of the related quarries. The capitalized amounts are further amortized over the expected useful life of exposed ore body based on the units of production method.

Costs incurred in respect of operating fixed assets that result in future economic benefits, such as an extension in their useful lives, an increase in their production capacity or in safety, as well as those costs incurred to mitigate or prevent environmental damage, are capitalized as part of the carrying amount of the related assets. The capitalized costs are depreciated over the remaining useful lives of such fixed assets. Periodic maintenance on fixed assets is expensed as incurred. Advances to suppliers of fixed assets are presented as part of other long-term accounts receivable.

The depreciation methods, useful lives and residual values of property, machinery and equipment are reviewed at each reporting date and adjusted if appropriate.

2I) Business combinations, goodwill, other intangible assets and deferred charges (note 15)

Business combinations are recognized using the purchase method, by allocating the consideration transferred to assume control of the entity to all assets acquired and liabilities assumed, based on their estimated fair values as of the acquisition date. Intangible assets acquired are identified and recognized at fair value. Any unallocated portion of the purchase price represents goodwill, which is not amortized and is subject to periodic impairment tests (note 2J), can be adjusted for any correction to the preliminary assessment given to the assets acquired and/or liabilities assumed within the twelve-month period after purchase. Costs associated with the acquisition are expensed in profit or loss as incurred.

CEMEX capitalizes intangible assets acquired, as well as costs incurred in the development of intangible assets, when future economic benefits associated are identified and there is evidence of control over such benefits. Intangible assets are presented at their acquisition or development cost. Indefinite life intangible assets are not amortized since the period in which the benefits associated with such intangibles will terminate cannot be accurately established. Definite life intangible assets are amortized on straight-line basis as part of operating costs and expenses (note 5).

Startup costs are recognized in profit or loss as they are incurred. Costs associated with research and development activities (“R&D activities”), performed by CEMEX to create products and services, as well as to develop processes, equipment and methods to optimize operational efficiency and reduce costs are recognized in the operating results as incurred. Direct costs incurred in the development stage of computer software for internal use are capitalized and amortized through the operating results over the useful life of the software, which on average is approximately 5 years.

Costs incurred in exploration activities such as payments for rights to explore, topographical and geological studies, as well as trenching, among other items incurred to assess the technical and commercial feasibility of extracting a mineral resource, which are not significant to CEMEX, are capitalized when future economic benefits associated with such activities are identified. When extraction begins, these costs are amortized during the useful life of the quarry based on the estimated tons of material to be extracted. When future economic benefits are not achieved, any capitalized costs are subject to impairment.

CEMEX’s extraction rights have maximum useful lives that range from 30 to 100 years, depending on the sector, and the expected life of the related reserves. As of December 31, 2016, except for extraction rights and/or as otherwise indicated, CEMEX’s intangible assets are amortized on a straight-line basis over their useful lives that range on average from 3 to 20 years.

2)) Impairment of long-lived assets (notes 14 and 15)

Property, machinery and equipment, intangible assets of definite life and other investments

These assets are tested for impairment upon the occurrence of factors such as the occurrence of a significant adverse event, changes in CEMEX’s operating environment or in technology, as well as expectations of lower operating results, in order to determine whether their carrying amounts may not be recovered. An impairment loss is recorded in profit or loss for the period within “Other expenses, net”, for the excess of the asset’s carrying amount over its recoverable amount, corresponding to the higher of the fair value less costs to sell of the asset, and the asset’s value in use, the latter represented by the NPV of estimated cash flows related to the use and eventual disposal of the asset. The main assumptions utilized to develop estimates of NPV are a discount rate that reflects the risk of the cash flows associated with the assets and the estimations of generation of future income. Those assumptions are evaluated for reasonableness by comparing such discount rates to available market information and by comparing to third-party expectations of industry growth, such as governmental agencies or industry chambers.

When impairment indicators exist, for each intangible asset, CEMEX determines its projected revenue streams over the estimated useful life of the asset. In order to obtain discounted cash flows attributable to each intangible asset, such revenues are adjusted for operating expenses, changes in working capital and other expenditures, as applicable, and discounted to NPV using the risk adjusted discount rate of return. The most significant economic assumptions are: a) the useful life of the asset; b) the risk adjusted discount rate of return; c) royalty rates; and d) growth rates. Assumptions used for these cash flows are consistent with internal forecasts and industry practices. The fair values of these assets are very sensitive to changes in such significant assumptions. Certain key assumptions are more subjective than others. In respect of trademarks, CEMEX considers that the most subjective key assumption is the royalty rate. In respect of extraction rights and customer relationships, the most subjective assumptions are revenue growth rates and estimated useful lives. CEMEX validates its assumptions through benchmarking with industry practices and the corroboration of third-party valuation advisors. Significant judgment by management is required to appropriately assess the fair values and values in use of the related assets, as well as to determine the appropriate valuation method and select the significant economic assumptions.

Impairment of long-lived assets – Goodwill

Goodwill is tested for impairment when required due to significant adverse changes or at least once a year, during the last quarter of such year. CEMEX determines the recoverable amount of the group of cash-generating units (“CGUs”) to which goodwill balances were allocated, which consists of the higher of such group of CGUs fair value less cost to sell and its value in use, the later represented by the NPV of estimated future cash flows to be generated by such CGUs to which goodwill was allocated, which are generally determined over periods of 5 years. However, in specific circumstances, when CEMEX considers that actual results for a CGU do not fairly reflect historical performance and most external economic variables provide confidence that a reasonably determinable improvement in the mid-term is expected in their operating results, management uses cash flow projections over a period of up to 10 years, to the point in which future expected average performance resembles the historical average performance, to the extent CEMEX has detailed, explicit and reliable financial forecasts and is confident and can demonstrate its ability, based on past experience, to forecast cash flows accurately over that longer period. If the value in use of a group of CGUs to which goodwill has been allocated is lower than its corresponding carrying amount, CEMEX determines the fair value of such group of CGUs using methodologies generally accepted in the market to determine the value of entities, such as multiples of Operating EBITDA and by reference to other market transactions, among others. An impairment loss is recognized within “Other expenses, net”, if the recoverable amount is lower than the net book value of the group of CGUs to which goodwill has been allocated. Impairment charges recognized on goodwill are not reversed in subsequent periods.

The geographic operating segments reported by CEMEX (note 4C), represent CEMEX’s groups of CGUs to which goodwill has been allocated for purposes of testing goodwill for impairment, considering: a) that after the acquisition, goodwill was allocated at the level of the geographic operating segment; b) that the operating components that comprise the reported segment have similar economic characteristics; c) that the reported segments are used by CEMEX to organize and evaluate its activities in its internal information system; d) the homogeneous nature of the items produced and traded in each operative component, which are all used by the construction industry; e) the vertical integration in the value chain of the products comprising each component; f) the type of clients, which are substantially similar in all components; g) the operative integration among components; and h) that the compensation system of a specific country is based on the consolidated results of the geographic segment and not on the particular results of the components. In addition, the country level represents the lowest level within CEMEX at which goodwill is monitored for internal management purposes.

Impairment tests are significantly sensitive to, among other factors, the estimation of future prices of CEMEX’s products, the development of operating expenses, local and international economic trends in the construction industry, the long-term growth expectations in the different markets, as well as the discount rates and the growth rates in perpetuity applied. For purposes of estimating future prices, CEMEX uses, to the extent available, historical data plus the expected increase or decrease according to information issued by trusted external sources, such as national construction or cement producer chambers and/or in governmental economic expectations. Operating expenses are normally measured as a constant proportion of revenues, following past experience. However, such operating expenses are also reviewed considering external information sources in respect of inputs that behave according to international prices, such as oil and gas. CEMEX uses specific pre-tax discount rates for each group of CGUs to which goodwill is allocated, which are applied to discount pre-tax cash flows. The amounts of estimated undiscounted cash flows are significantly sensitive to the growth rate in perpetuity applied. Likewise, the amounts of discounted estimated future cash flows are significantly sensitive to the weighted average cost of capital (discount rate) applied. The higher the growth rate in perpetuity applied, the higher the amount of undiscounted future cash flows by group of CGUs obtained. Conversely, the higher the discount rate applied, the lower the amount of discounted estimated future cash flows by group of CGUs obtained.

2K) Provisions

CEMEX recognizes provisions when it has a legal or constructive obligation resulting from past events, whose resolution would imply cash outflows or the delivery of other resources owned by the Company. As of December 31, 2016 and 2015 some significant proceedings that gave rise to a portion of the carrying amount of CEMEX’s other current and non-current liabilities and provisions are detailed in note 24A.

Considering guidance under IFRS, CEMEX recognizes provisions for levies imposed by governments until the obligating event or the activity that triggers the payment of the levy has occurred, as defined in the legislation.

Restructuring (note 17)

CEMEX recognizes provisions for restructuring when the restructuring detailed plans have been properly finalized and authorized by management, and have been communicated to the third parties involved and/or affected by the restructuring prior to the balance sheet date. These provisions may include costs not associated with CEMEX's ongoing activities.

Asset retirement obligations (note 17)

Unavoidable obligations, legal or constructive, to restore operating sites upon retirement of long-lived assets at the end of their useful lives are measured at the NPV of estimated future cash flows to be incurred in the restoration process, and are initially recognized against the related assets' book value. The increase to the assets' book value is depreciated during its remaining useful life. The increase in the liability related to adjustments to NPV by the passage of time is charged to the line item "Other financial income (expense), net". Adjustments to the liability for changes in estimations are recognized against fixed assets, and depreciation is modified prospectively. These obligations are related mainly to future costs of demolition, cleaning and reforestation, so that quarries, maritime terminals and other production sites are left in acceptable condition at the end of their operation.

Costs related to remediation of the environment (notes 17 and 24)

Provisions associated with environmental damage represent the estimated future cost of remediation, which are recognized at their nominal value when the time schedule for the disbursement is not clear, or when the economic effect for the passage of time is not significant; otherwise, such provisions are recognized at their discounted values. Reimbursements from insurance companies are recognized as assets only when their recovery is practically certain. In that case, such reimbursement assets are not offset against the provision for remediation costs.

Contingencies and commitments (notes 23 and 24)

Obligations or losses related to contingencies are recognized as liabilities in the balance sheet only when present obligations exist resulting from past events that are expected to result in an outflow of resources and the amount can be measured reliably. Otherwise, a qualitative disclosure is included in the notes to the financial statements. The effects of long-term commitments established with third parties, such as supply contracts with suppliers or customers, are recognized in the financial statements on an incurred or accrued basis, after taking into consideration the substance of the agreements. Relevant commitments are disclosed in the notes to the financial statements. The Company does not recognize contingent revenues, income or assets, unless their realization is virtually certain.

2L) Pensions and other post-employment benefits (note 18)

Defined contribution pension plans

The costs of defined contribution pension plans are recognized in the operating results as they are incurred. Liabilities arising from such plans are settled through cash transfers to the employees' retirement accounts, without generating future obligations.

Defined benefit pension plans and other post-employment benefits

The costs associated with employees' benefits for: a) defined benefit pension plans; and b) other post-employment benefits, basically comprised of health care benefits, life insurance and seniority premiums, granted by CEMEX and/or pursuant to applicable law, are recognized as services are rendered, based on actuarial estimations of the benefits' present value with the advice of external actuaries. For certain pension plans, CEMEX has created irrevocable trust funds to cover future benefit payments ("plan assets"). These plan assets are valued at their estimated fair value at the balance sheet date. The actuarial assumptions and accounting policy consider: a) the use of nominal rates; b) a single rate is used for the determination of the expected return on plan assets and the discount of the benefits obligation to present value; c) a net interest is recognized on the net defined benefit liability (liability minus plan assets); and d) all actuarial gains and losses for the period, related to differences between the projected and real actuarial assumptions at the end of the period, as well as the difference between the expected and real return on plan assets, are recognized as part of "Other comprehensive income or loss" within stockholders' equity.

The service cost, corresponding to the increase in the obligation for additional benefits earned by employees during the period, is recognized within operating costs and expenses. The net interest cost, resulting from the increase in obligations for changes in NPV and the change during the period in the estimated fair value of plan assets, is recognized within "Other financial income (expense), net".

The effects from modifications to the pension plans that affect the cost of past services are recognized within operating costs and expenses over the period in which such modifications become effective to the employees or without delay if changes are effective immediately. Likewise, the effects from curtailments and/or settlements of obligations occurring during the period, associated with events that significantly reduce the cost of future services and/or reduce significantly the population subject to pension benefits, respectively, are recognized within operating costs and expenses.

Termination benefits

Termination benefits, not associated with a restructuring event, which mainly represent severance payments by law, are recognized in the operating results for the period in which they are incurred.

2M) Income taxes (note 19)

The effects reflected in profit or loss for income taxes include the amounts incurred during the period and the amounts of deferred income taxes, determined according to the income tax law applicable to each subsidiary. Consolidated deferred income taxes represent the addition of the amounts determined in each subsidiary by applying the enacted statutory income tax rate to the total temporary differences resulting from comparing the book and taxable values of assets and liabilities, considering tax assets such as loss carryforwards and other recoverable taxes, to the extent that it is probable that future taxable profits will be available against which they can be utilized. The measurement of deferred income taxes at the reporting period reflects the tax consequences that follow the manner in which CEMEX expects to recover or settle the carrying amount of its assets and liabilities. Deferred income taxes for the period represent the difference between balances of deferred income taxes at the beginning and the end of the period. Deferred income tax assets and liabilities relating to different tax jurisdictions are not offset. According to IFRS, all items charged or credited directly in stockholders' equity or as part of other comprehensive income or loss for the period are recognized net of their current and deferred income tax effects. The effect of a change in enacted statutory tax rates is recognized in the period in which the change is officially enacted.

Deferred tax assets are reviewed at each reporting date and are reduced when it is not deemed probable that the related tax benefit will be realized, considering the aggregate amount of self-determined tax loss carryforwards included in its income tax returns in each country that CEMEX believes, based on available evidence, will not be rejected by the tax authorities; and the likelihood of recovering such tax loss carryforwards prior to their expiration through an analysis of estimated future taxable income. If it is probable that the tax authorities would reject a self-determined deferred tax asset, CEMEX would decrease such asset. When it is considered that a deferred tax asset will not be recovered before its expiration, CEMEX would not recognize such deferred tax asset. Both situations would result in additional income tax expense for the period in which such determination is made. In order to determine whether it is probable that deferred tax assets will ultimately be recovered, CEMEX takes into consideration all available positive and negative evidence, including factors such as market conditions, industry analysis, expansion plans, projected taxable income, carryforward periods, current tax structure, potential changes or adjustments in tax structure, tax planning strategies, future reversals of existing temporary differences, etc. Likewise, every reporting period, CEMEX analyzes its actual results versus the Company's estimates, and adjusts, as necessary, its tax asset valuations. If actual results vary from CEMEX's estimates, the deferred tax asset and/or valuations may be affected and necessary adjustments will be made based on relevant information. Any adjustments recorded will affect CEMEX's statements of operations in such period.

The income tax effects from an uncertain tax position are recognized when it is probable that the position will be sustained based on its technical merits and assuming that the tax authorities will examine each position and have full knowledge of all relevant information, and they are measured using a cumulative probability model. Each position has been considered on its own, regardless of its relation to any other broader tax settlement. The high probability threshold represents a positive assertion by management that CEMEX is entitled to the economic benefits of a tax position. If a tax position is considered not probable of being sustained, no benefits of the position are recognized. Interest and penalties related to unrecognized tax benefits are recorded as part of the income tax in the consolidated statements of operations.

The effective income tax rate is determined by dividing the line item "Income Tax", in profit or loss within the line item "Earnings (loss) before income tax". This effective tax rate is further reconciled to CEMEX's statutory tax rate applicable in Mexico (note 19C). During 2014, CEMEX has experienced consolidated losses before income tax. In any given period whereas a loss before income tax is reported, the reference statutory tax rate to which CEMEX reconciles its effective income tax rate is shown as a negative percentage. A significant effect in CEMEX's effective tax rate and consequently in the aforementioned reconciliation of CEMEX's effective tax rate, relates to the difference between the statutory income tax rate in Mexico of 30% against the applicable income tax rates of each country where CEMEX operates.

For the years ended December 31, 2016, 2015 and 2014, the statutory tax rates in CEMEX's main operations were as follows:

Country	2016	2015	2014
Mexico	30.0%	30.0%	30.0%
United States	35.0%	35.0%	35.0%
United Kingdom	20.0%	20.3%	21.5%
France	34.4%	38.0%	38.0%
Germany	28.2%	29.8%	29.8%
Spain	25.0%	28.0%	30.0%
Philippines	30.0%	30.0%	30.0%
Colombia	40.0%	39.0%	34.0%
Egypt	22.5%	22.5%	30.0%
Switzerland	9.6%	9.6%	9.6%
Others	7.8% - 39.0%	7.8% - 39.0%	10.0% - 39.0%

CEMEX's current and deferred income tax amounts included in profit or loss for the period are highly variable, and are subject, among other factors, to taxable income determined in each jurisdiction in which CEMEX operates. Such amounts of taxable income depend on factors such as sale volumes and prices, costs and expenses, exchange rates fluctuations and interest on debt, among others, as well as to the estimated tax assets at the end of the period due to the expected future generation of taxable gains in each jurisdiction.

2N) Stockholders' equity

Common stock and additional paid-in capital (note 20A)

These items represent the value of stockholders' contributions, and include increases related to the capitalization of retained earnings and the recognition of executive compensation programs in CEMEX's CPOs as well as decreases associated with the restitution of retained earnings.

Other equity reserves (note 20B)

Groups the cumulative effects of items and transactions that are, temporarily or permanently, recognized directly to stockholders' equity, and includes the comprehensive income (loss), which reflects certain changes in stockholders' equity that do not result from investments by owners and distributions to owners. The most significant items within "Other equity reserves" during the reported periods are as follows:

Items of "Other equity reserves" included within other comprehensive income (loss):

- Currency translation effects from the translation of foreign subsidiaries, net of: a) exchange results from foreign currency debt directly related to the acquisition of foreign subsidiaries; and b) exchange results from foreign currency related parties balances that are of a long-term investment nature (note 2D);
- The effective portion of the valuation and liquidation effects from derivative instruments under cash flow hedging relationships, which are recorded temporarily in stockholders' equity (note 2F);
- Changes in fair value during the tenure of available-for-sale investments until their disposal (note 2F); and
- Current and deferred income taxes during the period arising from items whose effects are directly recognized in stockholders' equity.

Items of “Other equity reserves” not included in comprehensive income (loss):

- Effects related to controlling stockholders’ equity for changes or transactions affecting non-controlling interest stockholders in CEMEX’s consolidated subsidiaries;
- Effects attributable to controlling stockholders’ equity for financial instruments issued by consolidated subsidiaries that qualify for accounting purposes as equity instruments, such as the interest expense paid on perpetual debentures;
- The equity component of securities which are mandatorily or optionally convertible into shares of the Parent Company (notes 2F and 16B). Upon conversion, this amount will be reclassified to common stock and additional paid-in capital; and
- The cancellation of the Parent Company’s shares held by consolidated entities.

Retained earnings (note 20C)

Retained earnings represent the cumulative net results of prior years including the effects generated from initial adoption of IFRS as of January 1, 2010, net of: a) dividends declared; b) capitalization of retained earnings; and c) restitution of retained earnings when applicable.

Non-controlling interest and perpetual debentures (note 20D)

This caption includes the share of non-controlling stockholders in the results and equity of consolidated subsidiaries. This caption also includes the nominal amount as of the balance sheet date of financial instruments (perpetual notes) issued by consolidated entities that qualify as equity instruments considering that there is: a) no contractual obligation to deliver cash or another financial asset; b) no predefined maturity date; and c) an unilateral option to defer interest payments or preferred dividends for indeterminate periods.

20) Revenue recognition (note 3)

CEMEX’s consolidated net sales represent the value, before tax on sales, of revenues originated by products and services sold by consolidated subsidiaries as a result of their ordinary activities, after the elimination of transactions between related parties, and are quantified at the fair value of the consideration received or receivable, decreased by any trade discounts or volume rebates granted to customers.

Revenue from the sale of goods and services is recognized when goods are delivered or services are rendered to customers, there is no condition or uncertainty implying a reversal thereof, and they have assumed the risk of loss. Revenue from trading activities, in which CEMEX acquires finished goods from a third party and subsequently sells the goods to another third-party, are recognized on a gross basis, considering that CEMEX assumes the total risk on the goods purchased, not acting as agent or broker.

Revenue and costs related to construction contracts are recognized in the period in which the work is performed by reference to the contract’s stage of completion at the end of the period, considering that the following have been defined: a) each party’s enforceable rights regarding the asset under construction; b) the consideration to be exchanged; c) the manner and terms of settlement; d) actual costs incurred and contract costs required to complete the asset are effectively controlled; and e) it is probable that the economic benefits associated with the contract will flow to the entity.

The stage of completion of construction contracts represents the proportion that contract costs incurred for work performed to date bear to the estimated total contract costs or the surveys of work performed or the physical proportion of the contract work completed, whichever better reflects the percentage of completion under the specific circumstances. Progress payments and advances received from customers do not reflect the work performed and are recognized as a short or long term advanced payments, as appropriate.

2P) Cost of sales and operating expenses (note 5)

Cost of sales represents the production cost of inventories at the moment of sale. Such cost of sales includes depreciation, amortization and depletion of assets involved in production, expenses related to storage in production plants and freight expenses of raw material in plants and delivery expenses of CEMEX’s ready-mix concrete business.

Administrative expenses represent the expenses associated with personnel, services and equipment, including depreciation and amortization, related to managerial activities and back office for the Company’s management.

Sales expenses represent the expenses associated with personnel, services and equipment, including depreciation and amortization, involved specifically in sales activities.

Distribution and logistics expenses refer to expenses of storage at points of sales, including depreciation and amortization, as well as freight expenses of finished products between plants and points of sale and freight expenses between points of sales and the customers' facilities.

2Q) Executive share-based compensation (note 21)

Share-based payments to executives are defined as equity instruments when services received from employees are settled by delivering shares of the Parent Company and/or a subsidiary; or as liability instruments when CEMEX commits to make cash payments to the executives on the exercise date of the awards based on changes in CEMEX's own stock (intrinsic value). The cost of equity instruments represents their estimated fair value at the date of grant and is recognized in profit or loss during the period in which the exercise rights of the employees become vested. In respect of liability instruments, these instruments are valued at their estimated fair value at each reporting date, recognizing the changes in fair value through the operating results. CEMEX determines the estimated fair value of options using the binomial financial option-pricing model.

2R) Emission rights

In certain countries where CEMEX operates, such as EU countries, mechanisms aimed at reducing carbon dioxide emissions ("CO₂") have been established by means of which, the relevant environmental authorities have granted certain number of emission rights ("certificates") free of cost to the different industries releasing CO₂, which must submit to such environmental authorities at the end of a compliance period, certificates for a volume equivalent to the tons of CO₂ released. Companies must obtain additional certificates to meet deficits between actual CO₂ emissions during the compliance period and certificates received, or they can dispose of any surplus of certificates in the market. In addition, the United Nations Framework Convention on Climate Change ("UNFCCC") grants Certified Emission Reductions ("CERs") to qualified CO₂ emission reduction projects. CERs may be used in specified proportions to settle emission rights obligations in the EU. CEMEX actively participates in the development of projects aimed to reduce CO₂ emissions. Some of these projects have been awarded with CERs.

CEMEX does not maintain emission rights, CERs and/or enter into forward transactions with trading purposes. CEMEX accounts for the effects associated with CO₂ emission reduction mechanisms as follows:

- Certificates received free of cost are not recognized in the balance sheet. Revenues from the sale of any surplus of certificates are recognized by decreasing cost of sales. In forward sale transactions, revenues are recognized upon physical delivery of the emission certificates.
- Certificates and/or CERs acquired to hedge current CO₂ emissions are recognized as intangible assets at cost, and are further amortized to cost of sales during the compliance period. In the case of forward purchases, assets are recognized upon physical reception of the certificates.
- CEMEX accrues a provision against cost of sales when the estimated annual emissions of CO₂ are expected to exceed the number of emission rights, net of any benefit obtained through swap transactions of emission rights for CERs.
- CERs received from the UNFCCC are recognized as intangible assets at their development cost, which are attributable mainly to legal expenses incurred in the process of obtaining such CERs.

During 2016, 2015 and 2014, there were no sales of emission rights to third parties. In addition, in certain countries, the environmental authorities impose levies per ton of CO₂ or other greenhouse gases released. Such expenses are recognized as part of cost of sales as incurred.

2S) Concentration of credit

CEMEX sells its products primarily to distributors in the construction industry, with no specific geographic concentration within the countries in which CEMEX operates. As of and for the years ended December 31, 2016, 2015 and 2014, no single customer individually accounted for a significant amount of the reported amounts of sales or in the balances of trade receivables. In addition, there is no significant concentration of a specific supplier relating to the purchase of raw materials.

2T) Newly issued IFRS not yet adopted

There are a number of IFRS issued as of the date of issuance of these financial statements but which have not yet been adopted, which are listed below. Except as otherwise indicated, CEMEX expects to adopt these IFRS when they become effective.

- IFRS 9, *Financial instruments: classification and measurement* ("IFRS 9"). IFRS 9 sets forth the guidance relating to the classification and measurement of financial assets and liabilities, to the accounting for expected credit losses on an entity's financial assets and commitments to extend credits, as well as the requirements related to hedge accounting; and will replace IAS 39, *Financial instruments: recognition and measurement* ("IAS 39") in its entirety. IFRS 9 requires an entity to recognize a financial asset or a financial liability when, and only when, the entity becomes party to the contractual provisions of the instrument. At initial recognition, an entity shall measure a financial asset or financial liability at its fair value plus or minus, in the case of a financial asset or financial liability not at fair value through profit or loss, transaction costs that are directly attributable to the acquisition or issue of the financial asset or financial liability, and includes a category of financial assets at fair value through other comprehensive income (loss) for simple debt instruments. In respect to impairment requirements, IFRS 9 eliminates the threshold set forth in IAS 39 for the recognition of credit losses. Under the impairment approach in IFRS 9 it is no longer necessary for a credit event to have occurred before credit losses are recognized, instead, an entity always accounts for expected credit losses, and changes in those expected losses through profit or loss. In respect to hedging activities, the requirements of IFRS 9 align hedge accounting more closely with an entity's risk management through a principles-based approach, by means of which, among other changes; the current range of 0.8 to 1.25 to declare and maintain a hedge is eliminated, and in its place, under IFRS 9, a hedging instrument will be declared only if it supports the entity's risk management strategy. Nonetheless, the IASB provided entities with an accounting policy choice between applying the hedge accounting requirements of IFRS 9 or continuing to apply the existing hedge accounting requirements in IAS 39; until the IASB completes its project on the accounting for macro hedging.

CEMEX is currently evaluating the impact that IFRS 9 will have on the classification and measurement of its financial assets and financial liabilities, impairment of financial assets and hedging activities. Preliminarily: a) CEMEX does not maintain fixed income investments held to maturity; and b) it is considered that the expected loss on trade receivables will replace the current allowance for doubtful accounts. The Company is considering the full adoption of IFRS 9 on January 1, 2018, including hedge accounting. CEMEX does not expect any significant effect in its results from the adoption of IFRS 9. Nonetheless, CEMEX is not considering an early application of IFRS 9.

- In May 2014, the IASB issued IFRS 15, *Revenue from contracts with customers* ("IFRS 15"). Under IFRS 15, an entity recognizes revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services, following a five step model: Step 1: Identify the contract(s) with a customer, which is an agreement between two or more parties that creates enforceable rights and obligations; Step 2: Identify the performance obligations in the contract, considering that if a contract includes promises to transfer distinct goods or services to a customer, the promises are performance obligations and are accounted for separately; Step 3: Determine the transaction price, which is the amount of consideration in a contract to which an entity expects to be entitled in exchange for transferring promised goods or services to a customer; Step 4: Allocate the transaction price to the performance obligations in the contract, on the basis of the relative stand-alone selling prices of each distinct good or service promised in the contract; and Step 5: Recognize revenue when (or as) the entity satisfies a performance obligation, by transferring a promised good or service to a customer (which is when the customer obtains control of that good or service). A performance obligation may be satisfied at a point in time (typically for promises to transfer goods to a customer) or over time (typically for promises to transfer services to a customer). IFRS 15 also includes disclosure requirements that would provide users of financial statements with comprehensive information about the nature, amount, timing and uncertainty of revenue and cash flows arising from the entity's contracts with customers. IFRS 15 will supersede all existing guidance on revenue recognition. IFRS 15 is effective for annual periods beginning on or after January 1, 2018, with early adoption permitted considering certain additional disclosure requirements.

CEMEX started in 2015 the evaluation of the impact that IFRS 15 will have on its accounting and disclosures related to its revenue. As of the reporting date, CEMEX has analyzed its contracts with customers in all countries in which it operates in order to identify the several performance obligations and other offerings (discounts, loyalty programs, etc.) included in such contracts, among other aspects, aimed to determine potential differences in the accounting recognition of revenues in respect to current IFRS. In addition, CEMEX has provided training in IFRS 15 to key personnel with the support of external experts and has developed an online training. Preliminarily, considering its assessments at the reporting date, the nature of its business, its main transactions and current accounting policies, the fact that the transaction price is allocated to goods delivered or services rendered to customers when customers have assumed the risk of loss, CEMEX does not expect a significant effect in the timing of its accounting of its revenue from the adoption of IFRS 15. During 2017, CEMEX plans to complete its assessment and quantify any adjustment that would be necessary if certain portion of revenue that currently is being recognized at the transaction date or deferred during time, as applicable, should otherwise be recognized differently upon the adoption of IFRS 15. Beginning January 1, 2018, CEMEX plans to adopt IFRS 15 using the full retrospective approach. CEMEX is not considering the early application of IFRS 15.

- On January 13, 2016, the IASB issued IFRS 16, *Leases* (“IFRS 16”), which will supersede all current standards and interpretations related to lease accounting. IFRS 16, defines leases as any contract or part of a contract that conveys to the lessee the right to use an asset for a period of time in exchange for consideration and the lessee directs the use of the identified asset throughout that period. In summary, IFRS 16 introduces a single lessee accounting model, and requires a lessee to recognize, for all leases with a term of more than 12 months, unless the underlying asset is of low value, assets for the right-of-use the underlying asset against a corresponding financial liability, representing the NPV of estimated lease payments under the contract, with a single income statement model in which a lessee recognizes depreciation of the right-of-use asset and interest on the lease liability. A lessee shall present either in the balance sheet, or disclose in the notes, right-of-use assets separately from other assets, as well as, lease liabilities separately from other liabilities. IFRS 16 is effective beginning January 1, 2019, with early adoption permitted considering certain requirements.

As of the reporting date, CEMEX has performed an assessment of its main outstanding operating and finance lease contracts, in order to inventory the most relevant characteristics of such contracts (type of assets, committed payments, maturity dates, renewal clauses, etc.). During 2017, CEMEX expects to define its future policy under IFRS 16 in connection with the exemption for short-term leases and low value assets in order to set the basis and be able to start quantifying the required adjustments for the proper recognition of the assets for the “right-of-use” and the corresponding financial liability, with a plan to adopt IFRS 16 beginning January 1, 2019 full retrospectively. Preliminarily, based on its assessment as of the reporting date, CEMEX considers that upon adoption of IFRS 16; most of its outstanding operating leases will be recognized on balance sheet increasing assets and liabilities, with no significant initial effect on CEMEX’s net assets. CEMEX is not considering the early application of IFRS 16.

- On January 29, 2016, the IASB issued amendments to IAS 7, *Statement of cash flows*, which are effective beginning January 1, 2017. The amendments aim to enable users of financial statements to evaluate changes in liabilities arising from financing activities. To achieve this objective, the IASB requires that the following changes in liabilities arising from financing activities are disclosed (to the extent necessary): (i) changes from financing cash flows; (ii) changes arising from obtaining or losing control of subsidiaries or other businesses; (iii) the effect of changes in foreign exchange rates; (iv) changes in fair values; and (v) other changes. The amendments state that one way to fulfill the new disclosure requirement is to provide a rollforward between the opening and closing balances in the statement of financial position for liabilities arising from financing activities. Finally, the amendments state that changes in liabilities arising from financing activities must be disclosed separately from changes in other assets and liabilities. CEMEX does not expect a significant effect from the adoption of these amendments.

3) REVENUES AND CONSTRUCTION CONTRACTS

For the years ended December 31, 2016, 2015 and 2014, net sales, after sales and eliminations between related parties resulting from consolidation, were as follows:

	2016	2015	2014
From the sale of goods associated to CEMEX's main activities ¹	\$ 240,379	212,019	192,518
From the sale of services ²	3,110	2,811	2,618
From the sale of other goods and services ³	7,420	5,496	4,806
	\$ 250,909	220,326	199,942

¹ Includes in each period those revenues generated under construction contracts that are presented in the table below.

² Refers mainly to revenues generated by Neoris N.V., a subsidiary involved in providing information technology solutions and services.

³ Refers mainly to revenues generated by subsidiaries not individually significant operating in different lines of business.

For the years ended December 31, 2016, 2015 and 2014, revenues and costs related to construction contracts in progress were as follows:

	Recognized to date ¹	2016	2015	2014
Revenue from construction contracts included in consolidated net sales ²	\$ 4,066	1,033	994	1,507
Costs incurred in construction contracts included in consolidated cost of sales ³	(3,185)	(1,133)	(919)	(1,332)
Construction contracts gross operating profit (loss)	\$ 881	(100)	75	175

¹ Revenues and costs recognized from inception of the contracts until December 31, 2016 in connection with those projects still in progress.

² Revenues from construction contracts during 2016, 2015 and 2014, determined under the percentage of completion method, were mainly obtained in Mexico and Colombia.

³ Refers to actual costs incurred during the periods. The oldest contract in progress as of December 31, 2016 started in 2010.

As of December 31, 2016 and 2015, amounts receivable for progress billings to customers of construction contracts and/or advances received by CEMEX from these customers were not significant.

4) DISCONTINUED OPERATIONS, SALE OF OTHER DISPOSAL GROUPS AND SELECTED FINANCIAL INFORMATION BY GEOGRAPHIC OPERATING SEGMENT

4A) Discontinued operations

On November 28, 2016, CEMEX announced that one of its subsidiaries in the United States signed a definitive agreement to divest its Concrete Reinforced Pipe Manufacturing Business ("Concrete Pipe Business") in the United States to Quikrete Holdings, Inc. ("Quikrete") for approximately US\$500 plus an additional US\$40 contingent consideration based on future performance. The closing of this transaction is subject to the satisfaction of certain conditions, including approval from regulators. CEMEX currently expects to finalize this sale during the first quarter of 2017. Considering the disposal of the entire concrete pipe division, the operations of the Pipe Business for the years ended December 31, 2016, 2015 and 2014, included in CEMEX's statements of operations were reclassified to the single line item "Discontinued operations". In addition, the balance sheet of CEMEX's Pipe Business as of December 31, 2016 was reclassified to assets held for sale and directly related liabilities on the face of the consolidated balance sheet, including approximately US\$260 (\$5,369) of goodwill associated to the reporting segment in the United States that was proportionally allocated to these net assets based on their relative fair values (see note 26).

On May 26, 2016, CEMEX closed the sale of its operations in Bangladesh and Thailand to Siam City Cement Public Company Ltd. for approximately US\$70 (\$1,450), generating a net gain on sale of approximately US\$24 (\$424) and included in the statement of operations in 2016 within the line item "Discontinued operations", which includes the reclassification of foreign currency translation gains associated with these operations accrued in equity until disposal for approximately US\$7 (\$122).

Notes to the consolidated financial statements

With effective date October 31, 2015, after all agreed upon conditions precedent were satisfied, CEMEX completed the process for the sale of its operations in Austria and Hungary that started on August 12, 2015 to the Rohrdorfer Group for approximately €165 (US\$179 or \$3,090), after final adjustments negotiated for changes in cash and working capital balances as of the transfer date. The combined operations in Austria and Hungary consisted of 29 aggregate quarries and 68 ready-mix plants. The operations in Austria and Hungary for the ten-month period ended October 31, 2015 and the year ended December 31, 2014, included in CEMEX's statements of operations, were reclassified to the single line item "Discontinued operations", which includes, in 2015, a gain on sale of approximately US\$45 (\$741). Such gain on sale includes the reclassification to the statement of operations of foreign currency translation gains accrued in equity until October 31, 2015 for an amount of approximately US\$10 (\$215).

In addition, on August 12, 2015, CEMEX agreed with Duna-Dráva Cement, the sale of its Croatia operations, including assets in Bosnia and Herzegovina, Montenegro and Serbia, for approximately €231 (US\$243 or \$5,032), amount that is subject to final adjustments negotiated for changes in cash and working capital balances as of the change of control date. The operations in Croatia, including assets in Bosnia and Herzegovina, Montenegro and Serbia, mainly consist of three cement plants with aggregate annual production capacity of approximately 2.4 million tons of cement, two aggregates quarries and seven ready-mix plants. As of December 31, 2016, after the compliance of customary conditions precedent agreed by the parties, the closing of this transaction is still subject to approval from the relevant authorities. CEMEX expects to conclude the sale of its operations in Croatia, including assets in Bosnia and Herzegovina, Montenegro and Serbia, in the short-term. The operations in Croatia, including assets in Bosnia and Herzegovina, Montenegro and Serbia, for the years ended December 31, 2016, 2015 and 2014, included in CEMEX's statements of operations were reclassified, to the single line item "Discontinued operations".

