

TOGETHER, WE SEE FURTHER 2018

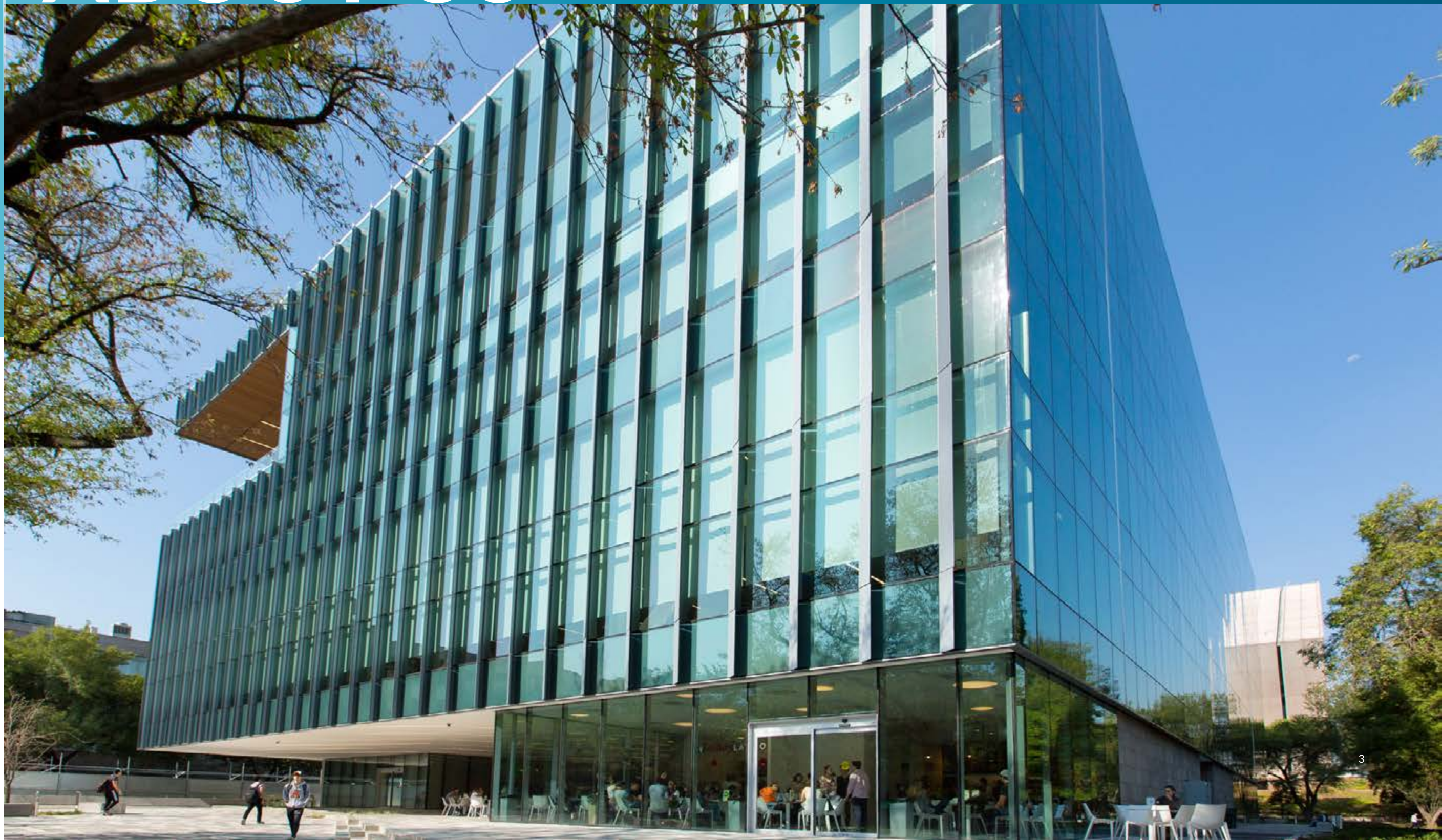
Integrated Annual Report

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ABOUT US



OUR STORY

The company Pittsburgh Plate Glass (PPG) opened the first glass factory in the United States.

1883

1909

Vidriera Monterrey, the first glass container plant, starts up operations in Monterrey, Nuevo León.

PPG becomes one of the first companies to successfully mass-produce glass with a patented process.

1920

1929

Vitro opens its first flat glass plant in Nuevo León.

PPG creates Solex, the first tinted, heat-absorbing environmental glass.

1934

1960

Vitro begins making automotive glass.

PPG becomes the first glass producer in the US to use the float glass process.

1963

1968

The first float glass line starts up operation in Mexico.

OUR STORY

The Glass Museum opens its doors, with the aim of recording, preserving and promoting the history of glass.

1991

1996

Vitro Colombia is created to produce and distribute automotive and architectural glass.

One of the largest glass container plants in the world begins serving the needs of the CFT market.

2007

2008

Vitro obtains “Socially Responsible Company” distinction for the first time.

Vitro, S.A.B. de C.V. acquires PPG Flat Glass, retaining the products, plants, people and proven processes that made the company an industry leader.

2016

2017

Vitro completes the purchase of Pittsburgh Glass Works from LKQ Corporation, strengthening the company’s automotive glass portfolio with cutting-edge technology and an automotive float glass plant in Meadville, Pennsylvania.

OUR COMPANY

GRI: 102-1, 102-3, 102-5, 102-11, 102-16

Vitro is one of the largest glass manufacturing companies in North America and one of the largest in the world. With more than 100 years of experience in this industry, the prestige of its products and services is backed by the teamwork and commitment of its more than 14,900 employees.

Founded in 1909 in Monterrey, Mexico, the company has subsidiaries around the world, through which it offers quality products and reliable services to serve

two segments of the market: glass containers and flat glass.

Vitro's companies produce, process, distribute and market a wide range of glass articles that are part of the lives of thousands of people. Vitro has highly trained personnel and cutting-edge research and technology for rediscovering new uses and applications for glass and offering multiple solutions to various markets like cosmetics, fragrances and pharmaceuticals, as well

as architectural and automotive glass. As a socially responsible company, Vitro works on various initiatives within the framework of its Sustainability Model, to positively influence an economic, social and environmental aspects that affect or involve its stakeholders, through responsible corporate management.

In 2018, recognizing the changing times and market trends, we decided to evaluate and redefine our business philosophy, pinpointing what our task is and where we're heading. In this report, we present a new Mission, Vision, and our Values, and we have incorporated the value of Sustainability as an integral part of our commitment as a socially responsible company.

11 SUSTAINABLE CITIES AND COMMUNITIES



Mission:

We redefine the power of partnership to create value and innovative glass solutions for our customers and communities.

Vision:

Together, we will realize the full potential of glass to shape how we move, build, and live in the future.

Our values:



Customer Orientation:
Our customers are at the center of what we do.



Operational Excellence:
Always exceed what is expected with greater efficiency, reliability, and quality.



Innovation:
Enhance processes and operations with new ideas to consistently improve our results.



Our People:
Unite our talent to work and grow together.



Integrity:
Always act with honesty and in adherence to our principles.



Sustainability:
Create conditions to operate and grow in harmony with the environment and the communities we serve.

MESSAGE TO OUR STAKEHOLDERS

GRI: 102-10, 102-14, 102-15

Dear readers,

For Vitro, 2018 was a year of challenges and transformation. Internal challenges like the temporary shutdown of the furnace at our plant in Carlisle Pennsylvania after a fire in 2017 and its subsequent impact on our markets; as well as the closure of the plant at Creighton, which meant transferring the production of automotive products to other plants and gave rise to a series of operating problems.

Looking at the general business climate in 2018, uncertainty surrounding the Mexican presidential elections and the result of the negotiations over the new North American Free Trade Agreement generated constant volatility in the markets, shaking consumer confidence and affecting demand for durable consumer goods, such as those produced by the automotive industry. In

this complex environment, we took on the task of strengthening our financial structure, and succeeded in rolling over 100 percent of our debt through a syndicated loan involving 10 financial institutions, substantially reducing the interest rates we pay and improving our debt maturity profile, with the first three years completely free of any principal repayment obligations. This gave us enough breathing room to focus on completing the integration of recently acquired businesses, installing our own operating systems in order to reap 100 percent of the synergies we expect from those acquisitions.

Another big achievement in 2018 was completing the sale of our 49.7 % stake in Empresas Comegua for USD\$119 million, with which we substantially increased our cash balance, and improved our net debt to EBITDA to 1.16 times at the close of the year. With this, we now have a strong balance sheet and we are firmly positioned to face the economic uncertainty and challenges that 2019 may bring.

On the matter of capacity expansions and monetization, we are pleased to report the start of operation of a new jumbo coater at our Wichita Falls plant, the largest in North America. These facilities required an investment of USD57.3 million, and enable us to offer the large-dimension coated glass that is increasingly in demand in modern buildings, making Vitro a market leader and benchmark.

In September 2018, a new windshield manufacturing line started up with cutting-edge technology equipment, which will be able to turn out one million units a year. The line is in our plant at Villa de García, Nuevo León, and we are investing USD28.5 million in the project.

Following the acquisition of PPG's flat glass division and PGW's original equipment automotive glass division, in 2016 and 2017, respectively, our company has not only grown larger and stronger, but has found new and better ways to further enrich its work culture.

Today, we are in a phase of transformation and renovation. In our 2017 Annual Report, we informed the temporary shutdown of a furnace at our architectural glass plant in Carlisle Pennsylvania, where a fire caused damage to two furnaces. This resulted in pressure and inefficiency in our supply chain, and although we endeavored to keep up with all our existing supply agreements, our other plants were not able to produce enough to fully meet the needs of all our clients. This situation persisted until July 2018, when we completed repairs on Furnace 1 at the plant, with an investment of USD\$42 million. The shutdown of the furnace, which lasted for 10 months, narrowed our margins due to low absorption of overhead and the need to lower prices in order to recoup as much of the volume lost to our competitors during that period as possible.





Our Architectural Glass operations in Mexico performed strongly during the year, as construction activity in this country grew at a moderate pace, and we focused our commercial strategies on pushing higher value-added products, like Solarban® glass.

In the Automotive Glass division, reorganization, structural change and a high volume of production shifts among our US plants, which will ultimately improve our operating efficiency in the long term, resulted in a temporary reduction of efficiency and significantly affected our costs and overall results for the year.

In addition to all this, higher shipping costs and the downturn in the US automotive industry that began in the second half of 2017 kept our sales in that country at similar levels to 2018, although increased demand for higher-content windshields in the SUV and luxury segments offset some of the reduction in volume for other products.

Other factors that alleviated some of the negative effects included the volume of vehicles sold under contracts obtained in Mexico in 2015 and 2016, as the introduction of new vehicle platforms, the organic growth of a new windshield manufacturing line for the original equipment market that can turn out one million pieces a year, and a new plant that makes components for the spare parts market. These developments allowed Vitro to grow in both the OEM and ARG markets.

We are convinced that with the startup of these new facilities that produce spare parts and high-performance windshields in 2017 and 2018, we can work on migrating over time toward a richer product mix.

The Container business had a good year, although it faced some external challenges that weakened the economies of some of the countries where it operates. Still, it turned in good results overall, with appropriate commercial strategies, solid relations with clients and the effort and commitment of all its employees, and was able to surpass its 2017 results.

Our operations in the perfume container market saw a strong recovery in 2018, as did our production and sale of containers for skin care, treatments and air fresheners. The close collaboration between each of our business areas has enabled us to venture into new market niches and improve our sales volume.

Our chemical business, Industria del Álcali, which operates four plants, had a good year from the commercial standpoint, despite some setbacks involving higher raw material costs and disruptions in the energy supply, as well as more aggressive and dynamic competition.

In Machine Manufacturing (FAMA), the machinery, molds and equipment business made further progress in its pursuit of autonomy,

improving its performance and taking a more structured approach to the machinery and equipment segments, along with molds and automation for its various markets. For example, it obtained certifications from key sources like AB InBev, a multinational brewery company to which it sold the first out-of-system machine with Vitro technology. Despite these advances, however, the division's results were heavily affected by a decline in sales to our primary client, Owens Illinois, which scaled back its purchases of molds and spare parts by more than 50 percent during the year.

On December 31 2018, Vitro closed out the fiscal year with sales of USD2.24 billion, a 7.9 percent growth, and EBITDA of USD365 million, 7.1 percent lower than in 2017 due primarily to lower margins in architectural glass and the operating problems in its automotive business. In consideration of the operating challenges we encountered in 2018, the company's directors made it a priority to strengthen cash flow generation and bolster our financial position. Based on a program of asset sales and investment control, we are pleased to report that we finished the year with cash and equivalents totaling USD290 million, 61 percent higher than the year before, and with a net debt/EBITDA ratio of 1.16 times, compared to 1.65 times in 2017.

On December 31 2018, Vitro closed out the fiscal year with sales of USD2.24 billion, a 7.9 percent growth, and EBITDA of USD365 million.

Over the past few years, Vitro has strengthened its key businesses, achieving a strategically solid position worldwide in both Architectural Glass and Automotive Glass, not to mention its outstanding role in the container market for cosmetics, perfumes and pharmaceuticals.

Last year we continued the process of consolidating and integrating new business, and at the same time decided to redefine our philosophy as a company. We took on the task of conducting exhaustive market research, including interviews with clients, vendors and employees, to reassess our Mission, Vision and Values and renew and position our corporate brand as a more modern, unified concept. All of these will be discussed in greater detail in this report.

Our name brand will continue to be Vitro, but we have refreshed our image in keeping with the focus of our new businesses and trends in the markets we serve, and more importantly, with our organizational culture.

Also for the first time, this document includes information on our actions, progress, achievements and plans in Sustainability, in accordance with Global Reporting Initiative (GRI) Standards.

We are convinced that it is the daily experience and practice of our values and philosophy that have made us successful for over a century. Our achievements are the fruit of cooperation and strategic alliances with vendors, clients and the community around us. They also stem from our ability to integrate and built talent, to listen to

and address the needs of our stakeholders. Today at Vitro, we know that Together, We See Further.

SUSTAINABLE DEVELOPMENT: A SHARED RESPONSIBILITY

At Vitro, we are aware of the commitments we have assumed in being a productive company. For this reason, we have made it our duty since we were first founded to create and preserve ideal conditions for a healthy, sustainable business climate, and to consider the well-being of our employees and their families, that of the communities we interact with, and the care and protection of the environment, in every one of our decisions.

Our Vitro Sustainability Model incorporates economic, social and environmental responsibility within a framework of transparent corporate governance on three pillars: Comprehensive Competitiveness, Human Attitude, and Environment. In each of these spheres, we make sure we act and introduce projects in which we are consistent in words, our day-to-day activities, and our commitment.

For more than a century, the Company has been recognized as a leader in sustainable processes and products. Proof of this can be seen in the clean industry certifications we continuously hold, the positive results of internal and independent audits, and awards and distinctions from clients, official organizations and autonomous institutions, all of which recognize us for our operating and financial performance and for being a Socially Responsible Company.

For the eleventh year in a row, in 2018 Vitro obtained Socially Responsible Company (SRC) distinction from the Mexican Center for Philanthropy (CEMEFI) and the Alliance for Corporate Social Responsibility (AliaRSE).

In addition to caring for the environment with our products and processes, we are committed to preserving it through education and environmental awareness programs, through scientific research in sustainable management of ecosystems, and preservation of wildlife, especially the protection of endangered species.

In each section of this report, and in the general summary, we will discuss the progress and achievements of this past year in the area of Sustainability.



Over the past few years, Vitro has strengthened its key businesses, achieving a strategically solid position worldwide.

Together, We See Further

There are external and internal challenges ahead for us in 2019. From the macroeconomic standpoint, the financial markets are likely to remain volatile, and economic growth more moderate. For Vitro, it will continue to be a period of transformation and consolidation for our Automotive and Architectural Glass divisions.

Our operations in Architectural Glass in the United States and Mexico are fully functional, so in 2019 we will work on shoring up confidence and regaining our clients' patronage in the United States, while restoring sales volume to the levels we had achieved before the fire. We have the production capacity and human talent to do so. The damaged furnace at the Carlisle plant has been completely repaired, and we now have a jumbo coater on line to respond to new market demands.

Our businesses participate in highly competitive industries, and Vitro's Automotive Glass division is no exception, particularly in a phase of market slowdown like the current one in this segment. Going forward, we will focus in achieving operating excellence, which will mean revamping and modernizing plants, with the accompanying short-term costs, seeking to obtain and maximize long-term results and thus offer quality, high value-added products and services at competitive prices.

In our Automotive and Architectural Glass businesses, we will continue to exploit the competitive advantages of our approach and focus on innovation and research to develop state-of-the-art products.

In the Container division, we will continue to reinforce our strategy, remaining close to our clients, scrutinizing market trends to develop new and better products, continuously raising our productivity through process improvements, and exploring new market opportunities.

In the chemical division, the scenario for 2019 looks challenging but positive. We are confident that our recent operating improvements place us on strong footing for growth in various businesses. As in the past, we expect a highly competitive market, but we know that our reputation for service and quality product will give us the advantages we need to retain our clients' patronage.

In Machine Manufacturing, we will remain tenacious in our efforts to boost sales to outside clients will continuing to serve affiliate businesses; and we will seek to expand our share of various markets without losing our focus on those where we enjoy competitive advantages.

We are convinced that we have a specialized team of people that grows stronger with every challenge, dedicated to making glass the ideal component for every one of the industries we serve. We have a solid financial position, experience and the unconditional effort of everyone that makes up the Vitro family. All of this allows us to reiterate to you our commitment to continuing the path of value generation as a socially responsible company. In 2019 we will

continue with determination to take actions that ensure a successful long-term future for this organization.

On behalf of the Board of Directors and our management team, as well as our more than 14,900 employees, I would like to express my gratitude to each of our stakeholders, and particularly you, our valued shareholders, for your confidence and your support, and for standing behind the actions and decisions we take to move Vitro forward.



Adrián Sada González

Chairman of the Board
of Directors



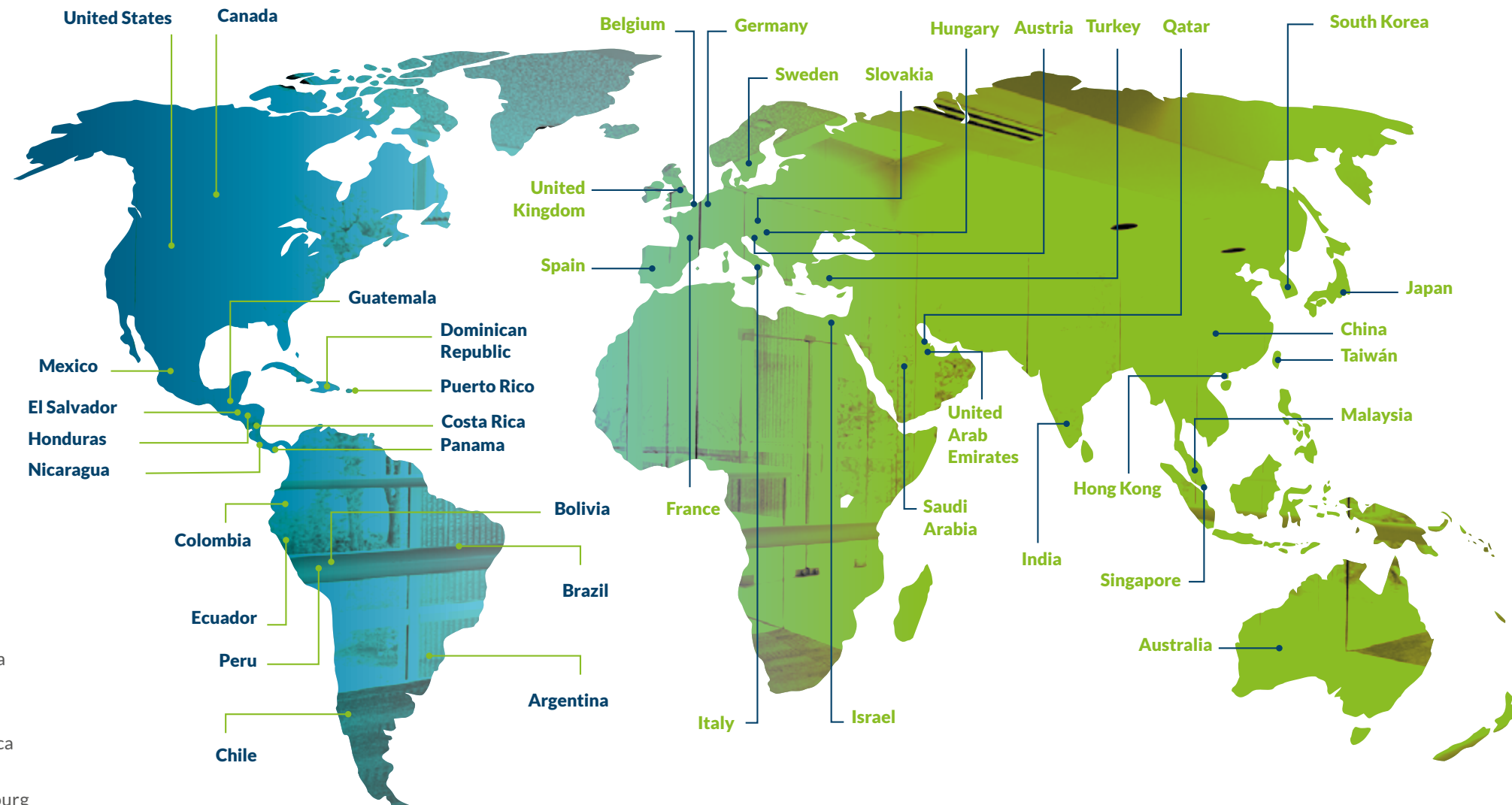
Adrián Sada Cueva

Chief Executive Officer

February 19, 2019



Our products reach



Our plants

Mexico	Colombia
United States	Brazil
Germany	Ecuador
China	Costa Rica
Poland	Peru
Canada	Luxembourg

Our main companies

VITRO, S.A.B. DE C.V.

Glass containers

- Vitro Packaging, LLC ⁽²⁾
- Servicios Integrales de Acabados

Machinery and Molds

- Machinery Manufacturing

Architectural Sector

- Vitro Flat Glass, LLC ⁽²⁾
- Vitro Flat Glass, Inc. ⁽³⁾
- Viméxico
- Vidrio Plano de Mexicali
- Vidrio Plano de México
- Vidrio Plano de México LAN
- Vitro Flotado Cubiertas
- Productos de Valor Agregado en Cristal

Automotive Sector

- Vitro Automotive Glass, LLC ⁽²⁾
- antes Vitro Flat Glass Holdings
- PGW Holdings, LLC ⁽²⁾
- Pittsburg Glass Works, LLC ⁽²⁾
- Pittsburgh Glass Works GmbH ⁽⁴⁾
- PGW Technik GmbH ⁽³⁾
- Pittsburgh Glass Works Hong Kong Limited ⁽⁵⁾
- Pittsburgh Glass Works, Sp.z o.o. ⁽⁶⁾

- Pittsburgh Glass Works, S.à.r.l. ⁽⁷⁾
- Shandong PGW Jinjing Automotive Glass Co. ⁽⁸⁾
- Vitro Automotriz
- Vitrocar
- Cristales Automotrices
- VVP Autoglass
- Vitro Colombia ⁽¹⁾
- Vitro Do Brasil Industria E Comercio

- Laminated and Tempered Crystal

Chemicals and Raw Materials

- Distribuidora Álcali
- Industria del Álcali
- Comercializadora Álcali
- Vitro Chemicals ⁽²⁾

⁽¹⁾ Company with operations in Colombia
⁽²⁾ Company with operations in the U.S.
⁽³⁾ Company with operations in Canada
⁽⁴⁾ Company with operations in Germany
⁽⁵⁾ Company with operations in Hong Kong
⁽⁶⁾ Company with operations in Poland
⁽⁷⁾ Company with operations in Luxembourg
⁽⁸⁾ Company with operations in China

SUSTAINABILITY HIGHLIGHTS

For more than a century, the Company has been recognized as a leader in sustainable processes and products. Proof of this can be seen in the clean industry certifications we continuously hold, the positive results of internal and independent audits, and awards and distinctions from clients, official organizations and autonomous institutions, all of which recognize us for our operating and financial performance and for being a Socially Responsible Company.

14,912
employees

+ 150
health campaigns for employees
and their families

95%
of employees reinstated
after parental leave

Energy intensity of
8.21
GJ/product

62%
of our manufacturing and assembly
plants have ISO 14000 certification

31.14
average hours of training
per employee

1,432
families of employees benefited
with scholarships

3,929
new hires in Mexico

0.69
GHG Emission intensity
tCO₂e/product

+1,400
patentes durante 2018

SUSTAINABILITY HIGHLIGHTS

11 years

as a Socially Responsible
Company

34

persons with disability
employed in Mexico

**MXN \$11
million**

donated to institutions that
support health and education issues

Accident rate

236

37%

of our nonhazardous waste is reused
or recycled

132,000

metric tons of glass recycled in
our operations

1,302

species protected in environmental
conservation areas

7,000

trees adopted and replanted
through the *Naturalmente Vitro*
Program

U.N. SUSTAINABLE DEVELOPMENT GOALS

In 2015, world leaders developed 17 global goals that define the overall effort to achieve Sustainable Development. Each incorporates specific targets to reach over the next 15 years. Vitro is committed to helping achieve these goals. In line with our Sustainability Model, this year we are including a reference to the U.N. Sustainable Development Goal that applies to each section of our report.





CORPORATE GOVERNANCE

Vitro has always maintained high standards of administration and corporate governance. Our efforts are aimed at maintaining Responsible Corporate Management.



In line with the highest standards of corporate governance, the Company acts transparently and complies fully with all government and industry regulations, as well as the rules and standards developed by non-governmental organizations and other social organizations.

The Board of Directors has 12 members, 41.66 percent of which are independent. This is above the percentage required by Mexican law, and the process to qualify as an independent board member is stricter than what is established in the Mexican Securities Market Act. The Board is responsible for establishing and executing strategies, policies and guidelines for the proper management of the companies the group controls, and for ensuring that all activities are carried out according to the principles of responsible corporate management.

In discharging its duties, the Board has the support of the Audit, Corporate Practices and Chairmanship committees, which oversee compliance with internal and external provisions applicable to the Company.

The Board of Directors has 12 members, 41.66 percent of which are independent. This is above the percentage required by Mexican law.



Compliance with internal and external provisions is everyone's job, so we are continuously checking and updating our own policies and standards as well as those of external organizations and institutions to ensure transparency and to make sure our performance is grounded in honesty and integrity. In recent months, we reviewed and re-drafted our Code of Ethics and Business Conduct in order to standardize, incorporate and prioritize best practices concerning our stakeholders.





The new Code is structured into extensive chapters that define every aspect from our Mission, Vision and Values to our commitment with Stakeholders—employees, clients, vendors, communities, government and the environment. The Code establishes our commitments in our operations, anti-bribery and anti-money laundering policies and regulations, compliance with the laws on fair competition, as well as national and international trading laws, conflicts of interest, handling of gifts, sponsorships and other gratuities, confidential and/or insider information, and financial controls and records, administration of the Code of Ethics and Business Conduct, and our employee letter of commitment.

We are continuously training our employees and keeping them informed of the status of our policies’ application and execution. The Code is signed by the Audit Committee, which certifies that 96 percent of our board members and employees have received training on this topic as of the close of January 31, 2019. Our business partners are also required to sign and comply with the document to be a part of our processes.

WHISTLEBLOWER SYSTEM ALERT!

Vitro has a procedure for guaranteeing that its Code of Ethics and Business Conduct are followed to the letter, and that is the “Alert!” Whistleblower System, which, as its name indicates, allows anyone to anonymously file a report on any violation of our values and business ethics, in any of our operations.

The mechanism is available by phone or by internet; the system is managed by the independent firm Navex Global, available 24 hours a day, 364 days a year, in Spanish and English, so that any of our stakeholders can contact it freely and anonymously.

REPORTS BY PRIORITY LEVEL		2018
A. Reports requiring immediate review and/or action due to an accusation or immediate threat against a person, property or workplace		0
B. Reports of urgent information that require immediate review or action		8
C. Reports that may not require immediate action on the part of the company		47
DENUNCIAS POR MEDIO		2018
Web		47
Phone		8

Contact Numbers

International Toll-Free Whistleblower Hotline numbers

Mexico 001-800-658-5454 001-800-288-2872

Colombia 01-800-911-0011

United States 877-780-9370

When you hear the operator’s recording, dial any of the phone numbers of the Whistleblower’s Hotline.

877-532-5823 o 877-780-9370

For other countries, visit: <https://watcher.alertline.com/gcs/welcome>

REPORTS BY SOURCE		2018
Abuse of authority/Workplace harassment		10
Labor relations		9
Diversity, equal opportunities and discrimination		8
Safety and environment		8
Recommendations and areas of opportunity		6
Lack of discipline		4
Gifts, Bribes or Kickbacks		3
Service and guarantees		2
Discrimination		1
Others		4
REPORTS BY SOURCE		2018
Employees		48
External		4
Clients		2
Vendors		1
COVERAGE		2018
Percent of Vitro operations covered		100

| **ADRIÁN SADA GONZÁLEZ (1944)****Member since 1984**

Chairman of the Board of Directors; Chairman of the Chairmanship Committee; Board Member of ALFA, Cydsa, Consejo Mexicano de Negocios (CMN) and Grupo de Industriales de Nuevo León.

| **ÁLVARO FERNÁNDEZ GARZA (1968)****Member since 2011**

Chief Executive Officer of Alfa and member of the Board of Directors of Cydsa, Grupo Aeroportuario del Pacífico, Grupo Citibanamex, the Museum of Contemporary Art of Monterrey (MARCO), and member of the Latin-American Council of the University of Georgetown. Mr. Fernández also is the President of the University of Monterrey.

| **TOMÁS GONZÁLEZ SADA (1943)****Member since 1980**

Chairman of the Board and Chief Executive Officer of Cydsa, Mr. González is also Vice President of the Mexican Institute for Competitiveness (IMCO), Honorary Consul of Japan in Monterrey, Mexico. Additionally, he is a member of the Regional Council of the Bank of Mexico (Central Bank), Business Round Table (CMN), Grupo de Empresarios de Nuevo León and member of the Board of Trustees of Cáritas de Monterrey and Treasurer of the Martinez Sada Foundation, an organization granting academic scholarships.

| **MARIO LABORÍN GÓMEZ (1952)****Member since 2010**

President of ABC Holding, Mr. Laborín was previously Managing Director of Bancomext, Nacional Financiera, Bancomer and its Brokerage Firm, president of Casa de Bolsa and founding President/ Chairman of Mexder, as well as co-founder and General Director of Grupo Vector. He has served as a member of the Board of Directors of TV Azteca, Cervecería Cuauhtémoc, Mexican Maritime Transportation, Bancomer, Mexican Stock Exchange, Mexder, Indeval, Xignux, Megacable, Cydsa, Astrum México, Banco de México Nuevo León, Gruma and AXA Seguros.

| **DAVID MARTÍNEZ GUZMÁN (1957)****Member since 2013**

Chairman of the Board and Special Director at Fintech Advisory Inc., New York, and member of the Board of Directors of Alfa, S.A.B. de C.V., CEMEX, S.A.B. de C.V., ICA Tenedora, S.A. de C.V., and Banco de Sabadell, S.A.

| **RICARDO GUAJARDO TOUCHÉ (1948)****Miembro desde 2013**

Chairman of the Board of Solfi and member of the Board of Directors of BBVA Bancomer, Bimbo, Liverpool, ALFA, Grupo Aeroportuario del Sureste, Coppel and Coca-Cola FEMSA. Mr. Guajardo also was a member of the International Advisory Committee of the Federal Reserve Bank of New York. He has held various executive positions in companies such as BBVA Bancomer, Valores de Monterrey, FEMSA and Grupo AXA.

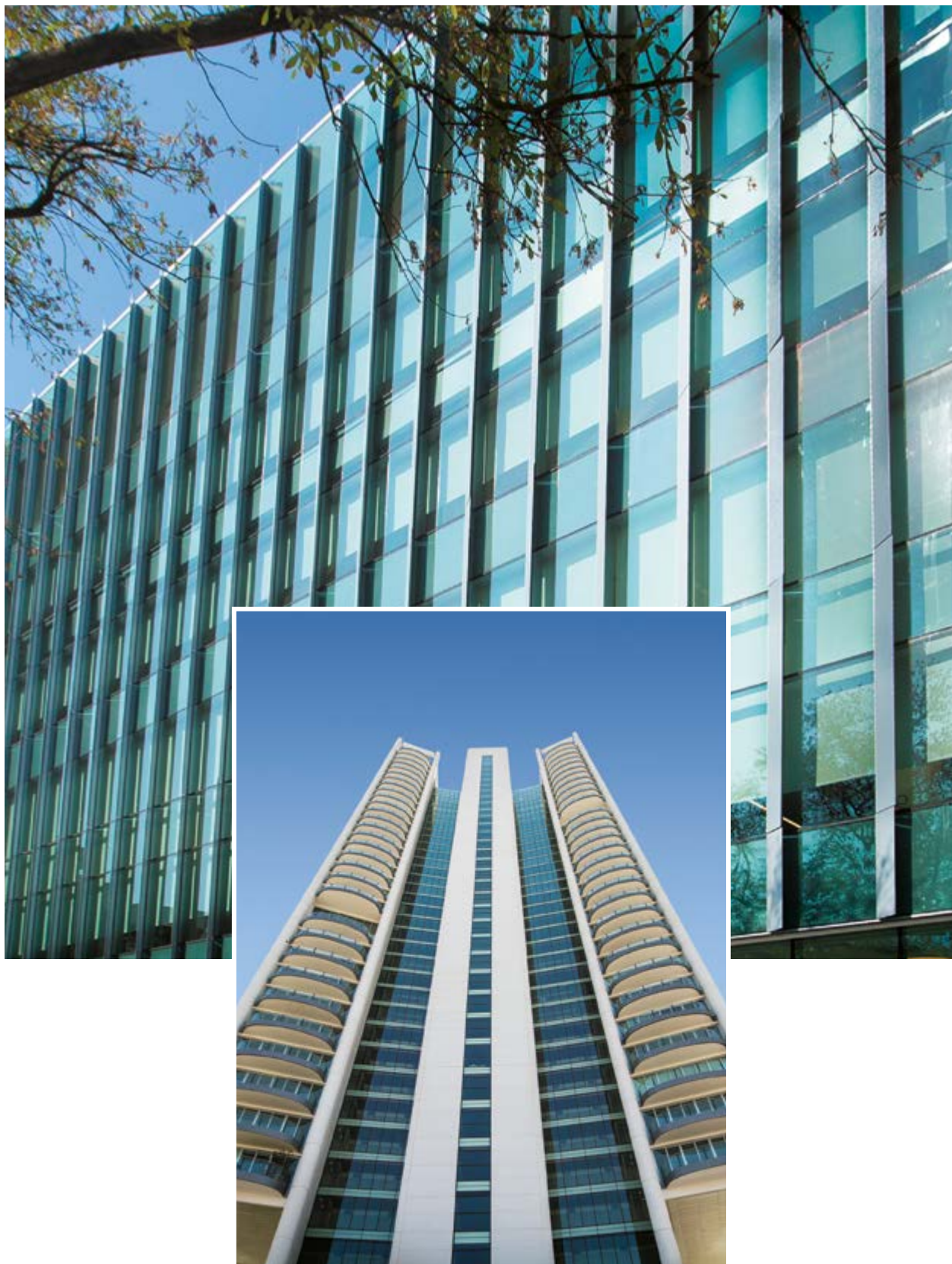
| **GUILLERMO ORTIZ MARTÍNEZ (1948)****Miembro desde 2010**

Partner and Board Member of BTG Pactual, Chairman of the Per Jacobsson foundation, as well as founder and Chairman of Guillermo Ortiz y Asociados. Mr. Ortiz also is a member of the Group of Thirty and the Board of Directors of Bombardier, Grupo Aeroportuario del Sureste, Mexichem and Weatherford International LTD. He has served as Chairman of the Board of the Bank for International Settlements, Governor of the Bank of Mexico and secretary of Finance and Public Credit. He also has served as President of the External Review Panel of the Management of Risk Management of the International Monetary Fund and as Executive Director of the International Monetary Fund.

| **RICARDO MARTÍN BRINGAS (1960)****Miembro desde 2007**

Chairman of the Corporate Practices Committee Chief Executive Officer and a member of the Board of Directors of Organización Soriana, Mr. Martín also is a member of the Board of Directors of Teléfonos de México, Grupo Financiero Banamex, Mexican Council of Businessmen (CMN), Grupo de Empresarios de Nuevo León and the National Association of Self-Service and Department Stores (ANTAD). He also is Chairman of the Board of the Maternal and Child Regional Hospital.





| JAIME RICO GARZA (1957)

Member since 2008

Director and Chairman of the Board of Vitro Europa and Vitro Global (2007-2012), as well as member of the Board of Directors of Vitro Cristalglass and Director of Vitro Cristalglass (2007-2012).

| ADRIÁN SADA CUEVA (1975)

Member since 2010

Executive Chief Executive Officer Board Member of Empresas Comegua, Club Industrial de Monterrey, Grupo Financiero Banorte and Banco Mercantil del Norte, Universidad de Monterrey, Nemark and Minera Autlán. Board Member of Cámara de la Industria de Transformación (CAINTRA) Nuevo León.

| JOAQUÍN VARGAS GUAJARDO (1954)

Member since 2000

Chairman of the Audit Committee Chairman of the Board of Directors of Grupo MVS and Chairman of the Board of Directors of Grupo CMR. Member of the Board of Directors of Grupo Financiero Santander, Grupo Costamex, El Universal, Grupo Aeroportuario del Pacífico and Médica Sur. Has been Chairman of the Board of Directors of the Cámara Nacional de la Industria de Radio y Televisión (2000-2001), Chairman of the Asociación Mexicana de Restaurantes (1985-1987) and Chairman of the Asociación de Directores de Cadenas de Restaurantes (1989).

| ALEJANDRO F. SÁNCHEZ MÚJICA (1954)

Member since 1980

Secretary of the Board since 2007 (Non-Board Member) He has been the General Legal Manager of Indeval, General Counsel of a Division of Grupo Kuo, General Counsel of Pulsar Internacional / Savia, Vice President and General Counsel of Vitro and currently he is a Senior Counsel at the law firm of Thompson & Knight. He has been a member and Secretary of the Board of Directors of several Mexican and foreign corporations and currently he is a member of the Private Charity Board for the State of Nuevo León. Attorney at law from the Escuela Libre de Derecho and holds Masters Degrees from the University of Texas at Austin.

| JAIME SERRA PUCHE (1951)

Member since 1998

President of SAI Consultores, Mr. Serra is founder of Aklara (Electronic Auctions), Arbitration Center of Mexico (CAM). He also is Chairman of the Board of BBVA Bancomer and the following publicly listed companies: Mexico Fund, Tenaris and Vitro. He served as an official of the Mexican Government as undersecretary of revenue, secretary of commerce and secretary of the treasury. He is co-chairs the President's Council on International Activities of Yale University, as well as a trustee of the Trilateral Commission.



**MEMBERS OF THE BOARD OF
DIRECTORS OF VITRO**

- Adrián G. Sada González
President
- Joaquín Vargas Guajardo
Independent Board member
- Álvaro Fernández Garza
- Tomás Roberto González Sada
- Ricardo Guajardo Touché
- Mario Martín Laborín Gómez
Independent Board member
- Ricardo Martín Bringas
Independent Board member
- David M. Martínez
- Guillermo Ortiz Martínez
Independent Board member
- Jaime Rico Garza
- Adrián G. Sada Cueva
- Jaime José Serra Puche
Independent Board member
- Alejandro Francisco Sánchez Mújica
Non Member Secretary

**MEMBERS OF THE VITRO
AUDIT COMMITTEE**

- Joaquín Vargas Guajardo
President
- Guillermo Ortiz Martínez
Independent Board member
- Jaime José Serra Puche
Independent Board member
- Jonathan Davis Arzac
Non-Member Financial Expert
- Claudio Luis Del Valle Cabello
Non Member Secretary

**MEMBERS OF THE VITRO CORPORATE
PRACTICES COMMITTEE**

- Ricardo Martín Bringas
President
- Joaquín Vargas Guajardo
Independent Board member
- Guillermo Ortiz Martínez
Independent Board member
- Mario Martín Laborín Gómez
Independent Board member
- Alejandro Francisco Sánchez Mújica
Non-Member Secretary

CHAIRMANSHIP COMMITTEE

- Adrián Sada González
President
- Adrián Sada Cueva
- Claudio L. Del Valle Cabello
Non Member Secretary

SUSTAINABILITY STRATEGY

GRI: 102-47, 103-2

At Vitro, we are convinced that our ability to generate economic value is closely linked to the well-being of every one of our stakeholders—employees, clients, business partners and the communities where we are present. For this reason, we strive to take advantage of any situation in which we can create synergies through actions and thus positively impact society and the environment.

In 2018, in addition to ratifying our values as a company, we decided to include a value called sustainability, which we define as the ability to create conditions to operate and grow in harmony with the environment and the communities we serve.

In keeping with our strategy of generating economic value while ensuring the well-being of our stakeholders, we have a regulatory

framework that makes up our Vitro Sustainability Model, consisting of three pillars—Comprehensive Competitiveness, Environment, and Human Attitude—which converge into the Company's sustainable development, all from a Responsible Corporate Management approach. In this report, we will comment on some of the key indicators for each of these axes.

Through a study we carried out in 2015, we identified the issues we should be focusing on: Recruiting and retaining talent; Climate change and atmospheric emissions; Human capital; Corruption and transparency; Diversity and equal opportunities; Energy eco-efficiency; Ethics and integrity; Corporate social responsibility management, Brand management, Customer relationship management, Waste management, Risk management, Social impact, Operations, Environmental policy, Product stewardship and Occupational safety and health.

The company is aligned with the Sustainable Development Goals published by the United Nations Organization in 2015, the purpose of which is to end poverty, fight inequality and injustice, and deal with climate change, leaving no one behind, by 2030.

COMPLIANCE AND INTEGRITY

At Vitro, we not only comply with all laws and standards governing our products, processes and actions, but we also develop and apply internal policies to make sure our actions and decisions take place within a framework of legality and transparency, in accordance with the highest international standards.

In 2018 there were no reports of significant or material non-compliance with the law that might affect the ordinary course of business for the Company and its subsidiaries regarding these issues.

LEGAL COMPLIANCE

GRI: 206-1, 306-3, 307-1, 411-1, 416-2, 419-1



From a risk management approach, we strictly oversee compliance with all laws and policies on environmental, social and economic matters as well as all the processes relating to the information on our products and services. In 2018 there were no reports of significant or material non-compliance with the law that might affect the ordinary course of business for the Company and its subsidiaries regarding these issues.



Collective bargaining agreements

Because we are concerned with the well-being of all of Vitro employees, we make sure to provide optimum conditions for their professional and personal development, so we encourage healthy labor relations that encourage freedom of association and recognize the right to collective negotiation. In Mexico and Colombia, 100 percent of our operating staff are affiliated with some collective bargaining agreement; the Company is still in the process of integrating businesses acquired in 2016 and 2017, which includes verifying their employees' membership in associations of this type.

Additionally, the Company's Labor and Corporate Relations Department is in charge of making sure all of Vitro's companies have processes aligned with the International Labor Organization (ILO) declaration on fundamental principles and rights at work, as well as the U.N. Universal Declaration of Human Rights.

OCCUPATIONAL SAFETY AND HEALTH

GRI: 403-1, 403-2, 403-3

3 GOOD HEALTH AND WELL-BEING



Since its origins, Vitro has made it a priority to provide a healthy and safe workplace for its employees, therefore it has policies and procedures in place that establish preventive and corrective industrial safety measures, protecting the physical integrity of our people and our facilities.

Our Comprehensive Safety and Health System (SISS) dictates safe conditions in all of our plants and establishes operational controls to ensure this. Among other things, the SISS manages indicators like the Accident Rate, which measures the relationship between accident frequency and seriousness, and defines actions to reduce the number of days lost and the number of accidents.

The System incorporates a specific methodology for investigating and analyzing accidents, and continually evaluates risks in equipment, materials and the environment, to identify hazards in advance and prevent and minimize the possibility of injury to our employees.

The system also ensures that a position may only be occupied by a person with the skills required to do the job, and this is the basis for our selection of job candidates without any other type of distinction.

In 2018, Vitro invested more than MXN\$260 million in health and safety issues, including everything from uniforms and personal protection equipment (PPE) to comprehensive industrial occupational safety and health

In Mexico and Colombia, 100 percent of our operating staff are affiliated with some collective bargaining agreement.



programs. In addition to protecting the safety of its employee and its property, Vitro is a member of the Business Alliance for Secure Commerce (BASC), an international association that promotes safe commerce, and the Customs-Trade Partnership Against Terrorism (CT-PAT), the US anti-terrorist customs certification that oversees and ensures that commercial freight is not contaminated with illegal or undeclared content such as arms, drugs or explosives.

One other way to reassure our clients of the safety of our supply chain is our ISO 28000 certification, which we received for the first time in 2018. The certification is valid for three years, and certifies Vitro as a multi-site company, meaning all export plants with operations in Mexico have been certified, because Vitro’s protection management system is consistent with its internal program of protection and safety in the supply chain.

This type of certification represents an endorsement of our strong operating performance and indicates that we have the right conditions in all our processes from the supply chain through delivery to the client, to ensure the safe commerce of our products.

EMPLOYEE BENEFITS

GRI: 401-2, 404-1, 404-3

8 DECENT WORK AND ECONOMIC GROWTH



Not content to merely protect its employees’ physical safety, Vitro offers a range of benefits

that extend to their families, among which are initiatives that support their health, economy, education, personal and family development, and promote values, to mention just a few.

One of the ways we contribute to the prosperity of our communities is by offering a dignified wage and employee benefits to our workers, making sure that every one of our workplaces offers the benefits mandated by law, and more, through compensation initiatives, bonuses and special recognitions.

Our Quality of Life at Work (CVT) survey, which we apply to our employees every year, provides a good indicator of our employees’ satisfaction with their working conditions. In 2018 the result was a score of 85.2 percent.

Regular performance and development evaluations

The Company also conducts regular performance and development evaluations through various tools such as Individual Performance Planning and Analysis (PADI), which is applied to employees and executives in Mexico and encourages employees to define performance targets, signed by their immediate superiors, in line with the business strategy and each person’s job. Practices such as these promote employees’ personal and professional development, involve them in decision-making and proposed improvements, so they not only benefit personally but can contribute to improving processes and productivity for the Company.

In 2018, more than 71 Vitro employees were given performance evaluations and had access to performance bonuses.

85.2%

At our Quality of Life at Work (CVT) survey.





Training

At Vitro, we know that our success lies in the comprehensive growth of our entire employee population, so we develop ongoing training programs at all levels and through a variety of channels. In 2018, 82 percent of our employees took some sort of training course—health and safety, languages, technical knowledge, sustainability, and other topics.

Based on the existing needs, functions, abilities and availability, training can be in person, by correspondence, or online. Among the topics that can be studied are human rights, safety and health, languages, technical knowledge and updates, sustainability, leadership, and decision-making. The average number of training hours provided in 2018 was 31.14 per employee, with an investment of more than MXN11 million for our operations.

Through the Vitro Talent Platform, we intend to expand our learning proposal by offering a wide variety of online courses that give employees free access to tools for improving their performance and strengthening their professional careers. In 2018 we had 5,007 courses available in Spanish and English.

DIVERSITY AND DISCRIMINATION

GRI: 405-1

For the Company, the personnel recruitment and hiring process focuses essentially on the experience and skills of each candidate, without distinction of any kind. At Vitro we support a diverse, inclusive workplace, and we respect and enforce respect for human rights.

We abide strictly by all the laws in every sphere and every country in which we operate, and labor and human rights are a priority for us.

Vitro's Code of Conduct and Business Ethics prohibits discrimination based on race, skin color, gender, age, language, property, nationality or country of origin, religion, ethnicity, disability, pregnancy, political affiliation or beliefs, sexual preference or any other prejudice that may be grounds for discrimination.

It also establishes the commitment to offer equal opportunities, training and professional development to its employees based only on merit, and to comply with laws on freedom of association, privacy, collective bargaining, immigration, work days, wages and hours, as well as laws prohibiting slavery, forced and child labor, human trafficking and workplace discrimination.

As an example of this, Vitro re-launched the *Uniendo Talentos* program in 2015, although it has been working in this area for many years, with the renewed intent to support recruitment and hiring by providing the conditions needed to attract the best talent and promote the advancement of people from disadvantaged backgrounds.

At the close of 2018 Vitro employed a total of 34 persons with hearing, motor or intellectual disability, working in various companies of the group. During the year, as part of a program to encourage a culture of inclusiveness, we offered a course on Workplace Equality and Non-Discrimination in our plant in Toluca, Mexico State. On this matter, it is of particular note that the federal government remarked Vitro's

34

persons with hearing, motor or intellectual disability, working in various companies of the group.

10 REDUCED INEQUALITIES



5 GENDER EQUALITY





performance by awarding it the *Gilberto Rincón Gallardo* distinction, recognizing it as an Inclusive Company. The distinction is granted for periods of three years.

ENVIRONMENTAL FOOTPRINT

GRI: 305-1, 305-2, 305-4, 305-1, 305-6, 306-2



Vitro is aware of the challenges inherent in the issues of ecology and environmental care around the world. Our commitment to sustainability is a priority in the development of Company programs, initiatives and projects. We are continuously working to improve our efficiency through better productivity indexes and by trying to keep the impact of our processes to a minimum.

Glass recycling

Glass is a material made from natural elements, and it is 100 percent recyclable, so we make the most of the cullet (glass waste) gleaned from our internal processes and from external suppliers. Among other advantages, this allows us to consume less raw material in our furnaces and reduce our energy consumption.

In 2018 we recycled more than 132,000 metric tons of glass, reaching and surpassing the



proposed goal of more than 100,000 metric tons of architectural and automotive glass and cosmetic containers. This includes internal sources as well as 118 suppliers in 27 different cities. In 2019 this project will be expanded to some of our plants in the United States.

Waste Management

Another action the Company takes in discharging its responsibilities to the environment and the planet is the Comprehensive Waste Management Program, which separates out hazardous and non-hazardous waste at all its facilities.

In 2018, we generated 287,172 metric tons of non-hazardous waste, 16 percent of which was reused in our processes and 21 percent sent for recycling; we also generated 55,249 metric tons of hazardous solid waste in 2018, which was handled in accordance with environmental regulations.

Recyclable waste such as paper, cardboard, plastic and metal is sent to external suppliers for recycling, which reduces the amount of solid waste sent for final disposal. 63 percent of our non-hazardous waste went to sanitary landfills.

Greenhouse Gas Report

In 2018, we confirmed our participation in the Mexico GHG Program, a joint private-public initiative that establishes systems for measuring and reporting greenhouse gases and supports projects to reduce emissions, to help mitigate climate change.

Energy generation and industrial processes are among the biggest contributors to climate change. At Vitro, we continuously monitor our

greenhouse gas emissions in Mexico, which are reported and verified according to the NMX-SAA-14064-1-IMNC-2007 standard.

Verifications are performed by the *Asociación de Normalización y Certificación*, A.C. (ANCE), which is accredited by the official *Entidad Mexicana de Acreditación* (EMA). The Company conducts an independent review of emissions and validates internally generated reports. In 2018, we receive certification for the 2016-2017 period accrediting Vitro's companies in Mexico and Colombia.

Efficient energy management

Additionally, we voluntarily submit to various assessments applied by international organizations like the Carbon Disclosure Project (CDP), whose objective is to turn environmental reports and risk management into a business standard, and to promote dissemination, awareness and action toward a sustainable economy. Under the National Environmental Audit Program, all of Vitro's companies in Mexico have the Clean Industry certification. Furthermore, our clients comprehensively evaluate our processes, for which we have an Energy Management System that includes energy saving projects and programs to reduce the environmental impact of our operations.

In Vitro, 62 percent of our manufacturing and assembly plants have ISO 14000 certification, which is the international standard for environmental management.

The consumption of energy from non-renewable sources in our processes is vitally important because

our smelting ovens are intense in the consumption of such fuels. In processes ranging from the sourcing of raw materials through logistics with our clients and end consumers, we use natural gas, steam, coke, LP gas, diesel and gasoline, and we have developed a project to use renewable energy purchased from outside companies.

Starting in 2015, in two of our plants in Mexico, we have supplied 80 percent of their energy needs from a wind park in Juchitán, Oaxaca, but natural gas and steam remain the two main energy sources for our operations. Through operating efficiency programs, in 2018 we succeeded in reducing the amount of energy purchased at some of our plants by 3 percent.

132,000
metric tons of glass recycled

287,172
metric tons of non-hazardous waste

62%
of our manufacturing and assembly plants have ISO 14000 certification

SOCIAL IMPACT

GRI: 102-12

11

SUSTAINABLE CITIES
AND COMMUNITIES



17

PARTNERSHIPS
FOR THE GOALS



At Vitro, we strive to expand our influence and positive impact on the communities around us through activities and projects that work for their well-being. In line with the value of Sustainability, which we have established as a value.

We know that there are initiatives that we cannot pursue alone; we need the collaboration and participation of external institutions interested, like us, in promoting community development. Therefore, we have forged alliances with educational associations, nonprofits, government, other private enterprise and non-governmental organizations (NGOs).

Among the organizations with which we work on joint projects are: the Mexican Employers' Federation (COPARMEX), the National Science and Technology Council, the National Manufacturing Industry Chamber, Confederation of National Chambers of Commerce, Services and Tourism; and educational institutions like the Tecnológico de Monterrey, UDEM, the Universidad Autónoma e Nuevo León, and other private companies affiliated with the SumaRSE network.

On its own, Vitro promotes initiatives in various spheres, all with the same purpose: working for the common good of society, supporting growth and autonomy and strengthening the social fabric. We know that education is the basis for development, and that's why at Vitro we not only bet on employee learning, but we look for ways to support their families as well.

In 1942, we founded a nonprofit organization called Formación Educativa, A.C., to provide alternative primary school education to children of employees. Since then, FEAC opened its doors to the community at large; it is a self-sufficient institution and can guarantee the children of our employees an excellent education. In the 2018-2019 school year there were 1,206 students enrolled from the preschool through middle school levels.

In a parallel effort, the company supports the development of employees' wives as well as women employees and neighbors from communities near our operations through the

1,206

students enrolled from the preschool through middle school levels.





Asociación Nacional Pro Superación Personal, A.C. (ANSPAC) which works to improve the social, moral and cultural level of Mexican families through personal advancement.

ANSPAC offers courses and workshops in three areas: human development, moral development, and skills and workshops. The 2018 school year closed with the participant of 80 women plus their mentors, and closing ceremonies were held in Toluca, Mexico State, and in Monterrey and García, Nuevo León.

Since 1972, Vitro has owned a recreational-environmental park called Parque el Manzano, which covers 585 hectares with a rich variety of flora and fauna contained in a natural protected area. The park has a staff specializing in preservation and who are also trained in firefighting, prevention and control as well as controlling pests that can occur in the park and in its environs.

The park welcomed 65,970 visitors in 2018, who had an opportunity to enjoy the facilities. Access fees to the park go to forest improvement activities. For more information, visit: <http://www.vitroparqueelmanzano.com/>

Another of Vitro's initiatives in favor of the community is the Glass Museum, whose purpose is to revive, preserve and disseminate the history

of glass in Mexico and inculcating an appreciation of glass while encouraging artists who work in this material, for which it has educational services workshops. Its galleries exhibit pieces made in Mexico and abroad using various techniques and applications.

Every year the Glass Museum receives thousands of visitors of all ages. Guided tours are available, led by trained volunteers, and the museum welcomes class trips and group visits. In 2018, more than 8,500 people had an opportunity to admire the museum's artistic archives, 60 percent of them schoolchildren. Visit the museum's webpage at: <http://www.museodelvidrio.com/>

In addition to traditional channels for hiring, every year Vitro takes part in and organizes job fairs to recruit candidates to fill vacancies in its various companies. This helps us forge closer ties with the community and learn about their needs and capacities directly from them. In 2018 we participated in 20 job fairs and hired 3,929 new employees in Mexico.

Our company also acts to assist the most vulnerable or disadvantaged communities through volunteer work by its employees in various activities. For example, employees took part in various clothing and supply collection campaigns to support victims of the hurricanes that lashed various states of Mexico in 2018.

65,970

Visitors to Vitro Parque el Manzano

8,553

Visitors to the Museo del Vidrio

20

Job fairs

FINANCIAL HIGHLIGHTS

FINANCIAL HIGHLIGHTS

Vitro, S.A.B. de C.V. y Subsidiarias

(Figures in millions of pesos under IFRS standards, except where otherwise indicated; dollar amounts are expressed in millions of nominal US dollars)

	Dollars ⁽¹⁾	%	
	2018	2017	Change ⁽³⁾
INCOME STATEMENT			
CONSOLIDATED NET SALES	\$ 2,238	\$2,075	7.9
Domestic	649	628	3.4
Export	343	292	17.4
Offshore subsidiaries	1,247	1,156	7.9
EARNINGS BEFORE OTHERS (EBIT)	245	273	(10.1)
NET INCOME	162	194	
MAJORITY NET INCOME	162	194	
MAJORITY NET INCOME PER SHARE ⁽³⁾	0.34	0.40	
EBITDA ⁽⁴⁾	365	393	(7.2)
BALANCE SHEET			
TOTAL ASSETS	2,771	2,675	3.6
TOTAL LIABILITIES	1,303	1,290	1.0
TOTAL SHAREHOLDERS' EQUITY	1,468	1,385	6.0
MAJORITY SHAREHOLDERS' EQUITY	1,467	1,384	6.0
FINANCIAL RATIOS			
DEBT ⁽⁵⁾ EBITDA (TIMES)	2.0	1.7	
NET DEBT ⁽⁵⁾ EBITDA (TIMES) ⁽⁶⁾	1.2	1.3	
INTEREST COVERAGE (TIMES) (EBITDA / TOTAL NET INTEREST EXPENSE)	5.6	10.4	
EBIT MARGIN (%)	11%	13%	
EBITDA MARGIN (%)	16%	19%	
NUMBER OF EMPLOYEES	14,912	14,817	0.6
CAPEX ⁽⁵⁾	154	163	(5.7)

(1) The functional currency for the company in 2018 was the U.S. dollar.

(2) Change from 2017 to 2018.

(3) Based on the weighted average number of shares outstanding.

(4) EBITDA = operating income before others, plus depreciation, amortization and employee pension fund obligations.

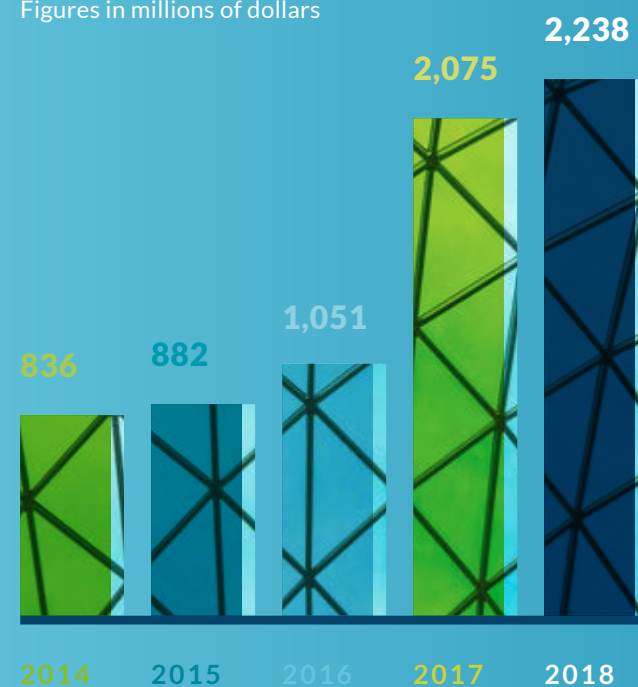
(5) Represents investment in fixed asset during the fiscal year, and therefore differs from investments presented under cash flow.

(6) Debt net of cash and equivalents.

The financial figures are presented in accordance with International Financial Reporting Standards (IFRS)

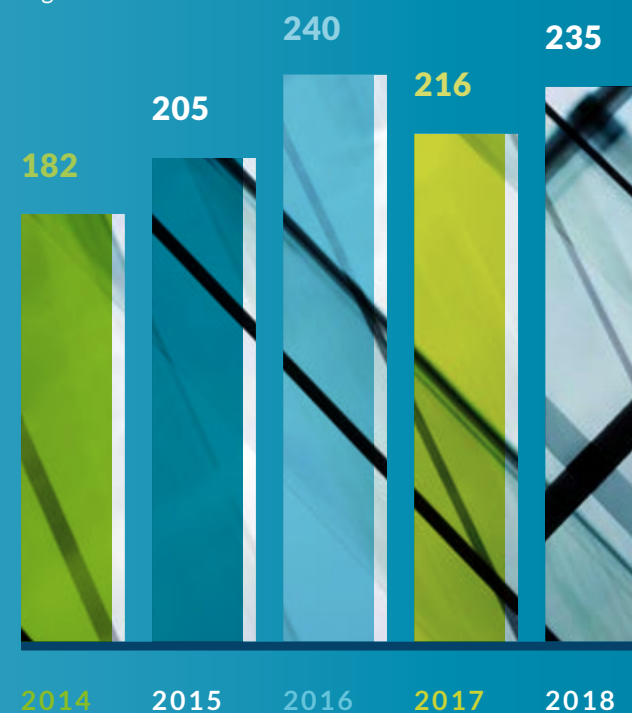
CONSOLIDATED NET SALES

Figures in millions of dollars



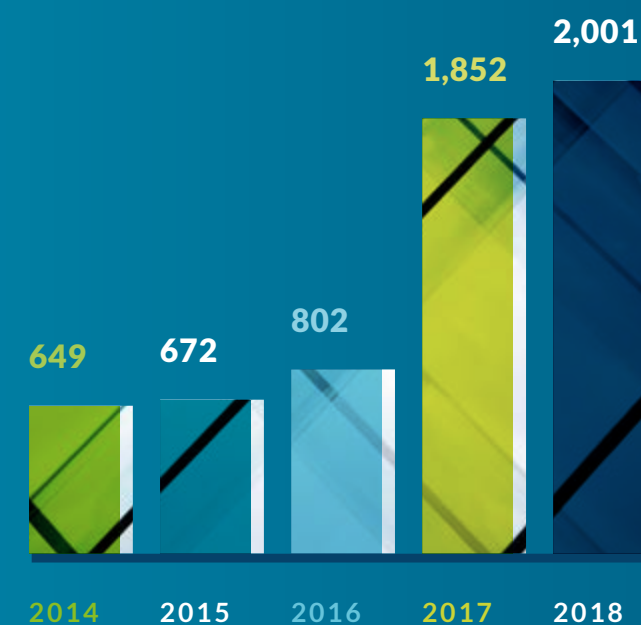
NET SALES CONTAINERS

Figures in millions of dollars



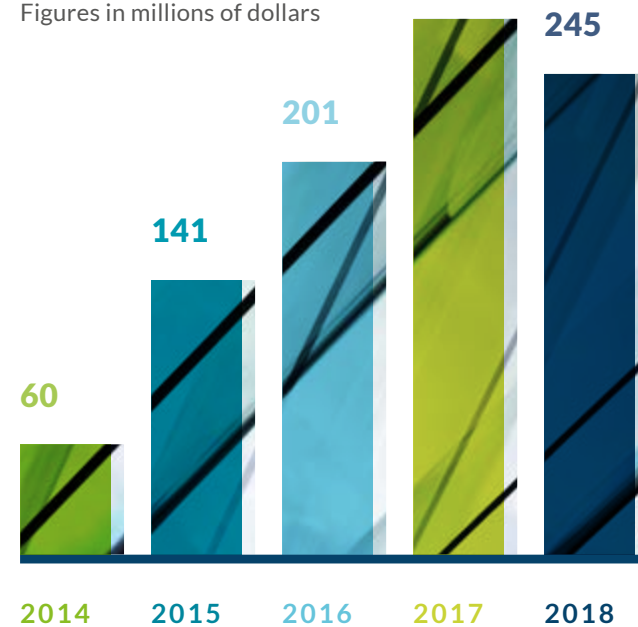
NET SALES FLAT GLASS

Figures in millions of dollars



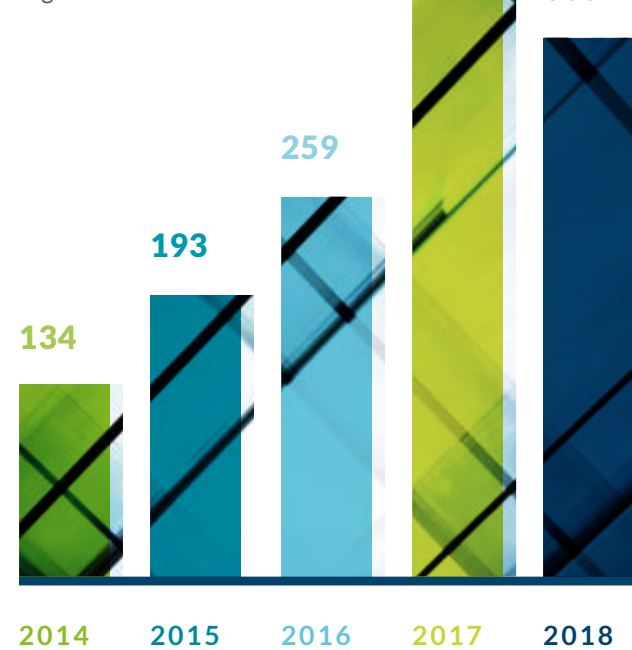
OPERATING INCOME (BEFORE OTHER INCOME AND EXPENSES)

Figures in millions of dollars



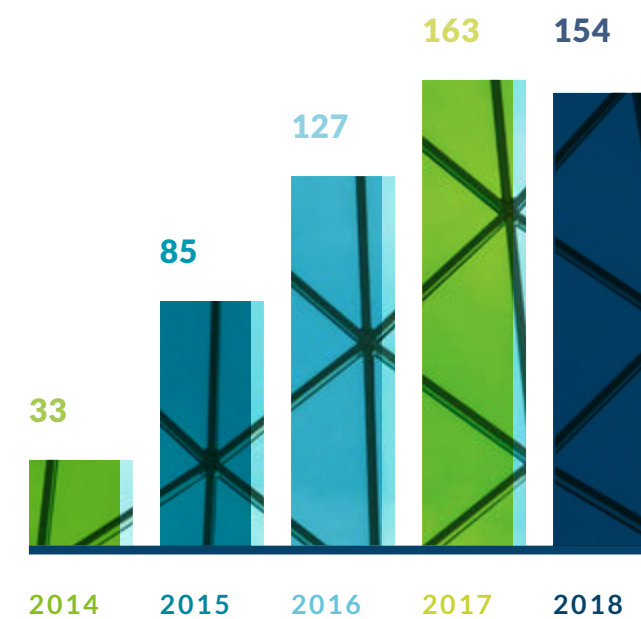
CONSOLIDATED EBITDA

Figures in millions of dollars



CAPEX

Figures in millions of dollars



GRI: 102-15

FLAT GLASS

The Flat Glass business unit is a worldwide leader in the manufacturing and processing of float glass to serve the construction and automotive industry, for the latter in both the original equipment and spare parts segments. In addition to making, processing, marketing, distributing and installing glass, the division remains at the forefront of the industry in developing added-value products through its technological research center, enabling it to meet the exacting demands of every client. It also produces sodium carbonate, sodium bicarbonate, sodium chloride and calcium chloride for use in making glass and detergents, in water treatment, pharmaceuticals, food, in the oil industry, road de-icing and in agriculture, among other applications.



BUSINESS OVERVIEW

2018 was a year of contrasts for the Flat Glass division. The building and automotive industries in the US faced some challenges, but once again Vitro's human team proved that challenges are merely opportunities to put our values into practice and develop the right strategies to achieve operating excellence. In contrast, the businesses in Mexico performed fairly well, helping to keep results stable against the previous year.

ARCHITECTURAL GLASS: CLIENT-CENTRIC

Following a fire at our Carlisle, Pennsylvania plant in 2017, one of our furnaces was decommissioned until July 2018, so we were unable to keep up fully with our clients' glass needs. We were forced to buy from the competition in the interim, but once the furnace was repaired, through redoubled efforts and strategic agreements along with a renewed focus on quality and service, we were able to partially recoup our market share and maintain our presence with key clients.

In August of last year, operations started up on our new MSVD jumbo coater line at the plant in Wichita Falls, Texas. This equipment can produce high-energy efficiency glass in much larger than standard sizes.

The new jumbo coater turns out glass 22 percent wider and 50 percent longer than other MSVD produced at the same plant. The jumbo MSVD coater applies Solarban® solar control low-e coatings on a variety of large-area glass substrates in standard thicknesses while providing precision color control and aesthetics.

Among the biggest projects where Vitro glass has been used in 2018 are the Amazon Spheres conservatories in Seattle, 181 Fremont in San Francisco and the Jewel Changi airport in Singapore.

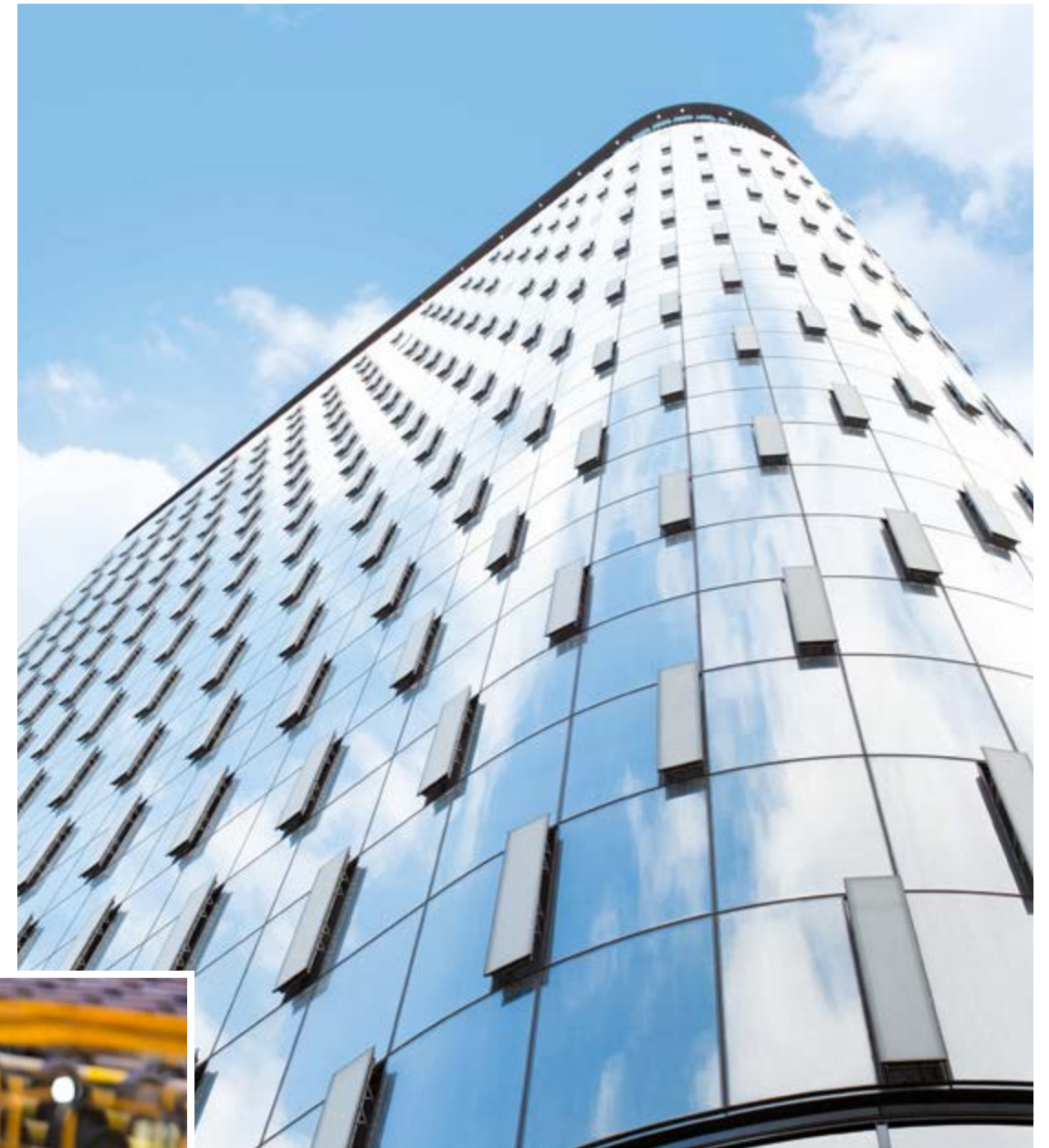
The new line can turn out more glass per energy unit than any other MSVD in operation, and also

Vitro Architectural Glass reported a 0.5 percent increase in sales at the close of 2018

boosts the plant's production capacity of low-e glass by 2 percent. Growth in the Mexican market was sluggish, however, so we refocused marketing efforts, promoting our added-value products by participating in special events and putting together a prescription team for the purpose of introducing the architectural community to the features and advantages of our Solarban® high-performance glass, so that when it comes time to make decisions, our brand enjoys top-of-mind status. Some of the most widely-known projects in Mexico where our glass is on display include the Torres Obispado in Monterrey, Nuevo León and Mitikah Ciudad Viva in Mexico City.