The following table presents condensed combined information of the statement of operations of CEMEX's discontinued operations in Bangladesh and Thailand for the five-months period ended May 31, 2016 and for the years ended December 31, 2015 and 2014, in Austria and Hungary for the ten-months period ended October 31, 2015 and for the year ended December 31, 2014; as well as of CEMEX's operations in Croatia, including assets in Bosnia and Herzegovina, Montenegro and Serbia, and the Pipe Business in the United States for the years ended December 31, 2016, 2015 and 2014:

	2016	2015	2014
Sales	\$ 8,016	10,861	10,081
Cost of sales and operating expenses	(7,198)	(10,251)	(9,750)
Other products (expenses), net	(15)	33	(83)
Financial expenses, net and others	(25)	(65)	(55)
Earnings before income tax	778	578	193
Income tax	(130)	(34)	(103)
Net income	648	544	90
Net income of non-controlling interest	1	6	-
Net income of controlling interest	\$ 647	538	90

As of December 31, 2016 and 2015, the balance sheets of CEMEX's Croatian discontinued operations, including its assets in Bosnia and Herzegovina, Montenegro and Serbia, were reclassified to current assets and current liabilities held for sale. In addition, as mentioned above, the balance sheet of CEMEX's Pipe Business as of December 31, 2016 was reclassified to current assets and current liabilities held for sale. Selected combined condensed financial information of balance sheet of these operations was as follows:

	2016	2015
Current assets	\$ 1,570	438
Property, machinery and equipment, net	5,798	2,562
Intangible assets, net and other non-current assets	6,222	446
Total assets held for sale	13,590	3,446
Current liabilities	599	442
Non-current liabilities	694	231
Total liabilities directly related to assets held for sale	1,293	673
Net assets held for sale	\$ 12,297	2,773

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The balance sheet of CEMEX as of December 31, 2015 was not restated as a result of the expected sale of its Concrete Pipe Business nor for the sale of the operations in Bangladesh and Thailand described above. Selected condensed combined financial information of balance sheet at this date of CEMEX's Concrete Pipe Business, Bangladesh and Thailand was as follows:

	2015
Current assets	\$ 832
Property, machinery and equipment, net	2,446
Intangible assets, net and other non-current assets	4,921
Total assets	8,199
Current liabilities	70
Non-current liabilities	387
Total liabilities	457
Net assets	\$ 7,742

4B) Other disposal groups

On November 18, 2016, a subsidiary of CEMEX in the United States closed the sale to an affiliate of Grupo Cementos de Chihuahua, S.A.B. de C.V. ("GCC") of certain assets consisting in CEMEX's cement plant in Odessa, Texas, two cement terminals and the building materials business in El Paso, Texas and Las Cruces, New Mexico, for an amount of approximately US\$306 (\$6,340). Odessa plant has an annual production capacity of approximately 537 thousand tons. The transfer of control was effective on November 18, 2016. As a result of the sale of these assets, CEMEX recognized a net gain of approximately US\$104 (\$2,159) as part of "Other expenses, net" in the statement of operations, which includes an expense related to the proportional write off of goodwill associated to CEMEX's reporting segment in the United States based on their relative fair values for approximately US\$161 (\$3,340) and the reclassification of proportional foreign currency translation gains associated with these net assets accrued in equity until disposal for approximately US\$65 (\$1,347).

On September 12, 2016, CEMEX announced that one of its subsidiaries in the United States signed a definitive agreement for the sale of its Fairborn, Ohio cement plant and cement terminal in Columbus, Ohio to Eagle Materials Inc. ("Eagle Materials") for approximately US\$400 (\$8,288). Fairborn plant has an annual production capacity of approximately 730 thousand tons. The closing of this transaction is subject to the satisfaction of certain conditions, including approval from regulators. CEMEX currently expects to finalize this divestiture during the first quarter of 2017. The balance sheet of these assets as of December 31, 2016 was reclassified to assets held for sale and liabilities directly related to assets held for sale (note 12A), including approximately US\$211 (\$4,365) of goodwill associated to the reporting segment in the United States that was proportionally allocated to these net assets based on their relative fair values.

The operations of the net assets sold to GCC on November 18, 2016 and those expected to be sold to Eagle Materials, mentioned above, did not represent discontinued operations and were consolidated by CEMEX line-by-line for all the periods presented in the statement of operations. In arriving to this conclusion, CEMEX evaluated: a) the Company's ongoing cement operations on its CGUs in Texas and the East coast; and b) the relative size of the net assets sold and held for sale in respect to the Company's remaining overall ongoing cement operations in the United States. Moreover, as a reasonability check, CEMEX measured the materiality of such net assets using a threshold of 5% of consolidated net sales, operating earnings before other expenses, net gain (loss) and total assets. In no case was the 5% threshold reached.

For 2016, 2015 and 2014, selected combined statement of operations information of the net assets sold to GCC on November 18, 2016 and those expected to be sold to Eagle Materials was as follows:

	2016	2015	2014
Net sales	\$ 3,122	3,538	4,465
Operating costs and expenses	(2,450)	(2,795)	(3,240)
Operating earnings before other expenses, net	\$ 672	743	1,225

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As of December 31, 2016, the condensed balance sheet of the net assets expected to be sold to Eagle Materials was as follows:

	2016
Current assets	\$ 123
Non-current assets	5,834
Total assets of the disposal group	5,957
Current liabilities	6
Non-current liabilities	158
Total liabilities directly related to disposal group	164
Total net assets of disposal group	\$ 5,793

In addition, on December 2, 2016, CEMEX agreed the definite transfer of its assets and activities related to the ready-mix concrete pumping in Mexico to Cementos Españoles de Bombeo, S. de R.L., subsidiary in Mexico of Pumping Team S.L.L. ("Pumping Team"), specialist in the supply of ready-mix concrete pumping services based in Spain, for US\$80 (\$1,658), which includes the sale of fixed assets upon closing of the transaction for approximately US\$15 (\$311) plus administrative and client and market development services, as well as the lease of facilities that CEMEX will supply to Pumping Team over a period of ten years with the possibility to extend for three additional years, for an aggregate initial amount of approximately US\$65 (\$1,347), plus a contingent revenue subject to results for up to US\$29 (\$601) linked to annual metrics beginning in the first year and up to the fifth year of the agreement. As of December 31, 2016, the closing of the transaction is subject to certain conditions, including approval by the Mexican authorities. CEMEX expects to conclude this transaction during the first quarter of 2017.

Effective January 1, 2015, as part of a series of related transactions agreed on October 31, 2014 with Holcim Ltd. ("Holcim"), then a global producer of building materials based in Switzerland, currently LafargeHolcim after the merger of Holcim with Lafarge, S.A., during 2015, CEMEX sold to Holcim its assets in the western region of Germany, consisting of one cement plant, two cement grinding mills, one slag granulator, 22 aggregates quarries and 79 ready-mix plants for approximately €171 (US\$207 or \$3,047), while CEMEX maintained its operations in the northern, eastern and southern regions of the country. The operations of the net assets sold by CEMEX to Holcim were consolidated by CEMEX line-by-line for the year ended December 31, 2014, considering that this transaction did not represent the disposal of entire reportable operating segment. In arriving to this conclusion, CEMEX evaluated: a) the Company's remaining operations in the North, East and South regions of Germany; and b) the relative size of the net assets sold in respect to the Company's remaining overall ongoing operations in such country. Moreover, as a reasonability check, CEMEX measured the materiality of such net assets using a threshold of 5% of consolidated net sales, operating earnings before other expenses, net, net income (loss) and total assets. In any case the 5% threshold was reached.

For the year 2014, selected combined statement of operations information of the net assets sold in Germany was as follows:

	2014
Net sales	\$ 6,655
Operating costs and expenses	(6,428)
Operating earnings before other expenses, net	\$ 227

During 2014, CEMEX sold significantly all the operating assets of Readymix plc ("Readymix"), CEMEX's main operating subsidiary in the Republic of Ireland, and an indirect subsidiary of CEMEX España, for €19 (US\$23 or \$339), recognizing a loss on sale of approximately €14 (US\$17 or \$250).

4C) Selected financial information by geographic operating segment

Geographic operating segments represent the components of CEMEX that engage in business activities from which CEMEX may earn revenues and incur expenses, whose operating results are regularly reviewed by the entity's top management to make decisions about resources to be allocated to the segments and assess their performance, and for which discrete financial information is available.

CEMEX's main activities are oriented to the construction industry segment through the production, distribution, marketing and sale of cement, ready-mix concrete, aggregates and other construction materials. CEMEX operates geographically on a regional basis. Effective January 1, 2016, according to an announcement made by CEMEX's Chief Executive Officer ("CEO"), the Company's operations were reorganized into five geographical regions, each under the supervision of a regional president, as follows: 1) Mexico, 2) United States, 3) Europe, 4) South, Central America and the Caribbean, and 5) Asia, Middle East and Africa. Each regional president supervises and is responsible for all the business activities in the countries comprising the region. These activities refer to the production, distribution, marketing and sale of cement, ready-mix concrete, aggregates and other construction materials, the allocation of resources and the review of their performance and operating results. All regional presidents report directly to CEMEX's CEO. The country manager, who is one level below the regional president in the organizational structure, reports the performance and operating results of its country to the regional president, including all the operating sectors. CEMEX's top management internally evaluates the results and performance of each country and region for decision-making purposes and allocation of resources, following a vertical integration approach considering: a) that the operating components that comprise the reported segment have similar economic characteristics; b) that the reported segments are used by CEMEX to organize and evaluate its activities in its internal information system; c) the homogeneous nature of the items produced and traded in each operative component, which are all used by the construction industry; d) the vertical integration in the value chain of the products comprising each component; e) the type of clients, which are substantially similar in all components; f) the operative integration among components; and g) that the compensation system for employees of a specific country is based on the consolidated results of the geographic segment and not on the particular results of the components. In accordance with this approach, in CEMEX's daily operations, management allocates economic resources and evaluates operating results on a country basis rather than on an operating component basis. The financial information by geographic operating segment reported in the tables below for the years ended December 31, 2015 and 2014 was restated in order to give effect to: a) the discontinued operations described in note 4A, and b) the new geographical operating organization described above. Until December 31, 2015, CEMEX's operations were organized into six geographical regions, also each under the supervision of a regional president: 1) Mexico, 2) United States, 3) Northern Europe, 4) Mediterranean, 5) South, Central America and the Caribbean, and 6) Asia. Under the current operating organization, the geographical operating segments under the former Mediterranean region were incorporated into the current Europe region or the Asia, Middle East and Africa region, as corresponded.

Considering the financial information that is regularly reviewed by CEMEX's top management, each of the five geographic regions in which CEMEX operates and the countries that comprise such regions represent reportable operating segments. However, for disclosure purposes in the notes to the financial statements, considering similar regional and economic characteristics and/or the fact that certain countries do not exceed certain materiality thresholds to be reported separately, such countries have been aggregated and presented as single line items as follows: a) "Rest of Europe" is mainly comprised of CEMEX's operations in the Czech Republic, Poland and Latvia, as well as trading activities in Scandinavia and Finland; b) "Rest of South, Central America and the Caribbean" is mainly comprised of CEMEX's operations in Costa Rica, Panama, Puerto Rico, the Dominican Republic, Nicaragua, Jamaica and other countries in the Caribbean, Guatemala, and small ready-mix concrete operations in Argentina; and c) "Rest of Asia, Middle East and Africa" is mainly comprised of CEMEX's operations in the United Arab Emirates, Israel and Malaysia. The segment "Others" refers to: 1) cement trade maritime operations, 2) Neoris N.V., CEMEX's subsidiary involved in the development of information technology solutions, 3) the Parent Company and other corporate entities, and 4) other minor subsidiaries with different lines of business.

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The main indicator used by CEMEX's management to evaluate the performance of each country is "Operating EBITDA" representing operating earnings before other expenses, net, plus depreciation and amortization, considering that such amount represents a relevant measure for CEMEX's management as an indicator of the ability to internally fund capital expenditures, as well as a widely accepted financial indicator to measure CEMEX's ability to service or incur debt (note 16). Operating EBITDA should not be considered as an indicator of CEMEX's financial performance, as an alternative to cash flows, as a measure of liquidity, or as being comparable to other similarly titled measures of other companies. This indicator, which is presented in the selected financial information by geographic operating segment, is consistent with the information used by CEMEX's management for decision-making purposes. The accounting policies applied to determine the financial information by geographic operating segment are consistent with those described in note 2. CEMEX recognizes sales and other transactions between related parties based on market values.

Selected information of the consolidated statements of operations by geographic operating segment for the years ended December 31, 2016, 2015 and 2014 was as follows:

2016	Net sales (including related parties)	Less: Related parties	Net sales	Operating EBITDA	Less: Depreciation and amortization	Operating earnings before other expenses, net	Other expenses, net	Financial expense	Other financing items, net	
Mexico	\$ 53,579	(848)	52,731	19,256	2,390	16,866	(608)	(339)	2,695	
United States	68,553	-	68,553	11,159	6,605	4,554	2,911	(489)	(205)	
Europe										
United Kingdom	21,153	-	21,153	3,606	1,047	2,559	711	(63)	(393)	
Germany	9,572	(1,385)	8,187	553	464	89	(64)	(15)	(85)	
France	14,535	-	14,535	669	484	185	(110)	(53)	2	
Spain	6,563	(841)	5,722	814	663	151	(112)	(37)	(9)	
Rest of Europe	10,881	(629)	10,252	1,420	914	506	(63)	(23)	203	
South, Central America and the Caribbean										
Colombia ¹	12,415	(1)	12,414	3,975	489	3,486	(575)	46	38	
Rest of South, Central America and the Caribbean ¹	18,820	(1,252)	17,568	6,126	892	5,234	(1,255)	(65)	(150)	
Asia, Middle East and Africa ("AMEA")										
Egypt	6,950	(5)	6,945	2,454	539	1,915	(213)	(78)	(253)	
Philippines ²	9,655	-	9,655	2,687	530	2,157	21	(1)	(24)	
Rest of AMEA	12,676	(12)	12,664	1,607	325	1,282	(122)	(27)	(33)	
Others	19,128	(8,598)	10,530	(2,915)	805	(3,720)	(2,167)	(20,324)	2,655	
Continuing operations	264,480	(13,571)	250,909	51,411	16,147	35,264	(1,646)	(21,468)	4,441	
Discontinued operations	8,223	(207)	8,016	1,355	537	818	(15)	(29)	4	
Total	\$ 272,703	(13,778)	258,925	52,766	16,684	36,082	(1,661)	(21,497)	4,445	

¹ CEMEX Latam Holdings, S.A. ("CLH"), entity incorporated in Spain which since 2012 trades its ordinary shares in the Colombian Stock Exchange under the symbol CLH is the indirect holding company of CEMEX's operations in Colombia, Panama, Costa Rica, Guatemala, El Salvador and Brazil. At year end 2016, there is a non controlling interest in CLH of approximately 26.72% of its ordinary shares, excluding shares held in CLH's treasury.

² CEMEX's operations in the Philippines are conducted through CEMEX Holdings Philippines, Inc. ("CHP"), subsidiary incorporated in the Philippines which since July 2016 trades its ordinary shares in the Philippines Stock Exchange under the symbol CHP (note 20D). At year end 2016, there is a non-controlling interest in CHP of 45.0% of its ordinary shares.

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2015	Net sales (including related parties)	Less: Related parties	Net sales	Operating EBITDA	Less: Depreciation and amortization	Operating earnings before other expenses, net	Other expenses, net	Financial expense	Other financing items, net	
Mexico	\$ 50,260	(5,648)	44,612	15,362	2,399	12,963	(684)	(210)	915	
United States	58,668	(18)	58,650	8,080	5,865	2,215	252	(439)	(159)	
Europe										
United Kingdom	20,227	-	20,227	2,705	1,004	1,701	(147)	(95)	(299)	
Germany	8,285	(1,276)	7,009	542	389	153	49	(14)	(61)	
France	12,064	-	12,064	670	438	232	(8)	(48)	(10)	
Spain	6,151	(755)	5,396	1,031	604	427	(735)	(72)	(2)	
Rest of Europe	10,010	(767)	9,243	1,419	972	447	(182)	(57)	(75)	
South, Central America and the Caribbean										
Colombia	11,562	(2)	11,560	4,041	500	3,541	(88)	(50)	(570)	
Rest of South, Central America and the Caribbean	19,169	(2,285)	16,884	5,211	844	4,367	(267)	(43)	(113)	
Asia, Middle East and Africa ("AMEA")										
Egypt	6,923	(5)	6,918	1,777	536	1,241	(254)	(115)	114	
Philippines	8,436	(4)	8,432	2,206	447	1,759	(12)	(20)	19	
Rest of AMEA	11,025	-	11,025	1,264	277	987	(69)	(23)	97	
Others	17,058	(8,752)	8,306	(2,954)	590	(3,544)	(898)	(18,581)	(1,091)	
Continuing operations	239,838	(19,512)	220,326	41,354	14,865	26,489	(3,043)	(19,767)	(1,235)	
Discontinued operations	10,918	(57)	10,861	1,381	771	610	33	(33)	(32)	
Total	\$ 250,756	(19,569)	231,187	42,735	15,636	27,099	(3,010)	(19,800)	(1,267)	

2014	Net sales (including related parties)	Less: Related parties	Net sales	Operating EBITDA	Less: Depreciation and amortization	Operating earnings before other expenses, net	Other expenses, net	Financial expense	Other financing items, net	
Mexico	\$ 51,412	(10,143)	41,269	13,480	2,420	11,060	734	(262)	481	
United States	45,691	(33)	45,658	4,962	5,296	(334)	(352)	(411)	(123)	
Europe										
United Kingdom	17,071	-	17,071	1,672	1,004	668	1,062	(33)	(378)	
Germany	14,138	(1,247)	12,891	869	625	244	(797)	(29)	(122)	
France	12,914	-	12,914	852	516	336	(94)	(72)	(4)	
Spain	4,717	(559)	4,158	363	571	(208)	(2,107)	(29)	(4)	
Rest of Europe	9,101	(921)	8,180	1,080	667	413	(367)	(26)	(56)	
South, Central America and the Caribbean										
Colombia	13,242	(1)	13,241	4,838	476	4,362	52	(90)	(353)	
Rest of South, Central America and the Caribbean	16,292	(1,865)	14,427	4,767	688	4,079	(101)	(44)	9	
Asia, Middle East and Africa ("AMEA")										
Egypt	7,123	(12)	7,111	2,664	474	2,190	(209)	(28)	15	
Philippines	5,912	(2)	5,910	1,374	338	1,036	40	(5)	(8)	
Rest of AMEA	9,694	(6)	9,688	1,098	254	844	(147)	(19)	27	
Others	13,531	(6,107)	7,424	(2,463)	374	(2,837)	(2,759)	(20,435)	3,047	
Continuing operations	220,838	(20,896)	199,942	35,556	13,703	21,853	(5,045)	(21,483)	2,531	
Discontinued operations	10,134	(53)	10,081	1,084	753	331	(83)	(18)	(37)	
Total	\$ 230,972	(20,949)	210,023	36,640	14,456	22,184	(5,128)	(21,501)	2,494	

Notes to the consolidated
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The information of share of profits of equity accounted investees by geographic operating segment for the years ended December 31, 2016, 2015 and 2014 is included in the note 13A.

As of December 31, 2016 and 2015, selected balance sheet information by geographic segment was as follows:

2016	Equity accounted investees	Other segment assets	Total assets	Total liabilities	Net assets by segment	Additions to fixed assets ¹
Mexico	\$ 490	70,012	70,502	20,752	49,750	1,651
United States	1,587	287,492	289,079	30,118	258,961	3,760
Europe						
United Kingdom	104	32,469	32,573	22,914	9,659	599
Germany	74	8,396	8,470	6,694	1,776	507
France	909	16,855	17,764	6,829	10,935	379
Spain	13	27,251	27,264	3,206	24,058	490
Rest of Europe	276	16,223	16,499	4,643	11,856	440
South, Central America and the Caribbean						
Colombia	-	26,532	26,532	11,548	14,984	3,633
Rest of South, Central America and the Caribbean	28	22,321	22,349	5,931	16,418	637
Asia, Middle East and Africa						
Egypt	1	5,512	5,513	2,907	2,606	381
Philippines	6	12,308	12,314	2,696	9,618	341
Rest of Asia, Middle East and Africa	-	12,347	12,347	6,994	5,353	394
Others	6,996	26,333	33,329	276,305	(242,976)	67
Continuing operations	10,484	564,051	574,535	401,537	172,998	13,279
Assets held for sale and directly related liabilities (note 12A)	4	25,189	25,193	1,466	23,727	(1)
Total	\$ 10,488	589,240	599,728	403,003	196,725	13,278

2015	Equity accounted investees	Other segment assets	Total assets	Total liabilities	Net assets by segment	Additions to fixed assets ¹
Mexico	\$ 438	75,215	75,653	16,936	58,717	1,177
United States	1,228	260,847	262,075	22,832	239,243	3,453
Europe						
United Kingdom	103	32,339	32,442	19,054	13,388	925
Germany	64	7,278	7,342	5,988	1,354	362
France	582	14,577	15,159	6,704	8,455	515
Spain	94	23,544	23,638	2,810	20,828	281
Rest of Europe	291	15,043	15,334	4,025	11,309	594
South, Central America and the Caribbean						
Colombia	-	19,499	19,499	8,959	10,540	2,601
Rest of South, Central America and the Caribbean	24	21,714	21,738	5,110	16,628	965
Asia, Middle East and Africa						
Egypt	11	9,310	9,321	4,499	4,822	762
Philippines	6	10,447	10,453	2,907	7,546	329
Rest of Asia, Middle East and Africa	-	12,055	12,055	6,205	5,850	288
Others	9,309	22,855	32,164	271,794	(239,630)	61
Continuing operations	12,150	524,723	536,873	377,823	159,050	12,313
Assets held for sale and directly related liabilities (note 12A)	4	5,387	5,391	673	4,718	154
Total	\$ 12,154	530,110	542,264	378,496	163,768	12,467

¹ In 2016 and 2015, the total "Additions to fixed assets" includes capital expenditures of approximately \$12,676 and \$11,454, respectively (note 14).

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Total consolidated liabilities as of December 31, 2016 and 2015 included debt of \$236,232 and \$229,343, respectively. Of such balances, as of December 31, 2016 and 2015, approximately 73% and 71% was in the Parent Company, less than 1% and 1% was in Spain, 25% and 27% was in finance subsidiaries in the Netherlands, Luxembourg and the United States, and 2% and 1% was in other countries, respectively. The Parent Company and the finance subsidiaries mentioned above are included within the segment "Others".

Net sales by product and geographic segment for the years ended December 31, 2016, 2015 and 2014 were as follows:

2016	Cement	Concrete	Aggregates	Others	Eliminations	Net sales
Mexico	\$ 37,647	13,664	3,156	11,773	(13,509)	52,731
United States	28,585	36,452	15,296	7,999	(19,779)	68,553
Europe						
United Kingdom	5,267	7,830	8,195	7,889	(8,028)	21,153
Germany	3,416	4,539	2,112	2,262	(4,142)	8,187
France	-	11,883	5,640	278	(3,266)	14,535
Spain	5,478	823	196	472	(1,247)	5,722
Rest of Europe	6,397	4,241	1,475	555	(2,416)	10,252
South, Central America and the Caribbean						
Colombia	8,814	4,522	1,364	1,761	(4,047)	12,414
Rest of South, Central America and the Caribbean	16,660	3,493	914	563	(4,062)	17,568
Asia, Middle East and Africa						
Egypt	6,076	943	26	217	(317)	6,945
Philippines	9,405	143	164	70	(127)	9,655
Rest of Asia, Middle East and Africa	961	10,293	2,573	1,407	(2,570)	12,664
Others	-	-	-	19,127	(8,597)	10,530
Continuing operations	128,706	98,826	41,111	54,373	(72,107)	250,909
Discontinued operations	2,122	250	15	5,747	(118)	8,016
Total	\$ 130,828	99,076	41,126	60,120	(72,225)	258,925

2015	Cement	Concrete	Aggregates	Others	Eliminations	Net sales
Mexico	\$ 30,384	13,163	2,860	9,956	(11,751)	44,612
United States	23,358	30,575	12,524	8,758	(16,565)	58,650
Europe						
United Kingdom	4,705	7,729	7,614	7,859	(7,680)	20,227
Germany	3,098	3,749	1,790	2,103	(3,731)	7,009
France	-	10,026	4,410	224	(2,596)	12,064
Spain	5,265	721	150	392	(1,132)	5,396
Rest of Europe	5,966	3,623	1,191	519	(2,056)	9,243
South, Central America and the Caribbean						
Colombia	8,158	4,428	1,329	1,345	(3,700)	11,560
Rest of South, Central America and the Caribbean	14,846	3,850	898	731	(3,441)	16,884
Asia, Middle East and Africa						
Egypt	6,052	975	36	236	(381)	6,918
Philippines	8,270	115	95	62	(110)	8,432
Rest of Asia, Middle East and Africa	880	8,945	1,980	1,180	(1,960)	11,025
Others	-	-	-	17,057	(8,751)	8,306
Continuing operations	110,982	87,899	34,877	50,422	(63,854)	220,326
Discontinued operations	2,787	2,678	1,296	4,885	(785)	10,861
Total	\$ 113,769	90,577	36,173	55,307	(64,639)	231,187

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2014	Cement	Concrete	Aggregates	Others	Eliminations	Net sales
Mexico	\$ 27,667	12,855	2,963	9,056	(11,272)	41,269
United States	17,937	21,490	9,886	8,857	(12,512)	45,658
Europe						
United Kingdom	3,824	6,666	6,128	7,929	(7,476)	17,071
Germany	4,883	6,600	4,042	2,434	(5,068)	12,891
France	–	10,826	4,585	215	(2,712)	12,914
Spain	3,856	783	168	359	(1,008)	4,158
Rest of Europe	5,305	3,154	1,089	341	(1,709)	8,180
South, Central America and the Caribbean						
Colombia	9,544	4,964	1,547	770	(3,584)	13,241
Rest of South, Central America and the Caribbean	13,123	3,417	712	690	(3,515)	14,427
Asia, Middle East and Africa						
Egypt	6,402	542	19	318	(170)	7,111
Philippines	5,849	48	–	27	(14)	5,910
Rest of Asia, Middle East and Africa	593	7,993	1,831	1,093	(1,822)	9,688
Others	–	–	–	11,607	(4,183)	7,424
Continuing operations	98,983	79,338	32,970	43,696	(55,045)	199,942
Discontinued operations	2,694	2,827	1,356	3,992	(788)	10,081
Total	\$ 101,677	82,165	34,326	47,688	(55,833)	210,023

5) OPERATING EXPENSES, DEPRECIATION AND AMORTIZATION

Consolidated operating expenses during 2016, 2015 and 2014 by function are as follows:

	2016	2015	2014
Administrative expenses ¹	\$ 20,883	18,717	16,984
Selling expenses	6,954	5,943	5,674
Distribution and logistics expenses	25,925	23,109	20,689
	\$ 53,762	47,769	43,347

¹ The Technology and Energy departments in CEMEX undertake all significant R&D activities as part of their daily activities. In 2016, 2015 and 2014, total combined expenses of these departments recognized within administrative expenses were approximately \$712 (US\$38), \$660 (US\$41) and \$538 (US\$36), respectively.

Depreciation and amortization recognized during 2016, 2015 and 2014 are detailed as follows:

	2016	2015	2014
Depreciation and amortization expense included in cost of sales	\$ 14,299	13,329	12,379
Depreciation and amortization expense included in administrative, selling and distribution and logistics expenses	1,848	1,536	1,324
	\$ 16,147	14,865	13,703

6) OTHER EXPENSES, NET

The detail of the line item “Other expenses, net” in 2016, 2015 and 2014 was as follows:

	2016	2015	2014
Impairment losses and remeasurement of assets held for sale ¹	\$ (2,516)	(1,526)	(3,848)
Restructuring costs ²	(778)	(845)	(544)
Charitable contributions	(93)	(60)	(18)
Results from the sale of assets and others, net	1,741	(612)	(635)
	\$ (1,646)	(3,043)	(5,045)

¹ The main effects included in this line item for the years ended December 31, 2016, 2015 and 2014 are described in notes 13B, 14, 15 and 24A.

² In 2016, 2015 and 2014, restructuring costs mainly refer to severance payments.

7) OTHER FINANCIAL INCOME (EXPENSE), NET

The detail of the line item “Other financial income (expense), net” in 2016, 2015 and 2014 was as follows:

	2016	2015	2014
Financial income	\$ 417	315	312
Results from financial instruments, net (notes 13B and 16D)	113	(2,729)	(880)
Foreign exchange results	4,943	2,083	3,936
Effects of NPV on assets and liabilities and others, net	(1,032)	(904)	(837)
	\$ 4,441	(1,235)	2,531

8) CASH AND CASH EQUIVALENTS

As of December 31, 2016 and 2015, consolidated cash and cash equivalents consisted of:

	2016	2015
Cash and bank accounts	\$ 9,044	11,395
Fixed-income securities and other cash equivalents	2,511	3,885
	\$ 11,555	15,280

Based on net settlement agreements, the balance of cash and cash equivalents excludes deposits in margin accounts that guarantee several obligations of CEMEX of approximately \$250 in 2016 and \$258 in 2015, which were offset against the corresponding obligations of CEMEX with the counterparties, considering CEMEX’s right, ability and intention to settle the amounts on a net basis.

9) TRADE ACCOUNTS RECEIVABLE, NET

As of December 31, 2016 and 2015, consolidated trade accounts receivable consisted of:

	2016	2015
Trade accounts receivable	\$ 32,088	29,773
Allowances for doubtful accounts	(2,139)	(1,999)
	\$ 29,949	27,774

As of December 31, 2016 and 2015, trade accounts receivable include receivables of \$13,644 (US\$658) and \$12,858 (US\$746), respectively, that were sold under outstanding securitization programs for the sale of trade accounts receivable and/or factoring programs with recourse in Mexico, the United States, France and the United Kingdom. Under the outstanding securitization programs, CEMEX effectively surrenders control associated with the trade accounts receivable sold and there is no guarantee or obligation to reacquire the assets. However, CEMEX retains certain residual interest in the programs and/or maintains continuing involvement with the accounts receivable; therefore, the amounts received are recognized within “Other financial obligations”. Trade accounts receivable qualifying for sale exclude amounts over certain days past due or concentrations over certain limits to any one customer, according to the terms of the programs. The portion of the accounts receivable sold maintained as reserves amounted to \$2,549 in 2016 and \$2,357 in 2015. Therefore, the funded amount to CEMEX was \$11,095 (US\$535) in 2016 and \$10,501 (US\$609) in 2015, representing the amounts recognized within the line item of “Other financial obligations”. The discount granted to the acquirers of the trade accounts receivable is recorded as financial expense and amounted to approximately \$258 (US\$14) in 2016, \$249 (US\$16) in 2015 and \$298 (US\$22) in 2014. CEMEX’s securitization programs are negotiated for specific periods and may be renewed at their maturity. The securitization programs outstanding as of December 31, 2016 in Mexico, the United States, France and the United Kingdom mature in March 2017, respectively.

Allowances for doubtful accounts are established according to the credit history and risk profile of each customer. Changes in the valuation of this caption allowance for doubtful accounts in 2016, 2015 and 2014, were as follows:

	2016	2015	2014
Allowances for doubtful accounts at beginning of period	\$ 1,999	1,856	1,804
Charged to selling expenses	556	439	442
Deductions	(867)	(270)	(394)
Foreign currency translation effects	451	(26)	4
Allowances for doubtful accounts at end of period	\$ 2,139	1,999	1,856

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10) OTHER ACCOUNTS RECEIVABLE

As of December 31, 2016 and 2015, consolidated other accounts receivable consisted of:

	2016	2015
Non-trade accounts receivable ¹	\$ 2,503	2,332
Interest and notes receivable ²	1,523	1,332
Loans to employees and others	188	177
Refundable taxes	965	976
	\$ 5,179	4,817

¹ Non-trade accounts receivable are mainly attributable to the sale of assets.

² Includes \$27 in 2016 and \$148 in 2015, representing the short-term portion of a restricted investment related to coupon payments under CEMEX's perpetual debentures (note 20D). In addition, in 2016, includes CEMEX Colombia's beneficial interest in a trust oriented to promote housing projects, which its only asset is land in the municipality of Zipaquirá, Colombia and its only liability is a bank credit for approximately \$148, guaranteed by CEMEX Colombia, obtained to purchase the land. The estimated fair value of the land as determined by external appraiser significantly exceeds the amount of the loan.

11) INVENTORIES, NET

As of December 31, 2016 and 2015, the consolidated balance of inventories was summarized as follows:

	2016	2015
Finished goods	\$ 5,805	6,439
Work-in-process	3,316	3,160
Raw materials	3,112	3,217
Materials and spare parts	4,888	4,822
Inventory in transit	1,176	525
Allowance for obsolescence	(435)	(447)
	\$ 17,862	17,716

For the years ended December 31, 2016, 2015 and 2014, CEMEX recognized within "Cost of sales" in profit or loss, inventory impairment losses of approximately \$52, \$49 and \$36, respectively.

12) ASSETS HELD FOR SALE AND OTHER CURRENT ASSETS

12A) Assets held for sale

As of December 31, 2016 and 2015, assets held for sale, which are measured at the lower of their estimated realizable value, less costs to sell, and their carrying amounts, as well as liabilities directly related with such assets are detailed as follows:

	2016			2015		
	Assets	Liabilities	Net assets	Assets	Liabilities	Net assets
Concrete Pipe Division (note 4A)	\$ 9,426	642	8,784	\$ -	-	-
CEMEX's operations in Croatia (note 4A)	4,164	651	3,513	3,446	673	2,773
Fairborn cement plant (note 4B)	5,957	164	5,793	-	-	-
Concrete pumping equipment (note 4B)	213	-	213	-	-	-
Idle assets in Andorra, Spain	560	-	560	481	-	481
Investment in GCC shares (note 13A) ¹	3,882	-	3,882	-	-	-
Other assets held for sale ²	991	9	982	1,464	-	1,464
	\$ 25,193	1,466	23,727	\$ 5,391	673	4,718

¹ CEMEX analyzes alternatives to sell its investment in 23% of GCC's common stock in the short-term. See note 26 for subsequent events related to this investment.

² During 2014, CEMEX recognized impairment losses in connection with the remeasurement of other assets held for sale for approximately \$55.

12B) Other current assets

As of December 31, 2016 and 2015, other current assets are mainly comprised of advance payments.

13) EQUITY ACCOUNTED INVESTEEES, OTHER INVESTMENTS AND NON-CURRENT ACCOUNTS RECEIVABLE

13A) Equity accounted investees

As of December 31, 2016 and 2015, the main investments in common shares of associates were as follows:

	Activity	Country	%	2016	2015
Camcem, S.A. de C.V.	Cement	Mexico	40.1	\$ 3,674	600
Control Administrativo Mexicano, S.A. de C.V.	Cement	Mexico	–	–	5,613
Trinidad Cement Limited	Cement	Trinidad and Tobago	39.5	1,689	1,543
Concrete Supply Co. LLC	Concrete	United States	40.0	1,234	932
Akmenes Cementas AB	Cement	Lithuania	37.8	586	560
ABC Capital, S.A. Institución de Banca Múltiple	Financing	Mexico	33.9	474	385
Lehigh White Cement Company	Cement	United States	24.5	334	276
Société Méridionale de Carrières	Aggregates	France	33.3	300	241
Société d'Exploitation de Carrières	Aggregates	France	50.0	257	202
Industrias Básicas, S.A.	Cement	Panama	25.0	155	133
Other companies	–	–	–	1,781	1,665
				\$ 10,484	12,150

Out of which:

Book value at acquisition date	\$ 8,260	4,683
Changes in stockholders' equity	\$ 2,224	7,467

As of December 31, 2016 and 2015, there were no written put options for the purchase of investments in associates.

On December 5, 2016, through one of its indirect subsidiaries, Sierra Trading (“Sierra”), CEMEX presented an offer and take-over bid (the “Offer”) to all shareholders of Trinidad Cement Limited (“TCL”), a company publicly listed in Trinidad and Tobago, Jamaica and Barbados, to acquire up to 132,616,942 ordinary shares in TCL for \$4.50 trinitarian dollars (“TT”) in cash per TCL share, which together with Sierra’s existing share ownership in TCL of approximately 39.5%, would, if successful, result in Sierra holding up to 74.9% of the equity share capital in TCL. Full acceptance of the Offer would result in a cash payment by Sierra of approximately TT\$597 million (US\$89 or \$1,844). The Offer price represents a premium of 33.1% over the December 1, 2016 closing price of TCL’s shares in the Trinidad and Tobago Stock Exchange. Among other conditions, the Offer is conditional on Sierra acquiring at least an amount of TCL shares that would allow CEMEX to consolidate TCL. Unless extended, the Offer period is expected to close on January 10, 2017. If the Offer is successful, TCL will continue operating as usual and will be maintained as a publicly listed company on the Trinidad and Tobago Stock Exchange with the benefit of a strong local shareholding together with the enhanced benefit of proven management and operational expertise from CEMEX. TCL’s main operations are in Trinidad and Tobago, Jamaica and Barbados. TCL is the majority shareholder of Caribbean Cement Company Limited, a main cement producer in Jamaica. In connection with the Offer, on December 23, 2016, the Board of Directors of TCL announced its recommendation to TCL’s shareholders of not selling their shares (see note 26 for recent developments related to the Offer).

During 2016, the Parent Company participated as shareholder in a share restructuring executed by Camcem, S.A. de C.V. (“Camcem”), indirect parent company of Control Administrativo Mexicano, S.A. de C.V. (“Camsa”) and GCC, aimed to simplify its corporate structure, by means of which, Imin de México, S.A. de C.V., intermediate holding company, Camsa and GCC were merged, prevailing GCC as the surviving entity. As a result of the share restructuring, CEMEX’s 10.3% interest in Camcem and 49% interest in Camsa, both before the restructuring, were exchanged on equivalent basis into a 40.1% interest in Camcem and a 23% interest in GCC, which shares of the latest trade in the MSE (note 12A).