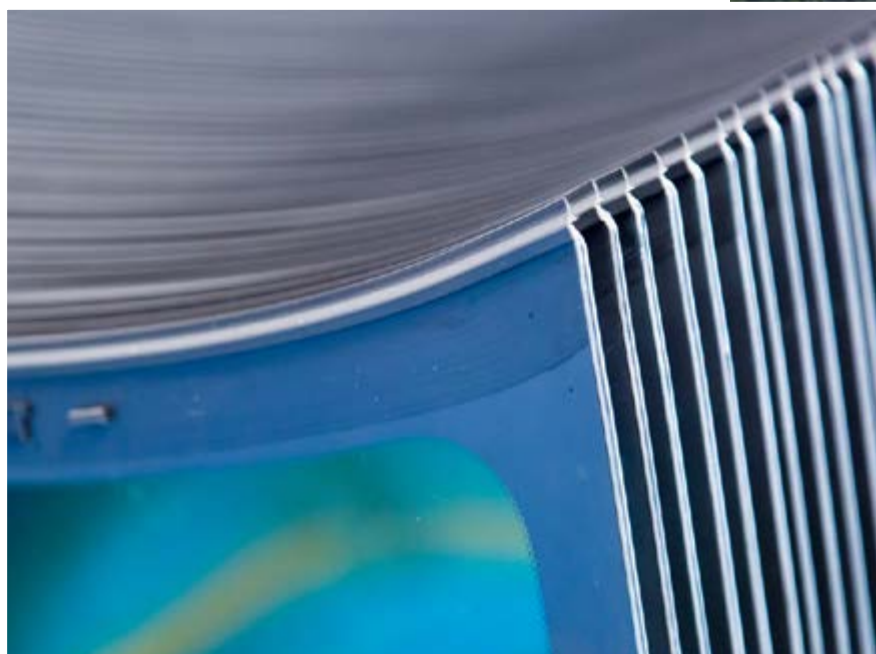
Both these projects are mixed residential-retail properties, merging avant-garde technology and design with elegance, security, and functionality, while caring for and respecting the environment, all areas in which our glass plays a central role.

We also expanded our supply services in Mexico City by opening a warehouse for Distribuidora LAN, so we can serve our clients promptly from a base closer to them.



Operations started up on our new MSVD jumbo coater line at the factory in Wichita Falls, Texas.

AUTOMOTIVE GLASS: OPERATING RESTRUCTURING



Sales in the automotive glass business last year grew 17.1 percent, but because of weak operating performance, mainly in U.S. facilities, and the high cost of transportation both for the United States and for Mexico, the results were not what we expected. A slowdown that begun in the automotive industry in the second half of 2017 worsened in 2018, but our Automotive Glass division focused on defending its market share and continuing to offer competitive costs amid steady demand for high-tech, high-quality products. Our task is to continue working to improve our operating performance, achieve excellence to be the most cost-competitive company in the industry by being more efficient, and earning the trust of our clients.

Our operations in Mexico are performing strongly: organic growth, such as the windshield plant and new spare parts glass market, has

boosted our capacity and made it possible for us to grow our exports, particularly to the spare parts market.

The new windshield line began delivery of fully-approved pieces to our client Fiat Chrysler and has development programs for Ford in 2019.

In 2018 we supplied auto platforms we had signed for in earlier years, and although we obtained new contracts, the volume was overall lower due to market conditions and increasing technological demands. Among Vitro clients that

launched new platforms in 2018 were Ford, FCA, Honda, Geely/Volvo, Magna Steyr, and others.

In our Polish plants we have much to do; we are devoting all our efforts and resources there to improving operations in order to respond correctly to the requirements of complexity in vehicle glass.

Vitro's Automotive Glass division reported a 17.1 percent increase in sales at the close of 2018, the result of its purchase of PGW in March 2017. In pro forma terms, the increase is 3 percent.

Vitro's Automotive Glass division reported a 17.1 percent increase in sales at the close of 2018, the result of its purchase of PGW in March 2017. In pro forma terms, the increase is 3 percent.

For the chemical business, although results were solid compared to the preceding year, 2018 was also a year of numerous challenges that hampered performance: high costs in raw materials and energy obligated us to seek out alternative sources for our energy supply, and there were some serious disruptions in the supply of steam, all of which raised our operating costs.

Another external factor affecting us last year was the competition, which is growing increasingly active in various segments where Industria de Álcali operates. To deal with these challenges, we took specific action to minimize losses from these operations and fulfill our commitments to clients.

To offset some of this impact, we strictly controlled budgets, prioritized investment and adjusted prices in some segments, among other actions.

Market trends were mixed last year, some showing growth, others remaining stable, and in several cases declining. Conditions were as follows:

| MEXICAN MARKET

Sodium carbonate

Rose strongly in the glass market with expansion projects underway. In the detergent segment, production levels were stable against the previous year.

Sodium bicarbonate

Food and pharmaceutical sectors were stable. The livestock segment saw solid growth.

Sodium chloride

This division saw strong growth last year and is expected to continue on this path. The food sector is keenly competitive, and average consumption levels are holding steady.

Calcium chloride

The food market was stable, with an average growth consistent with domestic consumption. The oil segment remains depressed, affected by uncertainty over the scope of Mexico's energy reform.

| EXPORTS

Food segment

Vitro stepped up activity in South America by serving market niches in Colombia, Ecuador and Chile, while consumption in Central America was stable. We lost some market share in the United States due to a change in internal food safety standards that obligated us to reconsider extending the food safety standard in our calcium chloride plant. We are gradually regaining market there with some commercial effort and a commitment to basic quality standards.

Segmento Petrolero

In contrast to the food segment, the company encountered rising demand from the US oil industry, specifically oil and gas fracking in Texas, New Mexico and Oklahoma, due to a recovery in international oil prices and their stability throughout the year. We also generated additional sales in Brazil and Argentina by winning contracts from various multinational drilling firms.

In 2018, we placed 85 percent of the capacity for our expansion of the solid calcium chloride complex on the export market, due to rising demand in the United States and Canada and the diversification of sales in South America, particularly Brazil.

In 2018, we earned the trust of new clients: in sodium carbonate, Grupo Ternium subsidiary TechGen, for wastewater treatment at a power plant in Pesquería, Nuevo León; and Glass & Glass, a company that makes glass. In bicarbonate, we signed a contrast with VIMIFOS, a maker of livestock feed supplements, and in sodium chloride, with Productos y Servicios Santa Barbara, for water purification.

Vitro
Architectural
Glass reported a
5.7%
increase in sales
at the close of
2018.



2018 RESULTS

The results of the Flat Glass business were mixed, although sales were higher than in 2017. Some setbacks in our US operations, the seven-month shutdown of an architectural glass furnace in that country, and the closure of the automotive glass factory in Creighton, Pennsylvania, combined with high transportation and energy costs, led to disappointing numbers on some lines of our results.

Other factors affected our 2018 results as well: a loss of volume due to capacity reductions in one of our float glass furnaces in the United States, a restructuring of the Company's production capacity, and higher prices on our inputs.

Consolidated sales totaled

US\$2,001

billion at the close of the year, 8.1 percent higher than for 2017.

EBITDA for the Flat Glass division was

US\$305

million, 13 percent less than in the prior year.

Together, We See Further

Aware of our responsibility to society and our obligation to be environmentally aware in all our operations, products and daily activities, at Vitro we comply with all regulations in the area of sustainability and have obtained industry certifications, introduced related internal policies, received 100 percent of our clients’ audits, and regularly conduct voluntary audits and internal evaluations.

As a result of this effort and consistent social commitment, the Company has earned multiple recognitions and distinctions from independent organizations, government institutions and clients.

RECOGNITIONS AND CERTIFICATIONS SUSTAINED BY COMMITMENT

For more than a decade, Vitro’s Architectural Glass division, through its subsidiaries in the United States, has been the first glass producer to have an entire collection of products recognized under the Cradle to Cradle Certified™ program.

Today, the glass made by this division in the United States have bronze Cradle to Cradle™ certification; the sub-category certification levels, which are valid through 2020, are shown below:

Category	Certification
Material Health.....	Gold
Material Reutilization	Gold
Renewable Energy and Carbon Management	Bronze
Water Stewardship	Bronze
Social Fairness	Gold

In 2018, Vitro was recognized for its advertising programs in five out of seven categories of the Advertising Excellence awards during the American Institute of Architects conference in New York.

The company received an honorable mention in the print advertising category and won in the hierarchy of both online advertising and integrated online advertising campaigns, and in the category of online advertising and online continuing education.

The year before, Vitro Automotive Glass successfully completed certification of its Quality Management Systems under the IATF16949 standard. In addition, most of its plants have already been certified according to specific client requirements, like General Motors (GM), Volkswagen VDA (Verband der Automobilindustrie), and Daimler.

Also in 2018, various clients recognized Vitro’s Automotive Glass plants:

In 2018, Vitro had earned various awards and recognitions.

- Daimler gave Autotemplex its Masters of Quality Daimler recognition.
- GM recognized the Vitro Evart plant for Supplier Quality Excellence for the second year in a row.
- GM named the Crinamex plant Supplier of the Year.
- The chemical business, Industria de Álcali, was recognized as a Trustworthy Supplier by Mega Alimentos for the second year in a row.

The company was also audited by some clients, and obtained certification in all of these:

Pochteca	DANISCO (Dupont)
Riasa	Salsa Tamazula
Grupo Alen	Herdez
Rot Química	Colgate-Palmolive (Guatemala)
Laboratorios Clínicos Azteca	
PIASA (Proveedores de Ingeniería Alimentaria)	



| OUR PEOPLE

Vitro recognizes that its most valuable asset is its people, so the Company not only complies with all of its legal obligations but strives to provide a climate that encourages the personal and professional growth of its employees. Additionally, it designs and executes development and wellness programs in areas such as sports, culture, education, health, personal and job safety, and matters like family budgeting, small investments and savings, among others.



Investment in Training

Among many other programs, the company has an extensive and complete Training and Development program in place at all of its facilities. Training may be given online, in person in specialized classrooms inside or outside the companies, or even in the workplace.

For example, we have the first MSVD Coater Operator School, which operates in Vitro's Glass Technology Center in Harmarville, Pennsylvania. Its goal is to train employees in charge of operating the MSVD, to guarantee more consistent and effective operations and to come up to the standards of quality clients expect.

For Vitro, investing in training is not just another obligation; we understand how crucial it is to give our employees the proper preparation, because it is profitable in many ways—financially, operationally, and more importantly, in terms of their personal advancement.

Vitro strives to provide a climate that encourages the personal and professional growth of its employees.

Employee wages and benefits

At Vitro, we know how important it is to offer competitive and attractive benefits. Our employees enjoy paid vacations, a vacation bonus and an annual bonus above the legal requirement.

Among the most representative of the benefits the company provides employees are attendance and punctuality bonuses, both paid twice a year; as well as free medical service, savings fund, grocery vouchers, social security contributions, and others.

In our companies in the United States we offer virtual support systems for employees, such as:

- **Benefits guidance:** Alex®, which is Vitro’s virtual benefit assistant, helps employees select benefits with a accessible language and personalized guidance.
- **Health Advocate:** Free personalized support through a phone line (1-866-696-8622) that provides unlimited access to highly trained health professionals for a wide range of issues relating to medical attention and insurance.

We also have agreements with universities to fund master’s and undergraduate degrees for employees’ children, scholarships, and school supply assistance. We conduct health and vaccination campaigns in all our plants for employees and their families, neighbors, and the community at large.

Health and safety

When we talk about the comprehensive health of our employees, we mean a holistic focus on their physical, mental and emotional health. We have programs, policies and procedures in place on health, industrial and personal safety that met all legal requirements and extend to more personalized issues and aspects, even to family members and the communities surrounding our facilities.

In pursuit of these aims, we create and continuously review our Occupational Health and Safety goals in all activities that entail a substantial risk of accident or illness in our operations. The company provides all the necessary equipment for employee protection, and conducts regular medical checkups to ensure that their employees are healthy enough to do their jobs without jeopardizing their health. We also provide checkups of contractors or suppliers who will be engaging in high-risk tasks.

We have programs focused on employee health and wellness, which establish industrial safety policies and procedures by which we can monitor risk conditions in our locations and prevent accidents, and also control personal protection and equipment requirements.

Among the safety indicators we track are: accidents, incapacitating accidents, days lost and accident index.

All of Vitro’s companies have access to occupational health and safety programs. We are committed to bringing recently acquired companies into line with these practices so we can build synergies, share best practices and standardize successful systems and procedures.



INNOVATIVE SOLUTIONS

The markets in which the Company participates have become increasingly demanding in terms of product and process innovation, environmental impact, and new needs and trends. Among other programs, Vitro has processes for recycling glass, utilizing post-consumer glass in making its containers, and making high-yield, energy-saving architectural glass that is also safe and resistant to various weather phenomena.

Our Architectural Glass division is at the forefront of North American industry in the manufacture of glass with special attributes, like the Solarban® brand range of products, the latest evolution in solar control low-emissivity glass; from a combination of new materials with advanced coating technology and refinements, we created the first glass in the world with quadruple silver coating: Solarban® 90.

Vitro was the first glass manufacturer to make a triple-silver-coated product (Solarban 70XL®) and the first to develop the quad-silver coating technology used in Solarban 90®.

In 2018 we launched the Acuity® brand glass, which is low in iron and more transparent, making it highly attractive for the architectural market. Starting in 2018, Vitro has a new coater that can produce high-yield, low-e glass in large dimensions, up to 130 by 204 inches. With this, the Company can meet the growing demand for low-e glass from industry architects, producing glass at an effective cost and complying with demanding construction industry regulations.

The Company has a technology center with high-specialty research and development of cutting-edge products, including glass with solar control layers and ultra-clear glass with a low iron content; the Center is one of Vitro's strongest competitive advantages.

Today the automotive industry is moving toward specialized functional automotive glass called "smart glass," so we at Vitro Automotive Glass have begun to develop products that not only comply fully with all technical specifications required of

this type of glass, but have added-value features as well. These include Head Up Display (HUD), a device placed on the windshield or a separate screen that shows key information; WeatherMaster® windshields, which use a conductive coating called MSVD that generates heat when electrical current is applied, Sungate® glass, a type of windshield with reflecting/infrared glass that provides thermal comfort. The Company also has press bending technology for producing high-precision curved windshields.

In 2018 we had two important launches: one of them was Acuity® brand glass, whose main property is that it is low in iron and more transparent.



*The **NATIONAL AVIARY** is the only one of its kind in the United States.*



| OUR PLANET

At Vitro, we understand that to operate and grow as a company, we need the environment and natural resources, so we work to develop and support environmental preservation and conservation initiatives that promote sustainable development.

Pittsburgh National Aviary

Last year, the Company sponsored the renovation of a tropical forest exhibit at the National Aviary in Pittsburgh, where 3,146 Staphire® Ultra-Clear glass panels covering around 19,000 square feet were installed, with an investment of USD1.3 million. The glass surface is treated with a bird-friendly coating that gives them a safe environment inside and outside of the building, while maximizing transmission of sunlight and UV light and helping to maintain the life of plants and birds.

In parallel, Vitro will support education at the Aviary by funding an educational program of class visits to the space. The Aviary is the only one of its kind in the United States, and receives more than 200,000 visitors a year.

3,146

Staphire® Ultra-Clear glass panels covering around 19,000 square feet were installed.

Naturally Vitro

Since the year 2007, Vitro has partnered with the Vida Silvestre (Wild Life), A.C. Organization (OVIS) in a reforestation effort, holding a “Naturally Vitro” adoption day every year to promote employees’ ties with the environment. The program intends to serve as a key force in urban reforestation, while raising employee awareness about the importance of living in a healthy environment.

Last year more than 7,000 trees were adopted, including 30 different species endemic to 21 states and 34 cities of Mexico, adding up to more than 84,000 trees since the program began. Reforesting our cities not only beautifies the landscape but has numerous other benefits, like mitigating greenhouse gases, reducing ground temperatures, producing oxygen, providing a haven for fauna, and many more. Adopted trees have various destinations, from employee homes to schools and public spaces like parks and plazas.

Reforesting schools in García, Nuevo León

Through the “Naturally Vitro” program, the Company donated 200 trees to eight schools in García, Nuevo León. Students, parents and teachers all participated in the event, which encouraged incorporating a spirit of cooperation and ecological culture into the educational model. The plan is to highlight the benefits of native trees, so some of the species donated were the retama broom, sugarberry, hierba de potro and anacahuíta (Mexican olive).

The full day of reforestation work favored close to 3,200 direct beneficiaries, and some schools have an ecology club that, among other things, takes charges of caring for the trees as they grow.

Reforestation of 22 hectares of lechuguilla

In a joint effort by government, the community, nonprofits and Vitro, more than 22 hectares of land were planted with lechuguilla agave (equivalent to more than 10,000 plants) on land owned by the Sabanillas in Nuevo León. When the lechuguilla plant is harvested it provides a fiber called *ixtle*, which is used to make rope, brushes, scrubbing pads, and other articles.

Lechuguilla is an endemic species of the genus agave, native to arid and semi-arid climates, where it is highly adaptable. Mexico is one of the few *ixtle* producing countries in the world.

This not only benefits the environment by contributing to soil retention and defending against the erosion caused by economic activity in the region, but helps the community, who without appropriate reforestation would have to travel increasing distances to collect lechuguilla in the wild.



+7,000

Trees were adopted, including 30 different species endemic

200

Trees to eight schools in García, N.L.

3,200

Direct beneficiaries with the full day of reforestation work

22

hectares of land were planted with lechuguilla agave



132,000

metric tons of glass recycled

Lower costs— recycled
raw material is

1.5

times cheaper than
virgin material.

Forestry and Soil Conservation Training

In line with the Sabanillas project, and to promote a circular economy in which inhabitants and the community can become more self-sufficient without having to continue deforesting the environment, training on forestry and soil conservation were given in conjunction with the Vida Silvestre (Wild Life), A.C. Organization (OVIS), and the municipality is following this reforestation plan. Workshops were also given on topics like urban vegetable gardens, water care and comprehensive waste management.

With these efforts, there will be a living bank of raw material for lechuguilla cultivation, directly benefiting the people of Sabanillas, and

the lechuguillas also provide a source of food for native wildlife. This is just one example of Vitro's commitment to the community and the environment. Vitro continues to work to make communities better places to live.

Consorcio E3

In 201, Vitro participated in the creation of the Consortium for Energy Efficiency in Non-Residential Buildings. This buildings have been proven to be complex systems that consume a tremendous amount of energy and water, and also produce a large quantity of waste. They are responsible for almost 40 percent of primary energy consumption and around a third of global carbon dioxide emissions into the atmosphere.

This initiative brings together the efforts of academe—Tecnológico de Monterrey and the University of California, Davis; industry—six companies; and government—the Ministry of Energy, National Science and Technology Council and the state government of Nuevo León. Its goal is to carry out laboratory research to define the actions that would permit compliance with CO2 reduction goals through sustainable energy and improve energy efficiency nationally and internationally.

The project will last for four years, with two lines of research: the first related to lighting systems and the second to creating efficient air conditioning technologies. More than Ps. 40 million in shared investment between the partners will go to adapting the energy efficiency lab.

Cullet recycling

One of the countless advantages of glass is that it is 100 percent recyclable and non-polluting. In addition, at Vitro we work to incorporate glass waste from our processes, called cullet, in addition to virgin raw material, and in producing flat glass in Mexico we have entries of external cullet from almost 100 different suppliers.

The recycling process—whether internal or external—has three main advantages:

- Lower volume of raw materials in the smelting furnace—a 1:1.1 relationship compared to a process involving solely virgin raw material
- Greater process efficiency—lower temperatures are required by including recycled material into our process.
- Lower costs— recycled raw material is 1.5 times cheaper than virgin material.

*In 2018, Vitro
celebrated 26 years of
having started with its
cullet recycling strategy.*

| VALUE CHAIN

All companies have processes that require the involvement of various participants, who intervene to some extent in aspects ranging from the supply of raw materials and inputs, to various external services.

As part of our commitment to transparency in all our actions, and in keeping with the Code of Ethics and Conduct, at Vitro we make sure our suppliers, service providers and clients operate in keeping with the law, and comply with established standards of quality, sustainability and business ethics.

Through the websites of each of our businesses, we fulfill our responsibility to provide all the information required on technical aspects, properties, content, uses, safety and features, as applicable, for each product.

| SOCIAL IMPACT

We are aware of the social responsibility we have in communities where we are present, and for this reason we pursue Community Development through various activities that help offset our presence, repay communities for their trust and support as a society, and strengthen the social fabric.

Soccer School for Kids

One of the programs Vitro supports to benefit communities is the Soccer School for Kids, which opens its door to the children of employees at

our Mexicali Flat Glass plant in Mexico, as well as children from surrounding neighborhoods.

This initiative promotes sports and healthy togetherness and builds a closer relationship and sense of identity in the community. In addition, company employees participate as trainers, which enables them to develop leadership skills, planning and discipline. It also encourages team work and values like integrity and respect.

The school was founded four years ago, and so far more than 150 families have benefited. In 2018 around 200 kids attended.

Week of giving

Another way Vitro and its people try to give back at least a little of how much we receive as a company and as people, is through volunteer activities. One of these is called the Week of Giving.

Every year, employees of Vitro’s Automotive Glass division in the United States organize this event, which lasts for five days, during which they volunteer for activities like visiting institutions and participating in events that support the families of kids with illness, youth programs, food banks, homeless shelters and even animal shelters. An average of 40 employees come together each year to share their time and love with various associations.



2019 OUTLOOK

The outlook for 2019, in general terms, looks complicated. Specialists predict that economic growth will be sluggish, and some markets in which we participate have been slowing since last year.

Under these conditions, Vitro has made an effort to ready itself for the challenges, and our initiatives and strategies are focused on fulfilling our mission of capitalizing on the value of collaboration to generate value and innovative glass solutions for our clients.



Vitro Architectural Glass

In our Architectural Glass division, we must offer the best alternatives for price, quality and service, restore our market share in the United States, strengthen ties with clients and the architectural trade. We hope to gain some new clients for large-dimension glass and meet the demands of today's market.

We will continue to explore the development of new products with more and better properties; we will seek out new opportunities to serve the tempered glass market in Mexico and southern Texas for the household appliance and refrigeration market by starting up a plant in García, Nuevo León.



Vitro Automotive Glass

The Automotive Glass division will focus on growing results through operating excellence and improving sales margins in a segment that is currently in a slowdown. We will analyze opportunities as they arise to grow outside of Mexico in the spare parts and original equipment markets, with new curved windshield and tempered glass lines, respectively, located in García, Nuevo León.



Industria de Álcali

In the chemicals business, the outlook is mixed. On the positive side, we think various markets will be more stable, and we expect growth resulting from recent operating improvements. On the other hand, it will be a very competitive year. However, we have the capacity we need--both technical and human--to deal with it. We will continue to introduce resource optimization and cost and expense control programs, while remaining attentive to our operating performance, ensuring an uninterrupted supply of our main inputs.



GRI: 102-15

CONTAINERS

Vitro containers are backed by the quality and service excellence built up over more than 100 years of experience. With state-of-the-art technology and strict quality, safety and hygiene controls, the Containers business unit produces highly sophisticated and beautiful containers for the cosmetics, fragrance and toiletries industry. It also serves the pharmaceutical industry and makes machinery, equipment, and molds for industrial use by other glass container manufacturers and offers engineering, equipment and automation services.

BUSINESS OVERVIEW

Despite weak growth in some Latin American economies where the business is present, and ongoing volatility in exchange rates, as well as a sharp increase in the price of inputs, transportation and electricity, among others, 2018 was a good year for the Containers business. Thanks to focused, dedicated work by the whole team, the division was able to meet its financial and operating targets and surpass the previous year's results.



CONTAINERS FOR COSMETICS, FRAGRANCES AND PHARMACEUTICALS: BEYOND THE CHALLENGES

Economic instability in countries like Mexico, Brazil, Colombia, Argentina and Peru, combined with prolonged uncertainty over the signing of the new free trade agreement between Canada, Mexico and the United States made our clients highly cautious in their product requirements, shortening order times and reducing volume.

However, our internal team responded swiftly to the challenges by adapting to the new environment, maintaining strict expense discipline, undertaking productivity and savings projects to minimize cost impacts. This allowed us to keep our systems flexible to respond to sudden changes in client requests and apply well-defined strategies to boost sales, develop innovative products and launch new products for our clients.

Compared to the previous year, 2018 was an excellent one for all segments. The markets to which we supply fragrance containers saw a strong recovery, which our sales areas capitalized on to grow in all the markets.

In the United States, the skin care, treatments and air freshener markets kept up a brisk pace, while in Mexico the fragrance, pharmaceutical and beverages industries reflected solidity. The fragrance market in Colombia, Peru, Argentina and Chile recovered strongly, while volume in Brazil grew significantly--although given the volatility of exchange rates vs. the U.S. dollar, clients prefer to buy in local currency and this ultimately affects margins.

Maintaining strict expense discipline, undertaking productivity and savings projects to minimize cost impacts.





CONSOLIDATED STRATEGIES

The strategic plan for the Container division has four basic components:

- **Volume generation:** this requires growing with new products and segments and venturing into new market niches. Volume in 2018 was 8 percent higher than in 2017.
- **Competitiveness:** The goal is to boost productivity and reduce down time, waste and costs, and in short, to optimize resources wherever possible. Compared to the previous year, productivity in smooth finishes grew 7 percent, while productivity in textured finishes advanced 2 percent, all for the purpose of competing in the global market.
- **Innovation:** This is about simplifying processes, automating and generating novel products and finishes that distinguish us from the competition. In 2018 we automated three smooth-finish packaging lines, along with the Decal process and programming of the smooth and textured-finish product plant. We created new finishes, like a paint that blocks light to protect the container's content from solar rays, and we also developed iridescent paint and glitter paint to give our clients a wider range of options.
- **Geographic growth:** the aim is to expand our products' presence in new geographic territories. In 2017 we reached Israel and Japan. We continued by expanding sales into Europe: Spain, Italy, Belgium and Switzerland. In the United States, we expanded our coverage of states where we had not been present before, like Iowa and the West Coast.

We opened a sales office in Colombia to serve the Andean market, and another in Brazil. With this increased proximity and service to clients, combined with the quality of our product, we achieved the following growth in 2018 compared to 2017:

Country	Sales growth in 2018
Argentina	54%
Brazil	4%
Chile	49%
Colombia	8%
Ecuador	10%
Peru	8%



Fabricación de Máquinas (FAMA), our machine, molds and equipment manufacturing division, showed strong performance, with sales to outside customers growing 12 percent, from USD 26 million in 2017 to USD 29 million in 2018.

On the operating side, we have been able to improve quality and service indicators, strengthening the internal organizational structure according to the market segments we serve.

The process of transforming FAMA began in 2015, when this subsidiary ceased to be the exclusive supplier to the Company's glassmaking affiliates and began re-defining its structure and services.

The business established six main strategies, and on this basis has analyzed internal challenges, outlined actions and goals.

- **Commercial:** Diversify the portfolio and extend services to outside clients. During the year, 24 percent of sales were to new customers.
- **Transformation:** Reposition the business with a new image and new contributions to the market. A total focus on the client, seeking to improve their experience. Restructuring of the business segmentation into three markets: glass containers, flat glass and machine metal.
- **Operating excellence:** alignment of processes, internal restructuring, continuous improvement projects, cost reduction and operating efficiency. Earned ISO9001:2015 certification.
- **Supply chain:** an integrated process from the time an order is entered until the material is delivered, for just-in-time service to the client.
- **Research and development:** using the full potential provided by its in-house innovation department. In 2018, FAMA was able to offer a full line of servo motors for IS machines.
- **Strategic alliances:** seeking out the support of market leaders to boost FAMA's competitiveness and offer more and better products and services.

12%
*increase in sales
at the close of
2018*

In the Machinery area, we are keenly aware of the competition that exists in making IS machines for glass containers, both in Mexico and abroad. Because of this, we aim for operating excellence so we can improve client service indicators and generate a solid relationship of trust.

In Molds and Foundry FAMA improved process controls, reflected in a shorter cycle time for bronze molds, a reduction of overtime and reworking, which benefited our clients with a better service index. The foundry area also developed new materials, opening growth opportunities with new clients for our molds.

Among the achievements of the Automation/ Glass Handling area was the manufacture of 11 robotic cells, 2 press bending machines for curved windshields and 3 sub-assembly machines, two sold to the United States and one to Mexico. As of December 2018, we had delivered 29 projects, increasing our sales from USD700,000 to USD4.5 million.

In Engineering Services, projected sales rose 37 percent over the previous year, to USD2.5 million, due largely to sales to outside customers, among them Sílices de Veracruz, S.A. de C.V. (Sivesa), Nueva Fábrica Nacional de Vidrio, S.A. de C.V. (Fanal), Grupo Caltos, and Grupo Vical (Grupo Vidriero Centroamericano), as well as to Vitro's own Containers, Architectural Glass and Automotive Glass divisions.

One of the Machinery area's most significant achievements last year was obtaining certification from AB InBev, a multinational brewery firm to which it sold the first machine with Vitro technology outside of our own system.



2018 RESULTS

The Container business had a good year in 2018. All the segments in which it participates performed well, and sales of Machine Manufacturing rose strongly enough to offset the impact of higher costs on inputs, electricity and transportation.

At the close of the year, Total Consolidated Sales for the Container division stood at USD235 million, an 8.7 percent increase over the USD 216 million reported in 2017.

In 20108, EBITDA in the Container business totaled USD58 million, compared to USD52 million in 2017, a 10.6 percent growth.

These results can be attributed to an excellent product mix thanks to rising demand from the fragrance and pharmaceutical segments, an increase in the export market for the fragrance industry, and a higher share in the Andean region and Brazil, making up for some of the weak growth at FAMA, which continues the process of acquiring new outside clients.

Total Consolidated Sales

US\$235

million at the end of the year,
with a growth of 8.7 percent.

EBITDA in the Container business

US\$58

million in 2018, with a growth of
10.6 percent.



RECOGNITIONS AND CERTIFICATIONS: A JOINT EFFORT

Teamwork and a common goal of attaining operating excellence by offering quality products and services, while protecting the environment and preserving the health and welfare of our employees and families and the communities around us, earned Vitro various recognitions and certifications in 2018, from government agencies, private institutions and clients.

- ISO 9001 Certification for Quality Management Systems, reporting zero findings of non-conformity
- Healthy Company Distinction from the Business Council for Health and Welfare (CESyB), for promoting health and favoring wellness in the workplace.
- “Gilberto Rincón Gallardo” inclusive company certification, Gold Class.
- Mexican Official Standard 25 for Equality and Non-Discrimination; this Mexican standard is a voluntarily adopted mechanism that recognizes workplaces for having practices regarding labor equality and non-discrimination, to favor the comprehensive development of employees.
- SEDEX-SMETA certification from the Ethical Trade audit for compliance with four pillars: labor conditions, business integrity, environment, and industrial safety and health.

- Revlon Certification as Quality Suppliers
- Recognition from Grupo L’Occitane as Best Packaging Suppliers
- Clients Belcorp, Jafra and Yanbal all rated Vitro highly for Quality recognition.
- The bottle for the fragrance DKNY Nectar 100 won the Clear Choice Award from the Glass Packaging Institute (GPI).

In addition to the achievements and recognitions, Vitro has a long history in receiving awards in several competitions which evaluate design, practicality, innovation, utility and even contribution to a more sustainable world.

In 2018 the Mexican Packaging and Packaging Association (AMEE) recognized 17 glass containers in the Health and Beauty category, as well as the “Mondo” project which was the winner at the student category of this contest. Mondo was the First Place of the University Fragrance Container Contest of 2017, organized by Vitro.

As an special recognition, AMEE granted to Sweetie Pop for being the most innovative packaging in the category Health and Beauty.

The packaging for the DKNY Nectar 100 ml perfume received an award from Glass Packaging Institute (GPI) at the Clear Choice Awards contest.

Glas Container

Femme Magnat 45 ml
Dream Mer 50 ml
Ekos 50 ml
Imperialis 75 ml
Musk Masculino 100 ml
Avon Man 75 ml
Biografía Femenino 50 ml
Modern Charm 50 ml
Sueños De Mujer 60 ml
Trakalosa 70 ml
Sweetie Pop 30 ml
Royal Jelly 2017
Mondo 100 ml
Kiotis Cueille Le Jour 100 ml
Vicky Tiel Ulysse 100 ml
Vicky Tiel Sirene 100 ml
Tory Burch Bel Azur 100ml
DKNY Nectar 100 ml

17 containers recognized by the Mexican Container and Packing Association (AMEE) in the Health and Beauty category, as well as a winner in the student category.

OUR PEOPLE

People are the bedrock of Vitro's success. Their skills, ability, commitment and effort have made it possible for the company to endure over more than a century. In return, the Company develops and implements various kinds of program to offer them comprehensive well-being.



34

Employees with
some disability

421

Elderly Adults

280

Employees who were
part of The Glass
University in 2018

Joining Talents

Consistent with our culture of being an inclusive company and of promoting non-discrimination, Vitro has a program called "Joining Talents" that encourages the hiring of people from vulnerable groups. In 2018 we had 34 employees with some disability working in the container business.

Duties are assigned based on a job description table, to offer the best conditions to any candidate interested in working for our company.

The Glass University

In keeping with our goal of offering personal and professional development to our employees, the Cosmetics, Pharmaceutical and Toiletries Container business created the Glass University, which offers a different type of training to personnel. The Glass University is an example of cooperation between institutions like the National College of Professional Technical Education (CONALEP), the Latin American Quality Institute (INLAC) and the Center for Technological Assistance and Services (CAST).

In 2018, a total of 280 employees had a chance to improve their knowledge and skills, boost their professional careers and obtain more up-to-date knowledge. Employees also become instructors who share their time and know-how, and receive certification from the National Council for Standardization and Certification of Job Skills (CONOCER).



Doors open to education

Vitro's intention is to encourage talent, expand knowledge and help employees acquire the skills they need to perform with operating excellence, as the community at large acquires a more thorough knowledge of the global environment.

- To integrate the outside community, special courses are offered to Vitro clients and suppliers. Last year ten of the largest clients of the container plant participated, and received a certificate of attendance for learning about glass manufacturing processes.
- Another way to reach our stakeholders is through workshops and children's camps. Last year the Glass University opened its doors to university students who took a course in Sustainable Development. The lecture series is based on a collaboration agreement between the Federal Environmental Protection Agency and the Tecnológico de Monterrey Mexico City Campus. The importance of this effort is that it creates an open space for students and the government to share discussions and solutions to the current challenges facing the nation.

INNOVATIVE SOLUTIONS

In addition to its core strategies, the Container business is working intensively on automating and digitalizing its processes. By installing automation equipment, it has already benefited from more reliable inspection of product variables, greater speed on high-volume lines, expedited inspection of complex and irregular-shaped products, and optimization of spare parts cost to allow for autonomous maintenance.

Our Innovation value establishes that we must bring new ideas to our processes and operations in order to continuously improve our results. We need to find new ways of doing things, and identify unexplored market niches. To this end, in 2018 we ventured into the household products, air freshener, bathroom soap and premium candle segments, and strengthened our presence in the premium liqueur segment.

In 2018, we earned the trust of 12 new clients who distinguished our products and services with their patronage.



| OUR PLANET

Vitro is well aware that it is crucial to establish sustainability measures and criteria in all our operations, and for this reason we monitor and are constantly improving our efficiency so we can minimize the impact of our activities on the environment.

One example of this is the certification we received during the Presentation of Environmental Certificates and Recognitions in Monterrey, which recognizes various companies and organizations in the Nuevo León industrial sector for their full commitment to the environment. This recognition is granted by the Federal Environmental Protection Agency (PROFEPA).

Environmental strategies aimed at sustainability, and our commitment to maintaining certifications for all of our facilities throughout Mexico have earned the company Clean Industry Certification and recognition as a leading company 11 times, within the Program of Environmental Leadership for Competitiveness.

In 2018, the Container business increased the capacity of its water treatment plant in order to reduce its consumption of well water and thus preserve our natural resources.

In line with the pillars of the Sustainability Model, FAMA replaced a dust collector with two more efficient machines, which not only improve its operating performance but save energy and help protect the environment.

| VALUE CHAIN

When we speak of Comprehensive Competitiveness as one of the pillars of our Sustainability Model, we are not just referring to our internal processes: sustainability is everyone's job, and it begins with our supply chain.