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In addition, during 2015, through the exercise of its preemptive rights in TCL's rights issuance and the purchase of shares not subscribed and fully paid up by other eligible TCL shareholders in the rights issuance, Sierra increased its participation in TCL from 20% to 39.5% for approximately \$774 (US\$45). Moreover, in April 2015, CEMEX and TCL entered into a Technical Services Agreement (the "TSA") pursuant to which CEMEX will provide TCL with technical, managerial and other assistance from May 1, 2015 to May 1, 2018, unless earlier terminated.

Share of profit of equity accounted investees by geographic operating segment in 2016, 2015 and 2014 is detailed as follows:

	2016	2015	2014
Mexico	\$ 452	330	242
United States	253	92	4
Europe	54	340	74
Corporate and others	(71)	(24)	(26)
	\$ 688	738	294

Combined condensed balance sheet information of CEMEX's associates as of December 31, 2016 and 2015 is set forth below:

	2016	2015
Current assets	\$ 21,651	16,002
Non-current assets	41,085	30,435
Total assets	62,736	46,437
Current liabilities	11,612	8,342
Non-current liabilities	22,436	15,242
Total liabilities	34,048	23,584
Total net assets	\$ 28,688	22,853

Combined selected information of the statements of operations of CEMEX's associates in 2016, 2015 and 2014 is set forth below:

	2016	2015	2014
Sales	\$ 29,791	25,484	21,173
Operating earnings	4,730	3,523	1,931
Income before income tax	3,111	3,350	484
Net income	1,860	2,403	228

13B) Other investments and non-current accounts receivable

As of December 31, 2016 and 2015, consolidated other investments and non-current accounts receivable were summarized as follows:

	2016	2015
Non-current portion of valuation of derivative financial instruments	\$ 1,900	869
Non-current accounts receivable and other investments ¹	4,501	4,731
Investments available-for-sale ²	491	632
Investments held for trading ³	157	317
	\$ 7,049	6,549

¹ Includes, among other items: a) advances to suppliers of fixed assets of approximately \$52 in 2016 and \$54 in 2015; and b) the non-current portion of a restricted investment used to pay coupons under the perpetual debentures (note 20D) of \$83 in 2015. CEMEX recognized impairment losses of non-current accounts receivable in Costa Rica of approximately \$21 in 2016, Egypt and Colombia of approximately \$71 and \$22 in 2015, respectively; and the United Kingdom of approximately \$16 in 2014.

² This line item refers mainly to an investment in CPOs of Axtel, S.A.B. de C.V. ("Axtel"). This investment is recognized as available for sale at fair value and changes in valuation are recorded in other comprehensive loss until its disposal.

³ This line item refers to investments in private funds. In 2016 and 2015, no contributions were made to such private funds.

14) PROPERTY, MACHINERY AND EQUIPMENT, NET

As of December 31, 2016 and 2015, consolidated property, machinery and equipment, net and the changes in such line item during 2016, 2015 and 2014, were as follows:

	2016					Total
	Land and mineral reserves ¹	Building ¹	Machinery and equipment ²	Construction in progress ³		
Cost at beginning of period	\$ 85,763	47,205	210,175	13,813		356,956
Accumulated depreciation and depletion	(12,194)	(20,852)	(109,777)	-		(142,823)
Net book value at beginning of period	73,569	26,353	100,398	13,813		214,133
Capital expenditures	2,149	1,856	8,671	-		12,676
Additions through capital leases	-	-	7	-		7
Capitalization of financial expense	-	-	-	175		175
Stripping costs	421	-	-	-		421
Total capital expenditures	2,570	1,856	8,678	175		13,279
Disposals ⁴	(388)	(140)	(1,268)	(44)		(1,840)
Reclassifications ⁵	(2,029)	(703)	(1,731)	(86)		(4,549)
Depreciation and depletion for the period	(2,430)	(2,068)	(9,658)	-		(14,156)
Impairment losses	(671)	(302)	(547)	(378)		(1,898)
Foreign currency translation effects	9,516	1,388	7,548	3,690		22,142
Cost at end of period	96,410	50,131	228,438	17,170		392,149
Accumulated depreciation and depletion	(16,273)	(23,747)	(125,018)	-		(165,038)
Net book value at end of period	\$ 80,137	26,384	103,420	17,170		227,111

	2015					2014
	Land and mineral reserves ¹	Building ¹	Machinery and equipment ²	Construction in progress ³	Total	
Cost at beginning of period	\$ 78,511	43,473	185,629	13,480	321,093	309,668
Accumulated depreciation and depletion	(9,836)	(16,970)	(91,359)	-	(118,165)	(103,951)
Net book value at beginning of period	68,675	26,503	94,270	13,480	202,928	205,717
Capital expenditures	1,429	1,198	8,827	-	11,454	8,866
Additions through capital leases	-	-	63	-	63	108
Capitalization of financial expense	-	-	-	73	73	-
Stripping costs	723	-	-	-	723	512
Total capital expenditures	2,152	1,198	8,890	73	12,313	9,486
Disposals ⁴	(713)	(544)	(987)	(3)	(2,247)	(2,461)
Reclassifications ⁵	(1,147)	(982)	(929)	(41)	(3,099)	(6,828)
Business combinations	1,372	757	1,869	6	4,004	-
Depreciation and depletion for the period	(2,007)	(1,969)	(9,552)	-	(13,528)	(12,949)
Impairment losses	(338)	(114)	(693)	-	(1,145)	(589)
Foreign currency translation effects	5,575	1,504	7,530	298	14,907	10,552
Cost at end of period	85,763	47,205	210,175	13,813	356,956	321,093
Accumulated depreciation and depletion	(12,194)	(20,852)	(109,777)	-	(142,823)	(118,165)
Net book value at end of period	\$ 73,569	26,353	100,398	13,813	214,133	202,928

¹ Includes corporate buildings and related land sold to financial institutions in previous years, which were leased back. The aggregate carrying amount of these assets as of December 31, 2016 and 2015 was approximately \$1,777 and \$1,865, respectively.

² Includes assets, mainly mobile equipment, acquired through capital leases, which carrying amount as of December 31, 2016 and 2015 was approximately \$48 and \$63, respectively.

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- ³ In July 2014, CEMEX began the construction of a new cement plant in the municipality of Maceo, Antioquia department in Colombia with an annual production capacity of approximately 1.1 million tons. The first phase included the construction of a cement mill, which has been in testing phase with supplies of clinker from Caracolito plant in Ibaguè and the cement produced has been used entirely in the construction of the plant. The next phase that includes the construction of the kiln and the plant's access road is expected to be completed in phases by the first half of 2017, in order to start commercial operations during the second half of 2017, considering the successful conclusion of several undergoing procedures related to certain operational permits. In 2016, includes an investment reduction of approximately \$483 (US\$23), of which, approximately \$295 (US\$14) were recognized as impairment against the line item of "Other expenses, net", considering that the assets, mainly advances for the purchase of land through a representative, were considered contingent assets considering based on low probability for their recoverability due to deficiencies in the legal processes, and approximately \$188 (US\$9) were decreased against "Other accounts payable" in connection with the cancellation of the portion payable of such assets (notes 6 and 24A). CEMEX determined an original total investment in the plant of approximately US\$340. As of December 31, 2016, Maceo project's book value, net of adjustments, is for an amount in Colombian pesos equivalent to approximately US\$275, excluding US\$11 of interest capitalized during the construction period.
- ⁴ In 2016, includes sales of non-strategic fixed assets in the United States, Mexico, and France for \$317, \$281 and \$165, respectively. In 2015, includes the sales of non-strategic fixed assets in the United Kingdom, the United States and Spain for \$584, \$451 and \$417, respectively. In 2014, includes the sales of non-strategic fixed assets in the United States, the United Kingdom and Ireland for \$757, \$539 and \$537, respectively.
- ⁵ In 2016, refers mainly to those assets of the Concrete Pipe Business in the United States for \$2,747, as well as other disposal groups in the United States reclassified to assets available for sale for \$1,386 (notes 4A, 4B and 12A). In 2015, refers to assets in Croatia for \$2,562 and other disposal groups in the United States reclassified to assets available for sale for \$537 (notes 4A, 4B and 12A). In 2014 refers primarily to the reclassification to other current assets in connection with the sale of assets in the western region of Germany and the projected sale of idle assets in Andorra, Spain (notes 4B and 12A) for \$3,956 and \$2,601, respectively.

As a result of impairment tests conducted on several CGUs considering certain triggering events, mainly: a) the closing and/or reduction of operations of cement and ready-mix concrete plants resulting from adjusting the supply to current demand conditions, such as the situation in Puerto Rico in the last quarter of 2016 due to the adverse outlook and the overall uncertain economic conditions in such country; b) the transferring of installed capacity to more efficient plants, such as the projected closing in the short-term of a cement mill in Colombia; as well as c) the recoverability of certain investments in Colombia as described above, for the years ended December 31, 2016, 2015 and 2014, CEMEX adjusted the related fixed assets to their estimated value in use in those circumstances in which the assets would continue in operation based on estimated cash flows during the remaining useful life, or to their realizable value, in case of permanent shut down, and recognized impairment losses within the line item of "Other expenses, net" (note 2J) during the years ended December 31, 2016, 2015 and 2014 in the following countries and for the following amounts:

	2016	2015	2014
Puerto Rico	\$ 1,087	172	-
Colombia	454	-	-
Spain	-	392	125
United States	277	269	108
Latvia	-	126	-
Panama	-	118	-
Mexico	46	46	221
United Kingdom	-	19	59
Germany	-	-	19
Other countries	34	3	43
	\$ 1,898	1,145	575

15) GOODWILL AND INTANGIBLE ASSETS, NET

15A) Balances and changes during the period

As of December 31, 2016 and 2015, consolidated goodwill, intangible assets and deferred charges were summarized as follows:

	2016			2015		
	Cost	Accumulated amortization	Carrying amount	Cost	Accumulated amortization	Carrying amount
Intangible assets of indefinite useful life:						
Goodwill	\$ 205,835	-	205,835	\$ 183,752	-	183,752
Intangible assets of definite useful life:						
Extraction rights	40,994	(5,948)	35,046	34,927	(4,600)	30,327
Industrial property and trademarks	707	(350)	357	822	(200)	622
Customer relationships	4,343	(4,084)	259	6,166	(5,162)	1,004
Mining projects	961	(84)	877	992	(187)	805
Others intangible assets	13,796	(9,150)	4,646	10,900	(7,092)	3,808
	\$ 266,636	(19,616)	247,020	\$ 237,559	(17,241)	220,318

The amortization of intangible assets of definite useful life was approximately \$1,991 in 2016, \$1,848 in 2015 and \$1,508 in 2014, and was recognized within operating costs and expenses.

Goodwill

Changes in consolidated goodwill in 2016, 2015 and 2014, were as follows:

	2016	2015	2014
Balance at beginning of period	\$ 183,752	160,544	144,457
Business combinations	-	64	-
Disposals, net (note 4B)	(3,340)	(552)	-
Reclassification to assets held for sale and other current assets (notes 4A, 4B and 12)	(9,734)	(404)	-
Foreign currency translation effects	35,157	24,100	16,087
Balance at end of period	\$ 205,835	183,752	160,544

Intangible assets of definite life

Changes in intangible assets of definite life in 2016, 2015 and 2014, were as follows:

	2016					
	Extraction rights	Industrial property and trademarks	Customer relations	Mining projects	Others ¹	Total
Balance at beginning of period	\$ 30,327	622	1,004	805	3,808	36,566
Additions (disposals), net ¹	202	(760)	-	(382)	343	(597)
Amortization	(712)	(293)	(658)	(12)	(316)	(1,991)
Impairment losses	(6)	-	-	-	(19)	(25)
Foreign currency translation effects	5,235	788	(87)	466	830	7,232
Balance at the end of period	\$ 35,046	357	259	877	4,646	41,185

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financial statements

	2015					Total	2014
	Extraction rights	Industrial property and trademarks	Customer relations	Mining projects	Others ¹		
Balance at beginning of period	\$ 27,330	122	1,393	1,501	2,594	32,940	30,483
Business combinations	458	-	156	-	2	616	-
Additions (disposals), net ¹	157	133	(1)	(577)	102	(186)	653
Reclassifications (notes 4A, 4B and 12)	1	-	-	-	-	1	(5)
Amortization	(813)	(132)	(601)	(32)	(270)	(1,848)	(1,508)
Impairment losses	(10)	-	-	-	-	(10)	-
Foreign currency translation effects	3,204	499	57	(87)	1,380	5,053	3,317
Balance at the end of period	\$ 30,327	622	1,004	805	3,808	36,566	32,940

¹ As of December 31, 2016 and 2015, "Others" includes the carrying amount of internal-use software of approximately \$2,544 and \$2,077, respectively. Capitalized direct costs incurred in the development stage of internal-use software, such as professional fees, direct labor and related travel expenses, amounted to approximately \$769 in 2016, \$615 in 2015 and \$702 in 2014.

15B) Main acquisitions during the reported periods

In connection with the agreements entered into with Holcim on October 31, 2014 as described in note 4B, CEMEX and Holcim agreed to conduct a series of related transactions, finally executed on January 5, 2015 after customary conditions precedent were concluded, with retrospective effects as of January 1, 2015, by means of which: a) in the Czech Republic, CEMEX acquired all of Holcim's assets, including a cement plant, four aggregates quarries and 17 ready-mix plants for approximately €115 (US\$139 or \$2,049); b) in Germany, CEMEX sold to Holcim its assets in the western region of the country; c) in Spain, CEMEX acquired from Holcim one cement plant in the southern part of the country with a production capacity of 850 thousand tons, and one cement mill in the central part of the country with grinding capacity of 900 thousand tons, among other related assets for approximately €88 (US\$106 or \$1,562), after working capital adjustments; and d) CEMEX agreed a final payment in cash, after combined debt and working capital adjustments agreed with Holcim of approximately €33 (US\$40 or \$594). The aforementioned transactions were authorized by the European competition authority in the case of Germany and Spain, and by the Czech Republic authority in respect to the transaction in this country. As of January 1, 2015, after concluding the purchase price allocation to the fair values of the assets acquired and liabilities assumed, no goodwill was determined in respect of the Czech Republic, while in Spain, the fair value of the net assets acquired for approximately €106 (US\$129 or \$1,894) exceeded the purchase price in approximately €19 (US\$22 or \$328), mainly as a result of market conditions in Spain and production overcapacity in the region.

After performing the required reassessment of fair values, this gain was recognized during 2015 in profit or loss. The purchase price allocation was as follows:

	Czech Republic	Spain	Total
Current assets	\$ 231	59	290
Property, machinery and equipment	1,419	2,004	3,423
Other non-current assets	270	-	270
Intangible assets	590	2	592
Fair value of assets acquired	2,510	2,065	4,575
Current liabilities	117	57	174
Non-current liabilities	344	114	458
Fair value of liabilities assumed	461	171	632
Fair value of net assets acquired	\$ 2,049	1,894	3,943

15C) Analysis of goodwill impairment

As of December 31, 2016 and 2015, goodwill balances allocated by operating segment were as follows:

	2016	2015
Mexico	\$ 7,529	7,015
United States	162,692	146,161
Europe		
Spain	12,316	10,659
United Kingdom	6,043	5,330
France	4,524	3,860
Czech Republic	546	488
South, Central America and the Caribbean		
Colombia	6,461	5,236
Dominican Republic	250	215
Rest of South, Central America and the Caribbean ¹	1,034	877
Asia, Middle East and Africa		
Philippines	1,911	1,660
United Arab Emirates	1,748	1,562
Egypt	231	232
Others		
Other reporting segments ²	550	457
	\$ 205,835	183,752

¹ This caption refers to the operating segments in the Caribbean, Argentina, Costa Rica and Panama.

² This caption is primarily associated with Neoris N.V., CEMEX's subsidiary involved in the sale of information technology and services.

For purposes of goodwill impairment tests, all cash-generating units within a country are aggregated, as goodwill is allocated at that level. Considering materiality for disclosure purposes, certain balances of goodwill were presented for Rest of South, Central America and the Caribbean, but this does not represent that goodwill was tested at a higher level than for operations in an individual country.

Impairment tests are significantly sensitive to, among other factors, the estimation of future prices of CEMEX's products, the development of operating expenses, local and international economic trends in the construction industry, the long-term growth expectations in the different markets, as well as the discount rates and the long-term growth rates applied. CEMEX's cash flow projections to determine the value in use of its CGUs to which goodwill has been allocated consider the use of long-term economic assumptions. CEMEX believes that its discounted cash flow projections and the discount rates used reasonably reflect current economic conditions at the time of the calculations, considering, among other factors that: a) the cost of capital reflects current risks and volatility in the markets; and b) the cost of debt represents the average of industry specific interest rates observed in recent transactions. Other key assumptions used to determine CEMEX's discounted cash flows are volume and price increases or decreases by main product during the projected periods. Volume increases or decreases generally reflect forecasts issued by trustworthy external sources, occasionally adjusted based on CEMEX's actual backlog, experience and judgment considering its concentration in certain sectors, while price changes normally reflect the expected inflation in the respective country. Operating costs and expenses during all periods are maintained as a fixed percent of revenues considering historic performance. During the last quarter of 2016, 2015 and 2014, CEMEX performed its annual goodwill impairment test. Based on these analyses, CEMEX did not determine impairment losses of goodwill in any of the reported periods.

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CEMEX's pre-tax discount rates and long-term growth rates used to determine the discounted cash flows in the group of CGUs with the main goodwill balances were as follows:

Groups of CGUs	Discount rates			Growth rates		
	2016	2015	2014	2016	2015	2014
United States	8.6%	8.6%	8.7%	2.5%	2.5%	2.5%
Spain	9.5%	9.9%	10.1%	1.6%	1.9%	2.0%
Mexico	9.8%	9.6%	9.7%	2.9%	3.5%	3.8%
Colombia	10.0%	9.8%	9.7%	4.0%	4.0%	3.0%
France	9.1%	9.0%	9.2%	1.8%	1.6%	1.7%
United Arab Emirates	10.2%	10.2%	10.4%	3.4%	3.6%	3.4%
United Kingdom	8.8%	8.8%	9.0%	1.9%	2.3%	2.4%
Egypt	11.4%	12.5%	11.6%	6.0%	4.6%	4.0%
Range of rates in other countries	9.1% - 12.8%	9.0% - 13.8%	9.2% - 14.0%	2.2% - 7.0%	2.4% - 4.3%	2.1% - 4.9%

As of December 31, 2016, the discount rates used by CEMEX in its cash flows projections remained relatively flat in the countries with the most significant goodwill balances as compared to the values determined in 2015. During the year, the funding cost observed in industry decreased from 6.9% in 2015 to 6.2% in 2016, and the risk free rate also decreased from approximately 3.2% in 2015 to 2.7% in 2016. These reductions were partially offset by overall increases in the sovereign risk rate of the majority of the countries as well as in the risk multiple associated to the Company which increased from 1.08 in 2015 to 1.29 in 2016. As of December 31, 2015, the discount rates remained almost flat in most cases as compared to the values determined in 2014. Among other factors, the funding cost observed in industry increased from 6.1% in 2014 to 6.9% in 2015, and the risk free rate increased from approximately 3.1% in 2014 to 3.2% in 2015. Nonetheless, these increases were offset by reductions in 2015 in the country specific sovereign yields in the majority of the countries where CEMEX operates. As of December 31, 2014, the discount rates decreased mainly as a result of the reduction of the funding cost as compared to the prior year and the reduction in the risk free rate, significant assumptions in the determination of the discount rates. In respect to long-term growth rates, following general practice under IFRS, CEMEX uses country specific rates, which are mainly obtained from the Consensus Economics, a compilation of analysts' forecast worldwide, or from the International Monetary Fund when the first are not available for a specific country.

In connection with the assumptions included in the table above, CEMEX made sensitivity analyses to changes in assumptions, affecting the value in use of all groups of CGUs with an independent reasonable possible increase of 1% in the pre-tax discount rate, and an independent possible decrease of 1% in the long-term growth rate. In addition, CEMEX performed cross-check analyses for reasonableness of its results using multiples of Operating EBITDA. In order to arrive at these multiples, which represent a reasonableness check of the discounted cash flow models, CEMEX determined a weighted average multiple of Operating EBITDA to enterprise value observed in the industry. The average multiple was then applied to a stabilized amount of Operating EBITDA and the result was compared to the corresponding carrying amount for each group of CGUs to which goodwill has been allocated. CEMEX considered an industry weighted average Operating EBITDA multiple of 9.0 times in 2016 and 2015, respectively; and 9.5 times in 2014. CEMEX's own Operating EBITDA multiple was 8.9 times in 2016, 8.7 times in 2015 and 10.9 times in 2014. The lowest multiple observed in CEMEX's benchmark was 5.9 times in 2016, 5.8 times in 2015 and 6.0 times in 2014, and the highest being 18.3 times in 2016, 18.0 times in 2015 and 16.4 times in 2014.

As of December 31, 2016, 2015 and 2014, none of CEMEX's sensitivity analyses resulted in a relative impairment risk in CEMEX's operating segments. CEMEX continually monitors the evolution of the specific CGUs to which goodwill has been allocated that have presented relative goodwill impairment risk in any of the reported periods and, in the event that the relevant economic variables and the related cash flows projections would be negatively affected, it may result in a goodwill impairment loss in the future.

CEMEX market capitalization has been affected over several years after the 2008 global crisis, which CEMEX believes is due to several factors, among others: a) the slower recovery of the construction industry in the United States, one of CEMEX's main markets, which suffered one of the most deepest recessions since the Great Depression, which also significantly affected CEMEX's operations in key countries and regions such as Mexico and Europe, and consequently CEMEX's overall generation of cash flows; b) CEMEX's significant amount of consolidated debt, which generates uncertainty regarding CEMEX's ability to meet its financial obligations; and c) the generalized capital outflows from Emerging Markets securities, such as Mexico and Colombia, to safer assets in developed countries such as the United States. In dollar terms, CEMEX's market capitalization as of December 31, 2016 was approximately US\$11.2 billion (\$232.2 billion), reflecting an increase of approximately 52% as compared to 2015, which was mainly generated by initiatives taken by CEMEX to increase free cash flow from its operations and asset divestments aimed to reduce indebtedness and financial leverage, along with a reduction of risk aversion across global financial markets as U.S. stock indexes reached to new all-time highs and international oil prices partially recovered during 2016 amid reduced global growth concerns, despite the continued depreciation of Emerging Markets currencies against the dollar in 2016 and continued uncertainty of the pace and timing of actions to increase interest rates in the United States. CEMEX market capitalization decreased approximately 41% in 2015 compared to 2014 to approximately US\$7.4 billion (\$126.8 billion), due to the continuing significant depreciation of the Emerging Markets currencies against the dollar in 2015, which intensified in the second half of the year, driven by the material reduction in the international oil prices, uncertainty generated by the pace and timing of actions to increase interest rates in the United States, China growth concerns, lower global growth expectations and the uncertainty of CEMEX's income in US dollar terms from its operations in Emerging Markets such as Mexico and Colombia, countries with important dependence of oil revenues in its government budgets, which may result in the cancellation or delay of government infrastructure projects.

As of December 31, 2016 and 2015, goodwill allocated to the United States accounted for approximately 79% and 80%, respectively, of CEMEX's total amount of consolidated goodwill. In connection with CEMEX's determination of value in use relative to its groups of CGUs in the United States in the reported periods, CEMEX has considered several factors, such as the historical performance of such operating segment, including operating losses in recent years, the long-term nature of CEMEX's investment, the signs of recovery in the construction industry over the last three years, the significant economic barriers for new potential competitors considering the high investment required, and the lack of susceptibility of the industry to technology improvements or alternate construction products, among other factors. CEMEX has also considered recent developments in its operations in the United States, such as the increases in ready-mix concrete volumes of approximately 1% in 2016, 13% in 2015 and 2% in 2014, and the increases in ready-mix concrete prices of approximately 1% in 2016, 5% in 2015 and 8% in 2014, which are key drivers for cement consumption and CEMEX's profitability, and which trends are expected to continue over the next few years, as anticipated in CEMEX's cash flow projections.

16) FINANCIAL INSTRUMENTS

16A) Short-term and long-term debt

As of December 31, 2016 and 2015, CEMEX's consolidated debt summarized by interest rates and currencies, was as follow:

	2016			2015		
	Short-term	Long-term	Total	Short-term	Long-term	Total
Floating rate debt	\$ 519	64,550	65,069	\$ 176	62,319	62,495
Fixed rate debt	697	170,466	171,163	42	166,806	166,848
	\$ 1,216	235,016	236,232	\$ 218	229,125	229,343
Effective rate¹						
Floating rate	9.7%	4.4%		5.5%	4.0%	
Fixed rate	4.4%	6.5%		1.5%	7.0%	

Currency	2016				2015			
	Short-term	Long-term	Total	Effective rate ¹	Short-term	Long-term	Total	Effective rate ¹
Dollars	\$ 114	179,675	179,789	6.3%	\$ 87	187,427	187,514	6.5%
Euros	50	55,292	55,342	4.3%	38	40,954	40,992	4.8%
Pesos	648	-	648	4.4%	-	627	627	4.4%
Other currencies	404	49	453	10.2%	93	117	210	6.3%
	\$ 1,216	235,016	236,232		\$ 218	229,125	229,343	

¹ In 2016 and 2015, represents the weighted average interest rate of the related debt agreements.

As of December 31, 2016 and 2015, CEMEX's consolidated debt summarized by type of instrument, was as follow:

	2016		2015	
	Short-term	Long-term	Short-term	Long-term
Bank loans				
Loans in foreign countries, 2017 to 2022	\$ 255	1,090	\$ 78	996
Syndicated loans, 2017 to 2020	36	57,032	31	52,825
	291	58,122	109	53,821
Notes payable				
Notes payable in Mexico, 2017	-	648	-	627
Medium-term notes, 2017 to 2026	-	173,656	-	171,988
Other notes payable, 2017 to 2025	173	3,342	23	2,775
	173	177,646	23	175,390
Total bank loans and notes payable	464	235,768	132	229,211
Current maturities	752	(752)	86	(86)
	\$ 1,216	235,016	\$ 218	229,125

As of December 31, 2016 and 2015, discounts, fees and other direct costs incurred in the issuance of CEMEX's outstanding notes payable for approximately US\$84 and US\$108, respectively, adjust the balance of payable instruments, and are amortized to financing expense over the maturity of the related debt instruments.

Changes in consolidated debt for the years ended December 31, 2016, 2015 and 2014 were as follows:

	2016	2015	2014
Debt at beginning of year	\$ 229,343	205,834	190,980
Proceeds from new debt instruments	48,748	52,764	72,534
Debt repayments	(85,798)	(64,237)	(79,248)
Foreign currency translation and inflation effects	43,939	34,982	21,568
Debt at end of year	\$ 236,232	229,343	205,834

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As of December 31, 2016 and 2015, as presented in the table above of debt by type of instrument, approximately 25% and 24%, respectively, of CEMEX's total indebtedness, was represented by bank loans, of which the most significant portion corresponded to those balances under CEMEX's facilities agreement entered into on September 29, 2014, as amended several times in 2015 and 2016 (the "Credit Agreement") of approximately US\$2,745 (\$56,879) in 2016 and US\$3,062 (\$52,763) in 2015.

In addition, as of December 31, 2016 and 2015, as presented in the table above of debt by type of instrument, approximately 75% and 76%, respectively, of CEMEX's total indebtedness, was represented by notes payable, of which, the most significant portion was long-term in both periods. As of December 31, 2016 and 2015, CEMEX's long-term notes payable are detailed as follows:

Description	Date of issuance	Issuer ^{1,2}	Currency	Principal amount	Rate ¹	Maturity date	Repurchased amount US\$	Outstanding amount ³ US\$	2016	2015
April 2026 Notes ⁴	16/Mar/16	CEMEX, S.A.B. de C.V.	Dollar	1,000	7.75%	16/Apr/26	–	1,000	\$ 20,631	–
July 2025 Notes	02/Apr/03	CEMEX Materials, LLC	Dollar	150	7.70%	21/Jul/25	–	150	3,249	2,720
July 2025 Notes	08/Jul/15	CEMEX Colombia, S.A.	COP	10,000	8.30%	08/Jul/25	(3)	–	–	55
March 2025 Notes ⁵	03/Mar/15	CEMEX, S.A.B. de C.V.	Dollar	750	6.125%	05/May/25	–	750	15,488	12,866
January 2025 Notes ⁶	11/Sep/14	CEMEX, S.A.B. de C.V.	Dollar	1,100	5.70%	11/Jan/25	(29)	1,071	22,124	18,382
June 2024 Notes	14/Jun/16	CEMEX Finance LLC	Euro	400	4.625%	15/Jun/24	–	421	8,665	–
April 2024 Notes	01/Apr/14	CEMEX Finance LLC	Dollar	1,000	6.00%	01/Apr/24	(10)	990	19,886	16,483
March 2023 Notes ⁵	03/Mar/15	CEMEX, S.A.B. de C.V.	Euro	550	4.375%	05/Mar/23	–	579	11,948	10,251
October 2022 Notes ⁴	12/Oct/12	CEMEX Finance LLC	Dollar	1,500	9.375%	12/Oct/22	(444)	1,056	21,738	24,634
January 2022 Notes ⁶	11/Sep/14	CEMEX, S.A.B. de C.V.	Euro	400	4.75%	11/Jan/22	–	421	8,696	7,462
April 2021 Notes	01/Apr/14	CEMEX Finance LLC	Euro	400	5.25%	01/Apr/21	–	421	8,679	7,448
January 2021 Notes ⁴	02/Oct/13	CEMEX, S.A.B. de C.V.	Dollar	1,000	7.25%	15/Jan/21	(273)	727	14,845	17,009
December 2019 Notes ⁴	12/Aug/13	CEMEX, S.A.B. de C.V.	Dollar	1,000	6.50%	10/Dec/19	(292)	708	14,471	16,764
April 2019 USD Notes	28/Mar/12	CEMEX España, S.A.	Dollar	704	9.875%	30/Apr/19	(704)	–	–	10,702
April 2019 Euro Notes	28/Mar/12	CEMEX España, S.A.	Euro	179	9.875%	30/Apr/19	(188)	–	–	3,355
March 2019 Notes	25/Mar/13	CEMEX, S.A.B. de C.V.	Dollar	600	5.875%	25/Mar/19	(600)	–	–	10,302
October 2018 Variable Notes ⁴	02/Oct/13	CEMEX, S.A.B. de C.V.	Dollar	500	L+475bps	15/Oct/18	(187)	313	6,485	8,564
June 2018 Notes	17/Sep/12	CEMEX, S.A.B. de C.V.	Dollar	500	9.50%	15/Jun/18	(500)	–	–	7,702
November 2017 Notes	30/Nov/07	CEMEX, S.A.B. de C.V.	Peso	627	4.40%	17/Nov/17	(292)	30	648	627
Other notes payable									93	64
									\$ 177,646	175,390

¹ In all applicable cases the issuer refers to CEMEX España, S.A. acting through its Luxembourg Branch. The letter "L" included above refers to LIBOR, which represents the London Inter-Bank Offered Rate, variable rate used in international markets for debt denominated in U.S. dollars. As of December 31, 2016 and 2015, 3-Month LIBOR rate was 0.9979% and 0.6127%, respectively. The contraction "bps" means basis points. One hundred basis points equal 1%.

² Unless otherwise indicated, all issuances are fully and unconditionally guaranteed by CEMEX, S.A.B. de C.V., CEMEX México, S.A. de C.V., CEMEX Concretos S.A. de C.V., Empresas Tolteca de México, S.A. de C.V., New Sunward Holding B.V., CEMEX España, S.A., CEMEX Asia, B.V., CEMEX Corp., CEMEX Egyptian Investments, B.V., CEMEX Finance LLC, CEMEX France Gestion, (S.A.S.), CEMEX Research Group AG and CEMEX UK. CEMEX Egyptian Investments II, B.V. and CEMEX Shipping B.V. originally guaranteed the issuances listed above but were merged into CEMEX España, S.A. on October 3, 2016.

³ Presented net of all outstanding notes repurchased and held by CEMEX's subsidiaries.

⁴ On May 9, 2016, using available funds from the issuance of the April 2026 Notes, the sale of assets and cash flows provided by operating activities, and by means of tender offers, CEMEX completed the purchase of approximately US\$178 principal amount of the October 2018 Variable Notes, and the purchase of approximately US\$219 principal amount of the December 2019 Notes. In addition, on July 28, 2016, CEMEX repurchased additional US\$355 principal amount of the October 2022 Notes. Moreover, on October 28, 2016, CEMEX repurchased US\$242 principal amount of the January 2021 Notes.

⁵ On March 30, 2015, in connection with the issuance of the March 2023 Notes and the March 2025 Notes, CEMEX repurchased US\$344 of the remaining principal amount of the then outstanding January 2018 Notes. In addition, on May 15, 2015, CEMEX repurchased US\$213 of the remaining principal amount of the then outstanding May 2020 Notes, and on June 30, 2015, the purchase of the remaining principal amount for US\$746 of the then outstanding September 2015 Variable Notes.

⁶ On January 11, 2015, in connection with the issuance of the January 2025 Notes and the January 2022 Notes, CEMEX completed the purchase of additional US\$217 principal amount of the then outstanding January 2018 Notes.

Notes to the consolidated financial statements

During 2016, 2015 and 2014, as a result of the debt transactions incurred by CEMEX mentioned above, including exchange offers and tender offers to replace and/or repurchase existing debt instruments, CEMEX paid combined premiums, fees and issuance costs for approximately US\$196 (\$4,061), US\$61 (\$1,047) and US\$232 (\$3,107), respectively, of which approximately US\$151 (\$3,129) in 2016, US\$35 (\$604) in 2015 and US\$167 (\$2,236) in 2014, associated with the extinguished portion of the exchanged or repurchased notes, were recognized in the statement of operations in each year within "Financial expense". In addition, approximately US\$8 (\$166) in 2016, US\$26 (\$443) in 2015 and US\$65 (\$871) in 2014, corresponding to issuance costs of new debt and/or the portion of the combined premiums, fees and issuance costs treated as a refinancing of the old instruments by considering that: a) the relevant economic terms of the old and new notes were not substantially different; and b) the final holders of the new notes were the same of such portion of the old notes; adjusted the carrying amount of the new debt instruments, and are amortized over the remaining term of each instrument. Moreover, proportional fees and issuance costs related to the extinguished debt instruments for approximately US\$37 (\$767) in 2016, US\$31 (\$541) in 2015 and US\$87 (\$1,161) in 2014 that were pending for amortization were recognized in the statement of operations of each year as part of "Financial expense".

The maturities of consolidated long-term debt as of December 31, 2016, were as follows:

	2016
2018	\$ 22,802
2019	32,638
2020	22,492
2021	23,525
2022 and thereafter	133,559
	\$ 235,016

As of December 31, 2016, CEMEX had the following lines of credit, the majority of which are subject to the banks' availability, at annual interest rates ranging between 1.25% and 6.50%, depending on the negotiated currency:

	Lines of credit	Available
Other lines of credit in foreign subsidiaries	\$ 9,601	7,230
Other lines of credit from banks	5,834	5,834
	\$ 15,435	13,064

Credit Agreement, Facilities Agreement and Financing Agreement

On September 29, 2014, CEMEX entered into the Credit Agreement for US\$1,350 with nine of the main participating banks under its Facilities Agreement. The proceeds from the Credit Agreement were used to repay US\$1,350 of debt under the then existing Facilities Agreement entered into on September 17, 2012, as amended from time to time (the "Facilities Agreement"). In addition, on November 3, 2014, CEMEX received US\$515 of additional commitments from banks that agreed to join the Credit Agreement, increasing the total principal amount to US\$1,865. The incremental amount was applied to partially prepay the Facilities Agreement and other debt. Considering the aforementioned reductions to the Facilities Agreement, along with the repayment on September 12, 2014 of US\$350 of debt under the Facilities Agreement using the proceeds from the January 2025 Notes, as of December 31, 2014, the total outstanding amount under the Facilities Agreement was approximately US\$2,050, scheduled to mature in 2017. On July 30, 2015, CEMEX repaid in full the then total amount outstanding of approximately US\$1,937 (\$33,375) under the Facilities Agreement with new funds from 21 financial institutions, which joined the Credit Agreement under new tranches, allowing CEMEX to increase the average life of its syndicated bank debt to approximately 4 years as of such date. The tranches share the same guarantors and collateral package as the original tranches under the Facilities Agreement. On September 21, 2015 three additional financial institutions provided additional commitments for approximately US\$30. As of December 31, 2015, total commitments under the Credit Agreement included approximately €621 (US\$675 or \$11,624) and approximately US\$3,149 (\$54,257), out of which about US\$735 (\$12,664) were in a revolving credit facility. At the same date, the Credit Agreement had an amortization profile, considering all commitments, of approximately 10% in 2017; 25% in 2018; 25% in 2019; and 40% in 2020. On November 30, 2016, CEMEX prepaid US\$373 (\$7,729) corresponding to the September 2017 amortization under the Credit Agreement and agreed with the lenders to exchange current funded commitments for US\$664 maturing in 2018 into the revolving facility, maintaining their original amortization schedule and the same terms and conditions.

Notes to the consolidated financial statements

As of December 31, 2016, total commitments under the Credit Agreement amounted to approximately €746 (US\$785 or \$16,259) and approximately US\$2,826 (\$58,555), out of which approximately US\$1,413 (\$29,277) were in the revolving credit facility. At the same date, the Credit Agreement had an amortization profile, considering all commitments, of approximately US\$783 in 2018; US\$883 in 2019; and US\$1,096 in 2020.

On August 14, 2009, CEMEX entered into a financing with its major creditors, as amended from time to time during 2009, 2010, 2011 and 2012 (the "Financing Agreement"), by means of which CEMEX extended the maturities of US\$14,961 of syndicated loans, private placement notes and other obligations. After the application of the proceeds from several refinancing transactions, the sale of assets, and a Parent Company's equity offering in 2009, in September 2012, CEMEX entered into the Facilities Agreement pursuant to an exchange with the creditors under the Financing Agreement of their existing loans and private placement notes for new loans and new private placement notes of approximately US\$6,155 maturing in February 2017, US\$500 of the June 2018 Notes and approximately US\$525 of loans and private placement notes remained outstanding under the existing Financing Agreement. Subsequently, after the application in 2012 of proceeds resulting from the October 2022 Notes, the aggregate principal amount of loans and U.S. dollar private placement notes under the amended Financing Agreement decreased to US\$55. This amount was repaid in full in March 2013 with proceeds from the issuance of the March 2019 Notes.

All tranches under the Credit Agreement have substantially the same terms, including an applicable margin over LIBOR of between 250 to 425 basis points, depending on the leverage ratio (as defined below) of CEMEX, as follows:

Consolidated leverage ratio	Applicable margin
> 5.50x	425 bps
< 5.50x > 5.00	350 bps
< 5.00x > 4.50	325 bps
< 4.50x > 4.00	300 bps
< 4.00x > 3.50	275 bps
< 3.50x	250 bps

In February 2016, CEMEX launched a consent request to lenders under the Credit Agreement, in connection with its plan to sell a non-controlling interest in CHP, main holding company of CEMEX's operations in the Philippines (notes 4C and 20D). On March 7, 2016, CEMEX obtained such consent. Jointly with this consent, in respect to the table above, some amendments were applicable to the Credit Agreement. Such amendments are in connection with the consolidated leverage ratio on the applicable margin over LIBOR. If the consolidated leverage ratio exceeds 5.50 times on December 31, 2016, March 31, 2017, June 30, 2017 and September 30, 2017, the applicable margin over LIBOR would be 425 bps instead of 400 bps. The amendments also modify the consolidated leverage ratio limits as described in the financial covenants section.

For the years ended December 31, 2016 and 2015, under the Credit Agreement, CEMEX observed the following thresholds: (a) the aggregate amount allowed for capital expenditures cannot exceed US\$1,000 per year excluding certain capital expenditures, and, joint venture investments and acquisitions by CHP and its subsidiaries and CLH and its subsidiaries, which capital expenditures, joint venture investments and acquisitions at any time then incurred are subject to a separate aggregate limit for each of CHP and CLH of US\$500 (or its equivalent); and (b) the amounts allowed for permitted acquisitions and investments in joint ventures cannot exceed US\$400 per year. Nonetheless, such limitations do not apply if capital expenditures or acquisitions are funded with equity, equity-like issuances or asset disposals proceeds.

The debt under the Credit Agreement and previously under the Facilities Agreement is guaranteed by CEMEX México, S.A. de C.V., CEMEX Concretos, S.A. de C.V., Empresas Tolteca de México, S.A. de C.V., New Sunward Holding B.V., CEMEX España, S.A., CEMEX Asia, B.V., CEMEX Corp., CEMEX Egyptian Investments, B.V., CEMEX Finance LLC, CEMEX France Gestion, (S.A.S.), CEMEX Research Group AG and CEMEX UK. In addition, the debt under such agreements (together with all other senior capital markets debt issued or guaranteed by CEMEX, and certain other precedent facilities) is also secured by a first-priority security interest in: (a) substantially all the shares of CEMEX México, S.A. de C.V., CEMEX Operaciones México, S.A. de C.V., New Sunward Holding B.V., CEMEX Trademarks Holding Ltd. and CEMEX España, S.A. (the "Collateral"); and (b) all proceeds of such Collateral. CEMEX Egyptian Investments II, B.V. and CEMEX Shipping, B.V. originally guaranteed the Credit Agreement but were merged into CEMEX España, S.A. on October 3, 2016.

In addition to the restrictions mentioned above, and subject in each case to the permitted negotiated amounts and other exceptions, CEMEX is also subject to a number of negative covenants that, among other things, restrict or limit its ability to: (i) create liens; (ii) incur additional debt; (iii) change CEMEX's business or the business of any obligor or material subsidiary (in each case, as defined in the Credit Agreement and the Facilities Agreement); (iv) enter into mergers; (v) enter into agreements that restrict its subsidiaries' ability to pay dividends or repay intercompany debt; (vi) acquire assets; (vii) enter into or invest in joint venture agreements; (viii) dispose of certain assets; (ix) grant additional guarantees or indemnities; (x) declare or pay cash dividends or make share redemptions; (xi) enter into certain derivatives transactions; and (xii) exercise any call option in relation to any perpetual bonds CEMEX issues unless the exercise of the call options does not have a materially negative impact on its cash flow. The Credit Agreement contains a number of affirmative covenants that, among other things, require CEMEX to provide periodic financial information to its lenders. However, a number of those covenants and restrictions will automatically cease to apply or become less restrictive if CEMEX so elects when (i) CEMEX's Leverage Ratio (as defined hereinafter) for the two most recently completed quarterly testing periods is less than or equal to 4.0 times; and (ii) no default under the Credit Agreement is continuing. At that point the Leverage Ratio must not exceed 4.25 times. Restrictions that will cease to apply when CEMEX satisfies such conditions include the capital expenditure limitations mentioned above and several negative covenants, including limitations on CEMEX's ability to declare or pay cash dividends and distributions to shareholders, limitations on CEMEX's ability to repay existing financial indebtedness, certain asset sale restrictions, certain mandatory prepayment provisions, and restrictions on exercising call options in relation to any perpetual bonds CEMEX issues. At such time, several baskets and caps relating to negative covenants will also increase, including permitted financial indebtedness, permitted guarantees and limitations on liens. However, CEMEX cannot assure that it will be able to meet the conditions for these restrictions to cease to apply prior to the final maturity date under the Credit Agreement.

In addition, the Credit Agreement contains events of default, some of which may occur and are outside of CEMEX's control such as expropriation, sequestration and availability of foreign exchange. As of December 31, 2016 and 2015, CEMEX was not aware of any event of default. CEMEX cannot assure that it will be able to comply with the restrictive covenants and limitations contained in the Credit Agreement. CEMEX's failure to comply with such covenants and limitations could result in an event of default, which could materially and adversely affect CEMEX's business and financial condition.

Financial Covenants

The Credit Agreement and previously the Facilities Agreement requires CEMEX the compliance with financial ratios, which mainly include: a) the consolidated ratio of debt to Operating EBITDA (the "Leverage Ratio"); and b) the consolidated ratio of Operating EBITDA to interest expense (the "Coverage Ratio"). These financial ratios are calculated according to the formulas established in the debt contracts using the consolidated amounts under IFRS. Considering the amendments of March 7, 2016 mentioned above. As of December 31, 2016, CEMEX must comply with a Coverage ratio and a Leverage ratio for each period of four consecutive fiscal quarters as follows:

Period	Coverage ratio	Period	Leverage ratio
For the period ending on December 31, 2016 up to and including the period ending on March 31, 2017	> = 1.85	For the period ending on December 31, 2016 up to and including the period ending on March 31, 2017	< = 6.00
		For the period ending on June 30, 2017 up to and including the period ending on September 30, 2017	< = 5.75
For the period ending on June 30, 2017 up to and including the period ending on September 30, 2017	> = 2.00	For the period ending on December 31, 2017 up to and including the period ending on March 31, 2018	< = 5.50
		For the period ending on June 30, 2018 up to and including the period ending on September 30, 2018	< = 5.25
For the period ending on December 31, 2017 and each subsequent reference period	> = 2.25	For the period ending on December 31, 2018 up to and including the period ending on March 31, 2019	< = 5.00
		For the period ending on June 30, 2019 up to and including the period ending on September 30, 2019	< = 4.50
		For the period ending on December 31, 2019 up to and including the period ending on March 31, 2020	< = 4.25
		For the period ending on June 30, 2020 and each subsequent reference period	< = 4.00

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CEMEX's ability to comply with these ratios may be affected by economic conditions and volatility in foreign exchange rates, as well as by overall conditions in the financial and capital markets. For the compliance periods ended as of December 31, 2016, 2015 and 2014, taking into account the Credit Agreement and the Facilities Agreement, as applicable, CEMEX was in compliance with the financial covenants imposed by its debt contracts. The main consolidated financial ratios as of December 31, 2016, 2015 and 2014 were as follows:

		Consolidated financial ratios		
		2016	2015	2014
Leverage ratio ^{1,2}	Limit	=< 6.00	=< 6.00	=< 6.50
	Calculation	4.22	5.21	5.19
Coverage ratio ³	Limit	=> 1.85	=> 1.85	=> 1.75
	Calculation	3.18	2.61	2.34

¹ The leverage ratio is calculated in pesos by dividing "Funded debt" by pro forma Operating EBITDA for the last twelve months as of the calculation date. Funded debt equals debt, as reported in the balance sheet excluding finance leases, components of liability of convertible subordinated notes, plus perpetual debentures and guarantees, plus or minus the fair value of derivative financial instruments, as applicable, among other adjustments.

² Pro forma Operating EBITDA represents, all calculated in pesos, Operating EBITDA for the last twelve months as of the calculation date, plus the portion of Operating EBITDA referring to such twelve-month period of any significant acquisition made in the period before its consolidation in CEMEX, minus Operating EBITDA referring to such twelve-month period of any significant disposal that had already been liquidated.

³ The coverage ratio is calculated in pesos using the amounts from the financial statements, by dividing the pro forma operating EBITDA by the financial expense for the last twelve months as of the calculation date. Financial expense includes interest accrued on the perpetual debentures.

CEMEX will classify all of its outstanding debt as current debt in its balance sheet if: 1) as of any measurement date CEMEX fails to comply with the aforementioned financial ratios; or 2) the cross default clause that is part of the Credit Agreement is triggered by the provisions contained therein; 3) as of any date prior to a subsequent measurement date CEMEX expects not to be in compliance with such financial ratios in the absence of: a) amendments and/or waivers covering the next succeeding 12 months; b) high probability that the violation will be cured during any agreed upon remediation period and be sustained for the next succeeding 12 months; and/or c) a signed refinancing agreement to refinance the relevant debt on a long-term basis. Moreover, concurrent with the aforementioned classification of debt in the short-term, the noncompliance of CEMEX with the financial ratios agreed upon pursuant to the Credit Agreement or, in such event, the absence of a waiver of compliance or a negotiation thereof, after certain procedures upon CEMEX's lenders' request, they would call for the acceleration of payments due under the Credit Agreement. That scenario will have a material adverse effect on CEMEX's liquidity, capital resources and financial position.

16B) Other financial obligations

As of December 31, 2016 and 2015, other financial obligations in the consolidated balance sheet are detailed as follows:

	2016			2015		
	Short-term	Long-term	Total	Short-term	Long-term	Total
I. Convertible subordinated notes due 2020	\$ -	10,417	10,417	\$ -	8,569	8,569
II. Convertible subordinated notes due 2018	-	13,575	13,575	-	10,826	10,826
III. Convertible subordinated notes due 2016	-	-	-	6,007	-	6,007
IV. Mandatory convertible securities 2019	278	689	967	239	961	1,200
V. Liabilities secured with accounts receivable	11,095	-	11,095	9,071	1,430	10,501
V. Capital leases	285	1,291	1,576	270	1,482	1,752
	\$ 11,658	25,972	37,630	\$ 15,587	23,268	38,855

Financial instruments convertible into CEMEX's shares contain components of liability and equity, which are recognized differently depending upon the currency in which the instrument is denominated and the functional currency of the issuer (note 2F).

I. Optional convertible subordinated notes due 2020

During 2015, the Parent Company issued US\$521 aggregate principal amount of 3.72% convertible subordinated notes due in March 2020 (the "2020 Convertible Notes"). The 2020 Convertible Notes were issued: a) US\$200 as a result of the exercise in March 13, 2015 of US\$200 notional amount of Contingent Convertible Units ("CCUs") (described below), and b) US\$321 as a result of the exchange with certain investors in May 2015, which together with early conversions, resulted in settlement of approximately US\$626 aggregate principal amount of 3.25% convertible subordinated notes due in 2016 (the "2016 Convertible Notes") held by such investors and the issuance and delivery by CEMEX of an estimated 42 million ADSs, which included a number of additional ADSs issued to the holders as non-cash inducement premiums. The 2020 Convertible Notes, which are subordinated to all of CEMEX's liabilities and commitments, are convertible into a fixed number of CEMEX's ADSs at any time at the holder's election and are subject to antidilution adjustments. The difference at the exchange date between the fair value of the 2016 Convertible Notes and the 42 million ADSs against the fair value of the 2020 Convertible Notes represented a loss of approximately \$365 recognized in 2015 as part of "Other financial income (expense), net". The aggregate fair value of the conversion option as of the issuance dates which amounted to approximately \$199 was recognized in other equity reserves. As of December 31, 2016 and 2015, the conversion price per ADS was approximately 11.45 dollars and 11.90 dollars, respectively. After antidilution adjustments, the conversion rate as of December 31, 2016 and 2015 was 87.3646 ADS and 84.0044 ADS per each 1 thousand dollars principal amount of such notes, respectively.

II. Optional convertible subordinated notes due in 2016 and 2018

On March 15, 2011, CEMEX, S.A.B. de C.V. closed the offering of US\$978 aggregate principal amount of the 2016 Convertible Notes and US\$690 principal amount of 3.75% convertible subordinated notes due in 2018 (the "2018 Convertible Notes"). The notes were subordinated to all of CEMEX's liabilities and commitments. The notes are convertible into a fixed number of CEMEX's ADSs, and are subject to antidilution adjustments. After the exchange of notes described in the paragraph above, as of December 31, 2015, US\$352 of the 2016 Convertible Notes remained outstanding, which were repaid in cash at their maturity on March 15, 2016. As of December 31, 2016 and 2015, the conversion price per ADS of the notes then outstanding was approximately 8.92 dollars and 9.27 dollars, respectively. After antidilution adjustments, the conversion rate as of December 31, 2016 and 2015 was 112.1339 ADS and 107.8211 ADS, respectively, per each 1 thousand dollars principal amount of such notes. Concurrent with the offering, a portion of the net proceeds from this transaction were used to fund the purchase of capped call options, which are generally expected to reduce the potential dilution cost to CEMEX upon the potential conversion of such notes (note 16D).

III. Mandatorily convertible securities due in 2019

In December 2009, the Parent Company exchanged debt into approximately US\$315 principal amount of 10% mandatorily convertible securities in pesos with maturity in 2019 (the "2019 Mandatorily Convertible Securities"). Reflecting antidilution adjustments, the notes will be converted at maturity or earlier if the price of the CPO reaches approximately \$29.50 into approximately 210 million CPOs at a conversion price of approximately \$19.66 per CPO. Holders have an option to voluntarily convert their securities on any interest payment date into CPOs. The conversion option embedded in these securities is treated as a stand-alone derivative liability at fair value through the statement of operations (note 16D).

IV. Liabilities secured with accounts receivable

As mentioned in note 9, as of December 31, 2016 and 2015, CEMEX maintained securitization programs for the sale of trade accounts receivable established in Mexico, the United States, France and the United Kingdom, by means of which, CEMEX effectively surrenders control associated with the trade accounts receivable sold and there is no guarantee or obligation to reacquire the assets. However, considering that CEMEX retains certain residual interest in the programs and/or maintains continuing involvement with the accounts receivable, the funded amounts of the trade receivables sold are recognized in "Other financial obligations", and the receivables sold are maintained in the balance sheet.

V. Capital leases

CEMEX has several operating and administrative assets, including buildings and mobile equipment, under capital lease contracts. Future payments associated with these contracts are presented in note 23E.

Optional convertible subordinated notes due in 2015

On March 30, 2010, the Parent Company issued US\$715 aggregate principal amount of 4.875% Optional Convertible Subordinated Notes due 2015 (the "2015 Convertible Notes"), which were subordinated to all of CEMEX's liabilities and commitments, and were convertible into a fixed number of CEMEX's ADSs, at the holder's election considering antidilution adjustments. As of December 31, 2014, the conversion price per ADS was approximately 11.18 dollars. After antidilution adjustments, the conversion rate as of December 31, 2014 was 89.4729 ADS per each 1 thousand dollars principal amount of such notes. Concurrent with the offering, a portion of the proceeds were used to enter into a capped call transaction that was expected to generally reduce the dilution cost to CEMEX upon the potential conversion of the notes (note 16D).

On several dates during 2014, CEMEX agreed the early conversion of approximately US\$511 in aggregate principal amount of the 2015 Convertible Notes in exchange for approximately 50.4 million ADSs, which included the number of additional ADSs issued to the holders as non-cash inducement premiums. As a result of the early conversion agreements the liability component of the converted notes of approximately \$6,483, was reclassified from other financial obligations to other equity reserves. In addition, considering the issuance of shares, CEMEX increased common stock for \$4 and additional paid-in capital for \$8,037 against other equity reserves, and recognized expense for the inducement premiums of approximately \$957, representing the fair value of the ADSs at the issuance dates, in the statement of operations in 2014 within "Other financial income (expense), net". As of December 31, 2014, the outstanding principal amount of the 2015 Convertible Notes was of approximately US\$204. In March 2015 CEMEX repaid at maturity the remaining balance of these notes as described in the paragraph below.

In October 2014, in connection with the 2015 Convertible Notes, the Parent Company issued US\$200 notional amount of CCUs at an annual rate of 3.0% on the notional amount, by means of which, in exchange for coupon payments, CEMEX secured the refinancing for any of the 2015 Convertible Notes that would mature without conversion up to US\$200 of the principal amount. Pursuant to the CCUs, holders invested the US\$200 in U.S. treasury bonds, and irrevocably agreed to apply such investment in March 2015, if necessary, to subscribe new convertible notes of the Parent Company for up to US\$200. As previously mentioned, in March 2015, CEMEX exercised the CCUs, issued US\$200 principal amount of the 2020 Convertible Notes to the holders of the CCUs and repaid the US\$204 remaining principal amount of the 2015 Convertible Notes described above.

16C) Fair value of financial instruments

Financial assets and liabilities

The carrying amounts of cash, trade accounts receivable, other accounts receivable, trade accounts payable, other accounts payable and accrued expenses, as well as short-term debt, approximate their corresponding estimated fair values due to the short-term maturity and revolving nature of these financial assets and liabilities. Cash equivalents and certain long-term investments are recognized at fair value, considering to the extent available, quoted market prices for the same or similar instruments. The estimated fair value of CEMEX's long-term debt is Level 2, and is either based on estimated market prices for such or similar instruments, considering interest rates currently available for CEMEX to negotiate debt with the same maturities, or determined by discounting future cash flows using market-based interest rates currently available to CEMEX. As of December 31, 2016 and 2015, the carrying amounts of financial assets and liabilities and their respective fair values were as follows:

	2016		2015	
	Carrying amount	Fair value	Carrying amount	Fair value
Financial assets				
Derivative instruments (notes 13B and 16D)	\$ 1,900	1,900	\$ 869	869
Other investments and non-current accounts receivable (note 13B)	5,149	5,149	5,680	5,537
	\$ 7,049	7,049	\$ 6,549	6,406
Financial liabilities				
Long-term debt (note 16A)	\$ 235,016	241,968	\$ 229,125	220,662
Other financial obligations (note 16B)	25,972	27,419	23,268	24,863
Derivative instruments (notes 16D and 17)	818	818	178	178
	\$ 261,806	270,205	\$ 252,571	245,703

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Fair Value Hierarchy

As of December 31, 2016 and 2015, assets and liabilities carried at fair value in the consolidated balance sheets are included in the following fair value hierarchy categories:

2016	Level 1	Level 2	Level 3	Total
Assets measured at fair value				
Derivative instruments (notes 13B and 16D)	\$ -	1,900	-	1,900
Investments available-for-sale (note 13B)	491	-	-	491
Investments held for trading (note 13B)	-	157	-	157
	\$ 491	2,057	-	2,548
Liabilities measured at fair value				
Derivative instruments (notes 16D and 17)	\$ -	818	-	818
2015				
Assets measured at fair value				
Derivative instruments (notes 13B and 16D)	\$ -	869	-	869
Investments available-for-sale (note 13B)	632	-	-	632
Investments held for trading (note 13B)	-	317	-	317
	\$ 632	1,186	-	1,818
Liabilities measured at fair value				
Derivative instruments (notes 16D and 17)	\$ -	178	-	178

16D) Derivative financial instruments

During the reported periods, in compliance with the guidelines established by its Risk Management Committee, the restrictions set forth by its debt agreements and its hedging strategy (note 16E), CEMEX held derivative instruments, with the objectives of, as the case may be of: a) changing the risk profile or fixed the price of fuels and electric energy; b) foreign exchange hedging; and c) other corporate purposes. As of December 31, 2016 and 2015, the notional amounts and fair values of CEMEX's derivative instruments were as follows:

(U.S. dollars millions)	2016		2015	
	Notional amount	Fair value	Notional amount	Fair value
I. Interest rate swaps	US\$ 147	23	157	28
II. Equity forwards on third party shares	-	-	24	6
III. Options on the Parent Company's own shares	576	26	1,145	12
IV. Foreign exchange forward contracts	80	-	173	(1)
V. Fuels price hedging	77	15	16	(3)
	US\$ 880	64	1,515	42

The fair values determined by CEMEX for its derivative financial instruments are Level 2. There is no direct measure for the risk of CEMEX or its counterparties in connection with the derivative instruments. Therefore, the risk factors applied for CEMEX's assets and liabilities originated by the valuation of such derivatives were extrapolated from publicly available risk discounts for other public debt instruments of CEMEX and its counterparties.

The caption "Other financial income (expense), net" includes gains and losses related to the recognition of changes in fair values of the derivative instruments during the applicable period and that represented net gains of US\$17 (\$317) in 2016, net losses of US\$173 (\$2,981) and of US\$46 (\$679) in 2015 and 2014, respectively.

The estimated fair value of derivative instruments fluctuates over time and is determined by measuring the effect of future relevant economic variables according to the yield curves shown in the market as of the reporting date. These values should be analyzed in relation to the fair values of the underlying transactions and as part of CEMEX's overall exposure attributable to fluctuations in interest rates and foreign exchange rates. The notional amounts of derivative instruments do not represent amounts exchanged by the parties, and consequently, there is no direct measure of CEMEX's exposure to the use of these derivatives. The amounts exchanged are determined based on the basis of the notional amounts and other terms included in the derivative instruments.

I. Interest rate swap contracts

As of December 31, 2016 and 2015, CEMEX had an interest rate swap maturing in September 2022 associated with an agreement entered into by CEMEX for the acquisition of electric energy in Mexico, which fair value represented assets of US\$23 (\$477) and US\$28 (\$482), respectively. Pursuant to this instrument, during the tenure of the swap and based on its notional amount, CEMEX will receive a fixed rate of 5.4% and will pay LIBOR. Changes in the fair value of this interest rate swap generated losses of US\$6 (\$112) in 2016, losses of US\$4 (\$69) in 2015 and losses of US\$1 (\$3) in 2014, recognized in profit or loss for each year.

II. Equity forwards in third party shares

As of December 31, 2015, CEMEX held a forward contract to be settled in cash maturing in October 2016 over the price of 59.5 million CPOs of Axtel, a Mexican telecommunications company traded in the MSE. Changes in the fair value of this instrument generated losses of US\$2 (\$30) in 2016, gains of US\$15 (\$258) in 2015 and losses of US\$9 (\$133) in 2014, recognized in profit or loss for each period. In October, 2015, Axtel announced its merger with Alestra, a Mexican entity provider of information technology solutions and member of Alfa Group which was effective beginning February 15, 2016. In connection with this merger, on January 6, 2016, CEMEX settled in cash the forward contract and received approximately US\$4, net of transaction costs. In a separate transaction, considering that as of December 31, 2015, CEMEX held an investment in Axtel that upon completion of the Alestra and Axtel merger would be exchanged proportionately according to the new ownership interests for shares in the new merged entity that will remain public and the attractive business outlook of such new entity, after the settlement of the Axtel forward contract, CEMEX decided to purchase in the market the 59.5 million CPOs of Axtel and incorporate them to its existing investment in Axtel as part of CEMEX's investments available for sale.

III. Options on the Parent Company's own shares

On March 15, 2011, CEMEX, S.A.B. de C.V. entered into a capped call transaction, subject to antidilution adjustments, over 173 million CEMEX's ADSs (101 million ADSs maturing in March 2016 in connection with the 2016 Convertible Notes and 72 million ADSs maturing in March 2018 in connection with the 2018 Convertible Notes) in order to effectively increase the conversion price of the ADSs under such notes, by means of which, at maturity of the notes, originally CEMEX would receive in cash the excess between the market price and the strike price of approximately 9.65 dollars per ADS, with a maximum appreciation per ADS of approximately 4.45 dollars for the 2016 Convertible Notes and 5.94 dollars for the 2018 Convertible Notes. CEMEX paid aggregate premiums of approximately US\$222. During 2015, CEMEX amended a portion of the capped calls relating to the 2016 Convertible Notes and, as a result, CEMEX received approximately US\$44 in cash, equivalent to the unwind of 44.2% of the total notional amount of such capped call. On March 15, 2016, the remaining options for the 55.8% of the 2016 Convertible Notes expired out of the money. During August 2016, CEMEX amended the capped calls relating to the 2018 Convertible Notes and, as a result, the exercise price was adjusted to 8.92 dollars per ADS and the underlying to 6 million ADSs. As of December 31, 2016 and 2015, the fair value of the existing options represented an asset of approximately US\$66 (\$1,368) and US\$22 (\$379), respectively. Changes in the fair value of these instruments generated gains of US\$44 (\$818) in 2016, losses of US\$228 (\$3,928) in 2015 and losses of US\$65 (\$962) in 2014, recognized within "Other financial income (expense), net" in profit or loss.

On March 30, 2010, CEMEX, S.A.B. de C.V. entered into a capped call transaction, subject to antidilution adjustments, over approximately 64 million CEMEX's ADSs maturing in March 2015, in connection with the 2015 Convertible Notes in order to effectively increase the conversion price of the ADSs under such notes, by means of which, at maturity of the notes, if the market price per ADS was above the strike price of approximately 11.18 dollars, CEMEX would receive in cash the difference between the market price and the strike price, with a maximum appreciation per ADS of approximately 4.30 dollars. CEMEX paid a premium of approximately US\$105. In January, 2014, CEMEX amended the terms of this capped call transaction, pursuant to which, using the then existing market valuation of the instrument, CEMEX received approximately 7.7 million zero-strike call options over the same number of ADSs. In July 2014, CEMEX amended the zero-strike call options to fix a minimum value of approximately US\$94 and retained the economic value of approximately 1 million ADSs. During December 2014, CEMEX further amended and unwound the zero-strike call options, monetizing the remainder value of the approximately 1 million ADSs it had retained, pursuant to which CEMEX received a total payment of approximately US\$105. During 2014, changes in the fair value of these options generated gains of US\$17 (\$253), which were recognized within "Other financial income (expense), net" in profit or loss.

In addition, in connection with the 2019 Mandatorily Convertible Securities (note 16B); that the securities are denominated in pesos and the functional currency of the Parent Company's division that issued the securities is the dollar (note 2D), CEMEX separated the conversion option embedded in such instruments and recognized it at fair value through profit or loss, which as of December 31, 2016 and 2015, resulted in a liability of US\$40 (\$829) and US\$10 (\$178), respectively. Changes in fair value generated losses of US\$29 (\$545) in 2016, gains of US\$18 (\$310) in 2015 and gains of US\$11 (\$159) in 2014.

IV. Foreign exchange forward contracts

As of December 31, 2016, CEMEX held foreign exchange forward contracts maturing in February 2017, negotiated to hedge the U.S. dollar value of future proceeds in other currencies from expected sale of assets. As of December 31, 2015, CEMEX held foreign exchange forward contracts maturing in April 2016, negotiated to hedge the U.S. dollar value of future proceeds in euros from the sale of CEMEX's operations in Austria and Hungary (note 4A). For the years 2016 and 2015, changes in the estimated fair value of these instruments, including the effects resulting from positions entered and settled during the year, generated gains of US\$10 (\$186) in 2016 and gains of US\$26 (\$448) in 2015, recognized within "Other financial income (expense), net" in profit or loss.

V. Fuel price hedging

As of December 31, 2016 and 2015, CEMEX maintained forward contracts negotiated to hedge the price of diesel fuel in several countries in 2016 and in the United Kingdom in 2015 for aggregate notional amounts as of December 31, 2016 and 2015 of US\$44 (\$912) and US\$16 (\$276), respectively, with an estimated fair value representing an asset of US\$7 (\$145) in 2016 and a liability of US\$3 (\$52) in 2015. By means of these contracts, for own consumption only, CEMEX fixed the fuel component of the market price of diesel over certain volume representing a portion of the estimated diesel consumption in such operations. These contracts have been designated as cash flow hedges of diesel fuel consumption, and as such, changes in fair value are recognized temporarily through other comprehensive income (loss) and are recycled to operating expenses as the related diesel volumes are consumed. For the years 2016 and 2015, changes in fair value of these contracts recognized in other comprehensive income (loss) represented gains of US\$7 (\$145) and losses of US\$3 (\$52), respectively.

In addition, as of December 31, 2016, CEMEX held forward contracts negotiated in 2016 to hedge the price of coal, as solid fuel, for an aggregate notional amount as of December 31, 2016 of US\$33 (\$684) and an estimated fair value representing an asset of US\$8 (\$166). By means of these contracts, for own consumption only, CEMEX fixed the price of coal over certain volume representing a portion of the estimated coal consumption in CEMEX's applicable operations. These contracts have been designated as cash flow hedges of coal consumption, and as such, changes in fair value are recognized temporarily through other comprehensive income (loss) and are recycled to operating expenses as the related coal volumes are consumed. For the year 2016, changes in fair value of these contracts recognized in other comprehensive income (loss) represented gains of US\$8 (\$166).

16E) Risk management

In recent years, CEMEX has significantly decreased its use of derivatives instruments related to debt, both currency and interest rate derivatives, thereby reducing the risk of cash margin calls. In addition, the Credit Agreement may restrict CEMEX's ability to enter into certain derivative transactions.

Credit risk

Credit risk is the risk of financial loss faced by CEMEX if a customer or counterpart of a financial instrument does not meet its contractual obligations and originates mainly from trade accounts receivable. As of December 31, 2016 and 2015, the maximum exposure to credit risk is represented by the balance of financial assets. Management has developed policies for the authorization of credit to customers. The exposure to credit risk is monitored constantly according to the behavior of payment of the debtors. Credit is assigned on a customer-by-customer basis and is subject to assessments which consider the customers' payment capacity, as well as past behavior regarding due dates, balances past due and delinquent accounts. In cases deemed necessary, CEMEX's management requires guarantees from its customers and financial counterparties with regard to financial assets.

The Company's management has established a policy of low risk which analyzes the creditworthiness of each new client individually before offering the general conditions of payment terms and delivery, the review includes external ratings, when references are available, and in some cases bank references. Threshold of purchase limits are established for each client, which represent the maximum purchase amounts that require different levels of approval. Customers that do not meet the levels of solvency requirements imposed by CEMEX can only carry out transactions by paying cash in advance. As of December 31, 2016, considering CEMEX's best estimate of potential losses based on an analysis of age and considering recovery efforts, the allowance for doubtful accounts was \$2,139.

Interest rate risk

Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates, which only affects CEMEX's results if the fixed-rate long-term debt is measured at fair value. All of CEMEX's fixed-rate long-term debt is carried at amortized cost and therefore is not subject to interest rate risk. CEMEX's exposure to the risk of changes in market interest rates relates primarily to its long-term debt obligations with floating interest rates. As of December 31, 2016 and 2015, CEMEX was subject to the volatility of floating interest rates, which, if such rates were to increase, may adversely affect its financing cost and the results for the period. CEMEX manages its interest rate risk by balancing its exposure to fixed and variable rates while attempting to reduce its interest costs.

As of December 31, 2016 and 2015, approximately 28% and 27%, respectively, of CEMEX's long-term debt was denominated in floating rates at a weighted average interest rate of LIBOR plus 306 basis points in 2016 and 367 basis points in 2015. As of December 31, 2016 and 2015, if interest rates at that date had been 0.5% higher, with all other variables held constant, CEMEX's net income for 2016 and 2015 would have reduced by approximately US\$18 (\$373) and US\$18 (\$312), respectively, as a result of higher interest expense on variable rate denominated debt. This analysis does not include the interest rate swaps held by CEMEX during 2016 and 2015.

Foreign currency risk

Foreign currency risk is the risk that the fair value of future cash flows of a financial instrument will fluctuate because of changes in foreign exchange rates. CEMEX's exposure to the risk of changes in foreign exchange rates relates primarily to its operating activities. Due to its geographic diversification, CEMEX's revenues and costs are generated and settled in various countries and in different currencies. For the year ended December 31, 2016, approximately 20% of CEMEX's net sales, before eliminations resulting from consolidation, were generated in Mexico, 26% in the United States, 8% in the United Kingdom, 4% in Germany, 5% in France, 4% in the Europe region, 2% in Spain, 5% in Colombia, 7% in the Rest of South, Central America and the Caribbean region, 3% in Egypt, 9% in Asia, Middle East and Africa and 7% in CEMEX's other operations.

Foreign exchange gains and losses occur by monetary assets or liabilities in a currency different from its functional currency, and are recorded in the consolidated statements of operations, except for exchange fluctuations associated with foreign currency indebtedness directly related to the acquisition of foreign entities and related parties' long-term balances denominated in foreign currency, for which are reported in the statement of other comprehensive income (loss). As of December 31, 2016 and 2015, excluding from the sensitivity analysis the impact of translating the net assets of foreign operations into CEMEX's reporting currency, considering a hypothetical 10% strengthening of the U.S. dollar against the Mexican peso, with all other variables held constant, CEMEX's net income for 2016 and 2015 would have increased by approximately US\$136 (\$2,829) and US\$232 (\$3,998), respectively, as a result of higher foreign exchange losses on CEMEX's dollar-denominated net monetary liabilities held in consolidated entities with other functional currencies. Conversely, a hypothetical 10% weakening of the U.S. dollar against the Mexican peso would have the opposite effect.

As of December 31, 2016, approximately 76% of CEMEX's financial debt was dollar-denominated, approximately 23% was euro-denominated, less than 1% was peso-denominated and immaterial amounts were denominated in other currencies; therefore, CEMEX had a foreign currency exposure arising from the dollar-denominated financial debt, and the euro-denominated financial debt, versus the currencies in which CEMEX's revenues are settled in most countries in which it operates. CEMEX cannot guarantee that it will generate sufficient revenues in dollars and euros from its operations to service these obligations. As of December 31, 2016 and 2015, CEMEX had not implemented any derivative financing hedging strategy to address this foreign currency risk.

Notes to the consolidated financial statements

As of December 31, 2016 and 2015, CEMEX's consolidated net monetary assets (liabilities) by currency are as follows:

	2016						
	Mexico	United States	Europe	South, Central America and the Caribbean	Asia, Middle East and Africa	Others ¹	Total
Monetary assets	\$ 10,261	26,685	12,724	6,132	13,101	11,836	80,739
Monetary liabilities	10,564	33,145	42,336	9,130	11,305	277,117	383,597
Net monetary assets (liabilities) ²	\$ (303)	(6,460)	(29,612)	(2,998)	1,796	(265,281)	(302,858)
Out of which:							
Dollars	\$ (483)	(6,463)	38	35	364	(214,751)	(221,260)
Pesos	180	3	-	-	-	(3,395)	(3,212)
Euros	-	-	(9,465)	-	-	(48,470)	(57,935)
Other currencies	-	-	(20,185)	(3,033)	1,432	1,335	(20,451)
	\$ (303)	(6,460)	(29,612)	(2,998)	1,796	(265,281)	(302,858)
	2015						
	Mexico	United States	Europe	South, Central America and the Caribbean	Asia, Middle East and Africa	Others ¹	Total
Monetary assets	\$ 13,418	10,266	15,052	5,646	9,968	7,748	62,098
Monetary liabilities	12,690	22,593	36,349	6,697	11,615	268,059	358,003
Net monetary assets (liabilities) ²	\$ 728	(12,327)	(21,297)	(1,051)	(1,647)	(260,311)	(295,905)
Out of which:							
Dollars	\$ (69)	(12,334)	191	604	55	(187,553)	(199,106)
Pesos	797	9	-	-	-	(29,407)	(28,601)
Euros	-	-	(8,837)	-	(827)	(45,183)	(54,847)
Other currencies	-	(2)	(12,651)	(1,655)	(875)	1,832	(13,351)
	\$ 728	(12,327)	(21,297)	(1,051)	(1,647)	(260,311)	(295,905)

¹ Includes the Parent Company, CEMEX's financing subsidiaries, as well as Neoris N.V., among other entities.

² Includes assets held for sale and liabilities directly related with these assets considering that such items will be realized in the short-term.

Equity risk

Equity risk is the risk that the fair value of future cash flows of a financial instrument will fluctuate because of changes in the market price of CEMEX's and/or third party's shares. As described in note 16D, CEMEX has entered into equity forward contracts on Axtel CPOs, as well as capped call options based on the price of CEMEX's own ADSs. Under these equity derivative instruments, there is a direct relationship in the change in the fair value of the derivative with the change in price of the underlying share. All changes in fair value of such derivative instruments are recognized in profit or loss as part of "Other financial income (expense), net". A significant decrease in the market price of CEMEX's ADSs would negatively affect CEMEX's liquidity and financial position.