One of the initiatives we pursued was the manufacture of products with recycled glass for the fragrances and cosmetics segment. This was consistent keeping with our social responsibility and commitment to environmental care, and responded to demands from clients around the world for containers that incorporate recycled post-consumer glass.

Just as we make sure our own processes and products comply with all laws, certifications and environmental regulations in the industry and from our clients, Vitro also has specialists in its procurement area whose job it is to check and ascertain that all inputs, raw materials, products and services used in our operations come from safe sources; that their extraction, manufacture and/or processing does not damage the environment; and that suppliers, whether individuals or corporations, act in strict compliance with the law, apply corporate transparency practices, and are socially responsible.

Vitro is well aware that it is crucial to establish sustainability measures and criteria in all our operations.





| SOCIAL IMPACT

Vitro knows that, as a company, it is a part of society. It is not enough to simply coexist with the rest of the world; we must be active in the communities around us, work for their development. To do so, we take various actions and pursue projects in collaboration with government and non-government organizations, as well as civil society, to create social value.

University Fragrance Container Contest

In addition to the activities of the Glass University, the Company constantly interacts with various educational institutions through courses, lecture series and the participation of specialized employees as speakers in various forums. One example of this is the University Fragrance Container Contest, first launched in 2017, which in 2018 received 223 entries by more than 300 students from 26 different Mexican universities.

The Contest invites new and innovative container designs, which are evaluated according to their concept, creativity, aesthetic qualities of the graphic design and finishes, composition of the glass and its components, ergonomics, and user-friendliness.

Sustainability Fair

Aware of our social responsibility and in an effort to detect needs and offer solutions to the communities where we operate, Vitro is involved in activities ranging from recycling and reforestation campaigns to conservation and restoration efforts, among many others.

As part of a collective strategy of inculcating in neighboring communities a genuine interest in the environment and providing them with the know-how and tools needed for them to adopt sustainable practices themselves in their daily routines, during the month of November the company organized its first Sustainability Fair.

The Fair was attended by around 300 people--neighborhood families, students, volunteers and Vitro employees--who took part in a variety of activities intended to build awareness about Sustainability. The event promoted the United Nations Sustainable Development Goals, whose general purpose is to create opportunities to improve the quality of life for all people.

Painting my Community

Alongside the Sustainability Fair, and as part of Vitro's commitment to community well-being, a volunteer effort was organized called *Pintando*

mi Comunidad in which participants painted the exterior walls of the Plinio D. Ordoñez Middle School, where the event was held. The enthusiastic response of those who attended the fair and volunteered to paint the school inspire the Company to remain firm in its commitment and organize more events of this type in the future.

For 2019, the Container division will continue these initiatives, and will be placing special emphasis on glass recycling and investment in projects to reduce electrical energy consumption.



Vitro will continue these initiatives, and will be placing special emphasis on glass recycling.



2019 OUTLOOK

Overall, 2019 looks to be an uncertain and challenging year. Economic growth projections have been lowered, and in some cases show little change from 2018, and our markets therefore tend to slow.

But these challenges are the best stimulus for Vitro and its businesses. We have the necessary production capacity, the skill and the experience of our employees, and the conviction that we offer quality products and service that merit the ongoing loyalty and trust of our clients.



Containers

In the cosmetics, fragrances and pharmaceutical container business, we will remain close to our clients, attending to their needs by developing new molds and launching new products. We are confident that our quality, service, innovative ideas and delivery times will continue to place us head and shoulders above the competition.

We will persist in seeking out market niches where glass containers are the best option, as our Vision says, we will discover all the potential that glass has to offer.



Machine Manufacture

The machinery, molds and equipment business will continue its strategy of pursuing financial and technological independence, to have a 100 percent FAMA line. The container manufacturing industry remains its key client, but there are significant areas of opportunity for the flat glass and machine metal businesses as well, which in the long term will mean an increased share of sales.

The Machine Manufacturing business will continue to build its position in the market, using more of its production capacity and improving its financial position.



OPERATING AND FINANCIAL ANALYSIS

ECONOMIC CLIMATE

For our Company, as for many other companies and countries, 2018 was a highly challenging year, in which uncertainty around the globe took its toll on investor confidence.

At the forefront of their concerns was the political outlook in the United States under trade agreements like the recently re-negotiated United States-Mexico-Canada Agreement (USMCA), which replaces the North American Free Trade Agreement (NAFTA), and the application of various tariffs on Chinese goods, which caused further jitters because of how dependent the global environment is on trade with that country.

In 2018, the United States government levied US\$250 billion in tariffs specifically on Chinese imports, prompting China to return fire with tariffs of US\$110 billion on US products.

The trade war between China and the United States has made the macroeconomic climate precarious in investors' eyes, fueling uncertainty over sourcing costs and the possible impact on end consumer prices.

The increase in tariffs affected manufacturing businesses on various fronts: the heaviest blow was taken by aluminum and steel, which saw a more than 2 percent increase in costs, while the reduction in imports increased the cost of consolidated shipments, affecting the industry at large.

But despite complex macroeconomic conditions, Mexico's Gross Domestic Product (GDP) grew 0.5 percent, according to figures published by the

Ministry of Finance and Public Credit (SCHP) in its general economic policy criteria.

Meanwhile, the volatility stirred up in Latin American markets, and exchange-rate fluctuations against the dollar, pushed inflation higher in Mexico, our second largest market, which meant higher prices on energy and transportation inputs.

In Brazil, optimism followed the national elections and the change of administration, and inflation dropped sharply in the second half of the year, closing at 3.66 percent (compared to 3.5 percent the year before). We expect to maintain our highly competitive strength in Brazilian operations in the years ahead.

As of December 31, 2018, the Mexican peso stood at 19.65 against the U.S. dollar, compared to an exchange rate of 19.66 at the close of 2017. Parity fluctuated widely during the year, reaching a high of 20.7 in June 2018 and a low of 17.97 in April 2018. The average for 2018 was 19.23, compared to 18.88 in 2017, which represents an accrued average devaluation of 1.9 percent.

A number of factors influenced these fluctuations in the peso-dollar exchange rate, the most important of which was uncertainty.

Sin embargo, el fuerte invierno durante el mes de diciembre llevó al precio del gas natural a un máximo histórico de US\$5.14 por millón de BTU (MMBTU), 55 por ciento mayor al mostrado en diciembre de 2017 de US\$3.31 por millón de BTU (MMBTU), y 21 por ciento mayor al máximo histórico de US\$4.26 por millón de BTU (MMBTU) en diciembre de 2014.

Nevertheless, severe winter weather in December carried natural gas prices to record highs of US\$5.14 per million BTUs (MMBTU), 55 percent higher than in December 2017, when they stood at US\$3.31 per MMBTU and 21 percent above the previous record high of US\$4.26 MMBTU set in December 2014.

GDP GROWTH	2015	2016	2017	2018
Mexico	3.3%	2.9%	2.1%	2.6%
United States	2.9%	1.5%	2.3%	3.0%
Global	3.2%	3.2%	3.7%	3.7%

INFLATION	2015	2016	2017	2018
Brazil	9.0%	8.8%	3.5%	3.6%
Mexico	2.1%	3.4%	6.8%	4.8%
United States	0.7%	2.1%	2.1%	1.9%
USA / MX spread	1.4%	1.3%	4.7%	2.9%
MXN devaluation (appreciation)	15.8	18.7	18.9	19.23
Change	19.2%	17.8%	1.4%	1.9%

DEVALUATION	2015	2016	2017	2018
MXN devaluation (appreciation)	15.8	18.7	18.9	19.23
Change	19.2%	17.8%	1.4%	1.9%

CONSOLIDATED OPERATING RESULTS

The amounts presented in this section are expressed in US dollars. As a result of the full integration in 2018 of businesses acquired in 2016 and 2017, mainly in the United States, Vitro and its main Mexican operating subsidiaries changed their functional currency to the US dollar prospectively as of January 1, 2018, because this currency is considered to better represent its current economic climate and form of operation.

This is in accordance with International Financial Reporting Standards (IFRS). Also on that date, Vitro changed its reporting currency to the U.S. dollar, because this was the currency in which its performance was measured.

CONSOLIDATED TOTAL REVENUES

After the first full year of operations including the contribution from businesses acquired in 2017 by the Architectural and Automotive Glass divisions, consolidated sales totaled US\$2.24 billion for the fiscal year ended December 31, 2018, compared to US\$2.07 billion in 2017, a 7.8 percent growth.

SALES	
Year	US\$ Million
2013	881
2014	836
2015	882
2016	1,051
2017	2,075
2018	2,238

FLAT GLASS

This business had a good year overall--its first full year of operation after the acquisition of PGW by the Automotive Glass division.

Sales by this business unit in 2018 totaled US\$2.00 billion, an 8.1 percent growth over the US\$1.85 billion reported in 2017, and the EBITDA margin was 15.3 percent of sales.

Despite the rise in sales, last year was a period of daunting challenges for Flat Glass, with the restart of the furnace at the Carlisle plant which had been shut down after a fire in 2017, but was back in normal operation by August 2018.

The Architectural Glass Division completed some major product launches, like Acuity and Sungate 700 brand glass, which meet specific needs for markets in the United States and Canada.

These launches, like the startup of the jumbo coater at Wichita Falls, helped keep sales stable compared to the preceding year despite the impact on operations from having the Carlisle furnace out of commission.



The automotive industry continued to demand better technology and the highest quality, alongside a push for more competitive prices in a slower market.

Despite this, sales in the Automotive business grew 17 percent compared to the close of 2017, with the full operation of aspare parts plant, which started up in July 2017, and the startup of a new high-performance windshield line in December 2018, with all capacity expected to be on line by the first quarter of 2019.

The Chemical business, Industria de Álcali, reported a 15 percent growth in its sales mix of food-grade sodium bicarbonate, and stability in the rest of its domestic sales to the glass, detergent and oil markets, among others.

Export sales by this division shot up 27 percent over 2017, primarily of calcium chloride (38 percent), and 94 percent of exports went to the United States.

SALES	
Year	US\$ Million
2013	676
2014	649
2015	672
2016	802
2017	1,852
2018	2,001

CONTAINERS

The Container business was able to recoup its 2016 sales level after reporting a 9.8 percent contraction in 2017.

Consolidated revenues for Containers totaled US\$235 million in 2018, 8.8 percent higher than in 2017. Most of this increase came from the Fragrances and Cosmetics business, where the market recovered strongly in both the domestic and export fragrance businesses, a situation our sales force took advantage of in the various segments we participate in.

In the domestic market, we saw stability in the perfume and pharmaceutical segments, while in the United States the skincare, treatments and air freshener segments grew at a brisk pace.

In South America, sales growth was a solid 13 percent due primarily to the recovery of the Brazilian market and our commercial efforts in the region.

Demand for high-quality product remained a constant in this business, so prospecting new trends in products and technology is a part of daily operations for this division.

In 2018 much of the finishing and packaging processes were automated, and new finishes were developed to better serve our clients.

In the Machine Manufacturing business, sales rose 5.9 percent over 2017, despite the impact of reduced investment by our strategic client Owens Illinois, FAMA concentrated on the biggest challenge, which was increasing capacity utilization and achieving technological independence.

In 2018, commercial efforts in the container market focused on prospecting and certification for new clients in IS Machines, Spare Parts and Molds. As a result of these efforts, 24 percent of total sales were to new clients, contributing a 16 percent growth in sales to external clients.

Based on the transformation taking place in this business, FAMA renewed its image in 2018, and presented it to 42,000 visitors from around the world to the most important glass industry fair of the year, the “Glasstec Dusseldorf.”

SALES	
Year	US\$ Million
2013	200
2014	182
2015	205
2016	240
2017	216
2018	235

OPERATING INCOME BEFORE OTHER EXPENSES (EBIT) AND OPERATING INCOME BEFORE OTHER EXPENSES (EBITDA)

The EBITDA margin was 16 percent of sales, which is 3 percentage points less than in 2017. This reduction was due primarily to the Flat Glass business (both automotive and architectural glass).

The automotive sector, as we mentioned, continued to demand more competitive prices in a slower market, with better technology and high performance.

Accordingly, at the end of 2017 the Company made the decision to close the Creighton plant, which was done at the end of 2018, because of its difficulty in keeping up with new technological trends required in the market. This had been the oldest plant in the system and had been operating continuously for 130 years. That plant’s production, as well as some of its employees and infrastructure, were distributed among the seven remaining plants, primarily at Evansville, Indiana and Elkin, North Carolina, in order to improve our efficiencies and keep up with the latest advances in the industry.

In the Architectural Glass business, the 2017 incident that caused the shutdown of two



furnaces at Carlisle, Pennsylvania, led to some inefficiencies in our supply chain, forcing us to buy finished product from other companies in order to meet, to the extent possible, the commitments with our existing clients. Once installation was completed in the second half of the year we worked to recover this demand by adjusting our prices, which eroded our operating margins.

As a result, consolidated Operating Income was US\$245 million, 10.1 percent lower than the preceding year. The EBITDA margin closed at 16 percent of sales, compared to 19 percent in 2017.

OPERATING INCOME BEFORE OTHER EXPENSES (EBIT)	
Year	US\$ Million
2013	87
2014	60
2015	141
2016	201
2017	273
2018	245

OPERATING INCOME BEFORE OTHER EXPENSES (EBITDA)		
Year	US\$ million	% of Sales
2013	155	18%
2014	134	16%
2015	193	22%
2016	259	25%
2017	393	19%
2018	365	16%

NET FINANCIAL COST

Net Financial Cost for the Company was US\$65 million in 2018 compared with the Financial Net Product of US\$38 million in 2017.

Due to the above-mentioned change of functional currency, most of the impact on this line in 2018 came from foreign-exchange losses relating to peso-denominated financial assets and liabilities.

Despite this effect, and due primarily to a prepayment of US\$60 million in December 2017 and a reduction in the rate applicable to one of the country’s loans (part of the recent debt restructuring), interest expense was reduced in proportion to net financial cost.

TAXES

During 2018, Vitro reported income taxes for US\$46 million, an effective rate of 22 percent. This fiscal burden was 32.6 percent lower than the US\$68 million reported in 2017, mainly due to deferred taxes from 2017 and amortization of tax losses in 2018.

NET FISCAL-YEAR EARNINGS

In a complex year, full of internal challenges in our operations and amid widespread uncertainty and volatility in the markets, the Company reported consolidated net earnings of US\$162 million, compared to USD\$194 million in 2017. This is a 16 percent decline from 2017.

CASH FLOW

Cash flow was positive by US\$111 million in 2018, compared to a negative flow (investment) of US\$60 million the year before.

In November 2018, Vitro announced the sale of its 49.7 percent stake in Empresas Comegua S.A. to Owens-Illinois, Inc., for a total of US\$119 million. This is in line with Vitro’s strategy of focusing its portfolio and resources on core businesses.

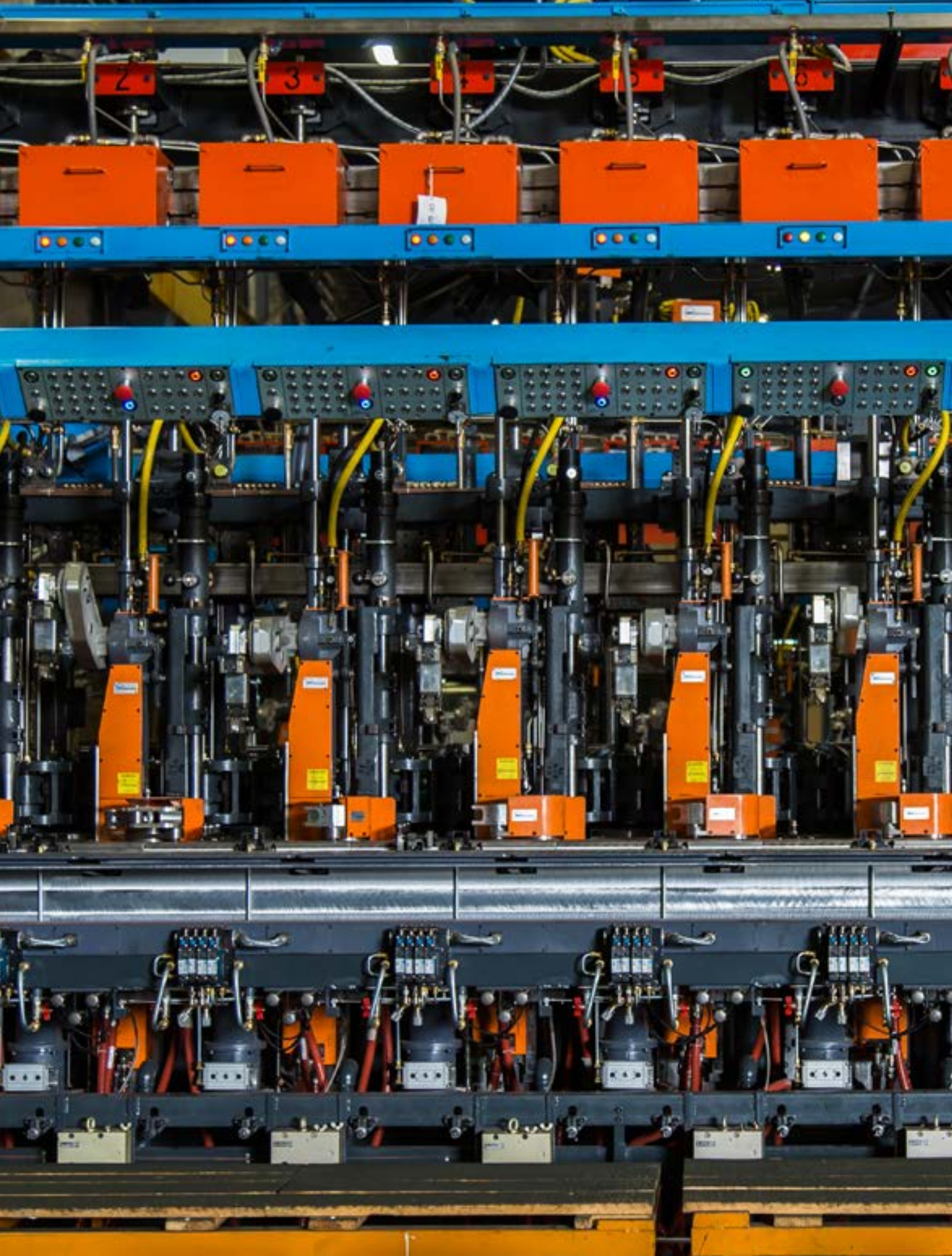
CAPITAL EXPENDITURES

Capital expenditures by the Company in 2018 totaled US\$154 million, 90 percent of which were investments in the Flat Glass business unit and the remaining 10 percent in the Container division.

Most of the investment in Flat Glass went to repairing the furnace at Carlisle and putting together the new production line of the jumbo coater, which will enable us to grow as leaders in the market with the largest coating line in the Americas.

The Automotive business focused its investments on the new plant in García, Nuevo León, which will serve new platforms in both Mexico and the United States.

The remaining 10 percent of the Company’s investment went to the Container business, especially to maintenance and capacity increases, and building remodeling.



CONSOLIDATED FINANCIAL POSITION

As of December 31, 2018, the Company’s total debt was US\$713 million, and most of it was long-term.

In the second quarter of the year, Vitro took out a new US\$700 million loan for the purpose of refinancing debt. The new loan has a term of 5 years with an initial spread of 2.0 percent over the LIBOR for the first six months. The spread after that will be based on the net debt/EBITDA ratio.

On October 1, 2018, the Company concluded the process of rolling over its debt, prepaying the balance of a bilateral loan with Inbursa for US\$500 million and with BBVA Bancomer for US\$170 million. With this, Vitro was able to improve its average rate and maturity profile and achieved an estimated US\$12 million in annual savings. Furthermore, the Company underscored its commitment to maintaining a healthy financial position and keeping its leverage at below 2 times EBITDA.

To mitigate the risks of rate increases due to changing economic conditions, the Company announced that it had taken out a hedge in the form of interest rate swaps on US\$600 million in debt, for the same terms for which the debt is covered, fixing 85 percent of its long-term debt at a benchmark rate of 2.77 percent.

STOCK PERFORMANCE (MXN PER SHARE)

The Mexican Stock Exchange (BMV) closed 2018 with its steepest loss since 2008, and at the close of the year the S&P/BMV IPC index stood 15.63 percent lower than it had one year earlier, presumably because of political uncertainty in Mexico, caution among both foreign and domestic investors toward growth projects in Mexico, the renegotiation of the North American free trade agreement, and the cancellation of Mexico’s City New International Airport Project (NAIM).

In addition to this, volatility abroad, primarily in response to trade tensions between China and the United States, the world’s two largest economies, did little to bolster the markets.

In 2018, the shares representing the capital stock of the Company (ticker symbol VITROA) on the Mexican Stock Exchange (BMV) closed the year at MXN\$52.92 per share, compared to MXN\$70.45 at the close of 2017.

QUARTER	LOW	HIGH
I	60.04	71.99
II	53.00	63.00
III	52.83	61.53
IV	48.55	52.92

MATERIAL EVENTS

Vitro repurchases shares

January 17, 2018

Vitro announced that it had acquired a total of 964,500 shares representing its own capital stock on the open market. The shares acquired by Vitro represent 0.2% of the total number of shares outstanding and will be held in the corporate treasury.

Vitro announces change of Functional and Reporting Currency

April 26, 2018

Vitro announced that after a review and authorization by the Board of Directors and Audit Committee and having informed the regulatory authorities, as of January 1, 2018, the Company and its main Mexican operating subsidiaries had prospectively changed their Functional Currency from the Mexican peso to the U.S. Dollar; and on the same date had changed their Reporting Currency to the U.S. Dollar as well.

Vitro announces debt refinancing

July 2, 2018

Vitro informed the investing public that on Friday, June 29 at 10:00 p.m., it had signed a syndicated loan agreement to refinance existing debt totaling US\$689 million. With this, the Company will be reducing its interest expense and improving the terms and conditions of its debt.

Vitro announces debt refinancing

June 29, 2018

The Company signed a syndicated loan, the proceeds of which will be used to refinance existing debt totaling US\$689 million.

With this, the Company will be reducing interest expense and improving the terms and conditions of its debt. The new loan, for US\$700 million, has a term of 5 years with an initial spread of 2.0 percent over the LIBOR for the first six months. The spread after that will be based on the net debt/EBITDA ratio.

The refinancing results in an improved principal maturity profile and reduces interest expense by approximately US\$12 million a year, after repayment of each of the existing loans.

Vitro announces prepayment of debt with Inbursa and BBVA Bancomer

October 1, 2018

Vitro completed the process of refinancing its debt by prepaying two loans: one with Inbursa for US\$500 million and one with BBVA Bancomer for US\$170 million. The payments were made through a US\$700 million syndicated loan announced in July, in which BBVA Bancomer, S.A., Institución de Banca Múltiple; Grupo Financiero BBVA Bancomer ("BBVA"); HSBC México S.A., Institución de Banca Múltiple; and Grupo Financiero HSBC ("HSBC") served as Structuring Leaders of the transaction. The remaining funds from the syndicated loan will be used to pay leasing and administrative expenses.

Vitro announces the retirement of Joseph Stas, President of Vitro Automotive Glass

October 10, 2018

Vitro announces that Joseph Stas will retire after 40 years of service, effective April 1, 2019. The Company recognizes that Mr. Stas' leadership had been fundamental to the integration of this business. To continue and promote our automotive strategy and integration, Salvador Minarro, current Chief Financial Officer for Vitro Automotive Glass, has been appointed to replace Mr. Stas as President.

Vitro announces the sale of its stake in Empresas Comegua

November 12, 2018

Vitro sold of its 49.7 percent stake in Empresas Comegua S.A. to a joint venture engaged in the sale of glass containers for food and beverages in Central America and the Caribbean. Vitro received US\$119 million for its interest in that company

Vitro announces the retirement of Richard Beuke, president of Vitro Architectural Glass

Vitro announced that after a distinguished career in the industry, Richard Beuke had decided to retire on March 31, 2019. Vitro recognizes the leadership and achievements Mr. Beuke had accumulated over the course of his 42-year career.

Ricardo Maiz accepted the position of president of Vitro Architectural Glass and will assume his duties on January 1, 2019.

Ordinary Shareholders' Meeting

Shareholders approved an increase in the maximum amount of resources that may be applied to repurchase of the Company's own shares, in the amount of MXN\$1.75 billion.

Vitro announces suspension of public tender offer

The Board of Directors decided to suspend, until further notice, the process of making public tender offer for its stock, considering that it would be best to maintain liquidity for potential investment opportunities that may arise in the future.

ASSOCIATIONS IN WHICH WE PARTICIPATE

United States

Blair County Chamber of Commerce
Tyrone Chamber of Commerce
Fresno Chamber of Commerce
Strategic Energy Management
Berea Chamber of Commerce

Richmond Chamber of Commerce
Bluegrass Business Consortium
Madison County LEPC
Wichita Co. Local Emergency Planning Committee
Chamber of Commerce

Oregon Manufacturing Extension Partnership (OMEP)
Richland Crawford Area 10 Workforce Development
Friends of Evart
MOCC
Michigan Works

Colombia

Asociación de Empresarios CHIA
ACRIP

Mexico

CONACYT - Consejo Nacional de Ciencia y Tecnología
CLÚSTER Automotriz
Grupo de Ayuda Mutua Industrial
AIEM - Asociación de Industriales del Estado de México
UNIDEM - Unión Industrial del Estado de México
Asociación de Industriales De Ecatepec
CANACINTRA - Cámara Nacional de la Industria y Transformación

CONCANACO - Confederación de Cámaras Nacionales de Comercio, Industria y Transformación
FIDE - Fideicomiso para el Ahorro de la Energía Eléctrica
COPARMEX - Confederación Patronal de la República Mexicana
AEAEE - Asociación de Empresas de Ahorro de Energía en la Edificación
Asociación de Vidrieros de Nuevo León
Cátedra Vitro - Convenio con el Instituto Tecnológico y de Estudios Superiores de Monterrey

UANL - Tópico Impartido en la Universidad Autónoma de Nuevo León
FTSA-Federación de Trabajadores de Sindicatos Autónomos
CLÚSTER de Vivienda y Desarrollo Urbano Sustentable
Asociación Nacional de la Industria Química
Asociación Mexicana de la Industria de la Sal
Comité de Ayuda Mutua Monterrey Poniente CLAMMOPO
Asociación Mexicana de la Industria Salinera



FACILITY	ISO-9000	ISO-TS-16949/ IATF-16949	ISO 14000	CLEAN INDUSTRY	ISO 28000	CT-PAT	ISO 22000	S.A.R.I.
VITRO ARCHITECTURAL GLASS								
Carlisle	•							
Fresno								
García	•			•	•	•		
Meadville	•		•					
Mexicali	•			•	•	•		
Salem								
Wichita Falls	•							
PVA								
VITRO AUTOMOTIVE GLASS								
Aguascalientes		•	•					
Westland		•	•					
Autotemplex		•	•	•	•	•		
Berea		•	•					
Crilatsa		•	•					
Crestline		•	•					
Crinamex		•	•	•	•	•		
Planta MR								
Evansville		•	•					
Elkin		•	•					
Evart		•	•					
Mid-Ohio		•	•					
Shatterproof				•				
O-Fallon		•	•					
Poland		•	•					
Tipton		•	•					
Vitro Colombia	•	•	•					
Vitro Flex		•	•	•	•	•		
GLASS CONTAINERS								
Cosmos	•			•		•	•	
INDUSTRIA DEL ÁLCALI								
Industria del Álcali	•		•	•	•	•	•	•
FAMA								
Fabricación de Máquinas	•					•		

- Certificaciones de productos de vidrio automotriz:**
- ANSI (American National Standards Institute)**
Noth America - Safety requirements based on Glass color, thickness,size and shape.
- R43 (Regulation No 43 of the Economic Commission for Europe of the United Nations)**
Europe - Safety requirements based on Glass color, thickness,size and shape.
- CCC (China Compulsory Certificate)**
Chinese - Safety requirements based on Glass color, thickness,size and shape.
- INMETRO (National Institute of Metrology, Standardization and Industrial Quality)**
South America - Safety requirements based on Glass color, thickness,size and shape.
- VSCC (Vehicle Safety Compliance Certification)**
Taiwan -Safety requirements based on Glass color, thickness,size and shape.
- ARAI (Automotive Research Association of India)**
India - Safety requirements based on Glass color, thickness,size and shape.
- ICONTEC (Colombian Institute of Technical Standards and Certification)**
Colombia - Safety requirements based on Glass color, thickness,size and shape.
- INEN (Servicio Ecuatoriano de Normalización)**
Ecuador - Safety requirements based on Glass color, thickness,size and shape.

Consolidated Financial Statements as of December 31, 2018 and 2017 and as of January 1, 2017 and for the Years Ended December 31, 2018 and 2017, and Independent Auditors' Report Dated February 1, 2019



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INDEPENDENT AUDITORS' REPORT

To the Board of Directors and Stockholders of Vitro, S.A.B. de C.V. and Subsidiaries

Opinion

We have audited the consolidated financial statements of Vitro, S. A. B. de C. V. and Subsidiaries (the "Company"), which comprise the consolidated statements of financial position as of December 31, 2018, 2017 and as of January 1, 2017, the consolidated statements of profit or loss and other comprehensive income, changes in stockholders' equity, and cash flows for the years then ended, and explanatory notes of the consolidated financial statements that include a summary of the significant accounting policies.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Company as of December 31, 2018, 2017 and as of January 1, 2017, and their consolidated financial performance and their consolidated cash flows for the years then ended, in accordance with International Financial Reporting Standards (IFRS), issued by the International Accounting Standards Board.

Basis for Opinion

We conducted our audits in accordance with International Standards on Auditing (ISA). Our responsibilities under those standards are further described in the *Auditors' Responsibilities for the Audit of Consolidated Financial Statements* section of our report. We are independent from the Company in accordance with the International Ethics Standards Board for Accountants' *Code of Ethics for professional Accountants (IESBA Ethics Code)* and with the Ethics Code issued by the Mexican Institute of Public Accountants (*IMCP Ethics Code*), and we have fulfilled our other ethical responsibilities in

accordance with the IESBA and IMCP Ethics Code. We consider that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Emphasis of Matter

Without implying any qualification in our opinion, draw attention to Note 3c) to the accompanying consolidated financial statements, which describes that the Company and its primary Mexican operating subsidiaries have prospectively changed their functional currency from the Mexican peso to the U.S. dollar beginning January 1, 2018, in accordance with IAS 21, *Effects of Changes in Foreign Exchange Rates*. The Company concluded that the currency that represents its current economic environment and operations is the U.S. dollar; in addition, beginning this same date, the Company changed its reporting currency from the Mexican peso to the U.S. dollar, retrospectively applying such change to all periods presented.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were more important in our audit of the consolidated financial statements of the current period. These matters have been addressed in the context of our audit of the consolidated financial statements as a whole and in the disclosure of our opinion thereon, and we do not express a separate opinion on those audit matters. We have determined that the matters described below are the key audit matters to be disclosed in our report.

Asset Impairment Analysis

As described in Note 4l) to the consolidated financial statements, the Company reviews, on an annual basis, the carrying amount of long-lived assets in use to determine whether they are impaired, as they might not be recoverable through their value in use. The impairment analysis involves analyzing assumptions affected by future expectations of the results of the Company's operations; accordingly, our audit procedures included:

- i) Evaluating the methodology applied to determine the value in use.
- ii) Challenging the assumptions used in the projected cash flows with reference to historical data and market expectations.
- iii) Assessing in an independent manner the discount rate used in the impairment model.
- iv) Challenging the sensitivity analyses prepared by the Company.
- v) Involving our specialists to support us in the assessment of the assumptions and methodology used by the Company.

The results from our audit procedures described above were reasonable and we did not identify exceptions.

Recovery of deferred tax assets

As described in Note 4o) to the consolidated financial statements, the Company recognizes deferred income taxes on differences between carrying amounts and the tax basis of assets and liabilities, and benefits from tax-loss carryforwards. IFRS requires that the carrying amount of deferred tax assets be reviewed and reduced to the extent it is unlikely that there will be sufficient taxable income to allow the recovery of all or part of the asset. The recoverability test was significant for our audit due to the complexity of the evaluation process, and it is based on premises affected by the future expectations of the operation results.

Our audit procedures included:

- i) Analyzing the trends of the tax results generated by each Subsidiary.
- ii) Reviewing the financial and tax projections to determine whether generating taxable income in the future will allow for the utilization of tax losses before their expiration.
- iii) Assessing the assumptions and methodologies used by the Company.

The Company’s disclosures on the amounts that give rise to the deferred tax balance are included in Note 23 to the consolidated financial statements.

The results from our audit procedures described above were reasonable and we did not identify any exceptions.

Other Information

Management is responsible for the other information. The other information will comprise the information that will be included in the annual report that the Company is bound to prepare under Article 33, Section I, Subsection b) of the Fourth Title, First Chapter of the Provisions of a General Nature Applicable to the Issuers of Securities and to Participants in the Securities Market and the accompanying Instructions (the Provisions). The Annual Report will be available for our reading after the date of this auditor’s report.

Our opinion on the consolidated financial statements does not cover the other information, and we will not express any form of assurance thereon.

In connection with our audit of the consolidated financial statements, our responsibility will be to read the Annual Report when available, and doing so, consider whether the other information contained therein is materially inconsistent with the consolidated financial statements or our knowledge obtained during the audit, or otherwise appears to be materially misstated. When we read the Annual Report, we will issue the legend on the reading of the annual report in conformity with Article 33, Section I, Subsection b), number 1.2 of the Provisions.

Responsibilities of Management and Those Charged with Governance for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with IFRS, and for the internal

control that management determines necessary for the preparation of consolidated financial statements that are free from material misstatements, due to fraud or error.

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

Those charged with governance of the Company are responsible for overseeing the Company’s consolidated financial reporting process.

Auditor’s Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor’s report that includes our opinion. Reasonable assurance is a high level of assurance but is not a guarantee that an audit conducted in accordance with 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 Company'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 Company's ability to continue as a going concern. If we conclude that a material uncertainty exists,
- we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the 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 Company to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the Company's 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 inde-

pendence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

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

Galaz, Yamazaki, Ruiz Urquiza, S. C.
Member of Deloitte Touche Tohmatsu Limited



C. P. C. Fernando Noguera Conde

Monterrey, N.L. February 1, 2019

CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

Vitro, S.A.B. de C.V. and Subsidiaries
As of December 31, 2018, and 2017 and as of January 1, 2017
(Thousands of dollars)

	Note		December 31, 2018	December 31, 2017	January 1, 2017
Assets					
Cash and cash equivalents	17	\$	290,974	\$ 180,482	\$ 240,458
Trade accounts receivable, net	6, 17		301,058	295,281	202,753
Recoverable taxes	17		23,315	29,641	12,842
Other current assets	5		49,756	45,983	29,463
Inventories, net	7		386,351	336,025	177,213
Current assets			1,051,454	887,412	662,729
Investment in associated companies	8		7,930	90,468	85,388
Investment properties	10		18,956	18,974	17,423
Property, plant and equipment	9		1,225,655	1,173,317	841,567
Deferred income taxes	23		119,162	137,346	198,963
Employee benefits	16		-	9,062	37,094
Goodwill	12		61,463	60,465	46,701
Intangibles and other assets	13		286,270	298,243	313,686
Long-term assets			1,719,436	1,787,875	1,540,822
Total assets		\$	2,770,890	\$ 2,675,287	\$ 2,203,551

See accompanying notes to consolidated financial statements.



Adrián Sada Cueva

Chief Executive Officer



Claudio L. Del Valle Cabello

Chief Administrative and Financial Officer

CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

Vitro, S.A.B. de C.V. and Subsidiaries
As of December 31, 2018, and 2017 and as of January 1, 2017
(Thousands of dollars)

	Note	December 31,		January 1,
		2018	2017	2017
Liabilities				
Short-term maturity of long-term debt	14, 17	\$ 3,030	\$ 4,781	\$ 1,472
Interest payable	17	2,551	3,214	6
Trade accounts payable	17	205,327	231,032	116,493
Accrued expenses and provisions	15, 17	76,371	68,710	69,718
Other short-term liabilities	5, 17	110,101	84,897	89,467
Short-term liability		397,380	392,634	277,156
Long-term debt	14	710,514	684,685	511,891
Deconsolidation income tax	17	99,148	147,352	166,776
Deferred income taxes	23	52,310	48,648	45,615
Other liabilities	5	25,498	16,928	3,183
Employee benefits	16	17,777	-	-
Long-term liability		905,247	897,613	727,465
Total liabilities		1,302,627	1,290,247	1,004,621
Stockholders' equity				
Capital stock	19	378,860	378,860	378,860
Repurchased shares		(14,945)	(10,442)	(239)
Additional paid-in capital		344,037	344,037	344,037
Other comprehensive income	19	75,290	118,283	90,874
Accumulated earnings	19	684,037	553,303	384,512
Controlling interest		1,467,279	1,384,041	1,198,044
Non-controlling interest	19	984	999	886
Stockholders' equity		1,468,263	1,385,040	1,198,930
Liabilities and Stockholders' equity		\$ 2,770,890	\$ 2,675,287	\$ 2,203,551

See accompanying notes to consolidated financial statements.