As of December 31, 2015, the potential change in the fair value of CEMEX's forward contracts in Axtel's shares that would result from a hypothetical, instantaneous decrease of 10% in the market price of Axtel's CPO, with all other variables held constant, CEMEX's net income for 2015 would have reduced in approximately US\$3 (\$51); as a result of additional negative changes in fair value associated with such forward contracts. A 10% hypothetical increase in the Axtel CPO price would have generated approximately the opposite effects.

As of December 31, 2016 and 2015, the potential change in the fair value of CEMEX's options (capped calls) that would result from a hypothetical, instantaneous decrease of 10% in the market price of CEMEX's ADSs, with all other variables held constant, CEMEX's net income for 2016 and 2015 would have reduced in approximately US\$23 (\$476) and US\$8 (\$137), respectively, as a result of additional negative changes in fair value associated with these contracts. A 10% hypothetical increase in CEMEX's ADS price would generate approximately the opposite effect.

In addition, even though the changes in fair value of CEMEX's embedded conversion option in the Mandatorily Convertible Notes 2019 denominated in a currency other than the functional issuer's currency affect profit or loss, they do not imply any risk or variability in cash flows, considering that through their exercise, CEMEX will settle a fixed amount of debt with a fixed amount of shares. As of December 31, 2016 and 2015, the potential change in the fair value of the embedded conversion options in the Mandatorily Convertible Notes 2019 that would result from a hypothetical, instantaneous decrease of 10% in the market price of CEMEX's CPOs, with all other variables held constant, would have increased CEMEX's net income for 2016 and 2015 by approximately US\$7 (\$154) and US\$3 (\$47), respectively; as a result of additional positive changes in fair value associated with this option. A 10% hypothetical increase in the CEMEX CPO price would generate approximately the opposite effect.

Liquidity risk

Liquidity risk is the risk that CEMEX will not have sufficient funds available to meet its obligations. In addition to cash flows provided by its operating activities, in order to meet CEMEX's overall liquidity needs for operations, servicing debt and funding capital expenditures and acquisitions, CEMEX relies on cost-cutting and operating improvements to optimize capacity utilization and maximize profitability, as well as borrowing under credit facilities, proceeds of debt and equity offerings, and proceeds from asset sales. CEMEX is exposed to risks from changes in foreign currency exchange rates, prices and currency controls, interest rates, inflation, governmental spending, social instability and other political, economic and/or social developments in the countries in which it operates, any one of which may materially affect CEMEX's results and reduce cash from operations. The maturities of CEMEX's contractual obligations are included in note 23E. As of December 31, 2016, CEMEX has approximately US\$1,413 (\$29,277) available in its committed revolving credit tranche under its Credit Agreement (note 16A).

As of December 31, 2016 and 2015, the potential requirement for additional margin calls under our different commitments is not significant.

17) OTHER CURRENT AND NON-CURRENT LIABILITIES

As of December 31, 2016 and 2015, consolidated other current liabilities were as follows:

	2016	2015
Provisions ¹	\$ 11,670	10,438
Interest payable	3,425	3,421
Advances from customers	3,408	2,606
Other accounts payable and accrued expenses	3,949	4,304
	\$ 22,452	20,769

¹ Current provisions primarily consist of accrued employee benefits, insurance payments, and accruals for legal assessments, among others. These amounts are revolving in nature and are expected to be settled and replaced by similar amounts within the next 12 months.

As of December 31, 2016 and 2015, consolidated other non-current liabilities were as follows:

	2016	2015
Asset retirement obligations ¹	\$ 8,143	7,036
Accruals for legal assessments and other responsibilities ²	1,514	1,984
Non-current liabilities for valuation of derivative instruments	818	231
Environmental liabilities ³	1,172	827
Other non-current liabilities and provisions ⁴	5,293	4,796
	\$ 16,940	14,874

¹ Provisions for asset retirement include future estimated costs for demolition, cleaning and reforestation of production sites at the end of their operation, which are initially recognized against the related assets and are depreciated over their estimated useful life.

² Provisions for legal claims and other responsibilities include items related to tax contingencies.

³ Environmental liabilities include future estimated costs arising from legal or constructive obligations, related to cleaning, reforestation and other remedial actions to remediate damage caused to the environment. The expected average period to settle these obligations is greater than 15 years.

⁴ As of December 31, 2016 and 2015, includes approximately \$2,300 and \$3,131, respectively, of the non-current portion of taxes payable recognized since 2009 as a result of the changes to the tax consolidation regime in Mexico approved in 2009 and 2013 as described in note 19D. Approximately \$936 and \$840 as of December 31, 2016 and 2015 respectively, were included within current taxes payable.

Notes to the consolidated financial statements

Changes in consolidated other current and non-current liabilities for the years ended December 31, 2016 and 2015, were as follows:

	2016					Total	2015
	Asset retirement obligations	Environmental liabilities	Accruals for legal proceedings	Valuation of derivative instruments	Other liabilities and provisions		
Balance at beginning of period	\$ 7,036	827	1,984	231	15,234	25,312	41,832
Business combinations	-	-	-	-	-	-	629
Additions or increase in estimates	1,437	307	-	925	65,003	67,672	46,408
Releases or decrease in estimates	(610)	(54)	(292)	(451)	(59,896)	(61,303)	(67,604)
Reclassifications	544	(39)	11	-	(1,257)	(741)	(3,754)
Accretion expense	(9)	-	(14)	-	(1,010)	(1,033)	(904)
Foreign currency translation	(255)	131	(175)	118	(1,116)	(1,297)	8,705
Balance at end of period	\$ 8,143	1,172	1,514	823	16,958	28,610	25,312
Out of which:							
Current provisions	\$ -	-	-	5	11,665	11,670	10,438

18) PENSIONS AND POST-EMPLOYMENT BENEFITS

Defined contribution pension plans

The costs of defined contribution plans for the years ended December 31, 2016, 2015 and 2014 were approximately \$865, \$706 and \$497, respectively. CEMEX contributes periodically the amounts offered by the pension plan to the employee's individual accounts, not retaining any remaining liability as of the financial statements' date.

Defined benefit pension plans

Most CEMEX's defined benefit plans have been closed to new participants for several years. Actuarial results related to pension and other post retirement benefits are recognized in the results and/or in "Other comprehensive income (loss) for the period" in which they are generated, as correspond. For the years ended December 31, 2016, 2015 and 2014, the effects of pension plans and other post-employment benefits are summarized as follows:

Net period cost (revenue):	Pensions			Other benefits			Total		
	2016	2015	2014	2016	2015	2014	2016	2015	2014
Recorded in operating costs and expenses									
Service cost	\$ 151	128	108	25	30	32	176	158	140
Past service cost	8	12	4	-	(20)	-	8	(8)	4
Loss for settlements and curtailments	-	-	-	-	(13)	(110)	-	(13)	(110)
	159	140	112	25	(3)	(78)	184	137	34
Recorded in other financial expenses									
Net interest cost	711	596	527	57	56	54	768	652	581
Recorded in other comprehensive income (loss) for the period									
Actuarial (gains) losses for the period	3,985	872	3,014	34	(124)	(13)	4,019	748	3,001
	\$ 4,855	1,608	3,653	116	(71)	(37)	4,971	1,537	3,616

Notes to the consolidated financial statements

The reconciliations of the actuarial benefits obligations, pension plan assets, and liabilities recognized in the balance sheet as of December 31, 2016 and 2015 are presented as follows:

	Pensions		Other benefits		Total	
	2016	2015	2016	2015	2016	2015
Change in benefits obligation:						
Projected benefit obligation at beginning of year	\$ 42,740	40,285	1,100	1,321	43,840	41,606
Service cost	151	128	25	30	176	158
Interest cost	1,685	1,561	59	58	1,744	1,619
Actuarial (gains) losses for the period	6,263	(693)	35	(129)	6,298	(822)
Reduction for disposal of assets (notes 4A and 4B)	-	(196)	-	(161)	-	(357)
Settlements and curtailments	-	-	(19)	(13)	(19)	(13)
Plan amendments	8	12	-	(20)	8	(8)
Benefits paid	(2,379)	(2,186)	(74)	(60)	(2,453)	(2,246)
Foreign currency translation	2,587	3,829	38	74	2,625	3,903
Projected benefit obligation at end of year	51,055	42,740	1,164	1,100	52,219	43,840
Change in plan assets:						
Fair value of plan assets at beginning of year	25,547	24,698	24	27	25,571	24,725
Return on plan assets	974	965	2	2	976	967
Actuarial results	2,278	(1,565)	1	(5)	2,279	(1,570)
Employer contributions	1,289	1,031	93	60	1,382	1,091
Reduction for disposal of assets (notes 4A and 4B)	-	(79)	-	-	-	(79)
Settlements and curtailments	-	-	(19)	-	(19)	-
Benefits paid	(2,379)	(2,186)	(74)	(60)	(2,453)	(2,246)
Foreign currency translation	1,119	2,683	(1)	-	1,118	2,683
Fair value of plan assets at end of year	28,828	25,547	26	24	28,854	25,571
Amounts recognized in the balance sheets:						
Net projected liability recognized in the balance sheet	\$ 22,227	17,193	1,138	1,076	23,365	18,269

For the years 2016, 2015 and 2014, actuarial (gains) losses for the period were generated by the following main factors as follows:

	2016	2015	2014
Actuarial (gains) losses due to experience	\$ (511)	(105)	238
Actuarial (gains) losses due to demographic assumptions	(231)	(153)	330
Actuarial (gains) losses due financial assumptions	4,761	1,006	2,433
	\$ 4,019	748	3,001

Net actuarial losses due to financial assumptions during 2016 were mainly generated by a significant reduction in the discount rates applicable to the benefit obligations in the United Kingdom, Germany and other European countries, considering macroeconomic and political uncertainty, partially offset by an increase in the discount rate in Mexico. These actuarial losses originated by the reduction in the discount rates in 2016 were also partially offset by actual returns higher than estimated in some of the plan assets related to CEMEX's defined benefit plans. During 2015, discounts rates increased slightly or remained flat as compared to 2014, but the resulting actuarial gains were offset and reversed by actuarial losses generated by actual returns lower than estimated in certain of CEMEX's plan assets. In 2014 there was also a reduction in the discount rates applicable to the obligations at the end of the period in the United Kingdom, Germany and the United States.

Notes to the consolidated financial statements

As of December 31, 2016 and 2015, plan assets were measured at their estimated fair value and, based on the hierarchy of fair values, are detailed as follows:

	2016				2015			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Cash	\$ 1,075	1,024	–	2,099	\$ 649	884	–	1,533
Investments in corporate bonds	1,050	2,617	–	3,667	896	2,615	–	3,511
Investments in government bonds	209	10,081	–	10,290	153	9,122	–	9,275
Total fixed-income securities	2,334	13,722	–	16,056	1,698	12,621	–	14,319
Investment in marketable securities	2,001	5,956	–	7,957	1,503	5,441	–	6,944
Other investments and private funds	770	3,478	593	4,841	618	3,244	446	4,308
Total variable-income securities	2,771	9,434	593	12,798	2,121	8,685	446	11,252
Total plan assets	\$ 5,105	23,156	593	28,854	\$ 3,819	21,306	446	25,571

As of December 31, 2016, estimated payments for pensions and other post-employment benefits over the next 10 years were as follows:

	2016
2017	\$ 2,934
2018	2,850
2019	2,892
2020	2,771
2021	2,808
2022 - 2026	15,047

The most significant assumptions used in the determination of the benefit obligation were as follows:

	2016				2015			
	Mexico	United States	United Kingdom	Range of rates in other countries	Mexico	United States	United Kingdom	Rates ranges in other countries
Discount rates	9.0%	4.2%	2.6%	1.1% – 7.0%	8.0%	4.4%	3.7%	1.6% – 7.3%
Rate of return on plan assets	9.0%	4.2%	2.6%	1.1% – 7.0%	8.0%	4.4%	3.7%	1.6% – 7.3%
Rate of salary increases	4.0%	–	3.3%	1.5% – 6.0%	4.0%	–	3.1%	2.0% – 6.0%

As of December 31, 2016 and 2015, the aggregate projected benefit obligation (“PBO”) for pension plans and other post-employment benefits and the plan assets by country were as follows:

	2016			2015		
	PBO	Assets	Deficit	PBO	Assets	Deficit
Mexico	\$ 3,247	824	2,423	\$ 3,699	538	3,161
United States	7,110	4,192	2,918	5,988	3,552	2,436
United Kingdom	33,925	22,154	11,771	27,522	20,042	7,480
Germany	4,429	227	4,202	3,700	205	3,495
Other countries	3,508	1,457	2,051	2,931	1,234	1,697
	\$ 52,219	28,854	23,365	\$ 43,840	25,571	18,269

Applicable regulation in the United Kingdom requires entities to maintain plan assets at a level similar to that of the obligations. In November 2012, in order to better manage CEMEX's obligations under its defined benefit pension schemes and future cash funding requirements thereof, CEMEX implemented an asset backed pension funding arrangement in its operations in the United Kingdom by means of which CEMEX transferred certain operating assets to a non-transferable limited partnership, owned, controlled and consolidated by CEMEX UK with a total value of approximately US\$553 and entered into lease agreements for the use of such assets with the limited partnership, in which the pension schemes hold a limited interest. On an ongoing basis CEMEX UK will make annual rental payments of approximately US\$20, increasing at annual rate of 5%, which will generate profits in the limited partnership that are then distributed to the pension schemes. As previously mentioned, the purpose of the structure, in addition to provide the pension schemes with secured assets producing an annual return over a period of 25 years, improves the security for the trustees of the pension schemes, and reduces the level of cash funding that CEMEX UK will have to make in future periods. In 2037, on expiry of the lease arrangements, the limited partnership will be terminated and under the terms of the agreement, the remaining assets will be distributed to CEMEX UK. Any future profit distribution from the limited partnership to the pension fund will be considered as an employer contribution to plan assets in the period in which they occur.

In some countries, CEMEX has established health care benefits for retired personnel limited to a certain number of years after retirement. As of December 31, 2016 and 2015, the projected benefits obligation related to these benefits was approximately \$837 and \$786, respectively. The medical inflation rates used to determine the projected benefits obligation of these benefits in 2016 and 2015 for Mexico were 7.0% and 7.0%, respectively, for Puerto Rico 4.3% and 4.5%, respectively, and for the United Kingdom were 6.8% and 6.6%, respectively. Eligibility for retiree medical in the United States has been terminated for all new employees on December 31, 2014, and remaining participants are under a capped group and future health care cost trend rates are not applicable. The medical inflation rate for 2014 in the United States was 4.4%.

Significant events related to employees' pension benefits and other post-employment benefits during the reported periods

During 2015, CEMEX in the United States terminated the retiree medical coverage for certain participants not yet retired. In addition, during 2014, CEMEX in the United States terminated the retiree medical and life insurance coverage for most new retirees, and changed the existing retirees program effective January 1, 2015, where participants will cease their current plans and instead receive a Health Reimbursement Account (HRA) contribution, if they become eligible. These curtailment events resulted in an adjustment to past service cost which generated gains of approximately \$13 (US\$1) in 2015 and \$110 (US\$8) in 2014, recognized immediately through the benefit cost of the respective year.

Sensitivity analysis of pension and other post-employment benefits

For the year ended December 31, 2016, CEMEX performed sensitivity analyses on the most significant assumptions that affect the PBO, considering reasonable independent changes of plus or minus 50 basis points in each of these assumptions. The increase (decrease) that would have resulted in the PBO of pensions and other post-employment benefits as of December 31, 2016 are shown below:

Assumptions:	Pensions		Other benefits		Total	
	+50 bps	-50 bps	+50 bps	-50 bps	+50 bps	-50 bps
Discount Rate Sensitivity	\$ (3,699)	4,033	(53)	58	(3,752)	4,091
Salary Increase Rate Sensitivity	91	(83)	6	(7)	97	(90)
Pension Increase Rate Sensitivity	2,254	(2,127)	-	-	2,254	(2,127)

19) INCOME TAXES

19A) Income taxes for the period

The amounts of income tax revenue (expense) in the statements of operations for 2016, 2015 and 2014 are summarized as follows:

	2016	2015	2014
Current income taxes	\$ (3,448)	6,149	(4,184)
Deferred income taxes	352	(8,477)	264
	\$ (3,096)	(2,328)	(3,920)

19B) Deferred income taxes

As of December 31, 2016 and 2015, the main temporary differences that generated the consolidated deferred income tax assets and liabilities are presented below:

	2016	2015
Deferred tax assets:		
Tax loss carryforwards and other tax credits	\$ 17,514	16,658
Accounts payable and accrued expenses	9,262	8,220
Intangible assets and deferred charges, net	6,358	5,487
Others	359	130
Total deferred tax assets, net	33,493	30,495
Deferred tax liabilities:		
Property, machinery and equipment	(35,095)	(32,742)
Investments and other assets	(1,958)	(2,689)
Total deferred tax liabilities, net	(37,053)	(35,431)
Net deferred tax liabilities	\$ (3,560)	(4,936)
Out of which:		
Net deferred tax (liability) asset in Mexican entities	\$ (2,509)	255
Net deferred tax (liability) asset in Foreign entities	\$ (1,051)	(5,191)

The breakdown of changes in consolidated deferred income taxes during 2016, 2015 and 2014 were as follows:

	2016	2015	2014
Deferred income tax (charged) credited to profit or loss	\$ 352	(8,477)	264
Deferred income tax (charged) credited to stockholders' equity	514	1,089	229
Reclassification to other captions in the balance sheet and in the statement of operations ^{1,2}	510	(5,479)	410
Change in deferred income tax during the period	\$ 1,376	(12,867)	903

¹ In 2016, 2015 and 2014, includes the effects of discontinued operations (note 4A) and in 2015 the effects of the termination of tax consolidation regime.

² In 2014, includes the effect of the divest assets in the western region of Germany (note 15B).

Current and/or deferred income tax relative to items of other comprehensive income (loss) during 2016, 2015 and 2014 were as follows:

	2016	2015	2014
Tax effects relative to foreign exchange fluctuations from debt (note 20B)	\$ (410)	(272)	(75)
Tax effects relative to foreign exchange fluctuations from intercompany balances (note 20B)	(12)	(181)	247
Tax effects relative to actuarial (gains) and losses (note 20B)	788	183	486
Foreign currency translation and other effects	(274)	906	(257)
	\$ 92	636	401

For the recognition of deferred tax assets, CEMEX analyzes the aggregate amount of self-determined tax loss carryforwards included in its income tax returns in each country where CEMEX believes, based on available evidence, that the tax authorities would not reject such tax loss carryforwards; and the likelihood of the recoverability of such tax loss carryforwards prior to their expiration through an analysis of estimated future taxable income. If CEMEX believes that it is probable that the tax authorities would reject a self-determined deferred tax asset, it would decrease such asset. Likewise, if CEMEX believes that it would not be able to use a tax loss carryforward before its expiration or any other tax asset, CEMEX would not recognize such asset. Both situations would result in additional income tax expense for the period in which such determination is made. In order to determine whether it is probable that deferred tax assets will ultimately be realized, CEMEX takes into consideration all available positive and negative evidence, including factors such as market conditions, industry analysis, expansion plans, projected taxable income, carryforward periods, current tax structure, potential changes or adjustments in tax structure, tax planning strategies, future reversals of existing temporary differences, etc. In addition, every reporting period, CEMEX analyzes its actual results versus its estimates, and adjusts, as necessary, its tax asset valuations. If actual results vary from CEMEX's estimates, the deferred tax asset may be affected and necessary adjustments will be made based on relevant information, any adjustments recorded will affect CEMEX's statements of operations in such period.

As of December 31, 2016, consolidated tax loss and tax credits carryforwards expire as follows:

	Amount of carryforwards	Amount of reserved carryforwards	Amount of unreserved carryforwards
2017	\$ 935	579	356
2018	1,916	1,577	339
2019	7,956	7,821	135
2020	8,922	2,375	6,547
2021 and thereafter	373,840	325,292	48,548
	\$ 393,569	337,644	55,925

As of December 31, 2016, in connection with CEMEX's deferred tax loss carryforwards presented in the table above, in order to realize the benefits associated with such deferred tax assets that have not been reserved, before their expiration, CEMEX would need to generate approximately \$55,925 in consolidated pre-tax income in future periods. For the year ended December 31, 2014, CEMEX reported pre-tax losses on a worldwide consolidated basis. Nonetheless, based on the same forecasts of future cash flows and operating results used by CEMEX's management to allocate resources and evaluate performance in the countries in which CEMEX operates, which include expected growth in revenues and reductions in interest expense in several countries due to a reduction in intra-group debt balances, along with the implementation of feasible tax strategies, CEMEX believes that it will recover the balance of its tax loss carryforwards that have not been reserved before their expiration. In addition, CEMEX concluded that, the deferred tax liabilities that were considered in the analysis of recoverability of its deferred tax assets will reverse in the same period and tax jurisdiction of the related recognized deferred tax assets. Moreover, a certain amount of CEMEX's deferred tax assets refer to operating segments and tax jurisdictions in which CEMEX is currently generating taxable income or in which, according to CEMEX's management cash flow projections, will generate taxable income in the relevant periods before the expiration of the deferred tax assets.

CEMEX does not recognize a deferred income tax liability related to its investments in subsidiaries and interests in joint ventures, considering that CEMEX controls the reversal of the temporary differences arising from these investments and management is satisfied that such temporary differences will not reverse in the foreseeable future.

19C) Effective tax rate

For the years ended as of December 31, 2016, 2015 and 2014, the effective consolidated income tax rates were as follows:

	2016	2015	2014
Income (loss) before income tax	\$ 17,279	3,182	(1,850)
Income tax expense	(3,096)	(2,328)	(3,920)
Effective consolidated income tax rate ¹	(17.9)%	(73.2)%	211.9%

¹ The average effective tax rate equals the net amount of income tax revenue or expense divided by income or loss before income taxes, as these line items are reported in profit or loss.

Differences between the financial reporting and the corresponding tax basis of assets and liabilities and the different income tax rates and laws applicable to CEMEX, among other factors, give rise to permanent differences between the statutory tax rate applicable in Mexico, and the effective tax rate presented in the consolidated statements of operations, which in 2016, 2015 and 2014 were as follows:

	2016		2015		2014	
	%	\$	%	\$	%	\$
Mexican statutory tax rate	(30.0)	(5,184)	(30.0)	(955)	(30.0)	555
Non-taxable dividend income	0.2	32	40.2	1,280	(3.9)	73
Difference between accounting and tax expenses, net	84.0	14,514	(93.1)	(2,963)	71.4	(1,320)
Termination of tax consolidation regime	-	-	35.7	1,136	-	-
Unrecognized effects during the year related to applicable tax consolidation regimes	(3.6)	(622)	9.2	293	5.5	(101)
Non-taxable sale of marketable securities and fixed assets	3.8	657	39.7	1,263	(47.1)	871
Difference between book and tax inflation	(11.2)	(1,935)	(29.0)	(922)	31.7	(586)
Differences in the income tax rates in the countries where CEMEX operates ¹	11.2	1,935	53.2	1,693	(393.5)	7,280
Changes in deferred tax assets ²	(71.3)	(12,320)	(109.1)	(3,473)	547.8	(10,135)
Changes in provisions for uncertain tax positions	0.7	121	8.5	272	31.7	(586)
Others	(1.7)	(294)	1.5	48	(1.7)	29
Effective consolidated tax rate	(17.9)	(3,096)	(73.2)	(2,328)	211.9	(3,920)

¹ Refers mainly to the effects of the differences between the statutory income tax rate in Mexico of 30% against the applicable income tax rates of each country where CEMEX operates.

² Refers to the effects in the effective income tax rate associated with changes during the period in the amount of deferred income tax assets related to CEMEX's tax loss carryforwards.

The following table compares variations between the line item "Changes in deferred tax assets" as presented in the table above against the changes in deferred tax assets in the balance sheet for the years ended as of December 31, 2016 and 2015:

	2016		2015	
	Changes in the balance sheet	Amounts in reconciliation	Changes in the balance sheet	Amounts in reconciliation
Tax loss carryforwards generated and not recognized during the year	\$ -	(9,108)	-	(3,687)
Utilization of deferred tax assets to settle liabilities (note 19D)	-	-	(11,136)	-
Derecognition related to tax loss carryforwards recognized in prior years	(4,843)	(4,843)	(2,554)	(2,554)
Recognition related to unrecognized tax loss carryforwards	1,631	1,631	2,768	2,768
Foreign currency translation and other effects	4,068	-	1,860	-
Changes in deferred tax assets	\$ 856	(12,320)	(9,062)	(3,473)

19D) Uncertain tax positions and significant tax proceedings

As of December 31, 2016 and 2015, as part of short-term and long-term provisions and other liabilities (note 17), CEMEX has recognized provisions related to unrecognized tax benefits in connection with uncertain tax positions taken, in which it is deemed probable that the tax authority would differ from the position adopted by CEMEX. As of December 31, 2016, the tax returns submitted by some subsidiaries of CEMEX located in several countries are under review by the respective tax authorities in the ordinary course of business. CEMEX cannot anticipate if such reviews will result in new tax assessments, which would, should any arise, be appropriately disclosed and/or recognized in the financial statements.

A summary of the beginning and ending amount of unrecognized tax benefits for the years ended December 31, 2016, 2015 and 2014, excluding interest and penalties, is as follows:

	2016	2015	2014
Balance of tax positions at beginning of year	\$ 1,190	1,396	1,283
Additions for tax positions of prior years	200	134	216
Additions for tax positions of current year	90	71	278
Reductions for tax positions related to prior years and other items	(131)	(95)	(71)
Settlements and reclassifications	(163)	(204)	(317)
Expiration of the statute of limitations	(126)	(231)	(73)
Foreign currency translation effects	72	119	80
Balance of tax positions at end of year	\$ 1,132	1,190	1,396

Tax examinations can involve complex issues, and the resolution of issues may span multiple years, particularly if subject to negotiation or litigation. Although CEMEX believes its estimates of the total unrecognized tax benefits are reasonable, uncertainties regarding the final determination of income tax audit settlements and any related litigation could affect the amount of total unrecognized tax benefits in future periods. It is difficult to estimate the timing and range of possible changes related to the uncertain tax positions, as finalizing audits with the income tax authorities may involve formal administrative and legal proceedings. Accordingly, it is not possible to reasonably estimate the expected changes to the total unrecognized tax benefits over the next 12 months, although any settlements or statute of limitations expirations may result in a significant increase or decrease in the total unrecognized tax benefits, including those positions related to tax examinations being currently conducted.

As of December 31, 2016, the Company's most significant tax proceedings, some of which are associated with the uncertain tax positions described above are as follows:

- As of December 31, 2016, the U.S. Internal Revenue Service ("IRS") has concluded its audit for the year 2014. The final findings did not alter the originally filed tax return, which had no reserves set aside for any potential tax issue. In addition, there is any tax matter considered material to CEMEX's financial results related to the IRS' audits of prior periods. On May 18, 2016 and April 24, 2015, the IRS commenced its audits of the 2016 and 2015 tax years, respectively, under the Compliance Assurance Process. CEMEX has not identified any material audit issues and, as such, no reserves are recorded for either the 2016 or 2015 audits in CEMEX's financial statements.
- On July 7, 2011, the tax authorities in Spain notified CEMEX España of a tax audit process in Spain covering the tax years from and including 2006 to 2009. The tax authorities in Spain have challenged part of the tax losses reported by CEMEX España for such years. The tax authorities in Spain notified CEMEX España of fines in the aggregate amount of approximately €456 (US\$480 or \$9,938). The laws of Spain provide a number of appeals that could be filed against such penalty without making any payment until they are finally resolved. On April 22, 2014, CEMEX España filed appeals against such fines. At this stage, CEMEX does not consider probable an adverse resolution in this proceeding. Nonetheless, is difficult to assess with certainty the likelihood of an adverse result, and the appeals that CEMEX España has file could take an extended amount of time to be resolved, but if adversely resolved, it could have a material adverse impact on CEMEX's results of operations, liquidity or financial position.

- In November 2009, amendments to the income tax law in Mexico effective on January 1, 2010 modified the tax consolidation regime by requiring entities to determine income taxes as if the tax consolidation rules did not exist from 1999 onward, specifically, turning into taxable items: a) the difference between the sum of the equity of the controlled entities for tax purposes and the equity of the consolidated entity for tax purposes; b) dividends from the controlled entities for tax purposes to the Parent Company; and c) other transactions that represented the transfer of resources between the companies included in the tax consolidation. In December 2010, the tax authority in Mexico had granted the option to defer the calculation and payment of the income tax over the difference in equity explained above, until the subsidiary was excluded or the elimination of the tax consolidation. Nonetheless, in December 2013 new amendments to the income tax law in Mexico were approved effective January 1, 2014, which eliminated the tax consolidation regime and implemented prospectively a new voluntary integration regime that CEMEX did not join. As a result, beginning in 2014, each Mexican entity determines its income taxes based solely in its individual results. A period of up to 10 years was established for the settlement of the liability for income taxes related to the tax consolidation regime accrued until December 31, 2013, amount which considering the rules issued for the disconnection of the tax consolidation regime as well as payments made during 2013 amounted to approximately \$24,804 as of December 31, 2013. In 2014, considering payments incurred net of inflation adjustments, as of December 31, 2014, the balance payable was reduced to approximately \$21,429. Furthermore, in October 2015, a new tax reform approved by Congress (the “new tax reform”) granted entities the option to settle a portion of the liability for the exit of the tax consolidation regime using available tax loss carryforwards of the previously consolidated entities, considering a discount factor, and a tax credit to offset certain items of the aforementioned liability. Consequently, during 2015, as a result of payments made, the liability was further reduced to approximately \$16,244, which after the application of tax credits and assets for tax loss carryforwards (as provided by the new tax reform) which had a book value for CEMEX before discount of approximately \$11,136, as of December 31, 2015, the Parent Company’s liability was reduced to approximately \$3,971. In 2016, considering payments made during the year net of inflation adjustments, as of December 31, 2016, CEMEX reduced the balance payable to approximately \$3,236.
- On April 1, 2011, the Colombian Tax Authority notified CEMEX Colombia of a special proceeding rejecting certain deductions taken by CEMEX Colombia in its 2009 tax return. The Colombian Tax Authority assessed an increase in taxes to be paid by CEMEX Colombia in an amount in Colombian pesos equivalent to approximately US\$30 (\$622) and imposed a penalty in an amount in Colombian pesos equivalent to approximately US\$48 (\$995), both as of December 31, 2016. The Colombian Tax Authority argues that certain expenses are not deductible for fiscal purposes because they are not linked to direct revenues recorded in the same fiscal year, without considering that future revenue will be taxed under the income tax law in Colombia. CEMEX Colombia responded to the special proceeding on June 25, 2011. On December 15, 2011, the Colombian Tax Authority issued its final resolution, which confirmed the information in the special proceeding. CEMEX Colombia appealed such resolution on February 15, 2012. On January 17, 2013, the Colombian Tax Authority confirmed CEMEX Colombia its final resolution. On May 10, 2013, CEMEX Colombia appealed the final resolution before the Administrative Tribunal of Cundinamarca, which was admitted on June 21, 2013. On July 14, 2014, CEMEX Colombia was notified about an adverse resolution to its appeal, which confirms the official liquidation notified by the Colombian Tax Authority. On July 22, 2014, CEMEX Colombia filed an appeal against this resolution before the Colombian State Council (*Consejo de Estado*). On September 17, 2015, CEMEX Colombia presented arguments in second instance on this proceeding. At this stage of the proceeding, as of December 31, 2016, CEMEX does not consider probable an adverse resolution in this proceeding. Nonetheless, is difficult to assess with certainty the likelihood of an adverse result; but if adversely resolved, this proceeding could have a material adverse impact on CEMEX’s results of operations, liquidity or financial position.

20) STOCKHOLDERS' EQUITY

As of December 31, 2016 and 2015, stockholders' equity excludes investments in CPOs of the Parent Company held by subsidiaries of approximately \$327 (19,751,229 CPOs) and \$179 (18,991,576 CPOs), respectively, which were eliminated within "Other equity reserves".

20A) Common stock and additional paid-in capital

As of December 31, 2016 and 2015, the breakdown of common stock and additional paid-in capital was as follows:

	2016	2015
Common stock	\$ 4,162	4,158
Additional paid-in capital	123,174	115,466
	\$ 127,336	119,624

As of December 31, 2016 and 2015 the common stock of CEMEX, S.A.B. de C.V. was presented as follows:

	2016		2015		
	Shares ¹	Series A ²	Series B ²	Series A ²	Series B ²
Subscribed and paid shares		28,121,583,148	14,060,791,574	26,935,196,072	13,467,598,036
Unissued shares authorized for stock compensation programs		638,468,154	319,234,077	747,447,386	373,723,693
Shares that guarantee the issuance of convertible securities ³		5,218,899,920	2,609,449,960	5,020,899,920	2,510,449,960
		33,978,951,222	16,989,475,611	32,703,543,378	16,351,771,689

¹ As of December 31, 2016 and 2015, 13,068,000,000 shares correspond to the fixed portion, and 37,900,426,833 shares in 2016 and 35,987,315,067 shares in 2015, correspond to the variable portion.

² Series "A" or Mexican shares must represent at least 64% of CEMEX's capital stock; meanwhile, Series "B" or free subscription shares must represent at most 36% of CEMEX's capital stock.

³ Shares that guarantee the conversion of both the outstanding voluntary and mandatorily convertible securities and new securities issues (note 16B).

On March 31, 2016, stockholders at the annual ordinary shareholders' meeting approved resolutions to: (i) increase the variable common stock through the capitalization of retained earnings by issuing up to 1,616 million shares (539 million CPOs), which shares were issued, representing an increase in common stock of approximately \$4, considering a nominal value of \$0.00833 per CPO, and additional paid-in capital of approximately \$6,966; (ii) increase the variable common stock by issuing up to 297 million shares (99 million CPOs), which will be kept in the Parent Company's treasury to be used to preserve the anti-dilutive rights of note holders pursuant CEMEX's convertible securities (note 16B).

On March 26, 2015, stockholders at the annual ordinary shareholders' meeting approved resolutions to: (i) increase the variable common stock through the capitalization of retained earnings by issuing up to 1,500 million shares (500 million CPOs), which shares were issued, representing an increase in common stock of approximately \$4, considering a nominal value of \$0.00833 per CPO, and additional paid-in capital of approximately \$7,613; (ii) increase the variable common stock by issuing up to 297 million shares (99 million CPOs), which will be kept in the Parent Company's treasury to be used to preserve the anti-dilutive rights of note holders pursuant CEMEX's convertible securities (note 16B).

On March 20, 2014, stockholders at the annual ordinary shareholders' meeting approved resolutions to: (i) increase the variable common stock through the capitalization of retained earnings by issuing up to 1,404 million shares (468 million CPOs), which shares were issued, representing an increase in common stock of approximately \$4, considering a nominal value of \$0.00833 per CPO, and additional paid-in capital of approximately \$7,614; (ii) increase the variable common stock by issuing up to 387 million shares (129 million CPOs), which will be kept in the Parent Company's treasury to be used to preserve the anti-dilutive rights of note holders pursuant CEMEX's convertible securities (note 16B).

In connection with the long-term executive share-based compensation program (note 21) in 2016, 2015 and 2014, CEMEX issued approximately 53.9 million CPOs, 49.2 million and 61.1 million, respectively, generating an additional paid-in capital of approximately \$742 in 2016, \$655 in 2015 and \$765 in 2014 associated with the fair value of the compensation received by executives.

20B) Other equity reserves

As of December 31, 2016 and 2015 other equity reserves are summarized as follows:

	2016	2015
Cumulative translation effect, net of effects from perpetual debentures and deferred income taxes recognized directly in equity (notes 19B and 20D)	\$ 31,293	17,606
Cumulative actuarial losses	(10,934)	(6,915)
Effects associated with CEMEX's convertible securities ¹	4,761	4,761
Treasury shares held by subsidiaries	(327)	(179)
	\$ 24,793	15,273

¹ Represents the equity component upon the issuance of CEMEX's convertible securities described in note 16B, as well as the effects associated with such securities in connection with the change in the Parent Company's functional currency (note 2D). Upon conversion of these securities, the balances have been correspondingly reclassified to common stock and/or additional paid-in capital (note 16A).

For the years ended December 31, 2016, 2015 and 2014, the translation effects of foreign subsidiaries included in the statements of comprehensive income (loss) were as follows:

	2016	2015	2014
Foreign currency translation adjustment ¹	\$ 20,647	12,860	15,157
Foreign exchange fluctuations from debt ²	1,367	908	479
Foreign exchange fluctuations from intercompany balances ³	(10,385)	(5,801)	(15,135)
	\$ 11,629	7,967	501

¹ These effects refer to the result from the translation of the financial statements of foreign subsidiaries.

² Generated by foreign exchange fluctuations over a notional amount of debt in CEMEX, S.A.B. de C.V., associated with the acquisition of foreign subsidiaries and designated as a hedge of the net investment in foreign subsidiaries (note 2D).

³ Refers to foreign exchange fluctuations arising from balances with related parties in foreign currencies that are of a long-term investment nature considering that their liquidation is not anticipated in the foreseeable future and foreign exchange fluctuations over a notional amount of debt of a subsidiary of CEMEX España identified and designated as a hedge of the net investment in foreign subsidiaries.

20C) Retained earnings

The Parent Company's net income for the year is subject to a 5% allocation toward a legal reserve until such reserve equals one fifth of the common stock. As of December 31, 2016, the legal reserve amounted to \$1,804.

20D) Non-controlling interest and perpetual debentures

Non-controlling interest

Non-controlling interest represents the share of non-controlling stockholders in the results and equity of consolidated subsidiaries. As of December 31, 2016 and 2015, non-controlling interest in equity amounted to approximately \$19,876 and \$12,708, respectively.