CONSOLIDATED STATEMENTS OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

Vitro, S.A.B. de C.V. and Subsidiaries
For the years ended December 31, 2018 and 2017
(Thousands of dollars, except the amounts per share)

	Note	Year ended December 31,	
		2018	2017
Net sales		\$ 2,238,379	\$ 2,075,229
Cost of sales		1,614,518	1,446,036
Gross profit		623,861	629,193
Administrative expenses		165,261	171,299
Distribution and sale expenses		213,131	184,867
Income before other expenses, net		245,469	273,027
Other income, net	21	(21,215)	(20,856)
Operating income		266,684	293,883
Financial cost	22	64,652	37,644
Equity in income of associated companies	8	6,085	6,060
Income before income taxes		208,117	262,299
Income taxes expense	23	46,113	68,428
Income of the year		\$ 162,004	\$ 193,871
Items that will not be reclassified to profit or loss:			
Actuarial remeasurements of the defined benefit obligation, net of taxes	16	\$ (35,042)	\$ (14,479)
Total items that will not be reclassified to profit or loss		\$ (35,042)	\$ (14,479)

CONSOLIDATED STATEMENTS OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

Vitro, S.A.B. de C.V. and Subsidiaries
For the years ended December 31, 2018 and 2017
(Thousands of dollars, except the amounts per share)

	Note	Year ended December 31,	
		2018	2017
Items that can be reclassified to profit or loss:			
Profit (loss) in fair value of financial instruments			
designated as cash flow hedges, net of taxes	17	\$ (5,497)	\$ -
Cumulative translation adjustments	19	(2,376)	41,921
Total items that can be reclassified to profit or loss		(7,873)	41,921
Total other components of comprehensive		(42,915)	27,442
Total comprehensive income of the year		\$ 119,089	\$ 221,313
Total income of the year attributable to:			
Controlling interest	19	\$ 161,739	\$ 193,791
Non-controlling interest	19	265	80
Total income of the year		\$ 162,004	\$ 193,871
Total comprehensive income of the year attributable to:			
Controlling interest	19	\$ 118,746	\$ 221,200
Non-controlling interest	19	343	113
Total comprehensive income of the year		\$ 119,089	\$ 221,313
Earnings per common share arising from continuing operations and discontinued operations:			
Basic and diluted earnings per share		\$ 0.3375	\$ 0.4015

See accompanying notes to consolidated financial statements.

CONSOLIDATED STATEMENTS OF CASH FLOWS

Vitro, S.A.B. de C.V. and Subsidiaries
For the years ended December 31, 2018 and 2017
(Thousands of dollars)

	Note	Year ended December 31,	
		2018	2017
Cash flows in operating activities:			
Income before income taxes		\$ 208,117	\$ 262,299
Adjustments for:			
Depreciation and amortization	9, 13	118,734	112,383
Loss on sale of assets		3,399	2,512
Loss from impairment of long-lived assets	9c, 22	-	7,727
Gain on sale of associated company and business acquisition	8, 11, 21	(23,562)	(4,011)
Financial products	22	(1,922)	(595)
Equity in income of associated companies	8	(6,085)	(6,060)
Derivative financial instruments	22	2,345	(1,865)
Foreign exchange loss (gain) and other		8,366	(22,236)
Interest payable	22	48,331	49,154
		357,723	399,308
Changes in working capital:			
Trade accounts receivable, net		(15,999)	8,704
Inventories		(53,611)	(38,467)
Suppliers		23,796	18,640
Other short-term operating assets and liabilities		(27,642)	(37,423)
Employee benefits		(16,146)	(12,546)
Income taxes		(45,626)	(44,159)
Cash flows provided by operating activities		222,495	294,057

CONSOLIDATED STATEMENTS OF CASH FLOWS

Vitro, S.A.B. de C.V. and Subsidiaries
For the years ended December 31, 2018 and 2017
(Thousands of dollars)

	Note	Year ended December 31,	
		2018	2017
Cash flows in investing activities:			
Purchase of machinery and equipment	9	(153,859)	(163,127)
Investment and sale of associated companies, net	8 and 21	112,195	-
Business acquisition, net of acquired cash	11	-	(293,998)
Intangibles and other assets	13	(17,506)	(3,762)
Interest collected	22	1,738	594
Cash flows used in investing activities		(57,432)	(460,293)
Cash flows in financing activities:			
Long-term loans obtained	14	700,000	230,000
Payment of loans	14	(673,123)	(61,281)
Interest paid		(41,833)	(36,773)
Dividends paid		(31,686)	(25,318)
Repurchase of own shares		(4,503)	(10,203)
Debt issuance costs	14	(6,812)	(1,396)
Derivative financial instruments		329	(344)
Cash flows provided by (used in) financing activities		(57,628)	94,685
Net increase (decrease) in cash and cash equivalents:		107,435	(71,551)
Cash and cash equivalents as of January 1,	17	180,482	240,458
Effect of exchange fluctuations		3,057	11,575
Cash and cash equivalents as of December 31,	17	\$ 290,974	\$ 180,482

See accompanying notes to consolidated financial statements.

CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY

Vitro, S.A.B. de C.V. and Subsidiaries
For the years ended December 31, 2018 and 2017 and January 1, 2017
(Thousands of dollars)

	Capital stock	Repurchased shares and additional paid-in capital	Cumulative translation adjustments	Actuarial re measurements	Accumulated earnings	Controlling interest	Non-controlling interest	Total stockholders' equity
Balance as of January 1, 2017	\$ 378,860	\$ 343,798	\$ 69,733	\$ 21,141	\$ 384,512	\$ 1,198,044	\$ 886	\$ 1,198,930
Dividends declared (Note 19c)	-	-	-	-	(25,000)	(25,000)	-	(25,000)
Repurchased shares	-	(10,203)	-	-	-	(10,203)	-	(10,203)
Purchase of non-controlling interest (Note 19h)	-	-	-	-	-	-	-	-
Comprehensive income:	-	-	-	-	-	-	-	-
Other components of comprehensive income	-	-	41,888	(14,479)	-	27,409	33	27,442
Net consolidated income	-	-	-	-	193,791	193,791	80	193,871
Comprehensive income	-	(10,203)	41,888	(14,479)	193,791	221,200	113	221,313
Balances as of December 31, 2017	378,860	333,595	111,621	6,662	553,303	1,384,041	999	1,385,040
Dividends declared (Note 19c)	-	-	-	-	(31,005)	(31,005)	-	(31,005)
Decrease in capital	-	-	-	-	-	-	(358)	(358)
Repurchase of own shares (Note 19d)	-	(4,503)	-	-	-	(4,503)	-	(4,503)
Comprehensive income (loss):	-	-	-	-	-	-	-	-
Other components of comprehensive income of the year	-	-	(2,454)	(40,539)	-	(42,993)	78	(42,915)
Net consolidated income of the year	-	-	-	-	161,739	161,739	265	162,004
Comprehensive (loss) income of the year	-	-	(2,454)	(40,539)	161,739	118,746	343	119,089
Balances as of December 31, 2018	\$ 378,860	329,092	\$ 109,167	\$ (33,877)	\$ 684,037	\$ 1,467,279	\$ 984	\$ 1,468,263

See accompanying notes to consolidated financial statements.

Vitro, S.A.B. de C.V. and Subsidiaries
As of December 31, 2018, and 2017
(Thousands of dollars)

1. THE COMPANY’S ACTIVITY

Vitro, S.A.B. de C.V. (“Vitro” and jointly with its subsidiaries the “Company”) is a holding company which together with its subsidiaries are mainly engaged in the manufacture and commercialization of glass products for local and foreign markets, to mainly satisfy the needs of two types of business: flat glass and glass containers. The Company processes, distributes and commercializes a broad range of glass containers for flat glass goods for architectural and automotive use and cosmetics and pharmaceutical markets; similarly, the Company is engaged in the manufacture of Soda Ash and other related by products, equipment and capital goods for industrial use. Vitro’s corporate offices are located at Avenida Ricardo Margain Zozaya No. 400, Colonia Valle del Campestre, San Pedro Garza Garcia, Nuevo León, Mexico.

2. SIGNIFICANT EVENTS

2018

a) *Change in functional currency and presentation currency*

As a result of the total integration in 2018 of the businesses acquired during 2016 and 2017, mainly in the United States of America, as well as the organizational changes made with the purpose of generating global synergies, the changes that have taken place in its global operations in order to strengthen each business, the changes in the way of measuring business performance, and the impact that all this has had in its Mexican businesses, Vitro has revised the functional currency of its main subsidiaries in accordance with the International Accounting Standard 21 (IAS 21) “The Effects of Changes in Foreign Exchange Rates”, concluding that the currency that best represents its current economic environment and way of operating is the US dollar.

As a result of the foregoing, once reviewed and authorized by the Board of Directors and its Audit Committee, as well having informed Regulators, Vitro and its main Mexican operating subsidiaries prospectively changed their functional currency from the Mexican peso to the United States dollar effective January 1, 2018; additionally, as of that same date, Vitro changed its reporting currency to the United States dollar because it is the currency in which business performance is measured and decisions are made (see Note 3c).

b) *Dividends declared*

At an ordinary General Stockholders’ meeting held on February 27, 2018, the stockholders agreed to declare and pay dividends at a rate of US\$0.0647 per share (Note 19c).

c) *Signing of syndicated loan agreement*

On June 29, 2018, Vitro signed a syndicated loan agreement for \$700,000 with the purpose of refinancing its existing consolidated debt at that date which amounted to \$690,574. The new loan has a term of five years and will have an initial margin of 2.0% over LIBOR and subsequently an applicable margin based on the consolidated leverage ratio.

Consolidated leverage ratio	Applicable Margin
Greater than or equal to 2.5 times and less than 3.0 times	275 basis points
Greater than or equal to 2.0 times and less than 2.5 times	250 basis points
Greater than or equal to 1.5 times less than 2.0 times	225 basis points
Less than 1.5 times	200 basis points

Additionally, on August 27, 2018, Vitro contracted a derivative financial instrument “Swap” with the purpose of fixing interest payments based on a 2.77% fixed annual rate; this agreement covers 85.7% of the syndicated loan.

On October 1, 2018, the Company executed the syndicated loan for \$700,000 and used the resources to prepay existing debt as of September 30, 2018 (see Note 14).

d) Sale of equity participation in Empresas Comegua, S.A.

On November 12, 2018, Vitro signed an agreement to sell its 49.7% stake in Empresas Comegua, S.A. (“Comegua”) to Owens-Illinois, Inc. for \$119,085. Comegua is an associated company dedicated to the sale of glass containers for food and beverages with operations in Central America and the Caribbean with two manufacturing plants and two sand extraction operations and more than 1,500 employees (see Note 8 and 21).

2017

e) Closure of the acquisition of PGW’s Automotive Glass Business for Original Equipment

On December 18, 2016, Vitro entered into a definitive agreement to acquire the glass automotive business for original equipment from Pittsburgh Glass Works LLC (“PGW”) for \$315,896 funded with \$85,896 of its own resources and a credit agreement for \$230,000 (Notes 2b and 11). On March 1, 2017, the Company successfully completed this transaction. With this acquisition, seven automotive glass manufacturing plants and two satellite plants were added, as well as two float glass furnaces in the USA, one automotive glass plant in Poland, and participation in two joint arrangements located in North America and China.

To date, the Company’s management, supported by independent experts, has performed the purchase price allocation to the fair value of the net assets acquired, as well as the goodwill calculation. The values calculated initially did not incur material changes (see Note 11).

f) Signing of credit agreement

On December 18, 2016, Vitro entered into a credit agreement with BBVA Bancomer, S.A., Institución de Banca Múltiple, Grupo Financiero BBVA Bancomer (BBVA Bancomer) for \$230,000 maturing in 2023 and accruing variable interest at London interbank offered rate (“LIBOR”) plus an applicable margin according to its consolidated leverage ratio as shown below:

Consolidated leverage ratio	Applicable Margin
Greater than or equal to 2.5 times and less than 3.0 times	400 basis points
Greater than or equal to 2.0 times and less than 2.5 times	375 basis points
Greater than or equal to 1.5 times less than 2.0 times	350 basis points
Less than 1.5 times	325 basis points

These resources were used to the pay part of the purchase price of PGW’s Automotive Glass Business for Original Equipment (Notes 2a and 14).

On December 1, 2017, Vitro paid in advance \$60,000 plus accrued interests, to its \$230,000 debt contracted with BBVA Bancomer. This payment was applied in reverse order to its amortization plan, thus reducing the term of the debt.

g) Dividends declared

At an ordinary General Stockholders’ meeting held on March 30, 2017, the stockholders agreed to declare and pay dividends at a rate of US\$0.0517 per share (Note 19c)

h) Acquisition of Cristal Laminado o Templado, S.A. de C.V. Business

On May 30, 2017, Vitro obtained control of the associate company Cristal Laminado o Templado, S.A. de C.V. (CLT) through the acquisition of the remaining 50% capital stock representative shares for an amount of US\$7,550 paid in cash. The initial participation in this company was part of the joint arrangements acquired in the purchase of PGW.

To date, the Company’s management, supported by independent experts, has performed the purchase price allocation to the fair value of the net assets acquired, as well as the goodwill calculation. The values calculated initially did not incur material changes (see Note 11).

i) Incident in Carlisle plant.

On August 21, 2017, operations at the Carlisle, Pennsylvania, USA plant were affected as a result of a glass leak in one of the two furnaces; due to the damages suffered by this event, the affected furnace did not operate until July 2018. The product supply was to be covered with the furnace that did not suffer major damages as well as by other plants in Vitro’s system and purchase of product from competitors. The insurance policies that the Company has, cover this type of losses in relation to physical damage to real estate,

machinery and equipment, as well as the business interruption. As of December 31, 2018, the expenses incurred by this incident are \$61,918 and mainly include glass purchases from third parties, transportation, repairs, clean up and production inefficiency; recoveries, including capital expenditures are \$70,433. The Company and its legal advisors were negotiating with the insurance company the final settlement of this incident.

3. BASIS OF PREPARATION AND CONSOLIDATION

a) *Basis of preparation*

The consolidated financial statements as of December 31, 2018 and 2017 and as of January 1 2017, and for the years then ended December 31, 2018 and 2017, were prepared based on International Financial Reporting Standards (“IFRS”) issued by the International Accounting Standards Board (“IASB”).

The accompanying consolidated financial statements were prepared based on historical costs, which includes the disclosure of the deemed cost, except for certain financial instruments which are recorded based on their amortized cost or fair value, and investment properties which are recorded at fair value. The historical cost is generally based on the fair value of the consideration granted in exchange for the assets.

i. *New IFRS's adopted in 2018*

In the current year, the Company has applied a number of amendments to IFRSs issued by the International Accounting Standards Board (“IASB”) that are mandatorily effective for an accounting period that begins on or after January 1, 2018.

Impact of initial application of IFRS 9 Financial Instruments

IFRS 9, Financial Instruments, issued in July 2014, is the replacement of IAS 39, “Financial Instruments: Recognition and Measurement”. This standard includes requirements for recognition and measurement, impairment, derecognition and general hedge accounting. This version supersedes all previous versions and is mandatorily effective for periods beginning on or after January 1, 2018, with early adoption being permitted. IFRS 9 (2014) does not replace the requirements for portfolio fair value hedge accounting for interest rate risk since this face of the project was separated from the IFRS 9 project.

IFRS 9 (2014) is a complete standard that includes the requirements previously issued and the additional amendments to introduce a new expected loss impairment model and limited changes to the classification and measurement requirements for financial assets. More specifically, the new impairment model is based on expected credit losses rather than incurred losses and will apply to debt instruments measured at amortized cost or FVTOCI, lease receivables, contract assets and certain written loan commitments and financial guarantee contracts. Regarding the new measurement category of FVTOCI, it will apply for debt instruments held within a business model whose objective is achieved both by collecting contractual cash flows and selling financial assets.

New requirements of IFRS 9 and Impact in the Consolidated Financial Statements of the Company

As of December 31, 2017, the Company classified its financial assets in the following categories: “financial assets valued at fair value through profit or loss,” “financial assets held to maturity,” “loans and accounts receivable,” “financial assets available for sale” and “other”. The classification depended on the nature and purpose of the financial assets and how was determined in the initial recognition.

Since January 1, 2018, due to the adoption of IFRS 9, the Company classifies and measures its financial assets based on the Company’s business model to manage its financial assets, as well as the characteristics of the contractual cash flows of such assets. In this way, financial assets can be classified at amortized cost and effective interest method, fair value through other comprehensive income, and fair value through profit or loss.

All financial assets are recognized and written off at the trade date, where a purchase or sale of a financial asset is under an agreement, which terms require the delivery of the asset within a term that is generally established by the corresponding market, and are initially valued at fair value, plus the transaction costs, except for those financial assets classified as at fair value with changes through profit or loss, which are initially valued at fair value, without including the transaction costs.

Policy as of December 31, 2017 under IAS 39 and changes made due to the adoption of the new IFRS 9.

1. Classification and measurement of financial assets

As of December 31, 2017, the Company classified its financial assets in the following categories: “financial assets valued at fair value through profit or loss,” “financial assets held to maturity,” “loans and accounts receivable,” “financial assets available for sale” and “other”. The classification depended on the nature and purpose of the financial assets and how was determined in the initial recognition.

Since January 1, 2018, due to the adoption of IFRS 9, the Company classifies and measures its financial assets based on the Company’s business model to manage its financial assets, as well as the characteristics of the contractual cash flows of such assets. In this way, financial assets can be classified at amortized cost and effective interest method, fair value through other comprehensive income, and fair value through profit or loss.

Categories of financial assets under IAS 39 and in force until December 31, 2017 and their transition to IFRS 9

i. Financial assets valued at fair value through profit or loss

Policy as of December 31, 2017

A financial asset is presented at fair value through profit or loss if it is classified as held for trading purposes or if it is designated as such at its initial recognition. Financial assets are designated at fair value through profit or loss if the Company manages such investments and make purchase and sale decisions based on their fair value and according to the Company’s investment or risk management. In the initial recognition, the costs attributable to the transaction are recognized in profit or loss as incurred. Financial assets at fair value through profit or loss are valued at fair value, and changes in fair value are recognized in profit or loss.

Impact due to the adoption of the new IFRS 9

As of January 1, 2018, the financial assets at their fair value through the results did not suffer impacts in the measurement and still having the same classification that was held as of December 31, 2017, therefore, they are classified as described in subsection vii of this section.

ii. Financial assets held to maturity

Policy as of December 31, 2017

If the Company intends and is able to hold to maturity debt instruments that are traded in an active market, then such financial assets are classified as held to maturity. Financial assets held to maturity are initially recognized at fair value plus costs directly attributable to the transaction. Subsequent to the initial recognition, the financial assets held to maturity are valued at amortized cost using the effective interest method, less impairment losses.

Impact due to the adoption of the new IFRS 9

As of January 1, 2018, the financial assets held to maturity did not suffer impacts in the measurement and still having the same classification of amortized cost, such as was held as of December 31, 2017, therefore, they are classified as described in subsection v of this section.

iii Loans and accounts receivable

Policy as of December 31, 2017

Loans and accounts receivable are financial assets with fixed or determined payments, which are not traded in an active market. Such assets are initially recognized at fair value plus costs directly attributable to the transaction. Subsequent to the initial recognition, the loans and accounts receivable are measured at amortized cost using the effective interest method, less impairment losses. Interest income is recognized applying the effective interest rate, except for short-term accounts receivable, in case interest recognition is insignificant.

Impact due to the adoption of the new IFRS 9

As of January 1, 2018, the loans and accounts receivable did not suffer impacts in the measurement and still having the same classification of amortized cost, such as was held as of December 31, 2017, therefore, they are classified as described in subsection v of this section.

iv. Financial assets available for sale

Policy as of December 31, 2017

Financial assets available for sale are non-derivative financial assets designated as held for sale and that are not classified in any of the aforementioned categories, such as equity instruments and certain debt instruments. Such assets are initially recognized at fair value plus the costs directly attributable to the transaction. After the initial recognition, they are valued at fair value and changes other than impairment losses or exchange differences in equity instruments available for sale are recognized in comprehensive income within stockholders' equity. When an investment is written off or it is impaired, the accumulated loss or gain of the comprehensive income account is transferred to profit or loss.

Impact due to the adoption of the new IFRS 9

As of January 1, 2018, the financial assets held for sale did not suffer impacts in the measurement and still having the same classification of fair value through other comprehensive income, such as was held as of December 31, 2017, therefore, they are classified as described in subsection vi of this section.

Policy adopted in 2018 in relation to financial assets under IFRS 9, in force as of January 1, 2018.

v. Financial assets at amortized cost

Financial assets at amortized cost are those that i) are kept within a business model whose objective is to maintain said assets to obtain the contractual cash flows and ii) the contractual conditions of the financial asset give rise, on specified dates, to cash flows of cash that are only payments of the principal and interest on the amount of the outstanding.

The amortized cost of a financial asset is the amount at which the financial asset is measured at initial recognition minus the principal repayments, plus the cumulative amortization using the effective interest method of any difference between that initial amount and the maturity amount, adjusted for any loss allowance. The gross carrying amount of a financial asset is the amortized cost of a financial asset before adjusting for any loss allowance.

vi. Financial assets at fair value through other comprehensive income

Financial assets at fair value through other comprehensive income are those whose business model is based on obtaining contractual cash flows and selling financial assets, in addition to their contractual conditions giving rise, on specified dates, to cash flows that they are only payments of the principal and interest on the outstanding principal amount.

vii. Financial assets at fair value through profit or loss

Financial assets at fair value through profit or loss, in addition to those described in point i of this section, are those that do not comply with the characteristics to be measured at amortized cost or at fair value through other comprehensive income. that: i) they have a business model different from those that seek to obtain contractual cash flows or obtain contractual cash flows and sell the financial assets, or, ii) the cash flows they generate are not only payments of the principal and interest on the amount of the outstanding principal.

2. Impairment of financial assets

In relation to the impairment of financial assets, IFRS 9 requires an expected credit loss model as opposed to an incurred credit loss model under IAS 39. The expected credit loss model requires the Company to account for expected credit losses and changes in those expected credit losses at each reporting date to reflect changes in credit risk since initial recognition of the financial assets. In other words, it is no longer necessary for a credit event to have occurred before credit losses are recognized, specifically, IFRS 9 requires the Company to recognize a loss allowance for expected credit losses in the accounts receivable and contractual assets of the Company.

As of December 31, 2017, the Company's policy was to record a provision for uncollectible accounts for all the accounts receivable older than 90 days, in addition to factors such as the financial and operating situation of the customers, condition of expired accounts, as well as the economic conditions of the country in which they operate.

During 2018, changes were made in the internal process for the management of uncollectible accounts, implementing a methodology and calculation to comply with the new model of expected credit losses, which imposes a provision in the initial recognition of accounts receivable, this methodology is part of the current policy to determine the impairment of accounts receivable.

The Company adopted a simplified model for calculating expected losses, which it recognizes the expected credit losses during the life of the account receivable. The model consists in determine the “turnover” for all accounts receivable, defined as breach threshold, then the Company determines the average value of accounts receivable for the last twelve months that have exceeded the breach threshold, this average is the basis for the calculation. The percentage to be applied to the basis is the proportion represented by the average of accounts receivable that exceed the breach threshold between the monthly average sales of the last twelve months, in such a way that this methodology imposes a provision in the initial recognition of accounts receivable, this procedure is part of the current policy to determine the impairment of accounts receivable.

3. Classification and measurement of financial liabilities

A significant change introduced by IFRS 9 in the classification and measurement of financial liabilities relates to the accounting for changes in the fair value of a financial liability designated as at FVTPL attributable to changes in the credit risk of the issuer. IFRS 9 requires that the exchange should be evaluated as an extension of the original financial liability and the recognition of a new financial liability and whether it is a substantial modification of the terms of an existing liability.

4. General hedge accounting

The new general hedge accounting requirements retain the three types of hedge accounting. However, greater flexibility has been introduced to the types of transactions eligible for hedge accounting, specifically broadening the types of instruments that qualify for hedging instruments and the types of risk components of non-financial items that are eligible for hedge accounting. In addition, the effectiveness test has been replaced with the principle of an ‘economic relationship. Retrospective assessment of hedge effectiveness is also no longer required. Enhanced disclosure requirements about the Company’s risk management activities have also been introduced.

As of December 31, 2017, the Company did not apply general hedge accounting.

Based on previously mentioned, the adoption of this new IFRS does not have material effects on its results and does not have a significant impact on business activities, internal processes, contractual obligations or their current financial situation and IFRS 9 has been adopted in this 2018 period in accordance with the transition options contemplated in IFRS 9.

Impact of initial application of IFRS 15, Revenues from contracts with customers

In the current year, the Company has applied IFRS 15, Revenue from Contracts with Customers, (as amended in April 2016) which is effective for an annual period that begins on or after January 1, 2018. IFRS 15 introduced a 5-step approach to revenue recognition.

New requirements of IFRS 15 and Impact in the Consolidated Financial Statements of the Company

The standard outlines a single comprehensive model for entities to use in accounting for revenue arising from contracts with customers and supersedes most current revenue recognition guidance, including industry-specific guidance. In applying the revenue model to contracts within its scope, an entity will: 1) Identify the contract(s) with a customer; 2) Identify the performance obligations in the contract; 3) Determine the transaction price; 4) Allocate the transaction price to the performance obligations in the contract; 5) Recognize revenue when (or as) the entity satisfies a performance obligation. Likewise, the disclosures required in the financial statements, both annual and intermediate are increased.

Policy as of December 31, 2017 under IAS 18 and changes made due to the adoption of the new IFRS 15.

Policy as of December 31, 2017

Revenues and related costs are recognized in the period in which: i) the risks and rewards are transferred to customers, which generally coincides with the delivery of products to customers in satisfaction of orders; ii) there is no ownership or effective control on the goods sold; iii) revenues and related costs can be measured reliably and iv) the economic benefits to the Company are probable.

Impact due to the adoption of the new IFRS 15

The Company’s Management carried out an assessment to evaluate the impact of the IFRS 15 implementation, consisted in the application of the integral model of the 5 steps for the revenue recognition in the different businesses of the company, below is a summary of the most important definitions of the Company:

The Company keep signed contracts with its most representative customers, within which agreed prices list, currency, volumes of purchases, discounts for prompt payment or volume, for customers who do not have a contract, the purchase order is defined as a contract, and these have the same characteristics of a contract. In the case of payments related to obtaining the contracts, these are capitalized and amortized over the term of the contract.

The most important performance obligations of the Company are not separable, in general, if there is a performance obligation in a contract, they are treated as an integral and non-separable service.

In the contracts and purchase orders, the list of sale prices for the identified performance obligations is agreed, as well as discounts, if it is applicable.

The Company recognizes revenues when the performance obligation is met with its customers, that is, when control of the assets is transferred to the customer.

In this sense, there are no material effects on their results; or, that has not a significant impact on the business activities, internal processes or current financial situation, this is due to the fact that the revenue recognition process does not differ from the company carried out under IAS 18 until December 31, 2017. Based on the foregoing, IFRS 15 has been adopted using the retrospective method.

Impact of application of Other amendments to UFRS Standards and Interpretations

In the current year, the Company has applied a number of amendments to IFRS Standards and Interpretations issued by the International Accounting Standards Board (IASB) that are effective for an annual period that begins on or after January 1, 2018. Their adoption has not had any material impact on the disclosures or on the amounts reported in these financial statements.

IFRIC 22 addresses how to determine the 'date of transaction' for the purpose of determining the exchange rate to use on initial recognition of an asset, expense or income, when consideration for that item has been paid or received in advance in a foreign currency which resulted in the recognition of a non-monetary asset or non-monetary liability (for example, a non-refundable deposit or deferred revenue).

The Interpretation specifies that the date of transaction is the date on which the entity initially recognizes the non-monetary asset or non-monetary liability arising from the payment or receipt of advance consideration. If there are multiple payments or receipts in advance, the Interpretation requires an entity to determine the date of transaction for each payment or receipt of advance consideration.

The application of these amendments did not have a significant impact on the consolidated financial statements of the Company.

ii. *New IFRS issued and revised but not adopted*

At the date of these consolidated financial statements, The Company has not applied the following new and revised IFRS Standards that have been issued but are not yet effective:

- IFRS 16 - Leases ⁽¹⁾
 - Amendments to IAS 28 – Long-term Interests in Associates and Joint Ventures ⁽¹⁾
 - Amendments to IAS 19 – Employee Benefits ⁽¹⁾
 - IFRS 10 – Consolidated Financial Statements ⁽²⁾
 - IFRIC 23 – Uncertainty over Income Tax Treatments ⁽¹⁾
- ⁽¹⁾ Effective for annual periods beginning on January 1, 2019
- ⁽²⁾ The effective date has not been disclosed yet, the anticipated application is permitted.

IFRS 16, Leases

IFRS 16, Leases, was issued in January 2016 and supersedes IAS 17, Leases, and related interpretations. The new standard brings most leases on-balance sheet for lessees under a single model, eliminating the distinction between operating and finance leases. Lessor accounting, however, remains largely unchanged and the distinction between operating and finance leases is retained. IFRS 16 is effective for periods beginning on or after January 1, 2019.

Under IFRS 16 a lessee recognizes a right-of-use asset and a lease liability. The right-of-use asset is treated similarly to other non-financial assets and depreciated accordingly, and the liability accrues interest. This will typically produce a front-loaded expense profile (whereas operating leases under IAS 17 would typically have had straight-line expenses) as an assumed linear depreciation of the right-of-use asset and the decreasing interest on the liability will lead to an overall decrease of expense over the reporting period.

The lease liability is initially measured at the present value of the lease payments payable over the lease term, discounted at the rate implicit in the lease if that can be readily determined. If that rate cannot be readily determined, the lessee shall use their incremental borrowing rate.

However, a lessee may elect to account for lease payments as an expense on a straight-line basis over the lease term for leases with a lease term of 12 months or less and containing no purchase options (this election is made by class of underlying asset); and leases where the underlying asset has a low value when new, such as personal computers or small items of office furniture (this election can be made on a lease-by-lease basis). IFRS 16 establishes different transitional options, The Company will apply the modified retrospective application where the comparative period is not restated.

The Company has evaluated the impacts derived from the adoption of this new standard as of December 31, 2018, and based on the facts and circumstances existing as of the date of these Consolidated Financial Statements, anticipates that it will have recognized an asset by right of use and a corresponding liability of lease for \$ 40,775, the impact on the consolidated statement of profit or loss and other comprehensive income is to decrease lease expense by \$ 12,493, increase depreciation expense by \$ 11,100 and interest expense by \$ 1,392. This analysis is considering the lease agreements in force as of December 31, 2018 and applying some exemptions established by IFRS 16, such as; contracts with a period equal to or less than twelve months and those with low value do not qualify as a lease.

As of the date of these consolidated financial statements, the company is in the process of signing a forklift lease agreement for a period of 4 years, same as the starting date estimated at the end of February 2019, derived of this contract, the Company would have to recognize an asset for right of use and a corresponding lease liability for \$ 20,936.

Amendments to IAS 28, Long-term Interests in Associates and Joint Ventures

The amendment clarifies that IFRS 9, including its impairment requirements, applies to long-term interests. Furthermore, in applying IFRS 9 to long-term interests, an entity does not take into account adjustments to their carrying amount required by IAS 28 (i.e., adjustments to the carrying amount of long-term interests arising from the allocation of losses of the investee or assessment of impairment in accordance with IAS 28).

The amendments apply retrospectively to annual reporting periods beginning on or after January 1, 2019. Earlier application is permitted. Specific transition provisions apply depending on whether the first-time application of the amendments coincides with that of IFRS 9.

The Company does not anticipate that the application of the amendments in the future will have a significant impact on the Company's consolidated financial statements.

Amendments to IAS 19, Employee Benefits Plan Amendment, Curtailment or Settlement

The amendments clarify that the past service cost (or of the gain or loss on settlement) is calculated by measuring the defined benefit liability (asset) using updated assumptions and comparing benefits offered and plan assets before and after the plan amendment (or curtailment or settlement) but ignoring the effect of the asset ceiling (that may arise when the defined benefit plan is in a surplus position). IAS 19 is now clear that the change in the effect of the asset ceiling that may result from the plan amendment (or curtailment or settlement) is determined in a second step and is recognized in the normal manner in other comprehensive income.

The paragraphs that relate to measuring the current service cost and the net interest on the net defined benefit liability (asset) have also been amended. An entity will now be required to use the updated assumptions from this remeasurement to determine current service cost and net interest for the remainder of the reporting period after the change to the plan. In the case of the net interest, the amendments make it clear that for the period post plan amendment, the net interest is calculated by multiplying the net defined benefit liability (asset) as remeasured under IAS 19.99 with the discount rate used in the remeasurement (also taking into account the effect of contributions and benefit payments on the net defined benefit liability (asset)).

The amendments are applied prospectively. They apply only to plan amendments, curtailments or settlements that occur on or after the beginning of the annual period in which the amendments to IAS 19 are first applied. The amendments to IAS 19 must be applied to annual periods beginning on or after January 1, 2019, but they can be applied earlier if an entity elects to do so.

The Company does not anticipate that the application of the amendments in the future will have a significant impact on the Company's consolidated financial statements.

IFRS 10, Consolidated Financial Statements

The amendments to IFRS 10 and IAS 28 deal with situations where there are a sale or contribution of assets between an investor and its associate or joint venture. Specifically, the amendments state that gains or losses resulting from the loss of control of a subsidiary that does not contain a business in a transaction with an associate or a joint venture that is accounted for using the equity method, are recognized in the parent's profit or loss only to the extent of the unrelated investors' interests in that associate or joint venture. Similarly, gains and losses resulting from the remeasurement of investments retained in any former subsidiary (that has become an associate or a joint venture that is accounted for using the equity method) to fair value are recognized in the former parent's profit or loss only to the extent of the unrelated investors' interests in the new associate or joint venture.

The effective date of the amendments has yet to be set by the IASB; however, earlier application of the amendments is permitted. The directors of the Company anticipate that the application of these amendments may have an impact on the Company's consolidated financial statements in future periods should such transactions arise.

The Company do not anticipate that the application of the amendments in the future will have a significant impact on the Company's consolidated financial statements.

IFRIC 23, Uncertainty Over Income Tax Treatments

This interpretation seeks to clarify the recognition and measurement criteria established in IAS 12, Income Taxes, when there are uncertain tax positions. Uncertain tax positions are those tax positions where there is uncertainty about whether the competent tax authority will accept the tax positions under the current tax laws. In such cases, the entity recognizes and measures its asset or liability for current or deferred taxes applying the requirements of IAS 12 base on tax profits (losses), tax bases, unused tax losses, unused tax credits, and tax rates determined by applying this interpretation.

The Company will apply IFRIC 23 for annual reporting periods beginning on or after January 1, 2019. Early application is permitted, and the event must be disclosed. In its initial application, it is applied retrospectively under IAS 8 requirements, modifying comparative periods or retrospectively with the accumulated effect of its initial application as an adjustment in the initial balance of retained earnings, without modifying comparative periods.

The Company does not anticipate that the application of the amendments in the future will have a significant impact on the Company's consolidated financial statements.

b) *Basis of consolidation of financial statements*

The consolidated financial statements include those of Vitro, S.A.B. de C. V. and its subsidiaries on which it has control. Control is achieved when the Company: 1) has the power over the entity; 2) it is exposed or has rights to variable returns from its involvement with the investee; and 3) has the ability to use its power to affect its returns. Power is the actual ability to direct relevant activities of an entity. Intercompany balances and transactions have been eliminated in these consolidated financial statements. Investments in unconsolidated associates where there is material influence are accounted for using the equity method (note 8).