On July 18, 2016, CEMEX Holdings Philippines, Inc. ("CHP"), an indirect wholly-owned subsidiary of CEMEX España, S.A., closed its initial offering of 2,337,927,954 new common shares, at a price of 10.75 Philippine Pesos per common share, in a public offering to investors in the Philippines and in a concurrent private placement to eligible investors outside of the Philippines. The number of common shares issued by CHP includes 304,947,124 shares which subscription option was exercised by the underwriters any time from June 30, 2016, the date of pricing, up to and including the day prior to the first day of trading of the shares on July 18, 2016. CHP's assets consist primarily of CEMEX's cement manufacturing assets in the Philippines. After giving effect to the offering, and the exercise of the subscription option, CEMEX Asian South East Corporation ("CASE"), an indirect wholly-owned subsidiary of CEMEX España, S.A., owns approximately 55.0% of CHP's outstanding common shares. CHP's common shares are listed on the Philippine Stock Exchange under the ticker CHP. The net proceeds from the offering of approximately US\$507 (considering an exchange rate of 46.932 Philippines Pesos per U.S. dollar on June 30, 2016), after deducting commissions and other offering expenses, were used by CEMEX for general corporate purposes, including the repayment of existing debt.

Perpetual debentures

As of December 31, 2016 and 2015, the balances of the non-controlling interest included approximately US\$438 (\$9,075) and US\$440 (\$7,581), respectively, representing the notional amount of perpetual debentures, which exclude any perpetual debentures held by subsidiaries.

Interest expense on the perpetual debentures, was included within “Other equity reserves” and amounted to approximately \$507 in 2016, \$432 in 2015 and \$420 in 2014, excluding in all the periods the amount of interest accrued by perpetual debentures held by subsidiaries.

CEMEX’s perpetual debentures have no fixed maturity date and there are no contractual obligations for CEMEX to exchange any series of its outstanding perpetual debentures for financial assets or financial liabilities. As a result, these debentures, issued entirely by Special Purpose Vehicles (“SPVs”), qualify as equity instruments and are classified within non-controlling interest, as they were issued by consolidated entities. In addition, subject to certain conditions, CEMEX has the unilateral right to defer indefinitely the payment of interest due on the debentures. The classification of the debentures as equity instruments was made under applicable IFRS. The different SPVs were established solely for purposes of issuing the perpetual debentures and were included in CEMEX’s consolidated financial statements.

As of December 31, 2016 and 2015, the detail of CEMEX’s perpetual debentures, excluding the perpetual debentures held by subsidiaries, was as follows:

Issuer	Issuance date	2016	2015	Repurchase option	Interest rate
		Nominal amount	Nominal amount		
C10-EUR Capital (SPV) Ltd	May 2007	€64	€64	Tenth anniversary	6.277%
C8 Capital (SPV) Ltd	February 2007	US\$135	US\$135	Eighth anniversary	LIBOR + 4.40%
C5 Capital (SPV) Ltd ¹	December 2006	US\$61	US\$61	Fifth anniversary	LIBOR + 4.277%
C10 Capital (SPV) Ltd	December 2006	US\$175	US\$175	Tenth anniversary	LIBOR + 4.71%

¹ Under the Credit Agreement, and previously under the Facilities Agreement, CEMEX is not permitted to call these debentures.

21) EXECUTIVE SHARE-BASED COMPENSATION

CEMEX has long-term restricted share-based compensation programs providing for the grant of CEMEX’s CPOs to a group of executives, pursuant to which, new CPOs are issued under each annual program over a service period of four years. The CPOs of the annual grant (25% of each annual program) are placed at the beginning of the service period in the executives’ accounts to comply with a one year restriction on sale. Under these programs, the Parent Company issued new shares for approximately 53.9 million CPOs in 2016, 49.2 million CPOs in 2015 and 61.1 million CPOs in 2014 that were subscribed and pending for payment in CEMEX’s treasury. As of December 31, 2016, there are approximately 75.7 million CPOs associated with these annual programs that are expected to be issued in the following years as the executives render services.

Beginning January 1, 2013, eligible executives belonging to the operations of CLH and subsidiaries, ceased to receive CEMEX’s CPOs and instead started receiving shares of CEMEX Latam, sharing significantly the same conditions of CEMEX’s plan also over a service period of four years. During 2016 and 2015, CEMEX Latam physically delivered 271,461 shares and 242,618 shares, respectively, corresponding to the vested portion of prior years’ grants, which were subscribed and held in CEMEX Latam’s treasury. As of December 31, 2016, there are approximately 540,359 shares of CEMEX Latam associated with these annual programs that are expected to be delivered in the following years as the executives render services.

In addition, in 2012, CEMEX initiated a share-based compensation program for a group of executives which was linked to both, internal performance conditions (increase in Operating EBITDA) and market conditions (increase in the price of CEMEX’s CPO), over a period of three years ending on December 31, 2014. Under this program, CEMEX granted awards over approximately 39.9 million CPOs, which became fully vested upon achievement of the annual internal and/or external performance conditions in each of the three years. CPOs vested were delivered, fully unrestricted, to active executives in March 2015.

The combined compensation expense related to the programs described above in 2016, 2015 and 2014, recognized in the operating results, amounted to approximately \$742, \$655 and \$730, respectively. The weighted average price per CPO granted during the period was approximately 13.79 pesos in 2016, 13.34 pesos in 2015 and 12.53 pesos in 2014. Moreover, the weighted average price per CEMEX Latam share granted during the period was approximately 13,423 colombian pesos in 2016, 14,291 colombian pesos in 2015 and 15,073 colombian pesos in 2014. As of December 31, 2016 and 2015, there were no options or commitments to make payments in cash to the executives based on changes in the market price of the Parent Company’s CPO or CLH’s shares.

22) EARNINGS (LOSS) PER SHARE

Basic earnings (loss) per share is calculated by dividing profit or loss attributable to ordinary equity holders of the Parent Company (the numerator) by the weighted average number of shares outstanding (the denominator) during the period. Shares that would be issued depending only by the passage of time should be included in the determination of the basic weighted average number of shares outstanding. Diluted earnings (loss) per share should reflect in both, the numerator and denominator, the assumption that convertible instruments are converted, that options or warrants are exercised, or that ordinary shares are issued upon the satisfaction of specified conditions, to the extent that such assumption would lead to a reduction in basic earnings per share or an increase in basic loss per share, otherwise, the effects of potential shares are not considered because they generate antidilution.

The amounts considered for calculations of earnings (loss) per share in 2016, 2015 and 2014 were as follows:

	2016	2015	2014
Denominator (thousands of shares)			
Weighted average number of shares outstanding ¹	40,624,905	39,905,168	38,506,999
Capitalization of retained earnings ²	1,616,112	1,616,112	1,616,112
Effect of dilutive instruments – mandatorily convertible securities (note 16B) ³	680,916	680,916	680,916
Weighted average number of shares – basic	42,921,933	42,202,196	40,804,027
Effect of dilutive instruments – share-based compensation (note 21) ³	226,972	171,747	293,657
Effect of potentially dilutive instruments – optionally convertible securities (note 16B) ³	4,367,895	4,870,774	5,963,148
Weighted average number of shares – diluted	47,516,800	47,244,717	47,060,832
Numerator			
Net income (loss) from continuing operations	\$ 14,183	854	(5,770)
Less: non-controlling interest net income	1,174	932	1,103
Controlling interest net income (loss) from continuing operations	13,009	(78)	(6,873)
Plus: after tax interest expense on mandatorily convertible securities	119	144	164
Controlling interest net income (loss) from continuing operations – for basic earnings per share calculations	13,128	66	(6,709)
Plus: after tax interest expense on optionally convertible securities	1,079	1,288	1,424
Controlling interest net income (loss) from continuing operations – for diluted earnings per share calculations	\$ 14,207	1,354	(5,285)
Net income from discontinued operations	\$ 1,024	1,279	90
Basic Earnings (Loss) Per Share			
Controlling Interest Basic Earnings (Loss) Per Share	\$ 0.33	0.03	(0.16)
Controlling Interest Basic Earnings (Loss) Per Share from continuing operations	0.31	–	(0.16)
Controlling Interest Basic Earnings (Loss) Per Share from discontinued operations	0.02	0.03	–
Controlling Interest Diluted Earnings (Loss) Per Share ⁴			
Controlling Interest Diluted Earnings (Loss) Per Share	\$ 0.33	0.03	(0.16)
Controlling Interest Diluted Earnings (Loss) Per Share from continuing operations	0.31	–	(0.16)
Controlling Interest Diluted Earnings (Loss) Per Share from discontinued operations	0.02	0.03	–

¹ The weighted average number of shares outstanding in 2015 and 2014 reflects the shares issued as a result of the capitalization of retained earnings declared on March 2015 and March 2014, as applicable (note 20A).

² According to resolution of the stockholders' meetings on March 31, 2016.

³ The number of CPOs to be issued under the executive share-based compensation programs, as well as the total amount of CPOs committed for issuance in the future under the mandatorily and optionally convertible securities, are computed from the beginning of the reporting period. The number of shares resulting from the executives' stock option programs is determined under the inverse treasury method.

⁴ For 2016, 2015 and 2014, the effects on the denominator and numerator of potential dilutive shares generate antidilution; therefore, there is no change between the reported basic and diluted earning (loss) per share.

23) COMMITMENTS

23A) Guarantees

As of December 31, 2016 and 2015, CEMEX, S.A.B. de C.V., had guaranteed loans of certain subsidiaries for approximately US\$2,887 (\$59,819) and US\$3,726 (\$64,195), respectively.

23B) Pledged assets

CEMEX transferred to a guarantee trust the shares of its main subsidiaries, including CEMEX México, S.A. de C.V., New Sunward Holding B.V. and CEMEX España, S.A., and entered into pledge agreements in order to secure payment obligations under the Credit Agreement (formerly under the Facilities Agreement) and other debt instruments entered into prior to the date of these agreements (note 16A).

As of December 31, 2016 and 2015, there are no liabilities secured by property, machinery and equipment.

23C) Other commitments

As of December 31, 2016 and 2015, CEMEX was party of other commitments for several purposes, including the purchase of fuel and energy, which estimated future cash flows over their maturity are presented in note 23E. A description of the most significant contracts is as follows:

- In connection with the beginning of full commercial operations of the Ventika S.A.P.I. de C.V. and the Ventika II S.A.P.I. de C.V. wind farms (jointly “Ventikas”) located in the Mexican state of Nuevo Leon with a combined generation capacity of 252 Megawatts (“MW”), CEMEX agreed to acquire a portion of the energy generated by Ventikas for its Mexican Plants for a period of 20 years, which began in April 2016. During 2016, Ventikas supplied approximately 6.4% (unaudited) of CEMEX’s overall electricity needs in Mexico. This agreement is for CEMEX’s own use and there is no intention of energy trading. CEMEX participated in Ventikas project as sponsor, main developer and equity investor. On December 15, 2016, CEMEX sold its interest in Ventikas to Infraestructura Energética Nova, S.A.B. de C.V. (“IEnova”), current owner of 100% of Ventikas, for approximately US\$21 (\$435). In addition, during 2016 and in accordance with the established contracts CEMEX also received a total of US\$35 (\$725) for development fee and other concepts. CEMEX will remain as the manager of the Ventikas facilities in exchange of a management fee.
- On July 30, 2012, CEMEX signed a 10-year strategic agreement with International Business Machines Corporation (“IBM”) pursuant to which IBM provides, among others, data processing services (back office) in finance, accounting and human resources; as well as Information Technology (“IT”) infrastructure services, support and maintenance of IT applications in the countries in which CEMEX operates.
- Beginning in February 2010, CEMEX agreed with EURUS the purchase of electric energy for a period of no less than 20 years. EURUS is a wind farm with an installed capacity of 250 MW operated by ACCIONA in the Mexican state of Oaxaca. For the years 2016, 2015 and 2014, EURUS supplied (unaudited) approximately 22.9%, 28.0% and 28.2%, respectively, of CEMEX’s overall electricity needs in Mexico during such year.
- CEMEX maintains a commitment initiated in April 2004 to purchase the energy generated by Termoeléctrica del Golfo (“TEG”) until 2027. CEMEX committed to supply TEG and another third-party electrical energy generating plant adjacent to TEG all fuel necessary for their operations, a commitment that has been hedged through four 20-year agreements entered with Petróleos Mexicanos (“PEMEX”), which terminate in 2024. For the years ended December 31, 2016, 2015 and 2014, TEG supplied (unaudited) approximately 66.3%, 69.3% and 69.6% respectively, of CEMEX’s overall electricity needs during such year for its cement plants in Mexico.

In regards with the above, in March 1998 and July 1999, CEMEX signed contracts with PEMEX providing that beginning in April 2004 PEMEX’s refineries in Cadereyta and Madero City would supply CEMEX with a combined volume of approximately 1.75 million tons of petroleum coke per year. As per the petroleum coke contracts with PEMEX, 1.2 million tons of the contracted volume will be allocated to TEG and the other energy producer and the remaining volume will be allocated to CEMEX’s operations in Mexico. By entering into the petroleum coke contracts with PEMEX, CEMEX expects to have a consistent source of petroleum coke throughout the 20-year term.

- In 2007, CEMEX Ostzement GmbH (“COZ”), CEMEX’s subsidiary in Germany, entered into a long-term energy supply contract with Vattenfall Europe New Energy Ecopower (“VENEE”), pursuant to which VENEE committed to supply energy to CEMEX’s Rüdersdorf plant for a period of 15 years starting on January 1, 2008. Based on the contract, each year COZ has the option to fix in advance the volume of energy in terms of MW that it will acquire from VENEE, with the option to adjust the purchase amount one time on a monthly and quarterly basis. According to the contract, COZ acquired (unaudited) approximately 27 MW in 2016, 2015 and 2014, and COZ expects to acquire between 26 and 28 MW per year starting in 2015 and thereafter. The contract, which establishes a price mechanism for the energy acquired, based on the price of energy future contracts quoted on the European Energy Exchange, did not require initial investments and was expected to be performed at a future date. Considering that the contract is for CEMEX’s own use and CEMEX sells any energy surplus as soon as actual energy requirements are known, regardless of changes in prices and thereby avoiding any intention of trading in energy, such contract is not recognized at its fair value.

23D) Commitments from employee benefits

In some countries, CEMEX has self-insured health care benefits plans for its active employees, which are managed on cost plus fee arrangements with major insurance companies or provided through health maintenance organizations. As of December 31, 2016, in certain plans, CEMEX has established stop-loss limits for continued medical assistance derived from a specific cause (e.g., an automobile accident, illness, etc.) ranging from 23 thousand dollars to 400 thousand dollars. In other plans, CEMEX has established stop-loss limits per employee regardless of the number of events ranging from 100 thousand dollars to 2.5 million dollars. The contingency for CEMEX if all employees qualifying for health care benefits required medical services simultaneously is significantly. However, this scenario is remote. The amount expensed through self-insured health care benefits was approximately US\$69 (\$1,430) in 2016, US\$69 (\$1,189) in 2015 and US\$64 (\$943) in 2014.

23E) Contractual obligations

As of December 31, 2016 and 2015, CEMEX had the following contractual obligations:

(U.S. dollars millions) Obligations	2016				2015	
	Less than 1 year	1-3 years	3-5 years	More than 5 years	Total	Total
Long-term debt	US\$ 37	2,675	2,221	6,446	11,379	13,303
Capital lease obligations ¹	18	36	33	20	107	135
Convertible notes ²	13	689	503	–	1,205	1,543
Total debt and other financial obligations ³	68	3,400	2,757	6,466	12,691	14,981
Operating leases ⁴	117	193	127	78	515	434
Interest payments on debt ⁵	678	1,240	969	1,109	3,996	4,659
Pension plans and other benefits ⁶	142	277	269	726	1,414	1,568
Purchases of raw materials, fuel and energy ⁷	584	816	739	2,301	4,440	3,963
Total contractual obligations	US\$ 1,589	5,926	4,861	10,680	23,056	25,605
	\$ 32,934	122,787	100,720	221,290	477,720	441,174

¹ Represent nominal cash flows. As of December 31, 2016, the NPV of future payments under such leases was US\$76 (\$1,576), of which, US\$24 (\$497) refers to payments from 1 to 3 years, US\$23 (\$477) refer to payments from 3 to 5 years, and US\$16 (\$332) refer payments of more than 5 years.

² Refers to the components of liability of the convertible notes described in note 16B and assumes repayment at maturity and no conversion of the notes.

³ The schedule of debt payments, which includes current maturities, does not consider the effect of any refinancing of debt that may occur during the following years. In the past, CEMEX has replaced its long-term obligations for others of a similar nature.

⁴ The amounts represent nominal cash flows. CEMEX has operating leases, primarily for operating facilities, cement storage and distribution facilities and certain transportation and other equipment, under which annual rental payments are required plus the payment of certain operating expenses. Rental expense was US\$121 (\$2,507) in 2016, US\$114 (\$1,967) in 2015 and US\$112 (\$1,657) in 2014.

⁵ Estimated cash flows on floating rate denominated debt were determined using the floating interest rates in effect as of December 31, 2016 and 2015.

⁶ Represents estimated annual payments under these benefits for the next 10 years (note 18), including the estimate of new retirees during such future years.

⁷ Future payments for the purchase of raw materials are presented on the basis of contractual nominal cash flows. Future nominal payments for energy were estimated for all contractual commitments on the basis of an aggregate average expected consumption of 3,124.1 GWh per year using the future prices of energy established in the contracts for each period. Future payments also include CEMEX’s commitments for the purchase of fuel.

24) CONTINGENCIES

24A) Provisions resulting from legal proceedings

CEMEX is involved in various significant legal proceedings, the resolutions of which are deemed probable and imply cash outflows or the delivery of other resources owned by CEMEX. As a result, certain provisions or losses have been recognized in the financial statements, representing the best estimate of the amounts payable or impaired assets. Therefore, CEMEX believes that it will not incur significant expenditure or losses in excess of the amounts recorded. As of December 31, 2016, the details of the most significant events giving effect to provisions or losses are as follows:

- Regarding the Maceo project in Colombia (note 14), on August 28, 2012, CEMEX Colombia signed a memorandum of understanding (“MOU”) with the representative of CI Calizas y Minerales S.A. (“CI Calizas”), which objective was the acquisition and transfer of assets comprising land, the mining concession and the environmental permit, the common shares of the entity Zona Franca Especial Cementera del Magdalena Medio S.A.S. (“Zomam”) (holder of the free trade zone concession), as well as the beneficial rights of a trust entered between Acción Sociedad Fiduciaria S.A., CI Calizas and Zomam, to execute the construction of the new cement plant. During 2016, CEMEX received reports through its anonymous reporting line, related to possible deficiencies in the purchase process of land where the cement plant is located. At this respect, CEMEX initiated an investigation and internal audit in accordance with its corporate governance policies and its code of ethics, confirming the irregularities in such process. As a result of this process, on September 23, 2016, CLH and CEMEX Colombia decided to terminate employment relationship with the Vice President of Planning of CLH and CEMEX Colombia, and with the Legal Counsel of CLH and CEMEX Colombia. In addition, effective the same date September 23, 2016, the Chief Executive Officer of CLH and President of CEMEX Colombia resigned to facilitate investigations. CEMEX and CLH have made these findings known to the appropriate authorities in Colombia. In order to strengthen the levels of leadership, management and best practices of corporate governance, on October 4, 2016, the Board of Directors of CLH decided to separate the roles of Chairman of the Board of Directors, Chief Executive Officer of CLH and President of CEMEX Colombia. Consequently, new appointments for Chairman of the Board of Directors of CLH, new Chief Executive Officer of CLH, new President of CEMEX Colombia and new Vice president of Planning of CLH, were effective immediately.

In addition, after signing the original MOU, a former shareholder of CI Calizas, who presumptively transferred its shares of CI Calizas two years before the signing of the MOU, was linked to a process of expiration of property initiated by Colombia’s Attorney General (the “Attorney General”). Amongst other measures, the Attorney General ordered the seizure and consequent suspension of the right to dispose the assets subject to the MOU. The shares of Zomam were fully acquired by CEMEX Colombia before the beginning of such process; nonetheless, the Attorney General decided to also include such shares in the action of expiration of property. To protect its interests and defend its rights as a third party acting in good faith and free of guilt, CEMEX Colombia joined the expiration of property process, attending promptly each procedural stages, under the policy of full cooperation with the Attorney General. Additionally, CEMEX Colombia requested the inadmissibility of the action of expiration of property against the assets subject to the MOU.

In July 2013, CEMEX Colombia signed with the provisional depository of the assets, designed by the Drugs National Department (*Dirección Nacional de Estupefacientes*, then depository of the affected assets), which functions after its liquidation were assumed by the Administrator of Special Assets (*Sociedad de Activos Especiales S.A.S.* or the “SAE”), a lease contract for a period of five years, which can be early terminated by the SAE, by means of which CEMEX Colombia was duly authorized to continue with the necessary works for the construction and operation of the plant (the “Lease Contract”). Likewise, the provisional depository granted a mandate to CEMEX Colombia for the same purpose.

On May 2, 2016, the Attorney General resolved to deny CEMEX’s Colombia inadmissibility request to the action for expiration of property mentioned above, considering that it should broaden the obtention of probatory elements and its analysis in order to take a resolution according to law. Given on the nature of the process, despite the Colombian law has defined terms for the several procedural stages, as of December 31, 2016, it is estimated that the issuance of a final resolution in respect to the applicability or not for the action of expiration of property over the aforementioned assets may take between five and ten years. As of December 31, 2016, the expiration of property process is in its investigation stage, awaiting the appointment of the guardians *ad litem* designated by the Attorney General. The appointment of the guardian *ad litem* would open the probatory stage, in which evidence will be tested.

The maturity of the Lease Contract is July 15, 2018, therefore, subject to the resolution of the ongoing legal process, CEMEX Colombia plans to negotiate and extension to such Lease Contract.

Moreover, in connection with Maceo's project, CEMEX Colombia also engaged the same representative of CI Calizas to also represent CEMEX Colombia in the acquisition of land adjacent to the plant, signing a new memorandum of understanding with this representative (the "MOU with the Representative"). CEMEX Colombia made cash advances to this representative for amounts in Colombian pesos equivalent to approximately US\$13.4 and has paid interest for approximately US\$1.2, in both cases considering the Colombian peso to U.S. dollar exchange rate as of December 31, 2016. These payments were deposited in the representative's personal bank account as advance payments for CI Calizas' assets and for the purchase in the name and on behalf of CEMEX Colombia under the MOU with the Representative of Maceo's project adjacent land, interest was paid by CEMEX Colombia according to the representative's instructions. Pursuant to the expiration of property process of the assets subject to the MOU and the failures to legally formalize the purchases under the MOU with the Representative, as of the reporting date, CEMEX Colombia is not the legitimate owner of the aforementioned assets. Moreover, considering that payments made by CEMEX Colombia for the purchase of property, shares and transfer of the mining contract and the environmental permit, as well as the land adjacent to the manufacturing plant, were made in violation of CEMEX's and CLH's internal policies, both CLH and CEMEX Colombia reported these facts to the Attorney General, providing the findings obtained during the investigations and internal audits, in order for the Attorney General to take any actions it may deemed relevant. On December 20, 2016, CEMEX Colombia filed an extension of the original complaint of September 23, 2016, with information and findings obtained to date.

Pursuant to a requirement of CEMEX, S.A.B. de C.V.'s Audit Committee and of CLH's Audit Commission, an audit firm, experts in forensic audits, was engaged in order to perform an independent investigation of Maceo's project. Additionally, CEMEX Colombia and CLH engaged an external lawyers firm with the aim of assisting CLH and CEMEX Colombia on the necessary collaboration with the Attorney General. Moreover, considering CLH's internal controls and usual best practices, management also engaged a team of external lawyers for its own legal advice. In relation to the irregularities detected in the purchase of CI Calizas' assets and the aforementioned additional land, which led to the execution of the internal audit, the termination of employment of certain executives and the report of these findings, there is an ongoing investigation by the Attorney General. As of the financial statements date, the investigation by the Attorney General is in its initial stage (inquiry), in which CEMEX is neither able to predict the actions that the Attorney General could implement, nor the possibility and degree in which any of these possible actions, including the termination of employment of the aforementioned executives, could have a material adverse effect on CEMEX's results of operation, liquidity or financial position. At this respect, under the presumption that CEMEX Colombia conducted itself in good faith, and considering that the rest of its investments made in the development of Maceo's project were made with the consent of the SAE and CI Calizas by virtue of the lease contract and the mandate, such investments are protected by Colombian law, under which, if a person builds on the property of a third party, with full knowledge of such third party, this third party may: a) take ownership of the plant, provided a corresponding indemnity to CEMEX Colombia, or otherwise, b) oblige CEMEX Colombia to purchase the land.

Considering this, CEMEX estimates that, during the term of the Lease Contract, it will be able to use and enjoy the land in order to operate the plant. Moreover, CEMEX considers that will be able to retain ownership of the plant and other refurbishments made. Nonetheless, had this not be the case, CEMEX Colombia would take all necessary actions to safeguard the project in Maceo. At this respect, there is the possibility that CEMEX considers remote, in which, in the event that the expiration of property over the assets subject to the MOU is ordered in favor of the State, the SAE may decide not to sell the assets to CEMEX Colombia, or, the SAE may elect to maintain ownership of the assets and not extend the Lease Contract. In both cases, under Colombian law, CEMEX Colombia would be entitled to an indemnity for the amount of its incurred investments. However, an adverse resolution at this respect could have a material adverse effect on the Company's results of operations, liquidity or financial condition.

In connection with the investigation and internal audit related to Maceo's project, and considering the findings and the legal opinions available, during the fourth quarter of 2016, CEMEX determined that: a) there is low probability of recover resources delivered under different memorandums of understanding for the purchase of the assets related to the project for an amount in Colombian pesos equivalent to approximately US\$14.3 (\$295), which were recognized as part of investments in progress, have been considered as contingent assets and therefore were reduced to zero recognizing an impairment loss for such amount against other expenses, net (nonetheless, on December 19, 2016, CEMEX filed a claim in the civil courts aiming that all property rights related to the additional land, some of which were assigned to the representative, would be effectively transferred to CEMEX); b) certain purchases of equipment installed in the plant were considered exempt for VAT purposes under the benefits of the free trade zone, however, as those assets were actually installed outside of the free trade zone's area, they lack of such benefits, therefore, CEMEX increased investments in progress against VAT accounts payable for approximately US\$9.2 (\$191); and c) the cancellation of the balance payable to CI Calizas under the MOU in connection with the acquisition of the assets for approximately US\$9.1 (\$188) against a reduction in investments in progress, all these amounts considering the Colombian peso to U.S. dollar exchange rate as of December 31, 2016.

On October 27, 2016, CLH communicated its decision to postpone the start-up of Maceo plant, for the following reasons that emerged from the audits already in progress: (i) there are pending permits required to finalize the road access to the plant at Maceo. In the event that those permits are obtained, CLH estimates that road access could be concluded and be ready for use until July 2017. Using the only existing access to the plant instead of the one under construction, would risk the safety of the operation and would probably limit the capacity to transport products from the plant at Maceo; (ii) CEMEX Colombia has requested an expansion to the free trade zone; to commission the new clinker line at Maceo without such expansion would risk CEMEX's capability to consolidate the fiscal benefits that would otherwise be available for CEMEX Colombia. It is possible that a final decision cannot be taken, with respect to the expansion of the free trade zone, due to the process of domain extinction already on course. With the objective of protecting the benefits to be had with the free trade zone, CLH will not commission the clinker line until the free trade zone is expanded to cover the totality of the cement plant at Maceo; and (iii) a subsidiary of CEMEX Colombia holds the environmental permit for project Maceo, however, the transfer of the mining concession was revoked by the Antioquia Mining Government Ministry in December 2013, hence was reassigned to CI Calizas. As a result, the environmental permit and the mining concession are in custody of different entities, contrary to standar situation.

In any case, CEMEX Colombia will continue using the assets under the Lease Contract and the mandate with the SAE.

CLH has also determined that the mining permit of the new plant partially overlaps with and integrally managed district. CEMEX Colombia has also confirmed that the environmental permit needs modifications in order to allow incrementing production up to 950 thousand tons per year. It is possible that this process could be affected by the process of expiration of property currently on course. CEMEX Colombia will continue to work to address these matters as soon as possible. At this respect, on December 13, 2016, Corantioquia, the regional environmental agency, communicated its negative resolution to CEMEX Colombia's request to increase the mining concession for up to 950 thousand tons per year. This resolution was appealed within the following ten days.

- In December 2016, CEMEX, S.A.B. de C.V. received subpoenas from the United States Securities and Exchange Commission ("SEC") seeking information that may allow determining whether there are violations of the U.S. Foreign Corrupt Practices Act in connection with Maceo's project. These subpoenas do not mean that the SEC has concluded that CEMEX has broken the law. CEMEX's and CLH's internal audits and investigations question certain payments made in connection with Maceo's project under the MOU and the MOU with the Representative described above. These payments were made to non-governmental individuals in connection with the purchase of the factory land, adjacent land, mining rights and the benefits of the free trade zone of Maceo's project, were made in breach of CEMEX and CLH established protocols. CEMEX has been cooperating with the SEC and the Attorney General and intends to continue cooperating fully with the SEC and the Attorney General. It is possible that the United States Department of Justice or investigatory entities in other jurisdictions may also open investigations into this matter. To the extent they do so, CEMEX intends to cooperate fully with those inquiries, as well. As of December 31, 2016, CEMEX is neither able to predict the duration, scope, or outcome of the SEC investigation or any other investigation that may arise, nor has elements to determine the probability that the SEC's investigation results may or may not have a material adverse impact on its consolidated results of operations, liquidity or financial position.

- In January 2007, the Polish Competition and Consumers Protection Office (the “Protection Office”) notified CEMEX Polska Sp. Z.o.o.(“CEMEX Polska”), a subsidiary of CEMEX in Poland, about the initiation of an antitrust proceeding against all cement producers in the country, including CEMEX Polska and another of CEMEX’s indirect subsidiaries in Poland. The Protection Office alleged that there was an agreement between all cement producers in Poland regarding prices, market quotas and other sales conditions; and that the producers exchanged information, all of which limited competition in the Polish cement market. CEMEX Polska denied that it had committed the practices listed by the Protection Office, and submitted formal comments and objections gathered during the proceeding supporting its position that its activities were in line with Polish competition law. In December 2009, the Protection Office issued a resolution imposing fines on a number of Polish cement producers, including CEMEX Polska for the period of 1998 to 2006. The fine imposed on CEMEX Polska amounted to the equivalent of approximately US\$27 (\$559). In December 2009, CEMEX Polska filed an appeal before the Polish Court of Competition and Consumer Protection in Warsaw (the “First Instance Court”). In December 2013, the First Instance Court reduced the penalty imposed on CEMEX Polska to the equivalent of approximately US\$24 (\$497). In May 2014, CEMEX Polska filed an appeal against the First Instance Court judgment before the Appeals Court in Warsaw. After several hearings, on March 11, 2016, the Appeals Court reopened the hearing phase which had been closed in February 2016. The Appeals Court will ask certain questions to the Polish Constitutional Tribunal regarding the conformity with the Polish Constitution of the calculation of the reduced penalty imposed on CEMEX Polska. The above-mentioned penalty is not enforceable until the Appeals Court issues its final judgment and if the penalty is maintained in the final resolution, then it will be payable within 14 calendar days of the announcement. As of December 31, 2016, CEMEX had accrued a provision equivalent to approximately US\$24 (\$497), representing the best estimate in connection with this resolution. CEMEX Polska estimates that the final judgment will be issued during the second half of 2018. As of December 31, 2016, CEMEX does not expect this matter would have a material adverse impact on its results of operations, liquidity or financial condition.
- In August 2005, Cartel Damages Claims, S.A. (“CDC”), a Belgian company established in the aftermath of the German cement cartel investigation that took place from July 2002 to April 2003 with the purpose of purchasing potential damage claims from consumers and pursuing those claims against the cartel participants, filed a lawsuit in the District Court in Düsseldorf, Germany, against CEMEX Deutschland AG, a subsidiary of CEMEX in Germany, and other German cement companies in respect of damage claims relating to alleged price and quota fixing by German cement companies between 1993 and 2002. CDC has brought claims for an amount equivalent of approximately US\$142. After several resolutions by the District Court in Düsseldorf over the years, court hearings and appeals from the defendants, in December 2013 the District Court in Düsseldorf issued a resolution by means of which all claims brought to court by CDC were dismissed on the grounds that the way CDC obtained the claims was illegal given the limited risk it faced for covering the litigation costs and that the acquisition of the claims also breached rules that make the provision of legal advice subject to public authorization. In January 2014, CDC filed an appeal to the Higher Regional Court in Düsseldorf. On February 18, 2015, the Court of Appeals in Düsseldorf fully rejected CDC’s appeal and maintained the first instance decision. The Court of Appeals in Düsseldorf expressly did not admit a second appeal against this decision. The Court of Appeals decision is final and binding. Therefore, in 2015, CEMEX canceled the provision accrued until December 31, 2014 of approximately US\$36.
- As of December 31, 2016, CEMEX had accrued environmental remediation liabilities in the United Kingdom pertaining to closed and current landfill sites for the confinement of waste, representing the NPV of such obligations for an amount in British pounds sterling equivalent to approximately US\$161 (\$3,345). Expenditure was assessed and quantified over the period in which the sites have the potential to cause environmental harm, which was accepted by the regulator as being up to 60 years from the date of closure. The assessed expenditure included the costs of monitoring the sites and the installation, repair and renewal of environmental infrastructure.
- As of December 31, 2016, CEMEX had accrued environmental remediation liabilities in the United States for an amount of approximately US\$34 (\$704), related to: a) the disposal of various materials in accordance with past industry practice, which might currently be categorized as hazardous substances or wastes, and b) the cleanup of sites used or operated by CEMEX, including discontinued operations, regarding the disposal of hazardous substances or waste, either individually or jointly with other parties. Most of the proceedings are in the preliminary stages, and a final resolution might take several years. Based on the information developed to date, CEMEX’s does not believe that it will be required to spend significant sums on these matters in excess of the amounts previously recorded. The ultimate cost that may be incurred to resolve these environmental issues cannot be assured until all environmental studies, investigations, remediation work and negotiations with, or litigation against, potential sources of recovery have been completed.

24B) Other contingencies from legal proceedings

CEMEX is involved in various legal proceedings, which have not required the recognition of accruals, considering that the probability of loss is less than probable or remote. In certain cases, a negative resolution may represent the revocation of an operating license, in which case, CEMEX may experience a decrease in future revenues, an increase in operating costs or a loss. Nonetheless, until all stages in the procedures are exhausted in each proceeding, CEMEX cannot assure the obtention of a final favorable resolution. As of December 31, 2016, the most significant events with a quantification of the potential loss, when it is determinable and would not impair the outcome of the relevant proceeding, were as follows:

- In September 2014, the National Markets and Competition Commission (*Comisión Nacional de los Mercados y la Competencia* or the “CNMC”), in the context of an investigation of the Spanish cement, ready-mix concrete and related products industry regarding alleged anticompetitive practices, inspected one of CEMEX’s facilities in Spain. In January 2015, CEMEX España Operaciones, S.L.U., was notified of the initiation by the CNMC of a disciplinary proceeding for alleged prohibited conducts, and in November 2015, such entity was notified of alleged anticompetitive practices in 2009 for the cement market and the years 2008, 2009, 2012, 2013 and 2014 for the ready-mix market. CEMEX España Operaciones, S.L.U. believes that it has not breached any applicable laws. On September 8, 2016, CEMEX España Operaciones, S.L.U. was notified of a decision issued by the CNMC pursuant to which CEMEX España Operaciones, S.L.U. has been required to pay a fine of approximately €6 (US\$7 or \$145). CEMEX España Operaciones, S.L.U. filed an appeal against the CNMC resolution and requested the suspension of payment of the fine. As of December 31, 2016 the resolution is still pending.
- On February 9, 2014, the Egyptian Ministry of Finance’s Appeals Committee (the “Appeals Committee”) notified a resolution to Assiut Cement Company (“ACC”), a subsidiary of CEMEX in Egypt, by means of which the Egyptian Tax Authority is requiring the payment of a development levy on clay applied to the Egyptian cement industry in amounts equivalent as of December 31, 2016 of approximately US\$17 (\$352) for the period from May 5, 2008 to November 30, 2011. On March 10, 2014, ACC filed a claim before the North Cairo Court requesting the nullification of the Appeals Committee decision. In parallel, ACC filed a request before the Ministerial Committee for Resolution of Investment Disputes (the “Ministerial Committee”) claiming non-entitlement of the Egyptian Tax Authority to the levy on clay during the reference period, and from cement produced using imported clinker. On September 28, 2015, ACC was notified of a resolution by the Ministerial Committee pursuant to which the Egyptian Tax Authority would be instructed to cease claiming ACC the aforementioned payment of the levy on clay. It was further decided that the levy on clay should not be imposed on imported clinker. The Ministerial Committee’s resolution strongly supports ACC position in this case, given the fact that it is legally binding on the Egyptian Tax Authority. During 2016 the Ministerial Committee’s resolution was submitted to the Egyptian Tax Authority, which in turn issued a settlement memorandum whereby it confirmed and recognized the Ministerial Committee’s resolution. Nonetheless, on May 28, 2016, the Egyptian Tax Authority challenged before the North Cairo Court ACC’s right to cancel the levy on clay. ACC expects that the document to be submitted by the attorney for the State at the upcoming North Cairo Court’s session scheduled for October 10, 2016 and December 27, 2016, shall request that the jointly reviewed cases to be struck off the court’s roll, but no session has yet been scheduled before the Cairo Administrative Judiciary Court in order to review the two referred cases. At this stage, as of December 31, 2016, CEMEX does not expect a material adverse impact due to this matter in its results of operations, liquidity or financial position.
- On September 5, 2013, the Colombian Superintendence of Industry and Commerce (*Superintendencia de Industria y Comercio* the “SIC”) opened an investigation against five cement companies and 14 directors of those companies, including CEMEX Colombia, its former legal representative and the current President of CEMEX Colombia, for allegedly breaching rules which prohibit: a) to limit free competition and/or determining or maintaining unfair prices; b) direct or indirect price fixing agreements; and c) any market sharing agreements between producers or distributors. In connection with the 14 executives under investigation, the SIC may sanction any individual who collaborated, facilitated, authorized, executed or tolerated behavior that violates free competition rules. On October 7, 2013, CEMEX Colombia responded the resolution and submitted evidence in its relief. If the alleged infringements are substantiated, penalties may be imposed by the SIC against each company being declared in breach of the competition rules for an equivalent of up to US\$19 (\$394) for each violation, and an equivalent of up to US\$1 (\$21) against those individuals found responsible. CEMEX cannot determine when a final decision by the SIC would be issued. As of December 31, 2016, CEMEX is not able to assess the likelihood of the SIC imposing any measures and/or penalties against CEMEX Colombia, but if any penalties are imposed, would not have a material adverse effect on CEMEX’s results of operations, liquidity or financial condition.