As of December 31, 2018, and 2017, the main entities, controlled by Vitro are as follows:

FLAT GLASS	Vitro Flat Glass, LLC. (2)	100.00%	Pittsburgh Glass Works, LLC (2)	100.00%
	Vitro Flat Glass Canadá, Inc. (3)	100.00%	Pittsburgh Glass Works, Sp.z.o.o. (4)	100.00%
	Viméxico, S.A. de C.V.	100.00%	Vitro Automotriz, S.A. de C.V.	100.00%
	Vidrio Plano de México, S.A. de C.V.	100.00%	Vitro Colombia, S.A.S. (1)	100.00%
	Productos de Valor Agregado en Cristal, S.A. de C.V.	100.00%	Cristales Automotrices, S.A. de C.V.	51.00%
	Distribuidora Álcali, S.A. de C.V.	100.00%		
	Industria del Álcali, S.A. de C.V.	100.00%		
CONTAINERS	Fabricación de Máquinas, S.A. de C.V.	100.00%	Vidriera Toluca, S.A. de C.V.	100.00%
	Vidriera Monterrey, S.A. de C.V.	100.00%		
	Vidriera Guadalajara, S.A. de C.V.	100.00%		
	Vidriera Los Reyes, S.A. de C.V.	100.00%		
CORPORATIVES	Aerovitro, S.A. de C.V.	100.00%		
	Trabajos de Administracion y Servicios, S.A. de C.V.	100.00%		
	Vitro Assets Corp. (2)	100.00%		

- (1) Companies with operations in Colombia.
- (2) Companies with operations in USA.
- (3) Company with operations in Canada.
- (4) Company with operations in Poland.

The Company’s proportion of voting rights in entities on which it has control is similar to its shareholding.

c) *Functional and reporting currency*

As mentioned in note 2 a), Vitro has revised its functional currency in accordance with the International Accounting Standard 21 (IAS 21), *The Effects of Changes in Foreign Exchange Rates*, concluding that the currency that best represents its current economic environment and way of operating is the United States dollar, hence, effective January 1, 2018, Vitro and its main Mexican operating subsidiaries prospectively changed their functional currency from the Mexican peso to the United States dollar; additionally, effective that same date Vitro changed its presentation currency to the United States dollar.

The recording and functional currencies of foreign and Mexican transactions are as follows:

Country	Presentation and Functional currency	Closing Exchange rate as of December 31,		Average Exchange rate as of December 31,	
		2018	2017	2018	2017
USA	U.S. dollar	1.0000	\$ 1.0000	1.000	\$ 1.0000
Mexico	U.S. dollar ⁽¹⁾	0.0509	\$ 0.0509	0.0520	\$ 0.0531
México	Mx. peso	1.0000	\$ 1.0000	1.0000	\$ 1.0000
Canada	Canadian dollar	0.7323	\$ 0.7978	0.7697	\$ 0.7717
Colombia	Colombian peso	0.0003	\$ 0.0003	0.0003	\$ 0.0003
Poland	Polish zloty	0.2669	\$ 0.2880	0.2760	\$ 0.2750

(1) Starting January 1, 2018, the Company and its main Mexican subsidiaries changed their functional currency to the United States dollar; these entities are: Viméxico S.A. de C.V., Vitro Automotriz S.A. de C.V., Distribuidora del Alkali S.A. de C.V., Fabricación de Máquinas S.A. de C.V. y Aerovitro S.A. de C.V.

According to IAS 1, *Presentation of financial statements*, the previously described change in presentation currency from Mexican pesos to U.S dollars made by Vitro qualifies as a policy change, hence, it requires the presentation of a third statement of financial position at the beginning of the immediate previous period, which for the Company is January 1, 2017.

When these consolidated financial statements and notes thereto refer to the United States dollar or “\$”, they refer to thousands of U.S. dollars, and when they refer to the Mexican peso or “\$Ps.”, they refer to thousands of Mexican pesos.

d) *Use of estimates and judgments*

The accompanying consolidated financial statements have been prepared in conformity with IFRS, which require that management make certain estimates and use certain assumptions that affect the amounts reported in the financial statements and their related disclosures. The Company’s management, upon applying professional judgment, considers that estimates made, and assumptions used were adequate under the circumstances; however, actual results may differ from such estimates.

The related estimates and assumptions are reviewed continuously. Changes to accounting estimates are recognized in the period in which the estimate is changed if the change affects solely that period, or the current period and future periods if the review affects both current and future periods.

Critical accounting judgments and key uncertainty sources, when applying the estimates performed as of the date of the consolidated financial statements, and that have a significant risk of resulting in an adjustment to the carrying amount of assets and liabilities during the following financial period are as follows:

i. *Evaluations to determine the recoverability of accounts receivable*

The Company performs an allowance for doubtful accounts, based on the expected credit losses required by IFRS 9, additionally considering key factors such as the customers’ financial and operating situation, conditions of expired accounts and the economic conditions of the country.

ii. *Evaluations to determine obsolete and slow-moving inventories*

The Company performs a reserve for obsolete and/or slow-moving inventories, considering its internal control process and operating and market factors of its products. This reserve is reviewed periodically and is determined considering the turnover and consumption of raw materials, work-in-process and finished goods, which are affected by changes in production process and by changes in the market conditions in which the Company operates.

iii. *Evaluations to determine recoverability of deferred tax assets*

As part of the tax analysis carried out by the Company, the projected tax result is determined annually based on the judgments and estimates of future transactions to conclude on the likelihood of recoverability of deferred tax assets.

iv. *Useful lives of intangible assets and land and buildings and machinery and equipment*

Useful lives of intangible assets and of land and buildings and machinery and equipment are used to determine the amortization and depreciation of assets and are defined according to the analysis by internal and external specialists. Useful lives are periodically reviewed, at least once a year, and are based on the current conditions of assets and the estimate of the period during which they will continue to generate economic benefits to the Company. If there are changes in the estimate of useful lives, the carrying amount of assets is affected prospectively, as well as the amortization or depreciation expense, as applicable.

v. *Impairment of long-lived assets*

The carrying amount of long-lived assets is reviewed for impairment in case that situations or changes in the circumstances indicate that it is not recoverable. If there are impairment indicators, a review is carried out to determine whether the carrying amount exceeds its recoverability value and whether it is impaired. In the impairment evaluation, assets are grouped in the cash generating unit to which they belong. The recoverable amount of the cash generating unit is calculated as the present value of future cash flows that the assets are expected to produce. There will be impairment if the recoverable value is less than the carrying amount.

The Company defines the cash generating units and also estimates the periodicity and cash flows that it should generate. Subsequent changes in grouping cash generating units, or changes in the assumptions underlying the estimate of cash flows or the discount rate, could impact the carrying amounts of the respective assets.

The value-in-use calculations require the Company to determine future cash flows generated by cash generating units and an appropriate discount rate to calculate the present value thereof. The Company uses income cash flows projections using market condition estimates, future pricing determination of its products and volumes of production and sales. In addition, for the purposes of the discount and perpetuity growth rate, the Company uses market risk premium indicators and long-term growth expectations in the market it operates.

The Company estimates a discount rate before taxes for the purposes of the goodwill impairment test, which reflects current evaluations of the time value of money and the

specific risks to the asset for which estimates of future cash flows have not been adjusted. The discount rate estimated by the Company is based on the weighted average cost of capital of similar entities. In addition, the discount rate estimated by the Company reflects the return that investors would require if they had to take an investment decision on an equivalent asset in generation of cash flows, time and risk profile.

The Company annually reviews the circumstances that give rise to an impairment loss to determine whether such circumstances have changed or have generated reversal conditions. If affirmative, the recoverable value is calculated and, if applicable, the reversal of the impairment previously recognized.

Internal and external indicators are subject to evaluation annually.

vi. *Employee benefits from retirement*

The Company uses assumptions to determine the best estimate for these benefits. Assumptions and estimates are established in conjunction with independent actuaries. These assumptions include demographic hypothesis, discount rates and expected increases in remunerations and future permanence, among others. Although the assumptions are deemed appropriate, a change in such assumptions could affect the value of the employee benefit liability and the results of the period in which it occurs.

vii. *Functional currency*

In order to determine the functional currency of the Company, management evaluates the economic environment in which primarily generates and expends cash. Therefore, factors related to sales, costs, funding sources and cash flows generated from operations are considered.

viii. *Contingencies*

Due to their nature, contingencies can solely be solved when they occur, or one or more future events or one or more uncertain events that are not entirely controlled by the Company do not occur. The evaluation of such contingencies significantly requires exercising judgments and estimates on the possible result of such future events. The Company evaluates the possibility of losing lawsuits and contingencies according to estimates carried out by its legal advisors. These estimates are reconsidered periodically.

ix. Business combinations or assets acquisition

Vitro's management applies professional judgment to determine if the acquisition of a group of assets constitutes a business combination. Such determination may have a significant impact on how acquired assets and assumed liabilities are accounted for, both at initial recognition and in subsequent periods.

Based on its professional judgment, Vitro's management considers that PPG's Flat Glass business and PGW's Automotive Glass for Original Equipment business acquisitions qualified as a business combination to be accounted under IFRS 3, Business Combinations, requirements, whereby purchase method is applied, identifying acquired assets and assumed liabilities, measured at fair value.

e) Classification of costs and expenses

Costs and expenses presented in the consolidated statements of profit or loss and other comprehensive income were classified according to their function.

4. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The significant accounting policies of the Company are as follows:

a) Foreign currency

The individual financial statements of each of the Company's subsidiaries are prepared in the currency of the primary economic environment in which the subsidiary operates (its functional currency). To consolidate the financial statements of foreign subsidiaries, they are translated from the functional currency into the reporting currency. The financial statements are translated into Mexican pesos (reporting currency), considering the following methodology:

- The transactions where the recording and functional currency is the same, translate their financial statements using the following exchange rates: (i) the closing exchange rate for assets and liabilities and (ii) the weighted average historical exchange rate for revenues, costs and expenses, as they are deemed representative of the existing conditions at the transactions date. Translation adjustments resulting from this process are recorded in other components of comprehensive income (loss). The adjustments related to goodwill and fair value generated from the acquisition of a foreign transaction are deemed assets and liabilities of such transaction and are translated at the exchange rate in effect at yearend.

- Non-monetary items recorded at fair value denominated in foreign currency, are reconverted to the exchange rates in effect at the date the fair value was determined. Non-monetary items calculated in terms of historical cost, in foreign currency, are not reconverted.
- Foreign currency transactions are recorded at the exchange rate in effect at the applicable translation date. Monetary assets and liabilities denominated in foreign currency are stated at the exchange rate in effect at the balance sheet date. Exchange fluctuations are recorded in the consolidated statements of profit or loss and other comprehensive income.

b) Cash and cash equivalents

Cash and cash equivalents consist mainly of bank deposits in checking accounts and short-term investments in securities, highly liquid and easily convertible into cash in a period no longer than three months. Cash is stated at nominal value and cash equivalents are valued at fair value. Any cash equivalent which liquidity is longer than three months is presented on the other current assets line item. Any cash equivalent that cannot be disposed of is classified as restricted cash.

c) Financial instruments

Financial assets and liabilities are measured at fair value. The costs of the transaction that are directly attributable to the acquisition or issuance of a financial asset or liability (different from financial assets and liabilities recognized at fair value through profit or loss) are added to or deducted from the fair value of the financial assets and liabilities at their initial recognition. The costs of the transaction directly attributable to the acquisition of financial assets or liabilities that are recognized at fair value through profit or loss are recognized immediately in the income or loss of the year.

Financial assets

All financial assets are recognized and written off at the trade date, where a purchase or sale of a financial asset is under an agreement, which terms require the delivery of the asset within a term that is generally established by the corresponding market, and are initially valued at fair value, plus the transaction costs, except for those financial assets classified as at fair value with changes through profit or loss, which are initially valued at fair value, without including the transaction costs.

Financial assets are classified within the following specific categories: “financial assets valued at fair value through profit or loss,” “financial assets held to maturity,” “loans and accounts receivable,” “financial assets available for sale” and “other”. The classification depends on the nature and purpose of the financial assets and is determined upon initial recognition.

Financial assets and liabilities are offset, and the net amount is presented in the statement of financial situation when, and solely when, the Company has the legal right to offset the amounts and intends to either settle on a net basis or realize the asset and settle the liability simultaneously.

i. Financial assets at amortized cost

Financial assets at amortized cost are those that i) are kept within a business model whose objective is to maintain said assets to obtain the contractual cash flows and ii) the contractual conditions of the financial asset give rise, on specified dates, to cash flows of cash that are only payments of the principal and interest on the amount of the outstanding.

ii. Financial assets at fair value through other comprehensive income

Financial assets at fair value through other comprehensive income are those whose business model is based on obtaining contractual cash flows and selling financial assets, in addition to their contractual conditions giving rise, on specified dates, to cash flows that they are only payments of the principal and interest on the outstanding principal amount.

iii. Financial assets at fair value through profit or loss

Financial assets at fair value through profit or loss, in addition to those described in point i of this section, are those that do not comply with the characteristics to be measured at amortized cost or at fair value through other comprehensive income. that: i) they have a business model different from those that seek to obtain contractual cash flows or obtain contractual cash flows and sell the financial assets, or, ii) the cash flows they generate are not only payments of the principal and interest on the amount of the outstanding principal.

Impairment of financial assets

As of December 31, 2017, the Company’s policy was to record a provision for uncollectible accounts for all the accounts receivable older than 90 days, in addition to factors such as the financial and operating situation of the customers, condition of expired accounts, as well as the economic conditions of the country in which they operate.

As of December 31, 2018, and in accordance with the new IFRS 9 standard, the Company recognizes a provision for uncollectible for the expected credit losses on financial assets, such as: commercial accounts receivable and other assets. The credit losses expected in these financial assets are estimated in a calculation model based on the historical experience of credit losses of the company, is adjusted to the factors that are specific to the debtors, the general economic conditions and an evaluation both of the current address as of the conditions existing at the date of the report, including the time value of the money when appropriate.

The measurement of expected credit losses is a function of the probability of default, loss given default (i.e. the magnitude of the loss if there is a default) and the exposure at default. The assessment of the probability of default and loss given default is based on historical data adjusted by forward-looking information as described above. As for the exposure at default, for financial assets, this is represented by the assets’ gross carrying amount at the reporting date; for financial guarantee contracts, the exposure includes the amount drawn down as at the reporting date, together with any additional amounts expected to be drawn down in the future by default date determined based on historical trend, the Company’s understanding of the specific future financing needs of the debtors, and other relevant forward-looking information.

The Company adopted a simplified model for calculating expected losses, which it recognizes the expected credit losses during the life of the account receivable. The model consists in determine the “turnover” for all accounts receivable, defined as breach threshold, then the Company determines the average value of accounts receivable for the last twelve months that have exceeded the breach threshold, this average is the basis for the calculation. The percentage to be applied to the basis is the proportion represented by the average of accounts receivable that exceed the breach threshold between the monthly average sales of the last twelve months, in such a way that this methodology imposes a provision in the initial recognition of accounts receivable, this procedure is part of the current policy to determine the impairment of accounts receivable.

For certain categories of financial assets, such as trade accounts receivable, the assets that have been subject to impairment tests and have not been impaired individually, are included in the impairment evaluation on a collective basis. Within the objective evidence that an account receivable portfolio could be impaired, the Company’s past experience with respect to collection, an increase in the number of late payments that exceed the average loan period, and the changes observed in the international and local economic conditions correlated to the default on payments, could be included.

For financial assets recorded at amortized cost, the amount of impairment loss recognized is the difference between the carrying amount of the asset and the present value of future collections, discounted at the original effective interest rate of the financial asset. The carrying amount of the financial asset is reduced for the impairment loss for all financial assets, except for trade accounts receivable, where the carrying amount is reduced through an account for allowance doubtful accounts. When a doubtful account is deemed uncollectible, it is eliminated against the allowance. The subsequent recovery of the previously eliminated amounts is converted to credits against the allowance. Changes in the carrying amount of the allowance account are recognized in profit or loss.

A financial asset is credit-impaired when one or more events that have a detrimental impact on the estimated future cash flows of that financial asset have occurred. Evidence that a financial asset is credit-impaired includes observable data about the following events:

- Significant financial difficulty of the issuer or the borrower;
- A breach of contract, such as a default or past due event (see (ii) above);
- The lender(s) of the borrower, for economic or contractual reasons relating to the borrower’s financial difficulty, having granted to the borrower a concession(s) that the lender(s) would not otherwise consider;
- It is becoming probable that the borrower will enter bankruptcy or other financial reorganization; or
- The disappearance of an active market for that financial asset because of financial difficulties.

When a financial asset deemed held for sale is impaired, the accumulated gains or losses previously recognized in other comprehensive income are reclassified to current earnings. Except for equity instruments held for sale, if in a subsequent period, the amount of impairment loss is decreased and such decrease can be objectively related to an event occurring after the recognition of the impairment, the previously recognized impairment loss is reversed through profit or loss to the extent the carrying amount of the investment at the date the impairment was reversed does not exceed the amortized cost that would result if the impairment had not been recognized.

Financial liabilities

Financial liabilities at fair value with changes through profit or loss

A financial liability at fair value with changes through profit or loss is a financial liability classified as held for trade purposes or is designated as at fair value with changes through profit or loss.

A financial liability is classified as held for trade purposes if:

- It is acquired mainly in order to repurchase it in the near future; or
- It is part of an identified financial instruments portfolio managed jointly, and for which there is evidence of a recent pattern of taking short-term profits; or
- It is a derivative that has not been designated as a hedging instrument or does not meet the conditions to be effective.

A financial liability that is not a financial liability held for trade purposes could be designated as a financial liability at fair value with changes through profit or loss at the initial recognition time if:

- Thereby any inconsistency in the valuation or in the recognition that otherwise would arise from its valuation on a different basis is significantly eliminated or reduced; or
- The return from financial liabilities or a group of assets and financial liabilities are managed and assessed based on their fair value, according to an investment or risk management strategy that the entity has documented, and information is internally provided on that group, based on its value; or
- It is part of an agreement that includes one or more embedded derivative instruments, and IAS 39, “Financial Instruments: Recognition and Measurement”, allows that the entire hybrid agreement (asset or liability) is designated as at fair value with changes through profit or loss.

Financial liabilities at fair value with changes through profit or loss are recorded at fair value, recognizing any gain or loss arising from the remeasurements in the consolidated statements of profit or loss and other comprehensive income.

Other financial liabilities

Other financial liabilities, including loans, are initially valued at fair value, net of costs of the transaction, and are subsequently valued at amortized cost using the effective interest method, and interest expenses are recognized on an effective return base.

The effective interest rate method is a method for the calculation of the amortized cost of a financial liability and of the assignment of the financial expense along the period concerned. The effective interest rate is the rate that exactly discounts the estimated cash payments along the expected life of the financial liability (or, where adequate, in a shorter period) which represents the net amount in books of the financial liability at its initial recognition.

Derecognition of financial liabilities

The Company writes off financial liabilities if, and solely if, the obligations are met, cancelled or expired.

When the Company exchanges with the existing lender one debt instrument into another one with the substantially different terms, such exchange is accounted for as an extinguishment of the original financial liability and the recognition of a new financial liability. Similarly, the Company accounts for substantial modification of terms of an existing liability or part of it as an extinguishment of the original financial liability and the recognition of a new liability. It is assumed that the terms are substantially different if the discounted present value of the cash flows under the new terms, including any fees paid net of any fees received and discounted using the original effective rate is at least 10 per cent different from the discounted present value of the remaining cash flows of the original financial liability. If the modification is not substantial, the difference between: (1) the carrying amount of the liability before the modification; and (2) the present value of the cash flows after modification should be recognized in profit or loss as the modification gain or loss within other gains and losses.

d) Inventories

Inventories are valued at the average purchase price or average production cost, provided they do not exceed the net realizable value. Cost of sales is determined applying these averages upon sale.

Net realizable value is the sale value estimated during the regular course of business, less estimated termination costs and sale costs.

The Company uses the absorption cost system to determine the cost of inventories of production-in-progress and finished goods, which includes both direct costs and those indirect costs and expenses related to production processes.

e) Assets available for sale

Long-term assets are classified as available for sale if their carrying amount will be recovered through a sale transaction and not through their continuous use. This condition is deemed met solely when the sale is highly probable and the asset (or group of assets for sale) is available for immediate sale in its current condition. They are presented in the consolidated statements of financial position as short term, according to the realization plans, and they are recorded at the lesser of their carrying amount or fair value less costs of sale.

f) Investment in associated companies

An associated company is a company in which the Company has significant influence. Significant influence is the power to participate in the definition of financial and operating policies of an entity, but it does not have control or joint control on such policies.

The results, assets and liabilities of the associated company are incorporated in the Company's consolidated financial statements under the equity method, except when the investment is classified as available for sale, in which case its value is recognized according to subsection g) above. Under the equity method, an investment in an associated company is recognized in the consolidated statements of financial position at cost and is adjusted through the recognition of its comprehensive income or loss in proportion to the Company's shareholding in such associated company. When the comprehensive loss of an investment in an associated company exceeds the Company's equity in its capital, the Company discontinues the recognition of such losses. Additional losses are recognized up to the amount of the Company's obligations and legal commitments for its equity such associated company.

Any excess of acquisition cost of the Company’s equity in an associated company on the net fair value of identifiable assets, liabilities and contingent liabilities of such associated company is recognized as goodwill, which is included at the carrying amount of such investment. Any excess of net fair value of the identifiable assets, liabilities and contingent liabilities on the acquisition cost of an associated company is recognized in current earnings.

g) **Property, plant and equipment**

Property, plant and equipment held for use in production for rendering services or for administrative purposes are recognized in the consolidated statement of financial position at historical costs, less accumulated depreciation or accumulated impairment losses.

Depreciation is recorded in earnings and is calculated using the straight-line method based on the remaining useful lives of the assets, which are reviewed every year jointly with the residual values, and the effect of any change in the recorded estimate is recognized on a prospective basis. The assets related to finance leases are depreciated in the shorter period between the lease and their useful lives, unless it is reasonably certain that the Company will obtain the ownership at the end of the lease period.

The estimated useful lives for the main classes of fixed assets that correspond to current and comparative periods are as follows:

	Years
Property	15 to 50
plant and equipment	3 to 30

When components of a building, machinery and/or equipment have different useful lives, they are recorded as separate items (significant components) of buildings, machinery and equipment.

Gains or losses from the sale of a land, building, machinery and equipment item are determined comparing the gain or loss obtained from the sale to the carrying amount of such item; such gain or loss is recognized net within other (income) expenses in the consolidated statements of profit or loss and other comprehensive income.

Investments in process are recorded at cost less any impairment loss recognized. The cost of assets constructed by the own entity include the cost of materials and direct labor, any other cost directly attributable to the process of making to asset be suitable for the use foreseen, as well as the cost for dismantling, removing items, restoring the place where they are located, and the costs for capitalized loans, according to the Company’s policy. The depreciation of these assets, as in other properties, commences when the assets are ready for use in the place and conditions necessary to be able to operate in the way intended by the Company’s management.

h) **Investment properties**

Investment properties are those held to obtain rents and increase in value (including investment properties in construction for such purposes) and are initially valued at acquisition cost, including the costs incurred in the related transactions. After the initial recognition, investment properties are valued at fair value. The fair value of the investment properties is determined annually through appraisals performed by an expert appraiser, who uses different valuation techniques such as observable markets, amortized costs, among others. Gains or losses arising from changes in the fair value of the investment properties are included in other (income) expenses in the consolidated statements of profit or loss and other comprehensive income in the period in which they arise.

An investment property is eliminated upon disposal or when it is permanently retired from use and no future economic benefits are expected from the disposal. Any gain or loss arising from derecognition of the property (calculated as the difference between net income from disposal and the carrying amount of the asset) is recognized in earnings in the consolidated statements of comprehensive income in the period in which the property is derecognized.

i) **Leases**

Leases are classified as finance leases when the terms of the lease substantially transfer to the lessee all the risks and benefits inherent to the property. All the other leases are classified as operating leases.

Assets under finance leases are recognized as assets at fair value at the beginning of the lease, or at present value of the minimum lease payments, the least. The liability corresponding to the lessor is included in the consolidated statements of financial situation as part of long-term debt.

Lease payments are distributed between the financial costs and the reduction of the lease obligation so as to achieve a constant rate on the remaining balance of the liability. Financial expenses are expensed directly, unless they are directly attributable to qualifying assets, in which case are capitalized in accordance with the Company's policy for costs on loans.

Payments for operating lease rents are expenses using the straight-line method during the lease term, unless another systematic sharing basis results more representative to reflect more adequately the pattern of lease benefits to the user.

The Company does not maintain significant leases acting as a lessor.

j) *Borrowing costs*

The costs for loans directly attributable to the acquisition, construction or production of qualifying assets, which are assets that require a substantial period until they are ready to use, are added to the cost of those assets. Capitalization of costs for loan ceases at the time that the assets are available for use. Exchange rate fluctuations arising from the procurement of funds in foreign currency are capitalized to the extent that they are deemed adjustment to the interest cost. The income obtained from the temporary investment of specific loans outstanding to be used in qualifying assets, is deducted for costs for loans eligible for capitalization. All other borrowing costs are recognized in earnings in the period they are incurred.

k) *Intangible assets*

Intangible assets with finite and infinite lives

Intangible assets that are acquired by the Company, and which have finite useful lives, are recorded at cost less accumulated amortization and accumulated impairment losses; they are mainly included in the cost of software for administrative use. The estimated useful lives and amortization method are reviewed at the end of each year, and the effect of any change in the recorded estimate is recognized prospectively.

Intangible assets with infinite useful lives do not amortize and are annually subject to impairment test.

Goodwill

Goodwill arises from a business combination and is recognized as an asset at the date control is acquired (acquisition date). Goodwill is the excess of the consideration transferred on the fair value at the acquisition date of the identifiable assets acquired and liabilities assumed. When the fair value of the identifiable net assets of the acquired exceeds the sum of the consideration transferred, the amount of such excess is recognized in the consolidated statement of comprehensive income as a gain on purchase. Goodwill is not amortized and is subject to annual impairment tests.

For purposes of the evaluation of the impairment, goodwill is assigned to each of the cash generating units for which the Company expects to obtain benefits. If the recoverable amount of the cash-generating unit is less than the amount in books of the unit, the impairment loss is allocated first in order to reduce the amount in books of the goodwill allocated to the unit and then to the other assets of the unit, proportionally, on the basis of the amount in books of each asset in the unit. Impairment loss recognized for the purposes of the goodwill cannot be reversed in a subsequent period.

Upon disposal of a subsidiary, the amount attributable to the goodwill is included in the determination of the profit or loss on the disposal.

l) *Impairment of tangible and intangible assets*

The Company reviews the book values of its tangible and intangible assets to determine if there is any indicator that those assets have suffered any impairment loss. If there is any indicator, the recoverable amount of the asset is calculated in order to determine the extent of the impairment loss. When it is not possible to estimate the recoverable amount of an individual asset, the Company estimates the recoverable amount of the cash generating unit to which such asset belongs. When you can identify a reasonable and consistent basis of distribution, corporate assets are also assigned to the individual cash generating units, or otherwise, are assigned to the smallest group of cash generating units for which a reasonable and sound distribution base can be identified. The intangible assets that have an indefinite useful life is subject to impairment tests at least annually, and whenever there is an indicator that the asset may have been impaired.

The recoverable amount is the higher between the fair value less cost to sell it and the value in use. In assessing value in use, estimated future cash flows are discounted at their present value using a discount rate before taxes that reflects the current market assessment with respect to the time value of money and the specific risks of the asset for which future cash flows estimates have not been adjusted.

If it is estimated that the recoverable amount of an asset (or cash-generating unit) is less than its carrying amount, the carrying amount of the asset (or cash-generating unit) is reduced to its recoverable amount. Impairment losses are recognized in earnings.

When an impairment loss is reversed subsequently, the carrying amount of the asset (or cash-generating unit) is increased to the revised estimate of its recoverable amount, in such a way that the increased carrying amount does not exceed the carrying amount that would have been determined if an impairment loss had not been recognized for such asset (or cash-generating unit) in prior years.

m) *Derivative financial instruments and hedging operations*

The Company's activities expose it to a variety of financial risks, including foreign exchange risk, interest rates and price risk, such as generic goods, mainly that of natural gas.

The Company's policy is to contract derivative financial instruments ("DFI's") in order to mitigate and cover the exposure to which it is exposed, given its productive and financial transactions. The Company designates these instruments either as fair value hedges, cash flow hedges or hedges of a net investment in a foreign operation.

There is a Risk Committee which is responsible for enforcing risk management policies, as well as for monitoring the proper use of financial instruments contracted by the Company. The Committee is composed by several of the Company's officials. Additionally, to perform this type of transactions an authorization from the Board of Directors is required.

The Company recognizes all derivative financial instruments in the statement of financial position at fair value, regardless of the intention of its holding. In the case of hedging derivatives, the accounting treatment depends on whether the hedging is of fair value or cash flow. DFI's negotiations may include considerations agreements, in which case, the resulting amounts are presented on a net basis.

The fair value of financial instruments is determined by recognized market prices and when instruments are not traded in a market; it is determined by technical valuation models recognized in the financial field using inputs such as price, interest rate and exchange rate curves, which are obtained from different sources of reliable information.

When derivatives are contracted in order to cover risks and comply with all the hedge accounting requirements, their designations are documented describing the purpose, features, accounting recognition and how the measurement of effectiveness will be carried out.

The Company designates certain derivatives as hedging instruments in respect of foreign currency risk and interest rate risk in fair value hedges, cash flow hedges, or hedges of net investments in foreign operations. Hedges of foreign exchange risk on firm commitments are accounted for as cash flow hedges.

At the inception of the hedge relationship, the Company documents the relationship between the hedging instrument and the hedged item, along with its risk management objectives and its strategy for undertaking various hedge transactions. Furthermore, at the inception of the hedge and on an ongoing basis, the Company documents whether the hedging instrument is effective in offsetting changes in fair values or cash flows of the hedged item attributable to the hedged risk, which is when the hedging relationships meet all of the following hedge effectiveness requirements:

- there is an economic relationship between the hedged item and the hedging instrument;
- the effect of credit risk does not dominate the value changes that result from that economic relationship; and
- the hedge ratio of the hedging relationship is the same as that resulting from the quantity of the hedged item that the Company actually hedges and the quantity of the hedging instrument that the Company actually uses to hedge that quantity of hedged item.

If a hedging relationship ceases to meet the hedge effectiveness requirement relating to the hedge ratio but the risk management objective for that designated hedging relationship remains the same, the Company adjusts the hedge ratio of the hedging relationship (i.e. rebalances the hedge) so that it meets the qualifying criteria again.

The Company designates the full change in the fair value of a forward contract (i.e. including the forward elements) as the hedging instrument for all of its hedging relationships involving forward contracts.

n) Provisions

Provisions are recognized for current obligations that arise from a past event, that will probably result in the use of economic resources, and that can be reasonably estimated. For the purpose of accounting records, provisions are discounted to present value when the discount effect is material. Provisions are classified as current or non-current according to the estimated time period to meet the obligations that are covered. When the recovery of a third of some or all the economic benefits required to settle a provision is expected, an account receivable is recognized as an asset, if it is virtually certain that the payment will be received, and the amount of the account receivable can be valued reliably.

o) Income tax

Current taxes and deferred taxes are recognized in earnings, except when they are related to a business combination, or items recognized directly in stockholders' equity, or in the comprehensive income account.

Current income tax is the tax expected to be paid or received. The income tax payable in the fiscal year is determined according to the legal and tax requirements, applying tax rates enacted or substantially enacted as of the report date, and any adjustment to the tax payable with respect to prior years.

Deferred income tax is recorded using the assets and liabilities method, which compares the accounting and tax values of the Company's assets and liabilities and deferred taxes are recognized with respect to the temporary differences between such values. No deferred taxes are recognized for the following temporary differences: the initial recognition of assets and liabilities in a transaction other than a business acquisition and that does not affect the accounting or tax result, and differences related to investments in subsidiaries and joint ventures to the extent it is probable that they will not be reversed in a foreseeable future. In addition, deferred taxes for taxable temporary differences arising from the initial recognition of goodwill are not recognized. Deferred taxes are calculated using rates that are expected to apply to temporary differences when they are reversed, based on enacted laws or which have been substantially enacted at the reporting date.

Deferred tax assets and liabilities are offset if there is a legally enforceable right to offset current tax assets and liabilities, and they correspond to the income tax levied by the same tax authority and to the same tax entity, or on different tax entities, but intend to settle the current tax assets and liabilities caused on a net basis or their tax assets and liabilities are simultaneously materialized.

A deferred asset is recognized for tax loss carryforwards, tax credits and deductible temporary differences, to the extent that it is probable that there is taxable income to which they can be applied. Deferred assets are reviewed at the reporting date and are reduced to the extent the realization of the corresponding tax benefit is no longer likely.

p) Employee benefits

i. Defined benefit plans

Pension plans

A defined benefit plan is a benefit plan at the end of a labor relationship different from one of defined contributions. The Company's net obligations with respect to the defined-benefit pension plans are calculated separately for each plan, estimating the amount of future benefit accrued by employees in return for their services in ongoing and past periods; that benefit is discounted to determine its present value, and the costs for the services that have not been recognized and the fair value of the plan assets are deducted. The discount rate is the yield at the reporting date of the government bonds that have maturity dates approximate to the maturities of the Company's obligations which are denominated in the same currency in which benefits are expected to be paid. The calculation is performed annually by a qualified actuary using the projected unit credit method. When the calculation results in a benefit for the Company, the recognized asset is limited to the net total of unrecognized past service costs and the present value of the economic benefits available in the form of future refunds from the plan or reductions in future contributions to the plan plus the plan assets. To calculate the present value of the economic benefits, the minimum funding requirements applicable to the Company's plan are considered. An economic benefit is available to the Company if it can be realized during the life of the plan, or upon settlement of the plan obligations.

When the benefits of a plan are improved, the portion of the improved benefits relating to past services by employees is recognized in profit or loss using the straight-line method over the average period until it acquires the right to the benefits. In so far as the right of benefits takes place, the expense is recognized in profit or loss.

The Company recognizes actuarial remeasurements derived from defined benefit plans in the comprehensive income account, in the period in which they occur, and they are never recycled to profit or loss.

Medical post-employment benefits

The Company grants medical benefits to retired employees at the end of the employment relationship. The right to access these benefits usually depends on whether the employees have worked up to the retirement age and have completed certain minimum service years. Net periodic cost of these benefits is recognized in profit or loss using the same criteria for those described for pension plans.

ii. Termination benefits

Termination benefits are recognized as an expense when the Company commitment can be evidenced, without real possibility of reversing, with a detailed formal plan either to terminate employment before the normal retirement date, or else, to provide benefits for termination as a result of an offer that is made to encourage voluntary retirement. The benefits from termination in cases of voluntary retirement are recognized as an expense, solely if the Company has made an offer of voluntary retirement, the offer is likely to be accepted, and the number of acceptances can be estimated reliably. If the benefits are payable no later than 12 months after the reporting period, then they are discounted at present value.

iii. Short-term benefits

Short-term employee benefit obligations are not discounted and are expensed as services are rendered.

A liability is recognized for the amount expected to be paid under short-term cash bonus plans if the Company has a legal or assumed obligation to pay these amounts as a result of past services provided by the employee and the obligation can be estimated reliably.

q) Statutory employee profit sharing ("PTU")

PTU is recognized in the earnings of the fiscal year in which it is incurred and is presented within operating income.

r) Revenue recognition

Revenues from the sale of products in the course of normal operations are recognized at the fair value of the consideration received or receivable, net of returns, commercial discounts and volume discounts. The company applies a five-step model to recognize revenues.

The Company keeps signed contracts with its most representative customers, which include agreed price lists, currency, volumes of purchases, discounts for prompt payment or volume; for customers who do not have a contract, the purchase order is defined as a contract and these have the same characteristics of a contract. In the case of payments related to obtaining the contracts, these are capitalized and amortized over the term of the contract.

The most important performance obligations of the Company are not separable, in general, if there is a performance obligation in a contract, they are treated as an integral and non-separable service.

In the contracts and purchase orders, the list of sale prices for the identified performance obligations is agreed, as well as discounts, if it is applicable.

The Company recognizes revenues when the performance obligation is met with its customers, that is, when control of the assets is transferred to the customer.

s) Financial income and costs

Financial income includes income interest on invested funds, changes in the fair value of financial assets at fair value through profit or loss, and exchange gains. Interest income is recognized in income as earned, using the effective interest method.

Financing costs include interest expenses on loans, effect of the discount by the passage of time on provisions, exchange losses, changes in the fair value of financial assets at fair value through profit or loss and impairment losses recognized on financial assets. The borrowing costs that are not directly attributable to the acquisition, construction or production of a qualifying asset, are recognized in earnings using the effective interest method.

Exchange gains and losses are reported on a net basis.

t) Earnings per share

The Company presents information about basic and diluted earnings per share (“EPS”) corresponding to its common stock. The basic EPS is calculated by dividing the earning or loss attributable to stockholders that hold Company’s common stock by the weighted average outstanding common stock during the period, adjusted for the own shares held. The diluted EPS are calculated by adjusting the earning or loss attributable to stockholders that hold common shares and the weighted average number of outstanding shares, adjusted for the own shares held, for the effect of the dilution potential of all common shares, which include convertible instruments and options on shares granted to employees. During the fiscal years ended December 31, 2018 and 2017, the Company has no dilutive effects.

5. OTHER CURRENT ASSETS AND OTHER SHORT AND LONG-TERM LIABILITIES

The balances of other current assets as of December 31, 2018 and 2017 are as follows:

	December 31,	
	2018	2017
Sundry debtors	\$ 34,989	\$ 29,941
Prepayments	10,975	10,834
Prepayment of inventories	2,368	1,786
Assets held for sale	1,234	1,210
Derivative financial instruments	190	2,212
Total other current assets	\$ 49,756	\$ 45,983

The balances of other short – term liabilities as of December 31, 2018 and 2017 are as follows:

	December 31,	
	2018	2017
Taxes payable	\$ 56,692	\$ 43,151
Sundry creditors	40,641	31,087
Contributions payable	12,768	10,659
Total other short-term liabilities	\$ 110,101	\$ 84,897

The balances of other long-term liabilities as of December 31, 2018 and 2017 are as follows:

	December 31,	
	2018	2017
Derivative financial instruments	\$ 7,345	\$ –
Employee compensations accruals	8,688	6,660
Other liabilities	9,465	10,268
Total other long-term liabilities	\$ 25,498	\$ 16,928

6. TRADE ACCOUNTS RECEIVABLE

Trade accounts receivable consists of the following:

	December 31,	
	2018	2017
Customers	\$ 308,498	\$ 303,386
Less allowance for doubtful accounts	(7,440)	(8,105)
Total trade accounts receivable	\$ 301,058	\$ 295,281

7. INVENTORIES

Inventories consist of the following:

		December 31, 2018	2017
Finished goods	\$	197,371	\$ 172,860
Work in process		52,433	44,604
Raw Material		64,335	56,243
Spare parts		59,806	53,999
Others		12,407	8,319
Total inventories	\$	386,351	\$ 336,025

Due to inventory obsolescence and slow movement, as of December 31, 2018 and 2017, inventories are reduced to their net realizable value by \$5,682 and \$6,016, respectively; this reserve mainly decreases the finished goods, refractories and raw materials line items.

8. INVESTMENT IN ASSOCIATED COMPANIES

	% Holding	December 31, 2018	2017
Empresas Comegua, S.A. y Subsidiarias (a)	49.72	\$ –	\$ 89,428
Shandong PGW Jinjing Automotive Glass Co. Ltd. (b)	46.00	1,040	1,040
Servicio Superior Ejecutivo, S.A. de C.V. (c)	50.00	6,890	–
Total		\$ 7,930	\$ 90,468

- (a) As mentioned in Note 2d, on November 12, 2018, Vitro signed an agreement with Owens-Illinois, Inc. to sell the remaining 49.72% participation in Empresas Comegua, S.A. (“Comegua”) held by Vitro. Comegua is a joint venture dedicated to the production of glass containers, its operations are mainly in Guatemala, Nicaragua and Costa Rica; the transaction totaled \$119,086 and the income from the transaction was \$23,562 (see Note 21).
- (b) Investment in Shandong PGW Jinjiang Glass Co, LTD, a company dedicated to the production of automotive glass.
- (c) Joint venture celebrated in April 2018. The purpose of the created company is transportation of passengers via airplanes.

9. PROPERTY, PLANT AND EQUIPMENT

Below is a summary of the composition of these items:

	December 31, 2018	2017
Land	\$ 173,810	\$ 169,968
Buildings	516,266	481,690
Accumulated depreciation	(272,566)	(256,242)
	417,510	395,416
Machinery and equipment	1,443,789	1,330,044
Accumulated depreciation	(721,725)	(695,489)
	722,064	634,555
Investments in process	86,081	143,346
Total	\$ 1,225,655	\$ 1,173,317

Cost or valuation	Land	Buildings	Machinery and equipment	Investments in process	Final balance
Balance as of January 1, 2017	\$ 149,401	\$ 397,975	\$ 1,067,388	\$ 78,419	\$ 1,693,183
Additions	(32)	9,606	117,856	46,786	174,216
Disposals	(947)	(1,506)	(55,625)	(62)	(58,140)
Impairment	–	–	(7,493)	–	(7,493)
Business acquisition (Note 11)	14,837	57,587	165,003	14,770	252,197
Translation adjustment	6,709	18,028	42,915	3,433	71,085
Balance as of December 31, 2017	\$ 169,968	\$ 481,690	\$ 1,330,044	\$ 143,346	\$ 2,125,048
Additions	–	39,516	180,539	(62,836)	157,219
Disposals	–	582	(56,438)		(55,856)
Translation adjustment	(599)	(1,836)	(3,309)	(365)	(6,109)
Adjustments PPA in PGW	–	755	(7,047)	7,810	1,518
Transfer	4,441	(4,441)	–	(1,874)	(1,874)
Balance as of December 31, 2018	\$ 173,810	\$ 516,266	\$ 1,443,789	\$ 86,081	\$ 2,219,946

Accumulated depreciation and impairment	Land	Buildings	Machinery and equipment	Investments in process	Final balance
Balance as of January 1, 2017	\$ –	\$ 225,475	\$ 626,141	\$ –	\$ 851,616
Depreciation of the year	–	16,103	70,704	–	86,807
Disposals	–	–	(49,493)	–	(49,493)
Reversal of impairment loss	–	3,721	15,736	–	19,457
Translation adjustment	–	10,943	32,401	–	43,344
Balance as of December 31, 2017	–	256,242	695,489	–	951,731
Depreciation of the year	–	16,647	80,978	–	97,625
Disposals	–	579	(56,380)	–	(55,801)
Adjustments PPA in PGW	–	(631)	2,569		1,938
Translation adjustment	–	(271)	(931)	–	(1,202)
Balance as of December 31, 2018	\$ –	\$ 272,566	\$ 721,725	\$ –	\$ 994,291

a) Capitalized borrowing cost

During December 31, 2018 and 2017, the Company did not capitalize any interest on loans.

b) Transactions that did not require cash flows

During 2018 and 2017, no investments were contracted as finance leases, nor other investments in fixed assets that did not require a cash disbursement.

c) Impairment

During fiscal year 2018, the Company did not recognize impairment expenses.

In 2017, due to the incident at the Carlisle plant (Note 2e), the Company had to impair some of the damaged assets for \$7,722; additionally, in the Container segment, certain assets in permanent disuse were deteriorated by \$221.

The impairment impacts were recognized in Other expenses, net.

10. INVESTMENT PROPERTIES

As of December 31, 2018, and 2017, the investment properties amount to \$18,956 and \$18,974, respectively; such assets are mainly composed of lands and buildings. The fair value of investment properties was calculated based on Level 2 of the fair value hierarchy (Note 17iv).

11. BUSINESS ACQUISITION

PPG's Flat Glass Business

On July 20, 2016, Vitro entered into a sale and purchase agreement with PPG, the latter engaging to sell its Flat Glass Business in favor of Vitro and/or its subsidiaries. This acquisition concluded successfully on October 1, 2016 ("acquisition date"), incorporating four manufacturing plants with five furnaces in the United States, a research and development center of flat glass, and four distribution and fabrication facilities in Canada. The acquisition of the Flat Glass and Glass Coating business was originally for the amount of \$737,352, being decreased by \$8,840 for a net of \$728,512.

As of December 31, 2016, the Company had an account receivable with PPG for \$10,316 derived from the adjustments to working capital, of which \$8,840 was collected in 2017, as mentioned in the previous paragraph, cancelling the remaining \$1,476 against goodwill.

During 2017, the study carried out by independent experts that allowed the definitive recording of the distribution of the purchase price to the fair values of the assets and liabilities acquired from PPG was concluded.

Fair value of acquired assets and assumed liabilities, as a result of this business acquisition, are as follows:

	Preliminary values	Fair value adjustments	Final values
Trade accounts receivable, net	\$ 81,360		\$ 81,360
Inventories	79,781		79,781
Property, plant and equipment, net	335,379	(4,520)	330,859
Intangibles	301,216	(4,805)	296,411
Trade accounts payable	(57,174)		(57,174)
Debt	(16,344)		(16,344)
Deferred income taxes	(36)		(36)
Employee benefits	(33,944)		(33,944)
Other items, net	690	(10,316)	(9,627)
Goodwill	46,424	10,802	57,226
Consideration paid	\$ 737,352	\$ (8,840)	\$ 728,512

As a result of the transaction, goodwill amounts to \$57,226, which was allocated to the Flat Glass segment. Contributing factors on goodwill recognition include obtaining operational synergies among productive plants, exchange of best practices, and shared use of new technologies, among others.

Automotive Glass Business for Original Equipment

On December 18, 2016, Vitro entered into a definitive agreement to acquire the glass automotive business for original equipment from Pittsburgh Glass Works LLC (“PGW”) for \$315,896, funded with \$85,896 from own resources and a bank loan for \$230,000. With this agreement, Vitro acquired seven automotive glass manufacturing plants and two satellite plants, in addition to two float glass furnaces in the USA, one automotive glass plant in Poland, and participation in two joint arrangements located in North America and China. On March 1, 2017, the Company successfully concluded the acquisition.

The fair values of the assets acquired, and liabilities assumed as a result of this acquisition are the following:

	Preliminary values	Fair value adjustments	Final values
Cash and cash equivalents	\$ 14,788	\$	14,788
Clients and other accounts receivable	107,071	381	107,452
Inventories	110,681	931	111,612
Property, plant and equipment, net	216,879	(421)	216,458
Intangibles	13,884	(118)	13,766
Investment in associates	11,106	622	11,728
Supplier and other accounts payable	(116,346)	(3,903)	(120,249)
Debt	(9,105)		(9,105)
Deferred income taxes	(1,579)	(5)	(1,574)
Employee benefits	(35,089)		(35,089)
Other items, net	1,028	39	1,067
Goodwill	2,592	2,451	5,043
 Paid consideration	 \$ 315,897		 \$ 315,897

During 2018, the study carried out by independent experts that allowed the definitive recording of the distribution of the purchase price to fair values of the assets and liabilities acquired from PGW was concluded.

The contributed revenues by the acquired assets of the Automotive Glass Business for Original Equipment included in the consolidated statement of profit or loss and other comprehensive income from the acquisition date to December 31, 2017 amounted to \$578,401 and a net profit of \$11,776. If the acquisition had occurred on January 1, 2017, the revenues would have amounted to approximately \$687,841 and the net profit to \$10,612.

Control of the associate company Cristal Laminado o Templado S.A. de C.V.

On May 30, 2017, Vitro obtained control of the associate company Cristal Laminado o Templado, S.A. de C.V. (CLT) through the acquisition of the remaining 50% capital stock representative shares for an amount of \$7,550 paid in cash. The initial participation in this company was part of the joint arrangements acquired in the purchase of PGW.

Fair value of acquired assets and assumed liabilities, as a result of this business acquisition, are as follows:

Current assets	\$ 16,417
Non-current assets	15,413
Current liabilities	(8,707)
Total	23,123
Amount of participation acquired	11,561
Gain on purchase	(4,011)
Paid consideration	\$ 7,550

During 2018, the study carried out by independent experts that allowed the definitive recording of the distribution of PPA to the fair values of assets and liabilities acquired from CLT was concluded.

The revenues contributed by the acquired assets of CLT included in the consolidated statement of profit or loss and other comprehensive income from the acquisition date until December 31, 2017 amounted \$20,554 and a net profit of \$377. If the acquisition had occurred on January 1, 2017, the revenues would have amounted to \$35,858 and the net benefit to \$2,296.

12. GOODWILL

Goodwill balance as of December 31, 2018 and 2017 consists of the following:

	2018		2017	
Balance as of January 1	\$	60,465	\$	46,701
Business acquisition (Note 11)		–		2,592
PPG and PGW adjustment (Note 11)		2,451		10,802
Translation adjustment		(1,453)		370
Balance as of December 31	\$	61,463	\$	60,465

Goodwill has arisen as a result of the PPG’s Flat Glass Business acquisition and PGW’s Automotive Glass Business for Original Equipment (Note 11), which segment information is presented in the Flat Glass segment (Note 24). Recoverable amount of goodwill is determined based on its value in use, which uses projected cash flows based on a financial budget authorized and approved by the Board of Directors; such budget covers a five-year period. Value in use was determined using a post-tax discount rate with perpetuity of 8% and 7.98%, respectively, in 2018 and 2017.

13. INTANGIBLES AND OTHER ASSETS

a) Intangible balances as of December 31, 2018 and 2017, consist of the following:

	December 31,	
	2018	2017
Software	\$ 11,555	\$ 16,158
Trademarks and intellectual property	104,484	103,895
Customer relationships	157,459	167,655
Others	2,383	–
Total	\$ 275,881	\$ 287,708

Accumulated amortization	Software	Others	Trademarks and intellectual property	Customer relationships	Total
Balance as of January 1, 2017	\$ 33,206	–	\$ 108,281	\$ 185,000	\$ 326,487
Additions	4,377	–	–		4,377
Business acquisition (Note 11)	13,884	–	–	(4,657)	9,227
Translation adjustment	1,388	–	5,267	(1,107)	5,548
Balance as of December 31, 2017	52,855	–	113,548	179,236	345,639
Additions	3,821	2,383	–	–	6,204
PPA Effects in PGW	(13,306)	–	11,940	–	(1,366)
Transfers	4,304				4,304
Translation adjustment	(372)	–	–	(429)	(801)
Balance as of December 31, 2018	\$ 47,302	2,383	\$ 125,488	\$ 178,807	\$ 353,980

Accumulated amortization	Software	Others	Trademarks and intellectual property	Customer relationships	Total
Balance as of January 1, 2017	\$ 30,441	–	\$ 1,203	\$ 2,403	\$ 34,047
Amortization of the year	4,196	–	8,715	9,290	22,201
Translation adjustment	2,060	–	(265)	(112)	1,683
Balance as of December 31, 2017	36,697		9,653	11,581	57,931
Amortization of the year	1,469	–	9,867	9,772	21,271
PPA effects in PGW	(2,697)	–	1,449	–	(1,247)
Translation adjustment	277	–	35	(5)	144
Balance as of December 31, 2018	\$ 35,746	–	\$ 21,004	\$ 21,348	\$ 78,099

Amortization of intangible assets was calculated using useful lives of 15 and 20 years for trademarks and intellectual property, and customer relationships, respectively.

b) Other long-term assets as of December 31, 2018 and 2017 are as follows:

		December 31,	
		2018	2017
Costs for obtaining contracts	\$	6,528	\$ 1,293
Other		3,861	9,242
	\$	10,389	\$ 10,535

14. LONG-TERM DEBT

Long-term debt consists of the following:

	Interest rate	Currency	Maturity date	2018	2017
Capital leases	2.4% a 9.5%	Dollar	2018 - 2025	\$ 18,806	\$ 22,479
BBVA Bancomer	LIBOR (1)	Dollar	2023	-	170,000
Banco Inbursa, S.A.	LIBOR + 4.15%	Dollar	2023	-	500,000
Syndicated credit loan	LIBOR ⁽¹⁾	Dollar	2023	700,000	-
Debt issuance costs				(5,262)	(3,013)
Total long term debt				713,544	689,466
Less short term maturities				(3,030)	(4,781)
Long term debt, excluding current maturities			\$	710,514	\$ 684,685

(1) Variable interest rate of LIBOR plus an applicable margin according to the consolidated leverage ratio

Debt transactions of 2018

On June 29, 2018, Vitro signed a syndicated loan agreement for \$700,000 with the purpose of refinancing its existing consolidated debt at that date which amounted to \$690,574. The new loan has a term of five years and will have an initial margin of 2.0% over LIBOR and subsequently an applicable margin based on the consolidated leverage ratio.

Consolidated leverage ratio

Applicable Margin

Greater than or equal to 2.5 times and less than 3.0 times	275 basis points
Greater than or equal to 2.0 times and less than 2.5 times	250 basis points
Greater than or equal to 1.5 times less than 2.0 times	225 basis points
Less than 1.5 times	200 basis points

As a result of the refinancing, the Company capitalized debt issuance costs for \$ 6,079 and recognized in profit and loss \$ 2,666 corresponding to the costs for the old debt, the accounting treatment is in accordance with IFRS 9 (see Note 22).

On August 27, 2018, Vitro contracted a derivative financial instrument “Swap” with the purpose of fixing interest payments based on a 2.77% fixed annual rate; this agreement covers an 85.7% portion of the syndicated loan.

On October 1, 2018 the Company executed the syndicated loan for \$700,000 and used the resources to prepay existing debt as of September 30, 2018.

The credit agreement establishes certain obligations for Vitro and its obligated subsidiaries, with which as of December 31, 2018 and as of the date of this report, it was complied with these obligations.

Debt transactions of 2017

Signing of credit agreement

On December 18, 2016, Vitro entered into a credit agreement with BBVA Bancomer, S.A., Institución de Banca Múltiple, Grupo Financiero BBVA Bancomer (BBVA Bancomer) for US\$230,000 maturing in 2023 and accruing variable interest at LIBOR plus an applicable margin according to its consolidated leverage ratio as shown below:

Consolidated Leverage Ratio

Applicable Margin

Greater than or equal to 2.5 times and less than 3.0 times	400 basis points
Greater than or equal to 2.0 times and less than 2.5 times	375 basis points
Greater than or equal to 1.5 times less than 2.0 times	350 basis points
Less than 1.5 times	325 basis points

The applicable rate as for December 31, 2017 was LIBOR+350 basis points.

These resources were used to the pay part of the purchase price of PGW's Automotive Glass Business for Original Equipment (Notes 2a and 14).

On December 1, 2017, Vitro paid in advance US\$60,000 plus accrued interests, to its US\$230,000 debt contracted with BBVA Bancomer. This payment was applied in reverse order to its amortization plan, thus reducing the term of the debt.

15. ACCRUED EXPENSES AND PROVISIONS

As December 31, 2018 and 2017, accrued expenses and provisions were as follows:

		December 31, 2018	2017
Wages and benefits payable	\$	21,199	\$ 28,253
Services and other accounts payable		30,373	21,021
Other expenses payable		24,799	19,436
Total	\$	76,371	\$ 68,710

16. EMPLOYEE BENEFITS

Employee benefits recognized in consolidated statements of financial position, by country, are as follows:

		December 31, 2018	2017
Mexico	\$	(49,760)	\$ (76,744)
USA		68,485	69,028
Canada		(1,080)	(1,494)
Other		132	148
Net projected liabilities (assets)	\$	17,777	\$ (9,062)

A description of types of post-employment benefits granted by the Company are as follows:

Defined benefits plan

The Company has a defined benefits pension plan covering Mexican staff which consists of a single payment or a monthly pension, calculated based on the sum of a basic pension, an additional factor by seniority and an additional factor for income equal to or less than the maximum limit used for the Mexican Social Security Institute.

The Company's plan in Mexico also covers seniority premiums which consist of a lump sum payment of 12 day's wage for each year worked, calculated using the most recent salary, not to exceed twice the legal minimum wage established by law. The related liability and annual cost of such benefits are calculated with the assistance of an independent actuary on the basis of formulas defined in the plans using the projected unit credit method.

Additionally, in the USA and Canada, the Company grants retirement plans to key personnel, as well as a post-employment medical benefits plan, mainly.

Employee benefits retirement plans valuation is based on service years, current age, and estimated remuneration at retirement date. The main subsidiaries of the Company had constituted and funded irrevocable trusts designated to retirement benefit payments. The Company is not exposed to unusual risks related to the plan assets.

Financial information related to employee benefits is as follows:

	December 31,	
	2018	2017
Net projected (assets) liability for:		
Pension plans	\$ 27,627	\$ (19,750)
Post-employment medical benefits	(9,850)	10,688
Total net projected assets	\$ 17,777	\$ (9,062)
Amount recognized in profit and loss for:		
Pension plans	\$ 27,229	\$ 3,763
Post-employment medical benefits	857	865
Total recognized in profit and loss	\$ 28,086	\$ 4,628
Amount recognized in comprehensive income for:		
Pension plans	\$ (52,826)	\$ (16,834)
Post-employment medical benefits	1,695	(763)
Total recognized in comprehensive income	\$ (51,131)	\$ (17,597)

The present values for defined benefit obligations, as well for the assigned plan assets to such obligations are as follows:

	Mexico	USA	Canada	Other	Total
December 31, 2017:					
Defined benefit					
obligations	\$ 202,971	\$ 187,118	\$ 6,694	\$ 148	\$ 396,931
Plan assets	(279,715)	(118,090)	(8,188)	–	(405,993)
Net projected (assets) liability	\$ (76,744)	\$ 69,028	\$ (1,494)	\$ 148	\$ (9,062)
December 31, 2018:					
Defined benefit					
obligations	\$ 180,529	\$ 176,868	\$ 6,668	\$ 132	\$ 364,197
Plan assets	(230,289)	(108,383)	(7,748)	–	(346,420)
Net projected (assets) liability	\$ (49,760)	\$ 68,485	\$ (1,080)	\$ 132	\$ 17,777

Movements in defined benefit obligations during the year are as follows:

		December 31, 2018	2017
Defined benefit obligations as of January 1,	\$	396,931	\$ 308,932
Business acquisition (Note 11)		-	50,564
Reduction and anticipated extinction		(13,785)	
Service cost		7,335	7,610
Interest cost		20,775	20,772
Actuarial re measurements		(26,470)	26,437
Benefits paid		(26,266)	(24,976)
Translation adjustment		5,605	7,592
Others		72	-
Defined benefit obligations as of December 31,	\$	364,197	\$ 396,931

Changes in the fair value of the plan assets are as follows:

		December 31, 2018	2017
Fair value of the plan assets as of January 1,	\$	405,993	\$ 346,033
Business acquisition (note 11)		-	19,563
Reduction and anticipated extinction		(3,606)	-
Expected yield		24,114	23,600
Actuarial re measurements		(77,601)	8,150
Company (reimbursements) contributions		(279)	1,817
Benefits paid		(4,318)	(2,996)
Administrative expense		(597)	
Translation adjustment		2,714	9,826
Fair value of the plan assets as of December 31,	\$	346,420	\$ 405,993

As of December 31, 2018, and 2017, the main actuarial hypotheses used were as follows:

	December 31, 2018	2017
Discount rate		
Mexico	7.50%	7.50%
Vitro Flat Glass	3.62%	4.37%
Pittsburgh Glass Works	3.75%	4.35%
Canada	3.90%	3.85%
Salary increase rate		
Mexico	4.00%	4.00%
Vitro Flat Glass	2.50%	2.50%
Pittsburgh Glass Works	3.00%	3.00%
Canada	3.00%	3.00%

The average duration of defined benefit obligations is approximately 10 years.

The following table shows future cash flows for benefits expected to be paid in the following ten years:

Payments expected in the years:	Amount
2019	\$ 46,007
2020	25,442
2021	26,230
2022	26,860
2023	27,658
2024 to 2028	144,893
	\$ 297,090

These amounts are based on current data and reflect future services expected, as the case may be. Benefit payments are based on the assumptions that inactive participants retire at 65 years old, and other actuarial hypothesis, that they do it along a 10-year period.

The categories of the plan assets as of December 31, 2018 and 2017 are as follows:

	Actual yield rate		Fair value of plan assets	
	2018	2017	2018	2017
Equity instruments	- 24,10%	11.01%	\$ 219,701	\$ 244,471
Debt instruments	- 4,46%	4.24%	126,721	161,522
			<u>\$ 346,222</u>	<u>\$ 405,993</u>

As of December 31, 2018, and 2017, plan assets include 54,201,598 and 54,152,791 Vitro's shares, respectively, whose fair values amount to \$145,987,254 and \$194,020, respectively. As of December 31, 2017, plan assets also include accounts receivables with PPG for \$31,684, which are classified as debt instruments and were liquidated in 2018. The Company is not exposed to unusual risks related to the plan assets.

The determination of the defined benefits obligation is carried out using actuarial hypotheses such as discount rates and wage increases. The sensitivity analysis shown below was developed based on the reasonableness of possible changes with respect to the actuarial hypotheses as of December 31, 2018, maintaining the other used hypotheses constant, however, it may not represent actual changes in defined benefit obligations since actuarial assumptions are correlated with each other and are unlikely to change in isolation.

The amounts included in the following table represent increase or (decrease) in the net projected liability, as the case may be.

	Liability
Increase in discount rate of 0.50%	\$ (14,491)
Decrease in discount rate of 0.50%	15,302

17. FINANCIAL INSTRUMENTS

The Company has identified the following financial instruments:

	December 31,	
	2018	2017
Financial assets		
Cash and cash equivalents	\$ 290,974	\$ 180,482
<i>Financial assets measured at amortized cost</i>		
Accounts receivable and other current assets	373,939	368,693
<i>Financial assets at fair value through profit or loss</i>		
Derivative financial instruments	190	2,212
Financial liabilities		
<i>Financial liabilities measured at amortized cost</i>		
Debt and interests payable	716,095	692,680
Suppliers and other liabilities	401,114	394,907
Desconsolidation income tax	99,149	147,352
<i>ii. Financial liabilities at fair value through OCI</i>		
Hedge derivative financial instruments	\$ 7,495	–

The Company is exposed to market risks (interest rate risk and foreign exchange risk), credit risk and liquidity risk, which are managed in a centralized manner. The Board of Directors establishes and monitors the policies and procedures to measure and manage these risks, which are described below:

i. Market risk

Market risk is the risk of changes in market prices, such as exchange rates, interest rates, commodities and equity instruments. The objective of market risk management is to manage and control exposures to market risks within acceptable parameters, at the same time that yields are optimized.

Interest rate risk

The Company is exposed to interest variation risk mainly because of the long-term syndicated bank loan that bears interest at a variable rate (see Note 14).

In order to maintain control over the total cost of its financings and the volatility associated with interest rates, the Company contracted jointly with the syndicated bank loan a hedge derivative financial instrument “Swap” to convert the interest payment from a variable to a fixed rate; this agreement covers an 85.7% portion of the loan.

The position in the derivative financial instrument is summarized below:

Instrument type	Notional	Units	Reference	Fair value	OCI impact
Interest Rate Swap	\$600,000	% per year	2.77%	\$ 7,345	\$ 5,497

As of December 31, 2018, 86% of the loans are denominated at a fixed rate of 2.77% and 14% at a variable rate (see Note 14).

The Company periodically evaluates the effectiveness of this hedge, as of December 31, 2018, the Company determined that it is highly effective, confirming that there is an economic relationship between the hedging instruments and the instruments hedged.

Sensitivity analysis to interest rate risk

The Company carried out a sensitivity analysis putting into consideration an increase or decrease by 0.5% in the LIBOR rate value, and its effects over the results for the year ended December 31, 2018. The percentage used to analyze interest risk sensitivity is the scenario that represent management’s assessment on the reasonableness of potential deviations in the reference rate, being a market rate with low or no volatility. As a result, the effects of a potential increase or decrease in interest rate would have had an impact in profit or loss for \$1,848 as an expense or income, respectively.

Foreign exchange risk applicable to foreign subsidiaries

Vitro’s foreign subsidiaries maintain its assets and liabilities, and carry out their activities mainly in U.S. dollars, in a market and a business environment in the same currency, thus the Company’s management considers that the exposure to exchange rate fluctuations for these subsidiaries is almost null. Additionally, the Company considers that the assets and liabilities denominated in other foreign currencies other than U.S. dollar are not material.

Foreign exchange risk applicable to Mexican subsidiaries

Vitro’s Mexican subsidiaries, both those who have the U.S. dollar as their functional currency as well as those who maintain the Mexican peso, carry out their activities and maintain balances in foreign currencies, which expose them to exchange rate fluctuations. Such exchange risk exposure may arise from changes in economic conditions, monetary or fiscal policies, global market’s liquidity, foreign or local political events, among others.

As mentioned in Note 14, debt maintained by the Company is denominated in U.S. dollars; however, almost all of it is contracted by Vitro’s subsidiaries abroad. Until December 31, 2017, the exchange fluctuation from debt contracted abroad and the rest of the investment in such subsidiaries were recorded directly in stockholders’ equity as translation adjustments.

The financial assets and liabilities denominated in millions of U.S. dollars as of December 31, 2018 and 2017 are as follows:

		2018	December 31,	2017
Financial assets	\$Ps	1,325,183,651	\$Ps	2,027,257,427
Financial liabilities		(743,443,029)		(500,185,062)
Financial position, net		581,740,622		1,527,072,365

As of December 31, 2018, and 2017, the Company considers the assets and liabilities denominated in other foreign currencies other than U.S. dollar are not material.

The exchange rates of the Mexican peso with respect to the U.S. dollar, used to prepare these consolidated financial statements, were as follows:

	December 31,	
	2018	2017
Exchange rate:		
Year-end Pesos per Dollar	\$Ps. 19.6512	\$Ps. 19.6629
Yearly average Pesos per Dollar	\$Ps. 19.2524	\$Ps. 18.9104

As of February 1, 2019, date of issuance of the consolidated financial statements, the exchange rate of the Mexican peso with respect to the U.S. dollar was \$19.1098.

Sensitivity analysis to foreign exchange risk

The sensitivity analysis carried out by the Company considers a strengthening or weakening by 1% of the U.S. dollar against the Mexican peso and their effects on the results of the fiscal years 2018 and 2017. The percentage used to analyze the sensitivity to foreign exchange risk is the scenario that represents the Management’s evaluation of the fairness of possible variations in the currency exchange rate. As a result of the analysis, the effect of possible strengthening or weakening of the U.S. dollar against the Mexican peso would have had an impact on profit or loss for \$2,961 as income or expense, respectively.

ii. Credit risk

Credit risk refers to the risk that a customer or counterpart breaches its contractual obligations resulting in financial loss to the Company and arises mainly from trade accounts receivable and investments in the Company’s securities.

Trade accounts receivable and other accounts receivable

The Company continuously performs credit evaluations to its clients and adjusts the limits of credit based on the credit history and current creditworthiness. Also, it monitors the collections and payments from customers, and has an allowance for doubtful accounts based on historical experience and on some specific aspect that has been identified. While these allowances for doubtful accounts have historically been within the Company’s expectations and within the established allowance, there is no guarantee

that it will continue to have the same level of allowances for doubtful accounts that it has had in the past. An important variation in the experience of the Company’s allowances for doubtful accounts could have a significant impact on the consolidated results of operations and therefore on the consolidated financial position.

The Company’s exposure to credit risk is affected mainly by the individual characteristics of each customer. However, the Company’s management also believes the demographics of its customer base, which includes the risk of non-compliance of the industry and country in which customers operate, as these factors can influence the credit risk, particularly in deteriorated economic circumstances.

As of December 31, 2018, the maximum exposure to credit risk is \$301,058. In addition, the Company has guarantees on certain balances of trade accounts receivable whose performance does not fully meet Management’s expectations.

The Company has no concentration credit risk, as consolidated sales to a single customer were not superior to 10% with respect to total sales.

iii. Liquidity risk

Liquidity risk represents the possibility that the Company has difficulties to comply with its obligations associated with its financial liabilities that are settled by delivering cash or another financial asset.

The Company’s approach to manage its liquidity risk is to ensure, to the extent possible, always having enough liquidity to meet its obligations when they fall due, without affecting the performance of the business or damage the image and reputation of Vitro.

The Company’s Board of Directors is responsible for establishing an appropriate framework of liquidity risk management according to the Company’s needs. The Company manages its liquidity risk by maintaining bank reserves and through a constant monitoring of cash flows.

In previous years, the Company’s main source of liquidity has been predominantly cash generated from operating activities in each one of the business units and sale of certain assets. In addition, the Company has designated certain assets as available for sale, which also support the reduction of this risk.

Following are the contractual maturities of the debt as of December 31, 2018 and the related interest:

	Less than 1 year	1 to 3 years	3 to 5 years
Maturities at fixed interest rates	\$ 4,688	\$ 13,035	\$ 8,010
Maturities at variable interest rates	37,139	80,872	730,183
Total financial liabilities	\$ 41,827	\$ 93,907	\$ 738,193

As of December 31, 2018, the Company has available cash and cash equivalents for \$290,974 and has access to unused working capital credit line for approximately \$50,000.

iv. Fair value of financial instruments

The fair value of financial instruments that are presented below has been determined by the Company using the information available in the market or other valuation techniques which require judgment to develop and interpret the estimates of fair values. It also uses assumptions that are based on market conditions existing at each of the balance sheet dates. Consequently, the estimated amounts presented are not necessarily indicative of the amounts that the Company could realize in a current market exchange.

The levels that cover 1 to 3, based on the degree to which the financial instruments fair value is observed, are:

- Level 1 are those derived from quoted prices (unadjusted) in active markets for identical assets or liabilities;
- Level 2 are those derived from indicators other than quoted prices included within Level 1, but which include indicators that are observable for an asset or liability, either directly to prices quoted or indirectly; i.e. derived from these prices; and

- Level 3 are those derived from valuation techniques that include indicators for assets and liabilities, which are not based on observable market information (non-observable indicators).

The Company’s amounts of cash and cash equivalents, as well as accounts receivable and payable to third parties and related parties, and the current portion of bank loans and long-term debt approach their fair value, as they have short term maturities. The Company’s long-term debt is recorded at amortized cost and consists of debt that bears interest at fixed and variable rates which are related to market indicators. To obtain and disclose the fair value of long-term debt, different sources and methodologies are used such as: market quotation prices or quotations of agents for similar instruments; other valuation techniques for the cases of those liabilities that have no price in the market and is not feasible to find quotes of agents for similar instruments.

Below are the fair values of the debt, together with the carrying amount that are shown in the consolidated statement of financial position:

	December 31, 2018		December 31, 2017	
	Carrying amount	Fair value	Carrying amount	Fair Value
Debt (recorded at amortized cost):				
Debt and bank loans	\$ 713,544	\$ 744,426	\$ 689,466	\$ 755,229

v. Other market price risks

In the ordinary business course, the Company has contracted calls and swaps and other derivate instruments in order to mitigate and hedge its exposure to natural gas and electricity price fluctuations. The estimated percentage of fuel consumption covered has varied from 10% to 100%. The percentage of covered consumption and the covered prices varied constantly according to market conditions based on the needs of the Company and the use of alternative fuels within their production processes.

The derivate financial instruments that the Company held during 2018 and 2017 were calls and swaps, which were acquired due to the need to economically cover the fluctuation price of natural gas and electricity used by some of the Company’s plants. Those DFIs, were not designated as a hedge for accounting purposes, therefore, fluctuations in fair value are recognized in current earnings within net financial cost.

The following table shows the active positions and their characteristics for the years ended December 31, 2018 and 2017:

Type of Instrument	Type of Underlying	Annual Notional in MMBTUs	Average Price	Initial Date	Maturity Date
Call	Natural Gas	1,080,000	\$ 3.25	25-Apr-18	26-Mar-19
Call	Natural Gas	1,080,000	\$ 2.90	28-Aug-18	26-Jul-19
Swap	Natural Gas	1,243,440	\$2.11	21-Dec-18	20-Dec-19
Swap	Natural Gas	4,046,413	\$ 2.97	27-Oct-17	31-Dec-19

Type of Instrument	Type of Underlying	Annual Notional en MWHs	Average Price	Initial Date	Maturity Date
Swap	Electricity	584,996	\$ 26 -55.75	01-Jan-19	31-Dec-19

The effects of the aforementioned DFI’s in profit and loss for the years ended December 31, 2018 and 2017 are described in Note 22.

18.COMMITMENTS

The Company entered into various operating lease agreements relating mainly to the lease of warehouses and equipment, which represented charges to the profit or loss of 2018 and 2017 for \$20,959 and \$19,568, respectively. Certain lease agreements have purchase and/or renewal options at market value at the end of their term, which exercise is not certain at the reporting date.

The estimated future obligations derived from these agreements are as follows:

	Amount
2019	\$ 17,830
2020	15,674
2021	12,983
2022	11,520
2023	5,017
2024 and thereafter	13,594

Power purchase

In August 2015, some of Vitro’s subsidiaries, with plants around Monterrey, and Estado de México, entered into a power-purchase agreement for 15 years with Tractebel Energia de Monterrey, S. de R.L. de C.V., whose supply begins in February 2018, which could be terminated by either party once elapsed half of its validity. This agreement contains power purchase obligations for approximately 69 Megawatts of electricity and 1.3 million tons of water steam per year, and is subject to certain conditions established in the covenant.

Once the agreement’s has entered into force, also are Vitro’s operations within Wholesale Power Market in Mexico; thus, Vitro could, if it suits its’ interests, place on sale in such market totally or partially any amount of power associated with this agreement.

19. CAPITAL AND RESERVES

Capital management

The Company’s objective on managing its capital structure is to safeguard its ability to continue as a going concern, and at the same time maximize the return to its stockholders through a proper balance in their funding sources. In order to maintain this structure, the Company carries out various actions such as: efficiently managing working capital, adjusting the dividends paid to stockholders according to free cash flows generated, cancelling and/or issuing new shares and/or debt, or the investment or disinvestment in assets.