- On September 13, 2012, in connection with a lawsuit submitted to a first instance court in Assiut, Egypt and notified on May 23, 2011 to ACC, the first instance court of Assiut issued a resolution in order to nullify the Share Purchase Agreement (the “SPA”) pursuant to which CEMEX acquired a controlling interest in ACC. In addition, on April 7, 2011 and March 6, 2012, lawsuits seeking, among other things, the annulment of the SPA were filed by different plaintiffs, including 25 former employees of ACC, before Cairo’s State Council. On January 20, 2014, the Appeals Court in Assiut, Egypt, issued a judgment revoking the court’s resolution and referring the matter to an administrative court in Assiut (the “Assiut Administrative Court”). Moreover, on February 23, 2014, in connection with the above, three plaintiffs filed a lawsuit before the Assiut Administrative Judiciary Court requesting the cancellation of the resolutions taken by the shareholders of Metallurgical Industries Company (“MIC”) in connection with the sale of ACC’s shares and negotiation of the SPA. In a related matter, on April 22, 2014, the Presidential Decree on Law No. 32 of 2014 (“Law 32/2014”), which regulates legal actions to challenge agreements entered into by the Egyptian State and third parties, become effective, but still subject to approval by the House of Representatives. On October 15, 2014, the Assiut Administrative Court referred the case to the Administrative Judiciary Court of Assiut. During March 2015, the Court’s State Commissioner Authority (“SCA”) recommended the 7th and 8th Circuits of Cairo’s State Council Administrative Judiciary Court to suspend the proceedings until the High Constitutional Court pronounces itself with regards to the challenges against the constitutionality of the Law 32/2014. At a session held on September 3, 2015, the 7th Circuit of Cairo’s State Council Administrative Judiciary Court accepted the SCA’s report recommendation and ruled for staying the proceedings until the High Constitutional Court pronounces itself with regards to the challenges against the constitutionality of Law No. 32/2014.
- In connection with the preceding paragraph, on January 26, 2016, the 8th Circuit of Cairo’s State Council Administrative Judiciary Court ruled for the dismissal of this case considering the plaintiff’s lack of standing. This ruling was not appealed by the plaintiff accordingly; such ruling is final and definitive. In October 2015, the SCA, recommended that due to the absence of geographical jurisdiction to review the case, it should be referred to the 7th Circuit of “Economic and Investment Disputes” of Cairo’s State Council Administrative Judiciary Court. On February 24, 2016, the Assiut Administrative Judiciary Court decided to refer the case to the First Circuit of “Economic and Investment Disputes” of Cairo’s State Council Administrative Judiciary Court, which as of the reporting date, has not notified ACC of any session to review the case. During October and November 2015, parliamentary elections to the House of Representatives took place and the elected House of Representatives started to hold its sessions on January 10, 2016, as expected, and Law 32/2014 was discussed and ratified on January 20, 2016, as legally required. As of December 31, 2016, several constitutional challenges have been filed against Law 32/2014 before the High Constitutional Court. In consideration of the aforementioned, after several resolutions, hearings and appeals in these cases over the years, as of December 31, 2016, CEMEX is not able to assess the likelihood of an adverse resolution regarding these lawsuits nor is able to assess if the Constitutional Court will dismiss Law 32/2014, but, regarding the lawsuits, if adversely resolved, CEMEX does not believe the resolutions in the first instance would have an immediate material adverse impact on CEMEX’s operations, liquidity and financial condition. However, if CEMEX exhausts all legal recourses available, a final adverse resolution of these lawsuits, or if the Constitutional Court dismisses Law 32/2014, this could adversely impact the ongoing matters regarding the SPA, which could have a material adverse impact on CEMEX’s operations, liquidity and financial condition.
- In 2012, in connection with a contract (the “Quarry Contract”) entered into in 1990 by CEMEX Granulats Rhône Méditerranée (“CEMEX GRM”), one of CEMEX’s subsidiaries in France, with SCI La Quinoniere (“SCI”) pursuant to which CEMEX GRM has drilling rights in order to extract reserves and do quarry remediation at a quarry in the Rhône region of France, SCI filed a claim against CEMEX GRM for breach of the Quarry Contract, requesting the rescission of the Quarry Contract and damages plus interest for an amount in euros equivalent to approximately US\$58 (\$1,202), resulting from CEMEX GRM having partially filled the quarry allegedly in breach of the terms of the Quarry Contract. After many hearings, on May 18, 2016, CEMEX GRM was notified about an adverse judgment in this matter by the corresponding court in Lyon, France, primarily ordering the rescission of the Quarry Contract and the aforementioned payment for damages plus interest. On June 6, 2016, CEMEX GRM filed an appeal with the appeals court in Lyon, France and on September 5, 2016, CEMEX GRM filed the first submission of the full appeal together with its arguments and evidence. Proceedings on any additional hearings regarding this appeal or any other actions CEMEX GRM may initiate in this matter could take approximately 18 months to be finalized. As of December 31, 2016, CEMEX considers that an adverse resolution on this matter would have a material adverse impact on CEMEX’s results of operations, liquidity and financial condition.

- On June 21, 2012, one of CEMEX's subsidiaries in Israel was notified about a class action suit against it and other three companies filed by a homeowner who built his house with concrete supplied by CEMEX in October of 2010. The class action argues that the concrete supplied to him did not meet with the Israeli ready-mix strength standard requirements and that as a result CEMEX acted unlawfully toward all of its customers who received concrete that did not comply with such standard requirements. As per the application, the plaintiff claims that the supply of the alleged non-conforming concrete has caused financial and non-financial damages to those customers, including the plaintiff. CEMEX presumes that the class action would represent the claim of all the clients who purchased the alleged non-conforming concrete from its subsidiary in Israel during the past 7 years, the limitation period according to applicable laws in Israel. The damages that could be sought are equivalent to approximately US\$71 (\$1,471). CEMEX's subsidiary submitted a formal response to the corresponding court. The applicant requested the court to join all claims brought by him. In a hearing held on December 20, 2015, the preliminary proceeding was completed and the court set dates for hearing evidence on May 8, 10 and 16, 2016. Moreover, the court decided to join together all claims against all four companies, including CEMEX's subsidiary in Israel, in order to simplify and shorten court proceedings, however, the court has not formally decided to join together all claims. As of December 31, 2016, CEMEX's subsidiary in Israel is not able to assess the likelihood of the class action application being approved or, if approved, of an adverse result, such as an award for damages in the full amount that could be sought, but if adversely resolved CEMEX does not believe that the final resolutions would have a material adverse impact on its results of operations, liquidity or financial condition.
- On June 5, 2010, the District of Bogota's Environmental Secretary (the "Environmental Secretary"), ordered the suspension of CEMEX Colombia's mining activities at El Tunjuelo quarry, located in Bogota, as well as those of other aggregates producers in the same area. The Environmental Secretary alleged that during the past 60 years, CEMEX Colombia and the other companies have illegally changed the course of the Tunjuelo River, have used the percolating waters without permission and have improperly used the edge of the river for mining activities. In connection with the injunction, on June 5, 2010, CEMEX Colombia received a notification from the Environmental Secretary informing the initiation of proceedings to impose fines against CEMEX Colombia based on the above mentioned alleged environmental violations. CEMEX Colombia responded to the injunction by requesting that it be revoked based on the fact that the mining activities at El Tunjuelo quarry are supported by the authorizations required by the applicable environmental laws and that all the environmental impact statements submitted by CEMEX Colombia have been reviewed and permanently authorized by the Ministry of Environment and Sustainable Development. On June 11, 2010, the local authorities in Bogota, in compliance with the Environmental Secretary's decision, sealed off the mine to machinery and prohibited the removal of CEMEX's aggregates inventory. Although there is not an official quantification of the possible fine, the Environmental Secretary has publicly declared that the fine could be up to the equivalent of approximately US\$95 (\$1,968). The temporary injunction does not currently compromise the production and supply of ready-mix concrete to CEMEX's clients in Colombia. At this stage, CEMEX is not able to assess the likelihood of an adverse result or potential damages which could be borne by CEMEX Colombia. An adverse resolution on this case could have a material adverse impact on CEMEX's results of operations, liquidity or financial condition.
- In January 2009, in connection with federal quarry permits granted to CEMEX Construction Materials Florida, LLC ("CEMEX Florida"), one of CEMEX's subsidiaries in the United States, a judge from the U.S. District Court for the Southern District of Florida ordered the withdrawal of the federal quarry permits of CEMEX Florida's SCL, FEC and Kendall Krome quarries, in the Lake Belt area in South Florida. The judge ruled that there were deficiencies in the procedures and analysis undertaken by the Army Corps of Engineers (the "Engineers") in connection with the issuance of the permits. In January 2010, the Engineers concluded a review and issued a decision supporting the issuance of new federal quarry permits for the SCL and FEC quarries. In February 2010, new quarry permits were granted to the SCL and FEC quarries. A number of potential environmental impacts must be addressed at the wetlands located at the Kendall Krome site before a new federal quarry permit may be issued for mining at that quarry. If CEMEX Florida is unable to maintain the new Lake Belt permits, CEMEX Florida would need to source aggregates, to the extent available, from other locations in Florida or import aggregates. The cessation or significant restriction of quarrying operations in the Lake Belt area could have a significant adverse impact on CEMEX's results of operations, liquidity or financial condition.

- In connection with an action brought against CEMEX Colombia in 2005, on July 28, 2015, the Superior Court of Bogota upheld its resolution in respect that CEMEX Colombia was not responsible for the premature distress of the concrete slabs of the Autopista Norte line of Transmilenio system and as such finalized such action. In addition, six actions related to the premature distress were brought against CEMEX Colombia, of which, the Cundinamarca Administrative Court nullified five of these actions and currently, only one remains outstanding. In addition, the Urban Development Institute (“UDI”) filed another action alleging that CEMEX Colombia made deceiving advertisements on the characteristics of the flowable fill used in the construction of the line. CEMEX Colombia participated in this project solely and exclusively as supplier of the ready-mix concrete and flowable fill, which were delivered and received to the satisfaction of the contractor, fulfilling all the required technical specifications, and did not participate or had any responsibility on the design or technical specifications of construction. On May 31, 2016, the Civil Court of Bogota settled the action filed by the UDI ruling that the flowable fill was not what caused the damage to the slabs but by design changes when executing the road without consulting the original designer and to the lack of drains. The UDI filed an appeal against the court’s ruling. On December 7, 2016, the Superior Court of Bogota upheld the Civil Court of Bogota’s decision. As of December 31, 2016, CEMEX is not able to accurately assess the likelihood of an adverse result in these proceedings, but if adversely resolved, they could have a material adverse impact on CEMEX’s results of operations, liquidity or financial condition.

In connection with the legal proceedings presented in notes 24A and 24B, the exchange rates as of December 31, 2016 used by CEMEX to convert the amounts in local currency to their equivalents in dollars were the official closing exchange rates of approximately 4.21 Polish zloty per dollar, 0.95 Euro per dollar, 0.81 British pound sterling per dollar, 3,000.72 Colombian pesos per dollar and 3.85 Israelite shekel per dollar.

In addition to the legal proceedings described above in notes 24A and 24B, as of December 31, 2016, CEMEX is involved in various legal proceedings of minor impact that have arisen in the ordinary course of business. These proceedings involve: 1) product warranty claims; 2) claims for environmental damages; 3) indemnification claims relating to acquisitions or divestitures; 4) claims to revoke permits and/or concessions; and 5) other diverse civil actions. CEMEX considers that in those instances in which obligations have been incurred, CEMEX has accrued adequate provisions to cover the related risks. CEMEX believes these matters will be resolved without any significant effect on its business, financial position or results of operations. In addition, in relation to certain ongoing legal proceedings, CEMEX is sometimes able to make and disclose reasonable estimates of the expected loss or range of possible loss, as well as disclose any provision accrued for such loss, but for a limited number of ongoing legal proceedings, CEMEX may not be able to make a reasonable estimate of the expected loss or range of possible loss or may be able to do so but believes that disclosure of such information on a case-by-case basis would seriously prejudice CEMEX’s position in the ongoing legal proceedings or in any related settlement discussions. Accordingly, in these cases, CEMEX has disclosed qualitative information with respect to the nature and characteristics of the contingency, but has not disclosed the estimate of the range of potential loss.

25) RELATED PARTIES

All significant balances and transactions between the entities that constitute the CEMEX group have been eliminated in the preparation of the consolidated financial statements. These balances with related parties resulted primarily from: (i) the sale and purchase of goods between group entities; (ii) the sale and/or acquisition of subsidiaries’ shares within the CEMEX group; (iii) the invoicing of administrative services, rentals, trademarks and commercial name rights, royalties and other services rendered between group entities; and (iv) loans between related parties. Transactions between group entities are conducted on arm’s length terms based on market prices and conditions. When market prices and/or market conditions are not readily available, CEMEX conducts transfer pricing studies in the countries in which it operates to assure compliance with regulations applicable to transactions between related parties. The definition of related parties includes entities or individuals outside the CEMEX group, which, pursuant to their relationship with CEMEX, may take advantage of being in a privileged situation. Likewise, this applies to cases in which CEMEX may take advantage of such relationships and obtain benefits in its financial position or operating results. CEMEX’s transactions with related parties are executed under market conditions.

As of December 31, 2016, except for the top management executives, CEMEX has not identified other transactions between related parties:

- For the years ended December 31, 2016, 2015 and 2014, the aggregate amount of compensation of CEMEX board of directors, including alternate directors, and top management executives, was approximately US\$43 (\$802), US\$36 (\$579) and US\$68 (\$909), respectively. Of these amounts, approximately US\$32 (\$595) in 2016, US\$25 (\$402) in 2015 and US\$35 (\$464) in 2014, was paid as base compensation plus performance bonuses, including pension and post-employment benefits. In addition, approximately US\$11 (\$207) in 2016, US\$11 (\$177) in 2015, and US\$33 (\$444) in 2014 of the aggregate amount in each year, corresponded to allocations of CPOs under CEMEX's executive share-based compensation programs. In 2014, the amount of CPOs allocated included approximately US\$4 (\$52), of compensation earned under the program that is linked to the fulfillment of certain performance conditions and that was payable through March 2015 to then still active members of CEMEX, S.A.B. de C.V.'s board of directors and top management executives (note 21).

26) SUBSEQUENT EVENTS

- In connection with the Offer to purchase TCL's shares (note 13A), on January 9, 2017, Sierra presented a change and variation notice making an amended offer (the "Amended Offer") to the Offer to acquire up to 132,616,942 ordinary shares in TCL. Pursuant to the Amended Offer, Sierra offered TT\$5.07 in cash per TCL share (the "Revised Offer Price") and, except for shareholders of TCL in Barbados, shareholders of TCL will have the option to be paid for their TCL shares in TT\$ or in dollars. Full acceptance of the Offer, as amended by the Amended Offer, in TT\$ would result in a cash payment by Sierra of approximately TT\$672 million (US\$101 or \$2,093). The Revised Offer Price represents a premium of 50% over the December 1, 2016 closing price of TCL's shares in the Trinidad and Tobago Stock Exchange. Among other conditions, the Amended Offer was still conditional on Sierra acquiring at least an amount of TCL shares that would allow CEMEX to consolidate TCL for financial reporting purposes. Unless extended, the Amended Offer period is expected to close on January 24, 2017. Sierra does not currently expect to extend the Offer period after January 24, 2017. All other terms and conditions of the Offer not modified by the Amended Offer remained unchanged.

Moreover, on January 24, 2017, Sierra communicated that having received the Foreign Investment License from the Trinidad and Tobago Ministry of Finance, all terms and conditions have been complied with or waived and the Offer has accordingly been declared unconditional. Based on the latest information available, TCL shares deposited in response to the Offer together with Sierra's existing shareholding in TCL represents approximately 67.39% of the outstanding TCL shares. Sierra intends to take up all TCL shares deposited pursuant to the Offer up to the maximum number of the Offered Shares. As of the announcement date, the total consideration to be paid by Sierra for the TCL shares it will take up pursuant to the Offer is approximately US\$79 (\$1,637). Such consideration could increase once the final tally of TCL shares deposited is determined and the Offer period closes in Jamaica on February 7, 2017 according to local regulation. After conclusion of the Offer, CEMEX will consolidate TCL for financial reporting purposes.

- On January 25, 2017, in connection with CEMEX's investment in GCC shares (notes 12A and 13A), the Parent Company and GCC announced that they will commence offerings that are expected to include an aggregate of up to 76,483,332 shares of the common stock (the "Shares") of GCC currently owned by CEMEX at a price range of between 95.00 to 115.00 pesos per share, which includes 9,976,087 shares available to the underwriters of the offerings pursuant to a 30-day option to purchase such shares expected to be granted to them by CEMEX. Such offerings are expected to be comprised of Shares to be offered: (a) in a public offering to investors in Mexico conducted through the BMV; and (b) in a concurrent private placement to eligible investors outside of Mexico. The size and timing of the offerings will depend on market and other conditions.
- In connection with the sale of the Concrete Pipe Business in the United States to Quikrete described in note 4A, on January 31, 2017, after the satisfaction of certain conditions precedent including approval from regulators. CEMEX announced the closing of the transaction according to the agreed upon price conditions.

Notes to the consolidated
financial statements

27) MAIN SUBSIDIARIES

The main subsidiaries as of December 31, 2016 and 2015 were as follows:

Subsidiary	Country	% Interest	
		2016	2015
CEMEX México, S. A. de C.V. ¹	Mexico	100.0	100.0
CEMEX España, S.A. ²	Spain	99.9	99.9
CEMEX, Inc.	United States of America	100.0	100.0
CEMEX Latam Holdings, S.A. ³	Spain	74.3	74.4
CEMEX (Costa Rica), S.A.	Costa Rica	99.1	99.1
CEMEX Nicaragua, S.A.	Nicaragua	100.0	100.0
Assiut Cement Company	Egypt	95.8	95.8
CEMEX Colombia, S.A. ⁴	Colombia	99.9	99.7
Cemento Bayano, S.A. ⁵	Panama	100.0	99.9
CEMEX Dominicana, S.A.	Dominican Republic	100.0	100.0
CEMEX de Puerto Rico Inc.	Puerto Rico	100.0	100.0
CEMEX France Gestion (S.A.S.)	France	100.0	100.0
CEMEX Holdings Philippines ⁶	Philippines	55.0	–
Solid Cement Corporation ⁶	Philippines	100.0	100.0
APO Cement Corporation ⁶	Philippines	100.0	100.0
CEMEX Holdings (Malaysia) Sdn Bhd	Malaysia	100.0	100.0
CEMEX U.K.	United Kingdom	100.0	100.0
CEMEX Deutschland, AG.	Germany	100.0	100.0
CEMEX Czech Republic, s.r.o.	Czech Republic	100.0	100.0
CEMEX Polska sp. Z.o.o.	Poland	100.0	100.0
CEMEX Holdings (Israel) Ltd.	Israel	100.0	100.0
CEMEX SIA	Latvia	100.0	100.0
CEMEX Topmix LLC, CEMEX Supermix LLC and CEMEX Falcon LLC ⁷	United Arab Emirates	100.0	100.0
CEMEX AS	Norway	100.0	100.0
Cimentos Vencemos do Amazonas, Ltda.	Brazil	100.0	100.0
Readymix Argentina, S.A.	Argentina	100.0	100.0
CEMEX Jamaica	Jamaica	100.0	100.0
Neoris N.V. ⁸	The Netherlands	99.8	99.8
CEMEX International Trading, LLC ⁹	United States of America	100.0	100.0
Transenergy, Inc. ¹⁰	United States of America	100.0	100.0

¹ CEMEX México, S.A. de C.V. is the indirect holding company of CEMEX España, S.A. and subsidiaries.

² CEMEX España, S.A. is the indirect holding company of most of CEMEX's international operations.

³ The interest reported includes own shares held at CLH's treasury.

⁴ Represents our 99.7% and 98.9% interest in ordinary and preferred shares, respectively.

⁵ Includes a 0.515% interest held on Cemento Bayano's treasury.

⁶ Represents CEMEX Holdings Philippines Inc. direct and indirect interest.

⁷ CEMEX owns a 49% equity interest in each of these entities and holds the remaining 51% of the economic benefits, through agreements with other shareholders.

⁸ Neoris N.V. is the holding company of the entities involved in the sale of information technology solutions and services.

⁹ CEMEX International Trading, LLC is involved in the international trading of CEMEX's products.

¹⁰ Formerly named Gulf Coast Portland Cement Co., it is engaged in the procurement and trading of fuels, such as coal and petroleum coke, used in certain operations of CEMEX's.

Independent Auditor's Report

*The Board of Directors and Stockholders
CEMEX, S.A.B. de C.V.:*

OPINION

We have audited the consolidated financial statements of CEMEX, S.A.B. de C.V. and subsidiaries (“the Group”), which comprise the consolidated statement of financial position as at December 31, 2016 and 2015, the consolidated statements of operations, comprehensive income (loss), changes in stockholders’ equity and cash flows for the years ended December 31, 2016, 2015 and 2014, and notes, comprising significant accounting policies and other explanatory information.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as at December 31, 2016 and 2015, and of its consolidated financial performance and its consolidated cash flows for the years ended December 31, 2016, 2015 and 2014 in accordance with International Financial Reporting Standards (IFRS).

BASIS FOR OPINION

We conducted our audit in accordance with International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the Auditors’ Responsibilities for the Audit of the consolidated Financial Statements section of our report. We are independent of the Group in accordance with the ethical requirements that are relevant to our audit of the consolidated financial statements in México and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

KEY AUDIT MATTERS

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

EVALUATION OF GOODWILL IMPAIRMENT

See Note 15C to the consolidated financial statements

The key audit matter

The Group's balance sheet includes a significant amount of goodwill arising from historic acquisitions which requires conducting an annual evaluation of its recoverability.

We consider this a key audit matter because of the materiality of the goodwill balance and because it involves complex and subjective judgments by the Group regarding long-term sales growth rates, costs and projected operating margins in the different countries where the Group operates, discount rates used to discount future cash flows, as well as comparisons to publicly-available information such as multiples of EBITDA in recent market transactions.

How the matter was addressed in our audit

Our audit procedures included considering the consistency and appropriateness of the allocation of goodwill to groups of CGUs, as well as testing the Group's methodology and assumptions used in preparing discounted cash flow models through the involvement of our valuation specialists.

We compared the Group's assumptions to data obtained from external sources in relation to key inputs such as discount rates and projected economic growth and compared the latter with reference to historical forecasting accuracy, considering the potential risk of management bias.

We compared the sum of the discounted cash flows to the Group's market capitalization to assess the reasonableness of those cash flows. In addition we performed sensitivity analysis using multiples of EBITDA.

We challenged the overall results of the calculations and performed our own sensitivity analysis, including a reasonably probable reduction in assumed growth rates and cash flows.

We also assessed whether the group's disclosures about the sensitivity of the outcome of the impairment assessment to changes in key assumptions such as discount rates and growth rates reflected the risks inherent in the valuation of goodwill.

RECOVERABILITY OF DEFERRED TAX ASSETS RELATED TO TAX LOSS CARRY FORWARDS

See Note 19B to the consolidated financial statements

The key audit matter

The group has significant deferred tax assets in respect of tax losses (mainly in the United States, The Netherlands, Mexico and Spain).

There is inherent uncertainty involved in forecasting future taxable profits, which determines the extent to which deferred tax assets are or are not recognized.

The periods over which the deferred tax assets are expected to be recovered can be extensive. As a result of the above, we consider this to be a key audit matter.

How the matter was addressed in our audit

Our audit procedures included considering historical levels of taxable profits and comparing the assumptions used in respect of future taxable profit forecasts to those used in the Group's long-term forecasts, such as the forecasts prepared in relation to goodwill impairment evaluations.

Our tax specialists assisted in evaluating the reasonableness of key tax assumptions, timing of reversal of temporary differences and expiration of tax loss carry forwards, as well as the reasonableness of any tax strategies proposed by the Group based on our knowledge of the tax, legal and operating environments in which the Group operates.

We also assessed the adequacy of the Group's disclosures setting out the basis of the deferred tax asset balances and the level of estimation involved.

ASSETS HELD FOR SALE

See Note 4 to the consolidated financial statements

The key audit matter

The Group has committed to a plan to dispose of non-core assets which requires an evaluation of their balance sheet carrying amount and recoverability involving estimations of the expected recoverable amount which depends on the stage of negotiation with the counterparty.

The determination of whether or not the assets disposed or held for sale are to be considered discontinued operations for purposes of presentation in the consolidated financial statements is a matter involving judgment and therefore we consider the proper accounting for assets held for sale to be a key audit matter.

Most significantly, during 2016 CEMEX reached an agreement to sell certain assets from its operations in the United States (see notes 4A and 4B to the consolidated financial statements).

The financial reporting implications of such disposal are significant because they involve determining a portion of the goodwill relative to the group of cash generating units to which goodwill has been allocated in the United States which should be considered in determining the gain or loss on disposal.

How the matter was addressed in our audit

During the year we tested those disposals which had a substantial balance sheet, income statement and/or cash flow impact. We read the related contracts where those have been finalized or evaluated the stage of the proposed sale of assets, whether a buyer has been identified and the stage of negotiations of each sale, as applicable, and evaluated the appropriateness of the carrying amounts of assets based on the expected recoverable amounts.

We involved our valuation specialists to evaluate the assumptions and methodologies used by the Group to estimate the fair value of assets disposed as compared to the fair value of the group of cash-generating units to which goodwill is allocated, in order to determine the proper amount of goodwill to be removed from the balance sheet upon disposal. Our specialists compared management's assumptions to recent market transactions to assess their reasonableness and evaluated any third party valuation advice obtained by the Group

We also assessed the presentation of the financial statements in light of the disposals, the disclosures regarding each significant asset sale and management's conclusions as to presentation as discontinued operations and assets held for sale.

TAX AND LEGAL CONTINGENCIES

See Notes 19D and 24 to the consolidated financial statements

The key audit matter

The Group is involved in certain significant tax and legal proceedings. Compliance with tax regulations is a complex matter within the Group because of the different tax laws in the jurisdictions where the Group operates, the application of which requires the use of significant expertise and judgment, making this area a key audit matter. Also, because of the diversity of the Group's operations, exposure to legal claims is a risk that requires management's attention.

Resolution of tax and legal proceedings may span multiple years, and may involve negotiation or litigation and therefore, making judgments of potential outcomes is a complex issue in the Group.

Management applies judgment in estimating the likelihood of the future outcome in each case and records a provision for unrecognized tax benefits or settlement of legal claims where applicable. We focused on this area due to the inherent complexity and judgment in estimating the amount of provision required.

How the matter was addressed in our audit

We assessed the adequacy of the level of provision established, or lack thereof, in relation to significant uncertain tax positions and legal contingencies, primarily in respect of cases in Spain, France, Egypt, and Colombia.

We discussed the status of each significant case with management, including in-house counsel, and critically assessed their responses. We read the latest correspondence between the Group and the various tax authorities or plaintiffs and attorneys where applicable. We also obtained written responses from the Group's legal advisors where those have been appointed, containing their views on material exposures and any related litigation.

In relation to tax matters, we also met with the Group's tax officers to assess their judgments on significant cases, their views and strategies, as well as the related technical grounds to their position based on applicable tax laws by involving our tax specialists.

We assessed whether the Group's disclosures about legal and tax contingencies provided sufficient information to readers of the financial statements in light of the significance of these cases.

OTHER INFORMATION

Management is responsible for the other information. The other information comprises the information included in the Group's annual report for the year ended December 31, 2016, to be filed with the National Banking and Securities Commission (Mexico) (Comisión Nacional Bancaria y de Valores) ("the Annual Report") but does not include the consolidated financial statements and our auditors' report thereon. The Annual Report is expected to be made available to us after the date of this auditors' report.

Our opinion on the consolidated financial statements does not cover the other information and we will not express any form of assurance conclusion thereon.

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information identified above when it becomes available and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated.

When we read the Annual Report, if we conclude that there is a material misstatement therein, we are required to communicate the matter to those charged with governance.

RESPONSIBILITIES OF MANAGEMENT AND THOSE CHARGED WITH GOVERNANCE FOR THE CONSOLIDATED FINANCIAL STATEMENTS

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with IFRS, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

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

Those charged with governance are responsible for overseeing the Group's financial reporting process.

AUDITORS' RESPONSIBILITIES FOR THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS

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

As part of an audit in accordance with ISAs, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

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

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

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

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

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

KPMG CÁRDENAS DOSAL, S.C.



Luis Gabriel Ortiz Esqueda

Monterrey, N.L., February 2, 2017

7.2 | Non-financial information

HEALTH AND SAFETY ⁽¹⁾	2014	2015	2016
Total fatalities	27	19	20
Employees, total	4	1	3
Cement	2	0	1
Ready-mix	1	0	2
Aggregates	0	1	0
Other businesses	1	0	0
Contractors, total	17	10	10
Cement	12	5	7
Ready-mix	3	1	2
Aggregates	0	2	1
Other businesses	2	2	0
Third-parties, total	6	8	7
Cement	2	5	5
Ready-mix	3	2	0
Aggregates	1	1	2
Other businesses	0	0	0
Fatality rate, employees (per 10,000 employed)	0.7	0.2	0.7
Cement	1.5	0.0	0.8
Ready-mix	0.4	0.0	1.4
Aggregates	0.0	2.0	0.0
Other businesses	0.8	0.0	0.0
Lost Time Injuries (LTIs) (lost days per million hours worked)			
Employees, total	124	67	60
Cement	32	23	19
Ready-mix	70	32	27
Aggregates	9	4	8
Other businesses	13	8	6
Contractors, total	69	67	53
Cement	27	28	30
Ready-mix	19	9	12
Aggregates	6	10	5
Other businesses	17	20	6

HEALTH AND SAFETY ⁽¹⁾	2014	2015	2016
Lost Time Injury Frequency Rate (LTI FR), employees (per million hours worked)	1.2	0.6	0.6
Cement	1.0	0.8	0.7
Ready-mix	1.9	0.9	0.8
Aggregates	0.9	0.4	0.7
Other businesses	0.5	0.3	0.2
Lost Time Injury Frequency Rate (LTI FR), contractors (per million hours worked)			
Cement	1.2	0.6	0.9
Lost Time Injury Severity Rate (LTI SR), employees (lost days per million hours worked)			
Cement	63.0	46.0	47.9
Compliance with CSI Driving Safety Recommended Practices (%)	87	89	98
Compliance with CSI Contractor Safety Recommended Practices (%)	88	89	96
Sites with a Health and Safety Management System implemented (%)	99	100	100
Cement	100	100	100
Ready-mix	99	100	100
Aggregates	100	100	100
Sites certified with OHSAS 18001 (%)	9	10	15
Cement	40	61	65
Ready-mix	6	8	13
Aggregates	15	13	14
Sickness Absence Rate (%)	2.2	2.1	1.8
Sites with health professional onsite or external health provider (%)	93	95	95

OUR PEOPLE	2014	2015	2016
Workforce	44,241	43,117	41,853
Mexico	9,854	9,504	9,858
United States	9,752	10,183	9,783
Europe	11,564	10,525	10,386
Asia, Middle East and Africa	3,389	3,512	3,243
South, Central America and the Caribbean	6,272	6,046	5,387
Others (including Corporate and Neoris)	3,410	3,347	3,196

7.2 | Non-financial information

OUR PEOPLE	2014	2015	2016
Breakdown of workforce by type of contract (%)			
Full time	99	100	99
Part time	1	0	1
Breakdown of workforce by level (%)			
Executive positions	5	5	5
Non-executive positions	32	31	31
Operational positions	63	64	64
Breakdown of workforce by age (%)			
Under 30	17	17	15
31-40	30	30	35
41-50	29	28	26
51 and over	24	25	24
Breakdown of workforce by gender (%)			
Male	89	89	88
Female	11	11	12
Female employees by level (%)			
Executive positions	12	13	13
Non-executive positions	26	38	30
Operational positions	3	3	3
Male to female wage ratio	1.05	1.07	1.08
Employees that perceive they are enabled to perform their job effectively (PEI - Performance Enablement Index) (%)	79	76	76
Employees that are engaged to the company (EEI - Employee Engagement Index) (%)	77	76	76
Participation rate in engagement survey (%)	78	75	75
Employee turnover rate (%) ^[2]	6.9	6.6	9.4
Employees represented by an independent union or covered by a collective bargaining agreement (%) ^[3]	45	45	40
Notice to employees regarding operational changes (average days)	34	36	30
Performance Management (scale 0-5 points)	3.51	3.52	3.48
Succession Coverage (%)	1.83	1.82	1.82
Countries with practices to promote local hiring (%)	90	100	73
Training provided by operations (average hours)			
Executive positions	27	18	25
Non-executive and operational positions	29	15	16
Online courses through CEMEX Online Training Platforms (No.)	545	3,155	262
Employees with access to CEMEX Online Training Platforms (No.)	10,104	25,656	25,266

RESILIENT AND EFFICIENT BUILDING SOLUTIONS	2014	2015	2016
Affordable and/or resource-efficient buildings where CEMEX is involved (No.)	3,150	2,400	4,112
Affordable and/or resource-efficient buildings where CEMEX is involved (million m ²)	0.18	0.15	0.07
Installed concrete pavement area (million m ²)	8.14	7.32	5.39
Green building projects under certification where CEMEX is involved (million m ²)	7.08	6.42	9.73
Annual ready-mix sales derived from products with outstanding sustainable attributes (%)	29.7	33.0	33.7

STRENGTHEN LOCAL COMMUNITIES ^[4]	2014	2015	2016
Families participating in Patrimonio Hoy (No.)	470,749	525,941	572,166
Individuals benefited from Patrimonio Hoy (No.)	2,274,630	2,536,466	2,756,087
Square meters built by Patrimonio Hoy	3,693,073	4,115,392	4,346,968
Families participating in our social and inclusive businesses (No.)	543,903	627,307	685,634
Individuals benefited from our social and inclusive businesses (No.)	2,601,157	2,994,453	3,272,953
Total individuals benefited from our high-impact social initiatives (No.)	6,937,176	9,655,198	12,604,222

CARBON STRATEGY	2014	2015	2016
Absolute gross CO ₂ emissions (million ton)	42.8	43.7	43.8
Absolute net CO ₂ emissions (million ton)	40.1	40.8	41.4
Specific gross CO ₂ emissions (kg CO ₂ /ton of cementitious product)	653	672	678
Specific net CO ₂ emissions (kg CO ₂ /ton of cementitious product)	613	630	642
Reduction in CO ₂ emissions per ton of cementitious product from 1990 baseline (%)	22.6	21.6	20.1
Thermal energy efficiency of clinker production (MJ/ton clinker)	3,854	3,897	3,905

OTHER CARBON STRATEGY INDICATORS	2014	2015	2016
Alternative raw material rate (%) ^[5]	11.2	6.0	6.1
Sustainable raw material rate (%) ^[6]	13.6	12.7	12.9
Clinker/Cement factor (%)	76.5	78.6	78.4
Indirect energy consumption (GWh)	7,562	7,643	7,698
Specific energy consumption, cement (kWh/ton)	116	119	120
Specific energy consumption, ready-mix (kWh/m ³)	3.2	3.2	3.2
Specific energy consumption, aggregates (kWh/ton)	4.4	4.6	4.3
Direct energy consumption (TJ)	196,510	202,598	202,255
Power from renewable energy sources, cement (%) ^[7]			25

7.2 | Non-financial information

FUEL MIX (%)	2014	2015	2016
Total alternative fuels	27.7	26.6	23.3
Coal	22.5	23.8	24.8
Petroleum coke	38.2	39.0	45.4
Fuel oil	8.5	7.0	2.0
Natural gas	3.0	3.7	4.3

ALTERNATIVE FUELS RATE (%)	2014	2015	2016
Alternative fossil fuels rate	16.3	15.7	13.7
Biomass fuels rate	11.4	10.9	9.6

WASTE TYPES USED AS ALTERNATIVE FUELS (%)	2014	2015	2016
Industrial and household waste	49.7	50.3	50.2
Tires	9.0	8.8	8.7
Animal meal	2.5	2.0	2.5
Agricultural organic waste	7.2	7.3	6.3
Other biomass	31.6	31.6	32.3

WASTE MANAGEMENT	2014	2015	2016
Hazardous waste disposal (ton)	104,909	104,254	95,141
Cement	102,036	101,811	93,413
Ready-mix	2,348	2,171	1,501
Aggregates	403	271	226
Others	122	0.35	1.25
Non-hazardous waste disposal (ton)	483,404	464,493	276,491
Cement	130,507	102,504	91,223
Ready-mix	335,402	344,958	174,365
Aggregates	11,325	13,178	7,992
Others	6,171	3,853	2,912
Secondary and recycled aggregates used as a direct replacement of primary aggregates (ton)	221,676	257,761	258,494

ENVIRONMENTAL AND QUALITY MANAGEMENT	2014	2015	2016
Sites with CEMEX Environmental Management System (EMS) implemented (%)	74	76	88
Cement	97	98	98
Ready-mix	70	73	88
Aggregates	90	88	86

ENVIRONMENTAL AND QUALITY MANAGEMENT	2014	2015	2016
Sites with ISO 14001 Certification (%)	37	44	46
Cement	74	74	76
Ready-mix	34	41	43
Aggregates	44	50	53
Sites with ISO 9001 Certification (%)	44	45	45
Cement	78	79	79
Ready-mix	45	46	44
Aggregates	30	36	41
Environmental investment (US million)	85	86	80
Total environmental incidents	433	753	365
Major environmental incidents - Category 1 (No.)	0	2	0
Moderate environmental incidents - Category 2 (No.)	39	436	64
Minor environmental incidents - Category 3 (No.)	313	227	224
Complaints (No.)	81	88	77
Environmental fines (No.)	276	453	363
Environmental fines (US million)	0.5	0.3	0.15

AIR QUALITY	2014	2015	2016
Clinker produced with continuous monitoring of major emissions (dust, NO _x and SO _x) (%)	84	84	84
Clinker produced with monitoring of major and minor emissions (dust, NO _x , SO _x , Hg, Cd, TI, VOC, PCDD/F) (%)	81	80	80
Absolute dust emissions (ton/year)	6,147	4,095	2,703
Specific dust emissions (g/ton clinker)	134	90	67
Absolute NO _x emissions (ton/year)	59,620	55,318	76,552
Specific NO _x emissions (g/ton clinker)	1,205	1,122	1,533
Absolute SO _x emissions (ton/year)	12,711	13,640	13,089
Specific SO _x emissions (g/ton clinker)	257	279	253
Annual reduction in dust emissions per ton of clinker from 2005 baseline (%)	55	70	78
Annual reduction in NO _x emissions per ton of clinker from 2005 baseline (%)	42	46	26
Annual reduction in SO _x emissions per ton of clinker from 2005 baseline (%)	60	57	61

7.2 | Non-financial information

WATER MANAGEMENT	2014	2015	2016
Total water withdrawals by source (million m ³)	84.6	79.1	67.0
Surface Water	37.3	27.0	22.5
Ground Water	35.6	37.9	28.6
Municipal Water	8.8	10.0	12.2
Rain Water	0.9	0.8	0.4
Sea Water	0.2	0.1	0.0
Other	1.8	3.3	3.4
Cement (million m ³)	25.9	25.0	24.6
Surface Water	10.9	7.3	6.5
Ground Water	13.0	15.5	15.3
Municipal Water	1.1	1.4	2.0
Rain Water	0.3	0.3	0.3
Sea Water	0.0	0.0	0.0
Other	0.6	0.5	0.6
Ready-mix (million m ³)	11.0	12.1	12.3
Surface Water	0.3	0.5	0.6
Ground Water	3.6	2.0	2.3
Municipal Water	5.6	6.6	6.5
Rain Water	0.1	0.1	0.1
Sea Water	0.0	0.0	0.0
Other	1.3	2.9	2.8
Aggregates (million m ³)	47.8	42.0	30.1
Surface Water	26.1	19.2	15.4
Ground Water	18.9	20.4	11.0
Municipal Water	2.1	1.9	3.7
Rain Water	0.5	0.3	0.0
Sea Water	0.2	0.1	0.0
Other	0.0	0.0	0.0
Total water discharge by destination (million m ³)	32.9	29.3	17.0
Surface Water	19.2	17.9	11.0
Ground Water	11.8	10.0	5.1
Municipal Water	0.8	0.8	0.8
Sea Water	0.1	0.1	0.0
Other	1.0	0.4	0.1
Cement (million m ³)	3.3	3.2	2.6
Surface Water	2.4	2.6	2.0
Ground Water	0.0	0.0	0.0
Municipal Water	0.3	0.3	0.4
Sea Water	0.1	0.1	0.0
Other	0.5	0.2	0.1

WATER MANAGEMENT	2014	2015	2016
Ready-mix (million m ³)	0.7	0.9	0.8
Surface Water	0.0	0.3	0.3
Ground Water	0.2	0.1	0.2
Municipal Water	0.4	0.5	0.3
Sea Water	0.0	0.0	0.0
Other	0.1	0.0	0.0
Aggregates (million m ³)	28.9	25.3	13.6
Surface Water	16.8	15.1	8.7
Ground Water	11.6	9.9	4.9
Municipal Water	0.1	0.1	0.0
Sea Water	0.0	0.0	0.0
Other	0.4	0.3	0.0
Total consumption (million m ³)	52	50	50
Cement	23	22	22
Ready-mix	10	11	12
Aggregates	19	17	17
Specific water consumption			
Cement (l/ton)	360	346	352
Ready-mix (l/m ³)	185	207	222
Aggregates (l/ton)	132	134	131
Sites with water recycling systems (%)	84	84	79
Cement	80	77	76
Ready-mix	83	83	80
Aggregates ^[8]	89	93	76

BIODIVERSITY MANAGEMENT	2014	2015	2016
Active sites with quarry rehabilitation plans (%)	94	94	94
Cement	86	84	90
Aggregates	96	98	96
Active quarries within or adjacent to high biodiversity value areas (No.)	80	64	63
Cement	10	9	9
Aggregates	70	55	54
Active sites with high biodiversity value where biodiversity action plans are actively implemented (%)	55	61	63
Cement	60	89	89
Aggregates	54	56	59

7.2 | Non-financial information

STAKEHOLDER ENGAGEMENT	2014	2015	2016
Sites conducting social impact assessments (%)	68	69	72
Cement	75	77	77
Ready-mix	67	69	71
Aggregates	70	69	72
Sites with community engagement plans (%)	98	98	98
Cement	97	97	97
Aggregates	98	98	98

STAKEHOLDER ENGAGEMENT	2014	2015	2016
Countries with employee volunteering programs (%)	67	73	75
Countries that conduct regular customer satisfaction surveys (%)	78	85	88
Purchases sourced from locally-based suppliers (%)	95	95	95
Countries with a process to screen suppliers in relation to social and environmental aspects (%)	86	86	83
Global procurement spend assessed under the Supplier Sustainability Program (%)	12	13	17

CEMENT OPERATIONS	2014	2015	2016
Kiln operational efficiency (volume produced/available capacity) (%) ^[9]	84.4	88.3	88.9
Cement productivity (volume produced per man-hour)	1.59	1.73	1.77

GOVERNANCE AND ETHICS	2014	2015	2016
Executives and employees actively aware of our Code of Ethics (%)	80	80	77
Reports of alleged breaches to the Code of Ethics received by local ethics committees (No.)	394	359	453
Ethics and compliance cases reported during the year that were investigated and closed (%)	91	74	68
Disciplinary actions taken as a result of reports of non-compliance with the Code of Ethics, other policies or the law (No.)	177	180	115
Target countries that participated on the Global Compliance Program (antitrust, antri-bribery and insider trading) (%)	90	100	100
Countries with local mechanisms to promote employee awareness of procedures to identify and report incidences of internal fraud, kick-backs, among others (%)	100	100	100
Investigated incidents reported and found to be true related to fraud, kick-backs among other corruption incidents to government officials (No.)	0	0	0

Footnotes:

- [1] All H&S statistics are in accordance with the CSI Reporting Guidelines.
- [2] Voluntary turnover.
- [3] Total employees including executive and non-executive positions. Considering only operations positions coverage is 63%.
- [4] Accumulated figure since 1998.
- [5] 2015 figure reflects CEMEX's operations portfolio after assets transactions.
- [6] Raw materials containing the required minerals for clinker/cement production with the potential to reduce impacts from ordinary processes
- [7] KPI calculated as of 2016. It includes direct supply contracts plus renewable share from the power grid.
- [8] Considering sites that use water for aggregates production (including wet screening and aggregate washing).
- [9] Available capacity = nominal capacity x (total hours - scheduled down time)

DIRECT ECONOMIC IMPACTS

<i>In millions of US dollars</i>	IFRS 2014	IFRS 2015	IFRS 2016
Customers: Net sales ⁽¹⁾	14,955	13,788	13,403
Suppliers: Cost of sales and operating expenses ⁽²⁾	10,090	9,115	8,624
Employees and their families: Wages and benefits ⁽³⁾	2,205	2,085	2,032
Investments: CAPEX ⁽⁴⁾ plus working capital	704	470	94
Creditors: Net financial expense	1,334	1,150	985
Government: Taxes	558	486	299
Communities: Donations ⁽⁵⁾	(0.96%)	1.87%	0.38%
Shareholders: Dividends ⁽⁶⁾	0	0	0
Others	(87)	(80)	(3)
Free cash flow from discontinued operations ⁽⁷⁾	(60)	(70)	(64)
Consolidated free cash flow	210	628	1431
Net income (loss) before taxes & non controlling interest	(138)	199	923

Footnotes:

- (1) Excludes sales of assets
(2) Excludes depreciation and amortization
(3) Wages and benefits include non-operational and operational employees
(4) Capital expenditures for maintenance and expansion
(5) Donations as percentage of pre-tax income
(6) Dividends paid in cash
(7) Free Cash Flow from Austria, Hungary, Croatia, Thailand, Bangladesh and Pipe operations

OUR SUSTAINABILITY CREDENTIALS



CDP (formerly the Carbon Disclosure Project)

In 2016, we received an A- from CDP under their new evaluation system which, assigns scores from A to D. With this result, CDP recognizes CEMEX among the leading group of companies in the field of Climate Change.



Mexican Stock Exchange Sustainability Index

CEMEX has been selected since the Index's inception in 2011. The assessment includes performance, impact and responses to emerging environmental, social and governance (ESG) issues.



As of March 2017, CEMEX was scored the highest in ESG disclosure by Bloomberg among the peers in the international cement industry as well as within the constituents of the Mexican Stock Exchange Sustainability Index.



UNGC 100 Index

CEMEX remains the sole Mexico-based company selected for the UN Global Compact 100, a global stock index that combines sustainability and financial performance.



Vigeo Eiris Emerging 70 Ranking

CEMEX was included in the Emerging Market 70 Ranking comprised of the 70 best performing companies from a reference universe of 800 companies from 31 emerging countries and 37 sectors.



RobecoSAM Bronze Class and Industry Mover Award

CEMEX received the RobecoSAM Bronze Class ranking and the Industry Mover Sustainability Award 2017. The company was recognized as one of the top-scoring companies in the industry, and was included in the 2017 Sustainability Yearbook.





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Limited Verification Letter of Key Sustainability Performance Indicators (Non financial Information)

To the Board of Directors of CEMEX, S.A.B. de C.V.

We have reviewed the non-financial information related to the Key Sustainability Performance Indicators presented in the 2016 Report "*Integrated Strategy for a Better Future*" (hereinafter "the Report") of CEMEX, S.A.B de C.V. (hereinafter "CEMEX") from January 1st through December 31st, 2016.

Our work has been carried out according to the established for a Limited Verification, according to the guidelines of ISAE 3000 *International Standard on Assurance Engagements*, issued by the *International Auditing and Assurance Standard Board (IAASB) of the International Federation of Accountants (IFAC)*, and in accordance with the AA1000 Sustainability Assurance Standard (*Accountability Principle Standard*, 2008). Among other issues, these standards require that:

- The team that carries out the work have specific knowledge, abilities and professional skills necessary to understand and review the information included in the Report and that its components comply with the requirements of the International Federation of Accountants (IFAC) Code of Professional Ethics, ensuring independence.
- When a limited verification of the information is performed, sufficient evidence is available in the documentation and systems of the company that support the statements made.

The purpose of the verification was to verify that the CEMEX information contained in the Report complied with the criteria established by the "Cement Sustainability Initiative" (CSI) standards of the "World Business Council for Sustainable Development" (WBCSD). The criteria considered were as follows:

- *The Cement CO₂ and Energy Protocol: CO₂ and Energy Accounting and Reporting Standard for the Cement Industry*
- *Safety in the Cement Industry: Guidelines for measuring and reporting (version 4.0)*
- *Guidelines for Emissions Monitoring and Reporting in the Cement Industry (version 2.0)*

As well as with the criteria established by CEMEX internal procedure called *Environmental Incident Reporting Procedure*.

CEMEX Responsibility

CEMEX, through the Corporate Sustainability Direction, is responsible for preparing and presenting the Report in accordance with the above mentioned WBCSD-CSI protocols; Of the information and statements contained there; The definition of scope, selection and presentation of information; And the establishment and implementation of data collection processes.



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Our Responsibility

Our responsibility is to carry out a limited verification on the key performance indicators defined by CEMEX and based on the work done, to issue a Limited Verification Letter exclusively on these indicators (non-financial information) included in the 2016 Report.

Our work

Our work has been performed in accordance with the ISAE 3000 Standard and in accordance with the AA1000 AS (2008) Sustainability Assurance Standard.

These standards require that we plan and perform our work in such a way that we obtain limited assurance as to whether the Report is free from material misstatement and that we comply with the ethical and independence requirements set forth in the Code of Ethics of the *International Ethics Standards Board for Accountants*.

The scope of evidence-gathering procedures performed in a limited verification work is less than reasonable security work and thus also the level of security it provides. This report cannot in any case be understood as an audit report.

Verification scope

Our work performed consist in visiting five cement plants located in each of the regions where CEMEX operates. These accounted for 20% of CEMEX total CO₂ emissions for scope 1 and 2 and 25% of total dust, NO_x and SO_x emissions.

The verified indicators for each of the locations were as follows:

- Scope 1 and 2 of CO₂ emissions according to *The Cement CO₂ and Energy Protocol: CO₂ and Energy Accounting and Reporting Standard for the Cement Industry* of the WBCSD-CSI, presenting:
 - *Absolute gross and net CO₂ emissions*
 - *Specific gross and net CO₂ emissions*
 - *Total indirect CO₂ emissions*
- Health and safety indicators according to *Safety in the Cement Industry: Guidelines for measuring and reporting (version 4.0)* of the WBCSD-CSI, presenting:
 - *Number of fatalities for employees, contractors and third parties*
 - *Fatality rate for employees*
 - *Number of Lost Time Injuries for employees and contractors*
 - *Lost Time Injury Rate for employees and contractors*
 - *Lost Time Injury Severity Rate for employees*



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- Indicators of other emissions according to *Guidelines for Emissions Monitoring and Reporting in the Cement Industry* (version 2.0) of the WBCSD-CSI, presenting:
 - Overall coverage rate
 - Coverage rate of continuous emissions monitoring.
 - Absolute and specific Dust emissions
 - Absolute and specific NO_x emissions
 - Absolute and specific SO_x emissions
- Number of Environmental Incidents Category 1 and 2 as defined in the internal procedure of CEMEX called *Environmental Incident Reporting Procedure*.

We have applied the following procedures to collect evidence for the development of our work, as well as to verify the consistency of information from the systems and / or internal documentation provided by the CEMEX team in each facility:

- Interviews with relevant staff on the implementation of sustainability policies and strategy.
- Identification of collection and internal control processes related to the quantitative data reflected in the Report.
- Application of evidence on information submitted on the basis of a limited assurance, in order to assess the reliability of the data and the information managed on the site.
- Identification of communication mechanisms and participation, by CEMEX, with its different stakeholders
- Application of tests over the consistency of the information coming from the systems and internal documentation.

Conclusion

Based on the procedures performed and previously described, there has been no evidence of any indication that the data compiled in CEMEX Report 2016, for the period covered January 1st to December 31st, 2016, have not been obtained based on reliable process, that the information is not adequately presented, or that significant deviations or omissions exist.

KPMG, Cárdenas Dosal, S.C.

Jesús González Arellano
Partner (Advisory)

Mexico City
March 22th, 2017



Playas de Tijuana tunnel, Mexico

8.1 | Report scope

General Considerations:

CEMEX, S.A.B. de C.V. is incorporated as a publicly traded stock corporation with variable capital (sociedad anónima bursátil de capital variable) organized under the laws of Mexico. Except as the context otherwise may require, references in this integrated report to “CEMEX,” “we,” “us” or “our” refer to CEMEX, S.A.B. de C.V. and its consolidated entities.

Reporting scope

CEMEX began publishing Environmental, Health, and Safety (EHS) reports in 1996, and has annually published its Sustainable Development Reports since 2003, covering a broad range of issues related to economic, environmental, social, and governance performance.

This is CEMEX’s first Integrated Report. It is designed to provide a holistic analysis of the company’s strategic vision, performance, governance, and value creation, while fostering a more in-depth understanding of the financial and non-financial key performance indicators that the company uses to manage its business over the short, medium, and long term.

Boundary and reporting period

In preparation of this report, we consolidated information from all of our countries and operations. It covers our global cement, ready-mix concrete, and aggregates business lines, presenting our financial and non-financial performance, progress, achievements, and challenges for the 2016 calendar year, which is also the company’s fiscal year. Our materiality analysis guided our reporting process, and the issues included in this report particularly match those that CEMEX management and our stakeholders found of highest importance for our operations, as reflected in our recently updated Materiality Matrix covering both financial and sustainability issues.

Unless otherwise indicated, the information provided in this report is for the company as a whole. We have included information for the operations in which we have financial and operative control. If a plant is sold, its information is no longer included in our data or considered in our targets. If we have restated certain data sets from previous years because of improvements to our data-collection systems or changes to our business, each case is clearly marked. Unless something else is explicitly indicated, all monetary amounts are reported in U.S. dollars. All references to “tons” are to metric tons.

The information in our 2016 Integrated Report came from several sources, including internal management systems and performance databases, as well as annual surveys applied across all of our countries.

We continually aim to improve the transparency and completeness of each report that we produce, while streamlining our processes and the way in which we provide information. To this end, we include a limited assurance statement from KPMG, an independent organization that verified the data and calculation process for our annual indicators associated with CO₂ and other emissions, health and safety, and environmental incidents.

In addition, we engaged our External Advisory Panel, whose members provide very valuable and objective feedback on our reporting every year.

Data measurement techniques

We employ the following protocols and techniques for measuring the sustainability key performance indicators (KPI) that we report:

- ▶ **CO₂ emissions:** CEMEX reports absolute and specific CO₂ emissions following the latest version of the Cement Sustainability Initiative (CSI) Protocol, denominated: The Cement CO₂ and Energy Protocol, version 3.1, published in May 2011. It considers direct emissions occurring from sources that are owned or controlled by the company, excluding those from the combustion of biomass that are reported separately (Scope 1) and indirect emissions from the generation of purchased electricity consumed in the company’s owned or controlled equipment (Scope 2). Historical data shall remain unchanged given that the previous protocol is closely aligned with the simple methods for the reporting of CO₂ emissions from calcination. For countries covered by the European Union Emission Trading System (EU ETS), CO₂ data corresponds to the one validated by an independent verifier in accordance with the applicable Accreditation and Verification Regulation.

8.1 | Report scope

- ▶ **Dust, NO_x and SO_x emissions:** Absolute and specific figures are calculated based on kiln measurements taken from Continuous Emissions Monitoring Systems (CEMs) (in those sites where kilns are equipped with such technology) or spot analysis. These methods fully comply with the CSI Guidelines for Emissions Monitoring and Reporting. All information is reported to CEMEX databases, processed, calculated, and validated to provide a final group value. The values are calculated in Standard for 0°C, 1 atmosphere and 10% Oxygen (O₂) content at measuring point.
- ▶ **Energy:** Fuel consumption indicators are reported to internal CEMEX databases in which “conventional,” “alternative,” and “biomass fuels” are classified according to the CSI Cement CO₂ Protocol spreadsheet. Heat values are obtained from on-site analysis (where applicable), value provided by supplier or standards from the CSI Guidelines for the Selection and Use of Fuels and Raw Materials in the Cement Manufacturing Process.
- ▶ **Clinker factor and alternative fuels:** All material consumption is reported to internal CEMEX databases in which “alternative materials” are defined following the standards from the CSI Guidelines for the Selection and Use of Fuels and Raw Materials in the Cement Manufacturing Process. The “clinker/cement factor” is calculated using the CSI procedures indicated in The Cement CO₂ and Energy Protocol spreadsheet with information obtained from the databases.
- ▶ **Health and safety:** SISTER, which is an internal database, collects all related health and safety information from each site and automatically provides the appropriate information to calculate the indicators. The database is configured using the CSI definitions.

Alignment with global reporting initiative (GRI) guidelines

In order to enhance our sustainability communication to our stakeholders and comply with internationally agreed disclosures and metrics, CEMEX uses the Global Reporting Initiative (GRI) guidelines to prepare its Sustainable Development Reports. From 2008 to 2013, we met an application level of A+ using GRI-G3. As of 2014, we have migrated to the GRI-G4 Guidelines, using the “in accordance” comprehensive option.

Our GRI Content Index is cross referenced to the UN Global Compact (UNGC) principles, as well as to the UN Sustainable Development Goals (SDGs). Furthermore, we have submitted the current report to GRI requesting the Materiality Disclosures Service reflected in corresponding GRI marks.

To access the full 2016 GRI Content Index, please visit: <https://archive.cemex.com/SustainableDevelopment/files/GriIndex2016.pdf>

United Nations Global Compact - Communication on Progress

This report also constitutes our Communication on Progress (CoP) toward the commitments of the UN Global Compact (UNGC). As a signatory to the UNGC, we work to align our company’s operations and strategies with its 10 principles. As demonstrated within the content of this report, we are also committed to helping the world meet the targets of the Kyoto Protocol and contribute to the achievement of the UN Sustainable Development Goals (SDGs).

Sustainable Development Goals (SDGs)

The 17 Sustainable Development Goals (SDGs) were adopted at the General Assembly of the United Nations held in September 2015. The 169 targets contained in them aim to end poverty, protect the planet, and ensure prosperity for all as part of a new sustainable development agenda.

To show our clear commitment to contribute to the SDGs implementation, across the pages of this report we have included the marks representing the relevant SDG goal.



THE TERMS WE USE

Financial

American Depositary Shares (ADSs) are a means for non-U.S.-based corporations to list their ordinary equity on an American stock exchange. Denominated in US dollars, they confer full rights of ownership to the corporation's underlying shares, which are held on deposit by a custodian bank in the company's home country or territory. In relation to CEMEX, Citibank, N.A. is the depository of CEMEX's ADSs and each ADS represents 10 CPOs. The CEMEX ADSs are listed on the New York Stock Exchange.

bps (Basis Point) is a unit of percentage measure equal to 0.01%, used to measure the changes to interest rates, equity indices, and fixed-income securities.

Free cash flow CEMEX defines it as operating EBITDA minus net interest expense, maintenance capital expenditures, change in working capital, taxes paid, and other cash items (net other expenses less proceeds from the disposal of obsolete and/or substantially depleted operating fixed assets that are no longer in operation). Free cash flow is not a GAAP measure.

LIBOR (London Interbank Offered Rate) is a reference rate based on the interest rates at which banks borrow unsecured funds from other banks in London.

Maintenance capital expenditures CEMEX defines it as investments incurred with the purpose of ensuring the company's operational continuity. These include capital expenditures on projects required to replace obsolete assets or maintain current operational levels and mandatory capital expenditures, which are projects required to comply with governmental regulations or company policies. Maintenance capital expenditures is not a GAAP measure.

Net working capital CEMEX defines it as net trade accounts receivables plus inventories plus other accounts receivable including advanced payments minus trade payables minus operative taxes excluding income tax minus other accounts payable and accrued expenses. Working capital is not a GAAP measure.

Operating EBITDA CEMEX defines it as operating earnings before other expenses, net, plus depreciation and amortization. Operating EBITDA does not include revenues and expenses that are not directly related to CEMEX's main activity, or which are of an unusual or non-recurring nature under International Financial Reporting Standards (IFRS). Operating EBITDA is not a GAAP measure.

Ordinary Participation Certificates (CPOs) are issued under the terms of a CPO Trust Agreement governed by Mexican law and represent two of CEMEX's series A shares and one of CEMEX's series B shares. This instrument is listed on the Mexican Stock Exchange.

pp equals percentage points.

Strategic capital expenditures CEMEX defines it as investments incurred with the purpose of increasing the company's profitability. These include capital expenditures on projects designed to increase profitability by expanding capacity, and margin improvement capital expenditures, which are projects designed to increase profitability by reducing costs. Strategic capital expenditures is not a GAAP measure.

TIIE (Tasa de Interés Interbancaria de Equilibrio) is a measure of the average cost of funds in pesos in the Mexican interbank money market.

Total debt CEMEX defines it as short-term and long-term debt plus convertible securities, liabilities secured with account receivables and capital leases. Total debt is not a GAAP measure.

Industry

Aggregates are sand and gravel, which are mined from quarries. They give ready-mix concrete its necessary volume and add to its overall strength. Under normal circumstances, one cubic meter of fresh concrete contains two tons of gravel and sand.

Clean Development Mechanism (CDM) is a mechanism under the Kyoto Protocol that allows Annex I countries to recognize greenhouse gas emission reductions from projects developed in Non-Annex I countries.

Clinker is an intermediate cement product made by sintering limestone, clay, and iron oxide in a kiln at around 1,450 degrees Celsius. One ton of clinker is used to make approximately 1.1 tons of gray Portland cement.

Fly ash is a combustion residue from coal-fired power plants that can be used as a non-clinker cementitious material.

Gray Portland cement is a hydraulic binding agent with a composition by weight of at least 95% clinker and 0–5% of a minor component (usually calcium sulfate). It can set and harden underwater and, when mixed with aggregates and water, produces concrete or mortar.

Installed capacity is the theoretical annual production capacity of a plant; whereas effective capacity is a plant's actual optimal annual production capacity, which can be 10–20% less than installed capacity.

Metric ton is the equivalent of 1.102 short tons.

Petroleum coke (petcoke) is a by-product of the oil refining coking process.

Pozzolana is a fine, sandy volcanic ash.

Ready-mix concrete is a mixture of cement, aggregates, and water.

Slag is the by-product of smelting ore to purify metals.

8.2 | External Advisory Panel members and statement

This is CEMEX's inaugural Integrated Report. We see this proactive approach to reporting as an important symbol of the company's commitment to managing the impact its business operations have on society and the environment. The Advisory Panel (henceforth referred to as "the panel") recognizes this first Integrated Report as an effort to provide all stakeholders with a holistic overview of CEMEX's strategic vision, drivers of value creation, operating performance, governance, and an understanding of the key financial and non-financial topics that are shaping the business today, and that are likely to shape the business tomorrow.

SCOPE OF OUR REVIEW

Similar to previous years, the Sustainability Reporting Advisory Panel reviewed an advanced draft of CEMEX 2016 Integrated Report: Integrated Strategy for a Better Future. The Advisory Panel members first convened in December 2016 to discuss the evaluation and advisory process, before being submitted the report in late February, having two weeks to review and send back their initial feedback.

The Advisory Panel members shared with management detailed comments and specific suggestions for improvement in reporting and activities in general. The comments of the report concern both current activities and strategic ideas worth exploring in the future.

REPORTING FRAMEWORK, STYLE AND IMPROVEMENTS

The panel recognizes that CEMEX has successfully executed the recommendation of an integrated report along the lines of the proposed framework of the International Integrated Reporting Council. This process promotes integrated thinking and strategy across the organization, and is likely to enhance the positive environmental and social impacts CEMEX has already generated in all of the geographies in which it operates.

The panel appreciates the efforts to present the content in a more integrated, clear fashion, making it easier to read and follow. The Panel is also pleased with the efforts CEMEX has made to prepare the report in accordance to the Global Reporting Initiative G4 Guidelines, which helps focus the analysis on the most material aspects in the business.

The panel additionally recognizes the significant improvement CEMEX has made with respect to the degree of transparency and openness with which the company communicates with its stakeholders via this document.

Moreover, the panel commends the growing focus on the role CEMEX can play in terms of helping realize the Sustainable Development Goals, with a particular focus on the CEMEX contribution to ending poverty, achieving gender equality, providing decent work and economic growth opportunities, and developing sustainable cities and communities. The panel also acknowledges the continued efforts to explicitly recognize the challenges of using cement as a building material, which include significant carbon and toxic air emissions.

And finally, the panel encourages management to present time series data in the form of charts to illustrate the evolution of certain metrics (e.g. carbon footprint), such that readers can easily get an overview of past performance relative to current performance.

SUSTAINABILITY GOVERNANCE

With respect to Ethics and Corruption, the panel is pleased to notice the continuous efforts being made to raise awareness on these issues and the fact that so many ethics and internal human rights cases are brought to the fore (i.e. including disciplinary action on about one quarter of the cases). And although the number of cases is included in the report (453), an analysis and reporting of the major causes



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RAMÓN PÉREZ GIL

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and trends in the disciplinary actions taken for violation of the code of ethics would be helpful to the readers to assess the severity of the issues and progress made in its avoidance. The panel is also encouraged by the strong internal processes that CEMEX has established to collect information.

12% of the global work force is female, which is low relative to peers, who come in at about 20%. As such, the panel remains concerned with respect to the slow progress being made in the recruitment of women and especially in the appointment of women to leadership positions. The panel encourages CEMEX to explore the direct and indirect obstacles that may be preventing progress in this area.

Furthermore, we encourage CEMEX to consider the appointment of properly qualified women to the Board of Directors, where currently there are none. And finally, the panel recognizes that CEMEX does not have an independent majority in its board, and also lacks an explicit responsibility for risk management. This shortfall in the governance structure could potentially undermine the ability of the board to effectively oversee company management.

MATERIAL ASPECTS

The panel recognizes the continued progress CEMEX has made with respect to building a Sustainability Matrix in efforts to identify the issues most important to CEMEX and its stakeholders. The Sustainability Matrix enables a more seamless identification of issues most relevant to stakeholders, including both risks and opportunities. It is in this context that the panel suggests to keep the frame of material issues limited to social, environmental and governance issues.

The materiality survey is a clear demonstration of good progress with respect to defining the materiality issues, not least because invitations were sent to over 19,000 stakeholders across a large variety of geographies. This is 62% more than with the previous survey, although only 1,558 responses were received (less than 10%). Going forward, we suggest that CEMEX do a smaller but statistically representative survey. This will give the company meaningful results on materiality issues.

SAFETY

The panel is encouraged by the reduction in the time lost due to injuries in 2016 by 16% on a year-on-year basis. We also recognize that CEMEX has set aggressive targets to improve safety across all of its operations by 2020, and that CEMEX today already has a lower exposure to health and safety risks than the majority of its peers. Still, the panel is concerned about the number of fatalities, mostly on contractors and third parties. Last year, 20 fatalities occurred, of which 3 were direct employees and the rest were either contractors or other third parties. Getting this number lower in the coming years is rightly a key priority for management.

HUMAN RIGHTS

The Panel is pleased to learn that CEMEX has developed a Human Rights Policy, which integrates basic sustainability requirements. The company's suppliers are mandated to comply with this policy. In this way, CEMEX is able to exert more influence over its entire value chain. An essential part of this process is the ability to define a monitoring plan and a set of mitigating and remedial actions to prevent and address adverse impacts on human rights. The panel encourages management to implement the Ruggie Principles, in particular the assessment of the current situation and a plan of action to ensure their application.

EMISSIONS AND OTHER ENVIRONMENTAL ISSUES

The panel is encouraged to learn of a significant reduction of environmentally hazardous emissions. For instance, the 20% reduction in CO₂ emissions compared with CEMEX's 1990 baseline figure represents real progress, driven largely by an alternative fuel substitution rate of over 23%. The panel also invites management to encourage lower general energy use. It should also be noted that previous reports provided graphs to offer readers more insight into the evolution of carbon emissions over time. This was a clear way to show numbers and present data in an informative, useful manner.

Also, the panel recognizes that carbon pricing schemes in the geographies in which CEMEX operates can introduce additional liabilities. At the same time, they could also provide opportunities and incentives for innovation and product development or process improvement. This is shown by higher levels of alternative fuel use and lower clinker factors in firms with exposure to regions with carbon pricing schemes as is the case with CEMEX.

ENERGY AND WATER CONSUMPTION

We were pleased to learn of the successful efforts to continue the reduction of energy consumption by the increased use of alternative sources of energy, particularly from recycled waste, alternative fuel, and renewables. With respect to water consumption, the company has implemented several initiatives, which have allowed it to reduce its water use over the last three years by 3%. Nonetheless, the firm's water intensity of operations (i.e. 6 thousand m³ per USD million) is still high, and thus offers potential to fall substantially from current levels.

BIODIVERSITY

The panel recognizes that CEMEX has a diverse array of practices to protect biodiversity like Biodiversity Action Plans, which represent the principal tool for CEMEX to achieve a net positive impact on biodiversity. Still, the panel also notes that CEMEX could improve in terms of its response to community concerns due to land use and land use change prior selling in new areas. And since the firm's primary business is in cement and ready mixed-concrete, a careful attention to the disturbance to land or habitat due to quarry exploitation is important point to bare in mind.

SUPPLY CHAIN MONITORING AND DEVELOPMENT

The panel is pleased to learn of the new supply chain process globally, which allows the company to run its network of supplier as one efficient global enterprise. In fact, the panel was particularly pleased to learn that in 2016 almost 1,300 suppliers were assessed using sustainability criteria. Moreover, it is good to see that Human Rights, Labor, Antitrust, and Sustainability clauses were all added to contracts and purchase orders with suppliers on a global basis. Indeed, procurement and the value chain offer new and effective ways to expand the reach of good sustainability policies on a global scale, all in efforts to advance local economic development. Finally, the panel encourages the management to identify the most critical suppliers, not in terms of volume, but in terms of potential risks for CEMEX's reputation.

WORKING CONDITIONS

The panel is pleased to see the progress achieved by CEMEX in working conditions for their employees. Recognizing the complexity of working in so many countries with very different cultures and standards, the panel would like to see more efforts in enhancing the number of countries where programs for child, dependent and elderly care are available.

SOCIAL IMPACT

The Panel recognizes CEMEX's commitment to contributing to the sustainable development of the communities and geographies in which it operates, either by virtue of its ongoing business operations generating social value or via social investment programs. Nevertheless, the Panel invites CEMEX to include in future reports results that reflect the transformations that have occurred in these communities and examples that illustrate the interventions carried out in specific places. Also, the panel would encourage the integration of a record of conflicts reported in the relationships between the company and the communities which it serves, including information about how conflicts may have been resolved.

BUILDING SOLUTIONS

The panel recognizes that global building materials companies are taking advantage of the continually growing green building market, which has grown by about 50% on average per year over the last ten years. This growth has been possible mainly by releasing products with higher recycled content and environmental certifications. Specifically for CEMEX, the panel notes that CEMEX develops products with environmental advantages like concretes that enhance thermal efficiency and energy conservation materials that reduce water consumption and that decrease storm water and runoff drainage. Going forward, the panel recommends including in the report some examples of how CEMEX implements innovative materials and solutions into its day-to-day operations, including the necessary adjustments to the value chain.

And finally, in efforts to further support the development of sustainable, resilient communities, the panel recognizes that CEMEX makes available affordable building materials and housing solutions to market segments that lack access to formal credit. This example serves as a good symbol of how CEMEX aligns its operations with its purpose: "To build a better future for our employees, our customers, our shareholders, and the communities where we live and work."

8.3 | Investor, media and sustainability information



We welcome your feedback on our reporting and performance. Please send your comments and suggestions to:

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EXCHANGE LISTINGS

Bolsa Mexicana de Valores (BMV) Mexico
Ticker symbol: CEMXCPO
Share series: CPO
(representing two A shares and one B share)

New York Stock Exchange (NYSE) United States

Ticker symbol: CX
Share series: ADS (representing 10 CPOs)



CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

This integrated report contains forward-looking statements within the meaning of the U.S. federal securities laws. We intend these forward-looking statements to be covered by the safe harbor provisions for forward-looking statements in the U.S. federal securities laws. In some cases, these statements can be identified by the use of forward-looking words such as “may,” “should,” “could,” “anticipate,” “estimate,” “expect,” “plan,” “believe,” “predict,” “potential” and “intend” or other similar words. These forward-looking statements reflect our current expectations and projections about future events based on our knowledge of present facts and circumstances and assumptions about future events. These statements necessarily involve risks and uncertainties that could cause actual results to differ materially from our expectations. Some of the risks, uncertainties and other important factors that could cause results to differ, or that otherwise could have an impact on us or our subsidiaries, include: the cyclical activity of the construction sector; our exposure to other sectors that impact our business, such as, but not limited to, the energy sector; competition; general political, economic and business conditions in the markets in which we operate or that affect our operations; the regulatory environment, including environmental, tax, antitrust and acquisition-related rules and regulations; our ability to satisfy our obligations under our material debt agreements, the indentures that govern our senior secured notes and our other debt instruments; the impact of our below investment grade debt rating on our cost of capital; our ability to consummate asset sales, fully integrate newly acquired businesses, achieve cost-savings from our cost-reduction initiatives and implement our global pricing initiatives for our products; the increasing reliance on information technology infrastructure for our invoicing, procurement, financial statements and other processes that can adversely affect operations in the event that the infrastructure does not work as intended, experiences technical difficulties or is subjected to cyber-attacks; weather conditions; natural disasters and other unforeseen events; and the other risks and uncertainties described elsewhere in this integrated report. Readers are urged to read this integrated report and carefully consider the risks, uncertainties and other factors that affect our business. The information contained in this integrated report is subject to change without notice, and we are not obligated to publicly update or revise forward-looking statements. This integrated report also includes statistical data regarding the production, distribution, marketing and sale of cement, ready-mix concrete, clinker and aggregates. We generated some of this data internally, and some was obtained from independent industry publications and reports that we believe to be reliable sources. We have not independently verified this data nor sought the consent of any organizations to refer to their reports in this integrated report.