The Company, through the Board of Directors, permanently assesses the cost and risks associated with its capital structure. This assessment is primarily based on the proportions of debt, debt to EBITDA of the past 12 months, and interest coverage. The proportion of debt represents the debt ratio to total assets; the EBITDA is calculated based on the income before other income and expenses and adding the virtual items reflected in the statement of comprehensive income, within the cost of sales and operating expenses, mainly depreciations, amortizations and the seniority premium and pension plan reserves. Lastly, the interest coverage is calculated by dividing the EBITDA by the interest expense of the last twelve months interest expense of the analyzed period. Vitro has a long-term goal of maintaining debt financial ratio within 1.5 and 2.0 times span for indebtedness ratio, less than 3 times for debt to EBITDA, and greater than 5 times for interest coverage. As of December 31, 2018, the results of the calculation of each one of the aforementioned financial ratios were of 0.26 for indebtedness ratio, 1.95 times for debt to EBITDA, 1.16 times for the net debt ratio of cash to EBITDA and 9.44 times for interest coverage ratio.

Common stock structure

- a) As of December 31, 2018, and 2017, the Company's capital stock amounts to 483,571,429 common shares, fully subscribed and paid, and without par value.
- b) Retained earnings include the statutory legal reserve. The General Corporate Law requires that at least 5% of net income of the year be transferred to the legal reserve until the reserve equals 20% of capital stock at par value (historical pesos). The legal reserve may be capitalized but may not be distributed unless the entity is dissolved. The legal reserve must be replenished if it is reduced for any reason.
- c) At an Ordinary General Stockholders' Meeting held on March 30, 2017, the stockholders agreed to the following:
 - To declare and pay dividends at a rate of \$0.0517 per share.
 - To create a reserve for stock repurchase at a maximum amount of \$500 million pesos, equivalent to \$26,503.
- d) At an Ordinary General Stockholders' Meeting held on February 27, 2018 the stockholders agreed to the following:
 - To declare and pay dividends at a rate of US\$0.0647 per share.
 - To cancel the remaining reserve for stock repurchases held up to this date, which amounted \$304 million pesos, equivalent to \$16,197.

- Create a new reserve for stock repurchase for up to \$500 million pesos, equivalent to \$26,610

- e) At the Ordinary Stockholders' Meeting held on November 28, 2018, it was agreed to increase the reserve for stock repurchase for the amount of \$1,750 million pesos, equivalent to \$85,739.
- f) During 2018 and 2017, the company repurchased 1,231,076 and 2,774,280 shares equivalent to \$4,503 and \$10,203.
- g) As of December 31, 2018, and 2017, the Company holds in treasury 4,450,856 and 3,219,780 shares, respectively.
- h) Stockholders' equity, except for restated paid-in capital and tax retained earnings will be subject to income tax payable by the Company at the rate in effect upon distribution. Any tax paid on such distribution may be credited against annual and estimated income tax of the year in which the tax on dividends is paid and the following two fiscal years.

Balances of the controlling interests in the tax accounts of the stockholders' equity corresponding to the capital contribution account and the net taxable income account amounted to \$523,319 and \$1,089,635 as of December 31, 2018, and \$498,911 and \$1,068,884 as of December 31, 2017, respectively.

i) Other components of comprehensive income

Cumulative translation adjustments

The movement of the period is recorded when translating the financial statements from the functional currency to the reporting currency. During the period 2018 and 2017, there were no extraordinary movements affecting the cumulative balance of the translation adjustment recognized within the stockholders' equity.

Actuarial remeasurements

Actuarial remeasurements are recognized as other components of comprehensive income. During December 31, 2018 and 2017, the actuarial remeasurements correspond solely to variations in actuarial assumptions for both the labor liability and the plan assets and are presented net of income taxes.

Below is an analysis of the movements of the other comprehensive income accounts of the controlling interests:

	Cumulative translation adjustments	Derivative financial instruments for coverage	Actuarial remeasurements	Total other comprehensive income
Balance as of January 1, 2017	\$ 69,733	–	\$ 21,141	\$ 90,874
Comprehensive income movement	41,888	–	(14,479)	27,409
Balance as of December 31, 2017	111,621	–	6,662	118,283
Comprehensive income movement	(2,454)	(5,497)	(35,042)	(42,993)
Balance as of December 31, 2018	109,167	(5,497)	\$ (28,380)	\$ 75,290

j) Non-controlling interest is as follows:

	December 31,	
	2018	2017
Capital stock	\$ 566	\$ 924
Retained earnings	418	75
	\$ 984	\$ 999

k) Basic and diluted earnings (loss) per share

The earnings and number of common shares used for the calculation of the basic and diluted earnings per share are as follows:

	Year ended December 31,	
	2018	2017
Earnings from continuing operations attributable to controlling interest	\$ 161,739	\$ 193,791
Weighted average of common shares for calculation of basic and diluted earnings per share	479,226,979	482,702,587
Earnings per share from continuing operations	\$ 0.3375	\$ 0.4015

As of December 31, 2018, and 2017, basic and diluted earnings per share amount to the same figure as there were no dilution effects affecting the average of common shares for such calculations during the years then ended.

20. RELATED PARTIES

Transactions with related parties, carried out in the ordinary course of business, were as follows:

- Products sold.** - The Company held operations for sales of services, technical advisory, and sales of spare parts and finished goods with Comegua, an associated company; for the years ended December 31, 2018 and 2017, these operations amounted to approximately \$2,069 and \$2,717, respectively.
- Purchase of food coupons.** - The Company purchases food coupons for its staff from a self-service store, of which one of our board members is a stockholder. For the years ended December 31, 2018 and 2017, the amount of those purchases was \$5,419 and \$5,145, respectively.

- c) *Compensation to management's key personnel.* - For the years ended December 31, 2018 and 2017, the total compensation for the services provided by our board members and directors was approximately \$8,868 and \$10,162, respectively. This amount includes fees, wages, variable compensation and retirement bonuses. The variation between both years is mainly due to the incorporation of executives from the acquired companies.
- d) *Accounts receivable.* - The Company has an account receivable with Shandong PGW Jinjiang Automotive Glass Co. Ltd. for the twelve-month period ended on December 31, 2018, the total amount was \$8,626.
- e) *Operations with Shandong PGW Jinjiang Automotive Co. Ltd.*- The Chas operations with Shandong PGW Jinjiang Automotive Glass Co. Ltd. for the years ended in December 31, 2018 and 2017. In cost of sales, the total amount was \$3,083 and \$3,554, respectively, the total amount in purchases was \$2,993 and \$2,445, respectively, and in accounts payable the total amount was \$202 and \$1,207, respectively.
- f) *Miscellaneous sales.* - On September 12, 2018, the Company received the amount of \$285 for sales to related parties.

21. OTHER EXPENSES (INCOME), NET

The analysis of other income, net is as follows:

	Year ended December 31,	
	2018	2017
Impairment of long-lived assets (note 9c)	\$ -	\$ 7,727
Results on sale and cancelation of assets	4,460	2,608
Reorganization expenses	476	4,662
Income in business acquisition (Note 11)	-	(4,011)
Income due to Comegua sale (Note 8)	(23,562)	-
Other expenses (income), net	(2,589)	(31,842)
Total	\$ (21,215)	\$ (20,856)

22. FINANCIAL COST (INCOME), NET

Below is a breakdown of the most significant items that compose financial income (cost):

	Year ended December 31,	
	2018	2017
Interest expenses	\$ 38,707	\$ 37,697
Financial products	(1,922)	(640)
Restatement of taxes on tax consolidation	7,498	12,797
Derivative financial transactions	2,345	(1,973)
Exchange gain (loss), net	15,896	(9,171)
Employee benefits interest expense, net	(4,782)	(5,172)
Financial cost amortized and other financial expenses	6,909	4,106
Total	\$ 64,652	\$ 37,644

23. INCOME TAXES

Income taxes recognized in earnings are analyzed as follows

	Year ended December 31,	
	2018	2017
Current income taxes	\$ 6,102	\$ (1,464)
Deferred income taxes	40,011	69,892
Total	\$ 46,113	\$ 68,428

The reconciliation between the Company's actual income tax rate and that established in the Law, expressed as a percentage of income before income taxes, is analyzed as follows:

	Year ended December 31,	
	2018	2017
Actual rate	22%	26%
Foreign companies	(2)	(1)
Inflation	5	7
USA Exchange rate	-	(1)
Valuation allowance for tax losses	4	(2)
USA loss carryback (1)	-	3
Nondeductible expenses and others	(1)	(2)
Shares Disposal (Comegua)	3	-
Translation adjustments	(1)	-
Rate established in the Law	30%	30%

(1) During 2017, some subsidiaries in the USA generated tax losses, which, according to local tax legislation, can be carried back and amortized against the income taxes paid in previous years, the recognized effect was a benefit of \$8.1, recorded as a decrease in the current tax for the year.

The movements of the deferred tax asset balance in the fiscal year are as follows:

	Year ended December 31,	
	2018	2017
Opening balance	\$ 88,698	\$ 153,348
Income tax applied to income	(40,011)	(69,892)
Business acquisition (Note 11)	-	(2,274)
Actuarial re measurements	16,576	(3,384)
Financial derivative operations	1,837	-
Translation adjustments	(248)	10,900
Ending balance	\$ 66,852	\$ 88,698

The main temporary differences that gave rise to deferred income taxes in the consolidated statements of financial position are analyzed as follows:

	December 31,	
	2018	2017
Accounts receivable	\$ 21,060	\$ 6,734
Employee benefits	7,763	5,243
Tax losses carryforwards	63,789	80,236
Intangible assets	39,352	42,922
Fixed assets	11,862	2,727
Derivative financial instruments	4,172	1,841
Inventories	(39,169)	2,952
Other	10,333	(5,309)
Deferred income tax asset	\$ 119,162	\$ 137,346
Accounts receivable	\$ (2,055)	\$ (3,929)
Employee benefits	(654)	7,810
Tax losses carryforwards	(11,404)	(7,668)
Fixed assets	37,941	33,728
Derivative financial instruments	2,192	1,786
Advance payment to suppliers	12,956	885
Other	13,334	15,907
Deferred income tax liability	\$ 52,310	\$ 48,648
	\$ 66,852	\$ 88,698

As of December 31, 2018, the Company has tax loss carryforwards of \$360,335, which have the right to be applied to future income and expire as follows:

Expiration in:	Amount
2019	47,358
2020	18,104
2021	8,859
2022	6,327
2023	43,271
2024	51,501
2025	17,550
2026	40,817
2027	26,278
2028 and thereafter	100,270
Total	\$ 360,335

In the determination of deferred income tax, as of December 31, 2018, the effects of tax loss carryforwards of \$87,482 were included, which were not recognized as assets because there is not a high probability that they can be recovered.

The income taxes recognized in other components of comprehensive income are analyzed as follows:

	For the year ended	
	December 31,	
	2018	2017
Financial derivatives operation effect	\$ 1,837	\$ -
Actuarial re measurements of benefits plan	16,576	(3,384)
Total income taxes recognized in other components of comprehensive income	\$ 18,413	\$ (3,384)

24. OPERATING SEGMENTS

An operating segment is a Company’s component that is engaged in business activities for which it can earn income and incur expenses, including income and expenses relating to transactions with any of the other components of the Company. All the operation results of the operating segments are reviewed periodically by the Company’s management to make decisions on the resources that must be distributed to the segment and assess their performance.

Transactions between segments are determined based on comparable prices to those that would be used with or between independent parties in comparable transactions.

The accounting, administrative and operating policies are the same as those described by Vitro. The Company evaluates the performance of its segments based on operating income. Sales and transfers between segments are recorded in each segment as if they were made to third parties; i.e. at market prices.

The segments reporting in Vitro are strategic business units that offer different products. These segments are managed separately; each requires its own system of production, technology, and marketing and distribution strategies. Each market serves to different customer bases.

The Company has two operating segments to be reported: Flat Glass and Glass Containers. The primary products of each one of the segments are:

Segment	Primary products
Flat glass	Flat glass for the construction and automotive industries, and carbonate and sodium bicarbonate.
Glass containers	Glass containers, precision components, as well as machinery and molds for the glass industry.

The holding, corporate and other companies are not classified as an operating segment according to IFRS 8, “Operating segments”, they are classified in the “Others” column.

a) Following certain information is presented by segments:

Year ended December 31, 2018

	Flat Glass	Glass Containers	Subtotal	Others and eliminations	Consolidated
Total sales	\$ 2,002,208	\$ 240,522	\$ 2,242,730	\$ (4,350)	\$ 2,238,380
Sales to other segments	754	5,393	6,147	(6,147)	-
Consolidated net sales	2,001,454	235,129	2,236,583	1,797	2,238,380
Income before other (expenses) income, net	194,419	47,388	241,807	3,663	245,470
Interest income	73,868	28,010	101,878	(99,956)	1,922
Interest expense	70,117	112,949	183,066	(134,734)	48,332
Equity in income of associates	-	6,085	6,085	-	6,085
Income (loss) before income taxes	179,025	(12,137)	166,888	41,229	208,117
Income taxes	42,016	(1,422)	40,594	5,519	46,113
Depreciation and amortization	103,816	13,195	117,011	1,723	118,734
Investment in fixed assets	143,332	10,437	153,769	90	153,859
Loss from impairment of long-lived assets	-	-	-	-	-

As of December 31, 2018

	Flat Glass	Glass Containers	Subtotal	Others and eliminations	Consolidated
Investment in associated	\$ 265,157	\$ 1,125,965	\$ 1,391,122	\$ (1,383,192)	\$ 7,930
Goodwill	61,463	-	61,463	-	61,463
Total assets	4,227,054	2,908,790	7,135,844	(4,366,626)	2,769,218
Total liabilities	2,118,198	2,424,071	4,542,269	(3,241,315)	1,300,954

Year ended December 31, 2017

	Flat Glass	Glass Containers	Subtotal	Others and eliminations	Consolidated
Total sales	\$ 1,852,364	\$ 217,146	\$ 2,069,510	\$ 5,719	\$ 2,075,229
Sales to other segments	683	910	1,593	(1,593)	-
Consolidated net sales	1,851,681	216,236	2,067,917	7,312	2,075,229
Income before other (expenses) income, net	246,854	40,584	287,438	(14,412)	273,026
Interest income	75,061	21,472	96,533	(95,938)	595
Interest expense	61,832	103,299	165,131	(115,944)	49,187
Equity in income of associates	677	5,383	6,060	0	6,060
Income (loss) before income taxes	300,919	(51,028)	249,891	12,407	262,298
Income taxes	53,300	4,886	58,186	10,242	68,428
Depreciation and amortization	98,813	11,430	110,243	2,140	112,383
Investment in fixed assets	137,253	22,821	160,074	3,053	163,127
Loss from impairment of long-lived assets	7,505	-	7,505	0	7,505

As of December 31, 2017

	Flat Glass	Glass Containers	Subtotal	Others and eliminations	Consolidated
Investment in associated	\$ 42,399	\$ 1,217,294	\$ 1,259,693	\$ (1,169,225)	\$ 90,468
Goodwill	60,480	0	60,480	0	60,480
Total assets	3,963,744	2,742,268	6,706,012	(4,030,726)	2,675,286
Total liabilities	1,888,325	2,290,555	4,178,880	(2,888,632)	1,290,248

b) Information related to main customers

Consolidated net sales conducted by the Company to a single customer in the glass containers segment presented two cases of concentration, whose amounts were higher than 10% for the years ended December 31, 2018 and 2017.

In addition, in the flat glass segment, there is a single case of concentration of sales to a single customer, whose amounts were greater than 10% for the fiscal year ended December 31, 2018 and 2017.

c) Geographical information

Certain geographical information regarding the Company’s transactions is summarized as follows:

	Year ended December 31,	
	2018	2017
Net sales to customers ⁽¹⁾ in:		
Abroad, mainly to the USA	\$ 1,589,216	\$ 1,440,006
Mexico	649,164	635,222

(1) According to the country where the Company is located.

The geographic information of land and buildings, machinery and equipment, and investments in process is summarized as follows:

	December 31,	
	2018	2017
Lands and buildings, machinery and equipment and investments in process:		
Abroad, mainly in the USA	\$ 627,345	\$ 591,671
Mexico	596,551	584,969

The other non-current assets other than monetary items are summarized as follows:

	December 31,	
	2018	2017
Intangible asset, including goodwill:		
Abroad, mainly in the USA	\$ 322,855	\$ 343,754
Mexico	16,538	7,117


25. AUTHORIZATION TO ISSUE THE FINANCIAL STATEMENTS

On January 29, 2019, the issuance of the accompanying consolidated financial statements and notes thereto was authorized by Adrián Sada Cueva, Chief Executive Officer, and Claudio L. Del Valle Cabello, Chief Administrative and Financial Officer.

These consolidated financial statements are subject to the approval at the ordinary stockholders’ meeting, where they may be modified, based on provisions set forth in the Mexican General Corporate Law.



GRI INDEX

ODS	CONT	DESCRIPTION	RESPONSE OR REFERENCE	INDEPENDENT ASSURANCE
	102-12	External initiatives	Social impact - Page 28	
	102-13	Membership in associations	Page 68 (see list of associations).	
2. STRATEGY				
	102-14	Statement from senior decision-maker	Letter to stakeholders - Page 7	
	102-15	Key impacts, risks, and opportunities	Letter to stakeholders - Page 7 Flat Glass - Page 32 Glass Containers - Page 47	YES
3. ETHICS AND INTEGRITY				
	102-16	Values, principles, standards, and norms of behavior	About Us - Page 6	
16	102-17	Mechanisms for advice and concerns about ethics	Corporate Governance - Page 16	YES
4. GOVERNANCE AND STAKEHOLDERS				
	102-18	Governance structure	Corporate Governance - Page 16	
16	102-21	Consulting stakeholders on economic, environmental, and social topics	<p>A materiality study conducted in 2015 revealed the following material issues (insert table done with Milenio3)</p> 	
	102-22	Composition of the highest governance body and its committees	Governance Structure and Committees - Page 19	
	102-33	Communication of critical concerns	Corporate Governance - Page 16	

ODS	CONT	DESCRIPTION	RESPONSE OR REFERENCE	INDEPENDENT ASSURANCE
	102-34	Nature and number of critical concerns	Corporate Governance - Page 16	
	102-40	List of stakeholder groups	Vitro stakeholders include: Internal: Partners and shareholders, Employees, employee families and Suppliers External: Clients, Competitors, Local community, NGOs, Government, Media, Evaluators, Academe, etc.	
8	102-41	Collective bargaining agreements	100% for employees in Mexico and Colombia. The company continues the process of integrating the businesses acquired in 2016 an 2017 to verify employee membership in institutions of this type, so some plants in the United States have collective bargaining agreements according to specific needs.	YES
6. REPORTING PRACTICES				
	102-45	Entities included in the consolidated financial statements	Consolidated Financial Statements - Page 30	
	102-46	Defining report content and topic Boundaries	The content of this report is consistent with Vitro's Sustainability Model and is one of the ways we meet the expectations of our stakeholders, because it contains information and details of actions, initiatives and projects carried out by the company from January 1 to December 31, 2018. The information contained in this document is intended to provide greater insight into the organization's non financial performance.	
	102-47	List of material topics	Sustainability Strategy - Page 22	
	102-48	Restatements of information	The data presented contain some of the activities carried out in all the countries where we operate. This report contains no restatement of information with respect of previous reports.	
	102-49	Changes in reporting	There are no significant changes in the scope or material issues with respect previous report. This report has been prepared according to GRI Standards and the materiality study conducted in 2015.	
	102-50	Reporting period	The information in this integrated annual report encompasses the period from January 1 to December 31, 2018, and corresponds to the actions of all of Vitro operations.	
	102-51	Date of most recent report	The last report was published in 2018, based on information for 2017.	
	102-52	Reporting cycle	The information in this integrated annual report encompasses the period from January 1 to December 31, 2018, and corresponds to the actions of all of Vitro operations.	
	102-53	Contact point for questions regarding the report	Diana Tamayo Pichardo / Social Responsibility and Sustainability We welcome your comments on the content of this report. E-mail: social@vitro.com or at our corporate headquarters located at: Av. Ricardo Margain #400, Col. Valle del Campestre, San Pedro Garza García, Nuevo León 66265, Mexico For more information, visit: www.vitro.com	
	102-54	Claims of reporting in accordance with the GRI Standards	The 2018 Integrated Annual Report has been prepared in accordance with GRI Standards: Core Option. Independent Verification Letter - Page 141	
	102-55	GRI content index	Table of GRI Content 2018	
	102-56	External assurance	This report was independently reviewed by Deloitte México according to the company's material standards. Independent Verification Letter - Page 141	

ODS	CONT	DESCRIPTION	RESPONSE OR REFERENCE	INDEPENDENT ASSURANCE
103. MANAGEMENT FOCUS				
	103-1	Explanation of the material topic and its Boundary	<p>According to the materiality study we conducted in 2015, we determined that the issues on which we should focus are: Talent recruitment and retention, climate change and other atmospheric emissions, Human capital, Corruption and transparency, Diversity and equal opportunities, Energy eco-efficiency, Ethics and integrity, CSR Management, Brand management, Customer relationships management, Waste management. Risk management, Social impact, Operations, Environmental policy, Product stewardship and Occupational health and safety.</p> <p>These issues take into account both positive and negative impacts in the organization.</p> <p>The coverage of each issue includes all our operations, unless otherwise indicated.</p>	
	103-2	Management approach and its components	Sustainability strategy - Page 22	
201. ECONOMIC PERFORMANCE				
2, 5, 7, 8, 9	201-1	Direct economic value generated and distributed	Consolidated financial information - Page 30	
	201-3	Defined benefit and other retirement plans	At Vitro, all employees receive the wages and benefits established by law, along with incentives in keeping with their performance.	
205. ANTICORRUPTION				
16	205-1	Operations assessed for risks related to corruption	<p>At Vitro, we have a zero-tolerance policy against bribery, and this extends to every one of the officers, agents, employees and consultants with whom Vitro does business, bribery includes any activity that implies an improper advantage, benefit or special treatment for the company from some outside party, such as: paying a person or entity to obtain business, facilitate something of value for a person or entity in exchange for a permit, license, certification or other personal or commercial advantage.</p> <p>Making or participating in a bribe may have different legal consequences depending on the country where we operate and do business, both for Vitro and for the employee involved. Anti-bribery laws in certain countries apply even if the act of corruption or bribery took place in another jurisdiction.</p> <p>We promote detection of such practices through communication and dissemination of the Code of Ethics and formal Whistleblower Mechanisms (Vitro Whistleblower System).</p>	
16	205-2	Communication and training about anti-corruption policies and procedures	<p>Corporate Governance - Page 16</p> <p>Doing business in an ethical and upright manner has been the basis for Vitro's growth over the years and has permitted us to grow sustainably. We know that an ethical organization may act correctly under challenging situations, and that its decisions must be based on its established values and social responsibility. Furthermore, its ethical principles dictate compliance with all national and international laws.</p> <p>Because of our current growth, it is urgent that we ensure that our organizational culture is transmitted equally across all our regions, and that our commercial partners, suppliers, authorities, communities, and stakeholders in general are clear about our ethical actions. For this reason we offer an annual course for employees on Vitro's Code of Conduct and Ethics. The course last year began in the month of December 2018 and ended on January 31, 2019. During this time, 96% of our employees in Mexico and Colombia were trained and signed their commitment in accordance with the Code.</p> <p>In the United States we continue to distribute the Code for all Vitro employees to be familiar with its content.</p> <p>The Code applies to all our operations in different countries, and to all company employees, regardless of their organizational level, starting with the Chairman of the Board and Board Members. It also applies to any person or entity acting on behalf of Vitro, and it is available to all our stakeholders and the general public.</p> <p>Our Code of Ethics can be viewed at http://vitro.com/media/101727/Codigo_Etica_Vitro.pdf</p>	YES

ODS	CONT	DESCRIPTION	RESPONSE OR REFERENCE	INDEPENDENT ASSURANCE			
16	205-3	Confirmed incidents of corruption and actions taken	Corporate Governance - Page 16				
206. ANTI-COMPETITIVE BEHAVIOR							
16	206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	There were no material or significant incidents of non-compliance with the law in 2018 that might have affected the ordinary course of the Company business or that of its subsidiaries as a result of such issues.				
301. MATERIALS							
8, 12	301-1	Materials used by weight or volume	The breakdown of materials used in making packaging material is 49% polymers, 46% cardboard, 1% wood, and the remainder other materials like steel and paper. This breakdown applies only to packaging products in 2018.				
	301-2	Recycled inputs used	20% of the raw material we use is cullet (recycled glass from internal and external sources).				
302. ENERGY							
7, 8, 12, 13,	302-1	Energy consumption within the organization			a. Our acquisition of imported or purchased energy from renewable and non-renewable sources is shown in the following table/graph: Electricity from renewable sources includes projects with suppliers of wind energy. Total energy consumption is more than 28 million GJ, equivalent to a 5% increase over 2016, due to the growth of our operations. NOTE: Total energy in 2018 was calculated through the month of November. The factors used to calculate this consumption are taken from the California Heat Content of Natural Gas Deliveries to Consumers y Texas Heat Content of Natural Gas Deliveries to Consumers.		
				2018		2017	2016
			Natural Gas (GJ)	59%		60%	63%
			Steam (GJ)	17%		17%	17%
			Gasoline (GJ)	0%		0%	0%
			Diesel (GJ)	0%		0%	0%
			Non-renewable electricity (GJ)	23%		22%	19%
			Renewable electricity (GJ)	0%		0%	0%
TOTAL CONSUMPTION	5%	8%	BASE YEAR				
	302-3	Energy intensity	Energy Intensity (GJ/Output)				
			ENERGY INTENSITY	2018	2017	2016	
				8.21	8.14	8.04	
			Includes all consumption of fuel and electricity in all our operations through November 2018.				

ODS	CONT	DESCRIPTION	RESPONSE OR REFERENCE							INDEPENDENT ASSURANCE																																																																																	
303. WATER																																																																																											
			Vitro Water extraction																																																																																								
			<table><tr><th>VITRO WATER CONSUMPTION</th><th>2018</th><th>2017</th><th>2016</th></tr><tr><td>7,741,913.31</td><td>7,949,335.88</td><td>7,055,122.47</td></tr></table>								VITRO WATER CONSUMPTION	2018	2017	2016	7,741,913.31	7,949,335.88	7,055,122.47																																																																										
VITRO WATER CONSUMPTION	2018	2017	2016																																																																																								
7,741,913.31	7,949,335.88	7,055,122.47																																																																																									
			Breakdown by source:																																																																																								
	303-1	Water extraction by source	<table><tr><td>Surface (m³)</td><td>0%</td></tr><tr><td>Well water (m³)</td><td>65%</td></tr><tr><td>Rainwater capture (m³)</td><td>0%</td></tr><tr><td>Wastewater (m³)</td><td>0%</td></tr><tr><td>Municipal supply or delivery (m³)</td><td>35%</td></tr></table>								Surface (m³)	0%	Well water (m³)	65%	Rainwater capture (m³)	0%	Wastewater (m³)	0%	Municipal supply or delivery (m³)	35%																																																																							
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			Water extraction intensity 2.24 m³/Vitro output																																																																																								
6, 8, 12	303-3	Water recycled and reused	<table><tr><th></th><th>2018</th><th>2017</th><th>2016</th></tr><tr><td>Recycled and reused wastewater (m³)</td><td>2%</td><td>39.13%</td><td>39.52%</td></tr></table>									2018	2017	2016	Recycled and reused wastewater (m³)	2%	39.13%	39.52%																																																																									
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304. BIODIVERSITY																																																																																											
			We channel our support for environmental conservation through the nonprofit organization Organización Vida Silvestre (OVIS), created for the purpose of managing projects that protect wildlife and conserve them for future generations. OVIS helps conserve ecosystems through 38,303 hectares of private land spread across 4 environmental management units (EMUs) .																																																																																								
			<table><tr><td>El Carmen</td><td>Loreto, Baja California Sur, Mexico</td><td>Species</td><td>Quantity</td><td>(CR)</td><td>(EN)</td><td>(VU)</td><td>(NT)</td><td>(LC)</td></tr><tr><td>El Plomito</td><td>Piquito, Sonora, Mexico</td><td>Plants</td><td>567</td><td>0</td><td>1</td><td>4</td><td>0</td><td>3</td></tr><tr><td>La Mesa</td><td>Marín, Nuevo León, Mexico</td><td>Amphibians</td><td>14</td><td>0</td><td>0</td><td>2</td><td>0</td><td>1</td></tr><tr><td>Los Ébanos</td><td>Matamoros, Tamaulipas, Mexico</td><td>Reptiles</td><td>83</td><td>2</td><td>5</td><td>10</td><td>14</td><td>5</td></tr><tr><td colspan="2">Critical Endangered (CR)</td><td>Birds</td><td>449</td><td>3</td><td>2</td><td>13</td><td>28</td><td>1</td></tr><tr><td colspan="2">Endangered (EN)</td><td>Mammals</td><td>106</td><td>8</td><td>2</td><td>10</td><td>2</td><td>10</td></tr><tr><td colspan="2">Vulnerable (VU)</td><td>Fish</td><td>36</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td colspan="2">Near Threatened (NT)</td><td>Crustaceans</td><td>47</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td colspan="2">Least Concern (LC)</td><td>Total</td><td>1302</td><td>13</td><td>10</td><td>39</td><td>44</td><td>20</td></tr></table>								El Carmen	Loreto, Baja California Sur, Mexico	Species	Quantity	(CR)	(EN)	(VU)	(NT)	(LC)	El Plomito	Piquito, Sonora, Mexico	Plants	567	0	1	4	0	3	La Mesa	Marín, Nuevo León, Mexico	Amphibians	14	0	0	2	0	1	Los Ébanos	Matamoros, Tamaulipas, Mexico	Reptiles	83	2	5	10	14	5	Critical Endangered (CR)		Birds	449	3	2	13	28	1	Endangered (EN)		Mammals	106	8	2	10	2	10	Vulnerable (VU)		Fish	36	0	0	0	0	0	Near Threatened (NT)		Crustaceans	47	0	0	0	0	0	Least Concern (LC)		Total	1302	13	10	39	44	20
El Carmen	Loreto, Baja California Sur, Mexico	Species	Quantity	(CR)	(EN)	(VU)	(NT)	(LC)																																																																																			
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6, 14, 15	304-3	Habitats protected or restored																																																																																									
			and 16,778 leased hectares in Sonora, which help to preserve 1,302 species on the IUCN Red List, as shown in the following table For more information, visit https://ovis.org.mx/																																																																																								

ODS	CONT	DESCRIPTION	RESPONSE OR REFERENCE	INDEPENDENT ASSURANCE														
305. EMISSIONS																		
	305-1	Direct (Scope 1) GHG emissions	Environmental Footprint - Page 26 As part of its environmental strategy, Vitro reports and verifies Greenhouse Gas (GHG) emissions in Mexico through an external organization, according to standard NMX-SAA-14064-1-IMNC-2007, and using the heating values provided by the US Environmental Protection Agency (EPA). The value of our Scope 1 emissions is 1,259,136 metric tons of CO ₂ e as of November 2018. With 48% of our operations in the United States and Canada and 52% in Mexico, the rest of our emissions are produced by the remaining operations. In accordance with our markets, the Flat Glass division accounts for 91% of our scope 1 emissions and the other 9% comes from the Container division.	YES														
	305-2	Indirect (Scope 2) GHG emissions from power generation	Environmental Footprint - Page 26 As part of its environmental strategy, Vitro reports and verifies Greenhouse Gas (GHG) emissions in Mexico through an external organization, according to standard NMX-SAA-14064-1-IMNC-2007, and using the heating values provided by the US Environmental Protection Agency (EPA). The value of our Scope 2 emissions is 1,134,729 metric tons of CO ₂ e as of November 2018. With 44% of our operations in the United States and Canada and 55% in Mexico, the rest of our emissions are produced by the remaining operations. In accordance with our markets, the Flat Glass division accounts for 96% of our scope 2 emissions and the other 4% comes from the Container division.	YES														
	305-4	GHG emission intensity	GHG intensity in 2018 was 0.69 tCO ₂ e/output, a 1% reduction from the base year 2016. NOTE: Includes Scope 1 and 2 through November 2018.															
	305-5	Reduction of GHG emissions	We work to reduce energy consumption in our operations. We pursue initiatives to reduce our CO ₂ e (equivalent) emissions, such as consuming renewable energy, maintaining our equipment, automating air conditions, replacing manual controls with automatic temperature controls in our buildings, installing LED lighting, and others.															
	305-6	Emissions of ozone-depleting substances (ODS)	No emissions of substances that might damage the ozone layer (Mtons CFC-11e) were detected in our operations in 2018.															
	305-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	<div>Significant emissions totaled 7,166.22 metric tons in all of the Company's operations and in all the countries where we operate, as follows:</div> <table><tr><th>Air emissions</th><th>2018</th></tr><tr><td>NOX</td><td>70%</td></tr><tr><td>SOX</td><td>15%</td></tr><tr><td>COP</td><td>0%</td></tr><tr><td>COV</td><td>1%</td></tr><tr><td>HAP</td><td>0.01%</td></tr><tr><td>Partículas PM</td><td>15%</td></tr></table> <div>All these emissions are below the permissible limit in the various countries where we operate.</div>	Air emissions	2018	NOX	70%	SOX	15%	COP	0%	COV	1%	HAP	0.01%	Partículas PM	15%	
Air emissions	2018																	
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Partículas PM	15%																	

ODS	CONT	DESCRIPTION	RESPONSE OR REFERENCE	INDEPENDENT ASSURANCE																
306. WASTEWATER AND WASTE																				
	306-1	Water discharge by quality and destination	<table><tr><th>WASTEWATER DISCHARGE</th><th>2018</th></tr><tr><td>Directed discharge (m³)</td><td>58%</td></tr><tr><td>Disperse discharge (m³)</td><td>42%</td></tr></table>	WASTEWATER DISCHARGE	2018	Directed discharge (m³)	58%	Disperse discharge (m³)	42%											
WASTEWATER DISCHARGE	2018																			
Directed discharge (m³)	58%																			
Disperse discharge (m³)	42%																			
In 2018, Vitro produced 55,249 metric tons of hazardous waste, which were disposed of as shown in the following table.																				
			<table><tr><th>HAZARDOUS WASTE [MTON]</th><th>2018</th></tr><tr><td>Waste sent for reuse</td><td>0.01%</td></tr><tr><td>Waste sent for recycling</td><td>0.03%</td></tr><tr><td>Waste sent to composting</td><td>0%</td></tr><tr><td>Waste sent to recovery</td><td>0.06%</td></tr><tr><td>Waste sent to incineration</td><td>0.01%</td></tr><tr><td>Waste sent to confinement</td><td>99.92%</td></tr><tr><td>Waste permanently stored on-site</td><td>0%</td></tr></table>	HAZARDOUS WASTE [MTON]	2018	Waste sent for reuse	0.01%	Waste sent for recycling	0.03%	Waste sent to composting	0%	Waste sent to recovery	0.06%	Waste sent to incineration	0.01%	Waste sent to confinement	99.92%	Waste permanently stored on-site	0%	
HAZARDOUS WASTE [MTON]	2018																			
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Waste sent to confinement	99.92%																			
Waste permanently stored on-site	0%																			
3, 6, 12	306-2	Waste by type and disposal method	<p>We produced 287,172 tons of non-hazardous waste in the year, which were disposed of as follows:</p> <table><tr><th>NON-HAZARDOUS WASTE</th><th>2018</th></tr><tr><td>Waste sent for reuse</td><td>16%</td></tr><tr><td>Waste sent for recycling</td><td>21%</td></tr><tr><td>Waste sent to composting</td><td>0.00003%</td></tr><tr><td>Waste sent to recovery</td><td>0.0007%</td></tr><tr><td>Waste sent to incineration</td><td>0.02%</td></tr><tr><td>Waste sent to confinement</td><td>63%</td></tr><tr><td>Waste permanently stored on-site</td><td>0%</td></tr></table>	NON-HAZARDOUS WASTE	2018	Waste sent for reuse	16%	Waste sent for recycling	21%	Waste sent to composting	0.00003%	Waste sent to recovery	0.0007%	Waste sent to incineration	0.02%	Waste sent to confinement	63%	Waste permanently stored on-site	0%	YES
NON-HAZARDOUS WASTE	2018																			
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Waste sent to confinement	63%																			
Waste permanently stored on-site	0%																			
	306-3	Significant spills	There were no material or significant incidents of non-compliance with the law in 2018 that might have affected the ordinary course of the Company’s business or that of its subsidiaries as a result of such issues.																	
	306-4	Transportation of hazardous waste	All hazardous waste generated was channeled to specialized companies who guarantee their proper handling and disposal.																	
307. ENVIRONMENTAL COMPLIANCE																				
	307-1	Non-compliance with environmental laws and regulations	There were no material or significant incidents of non-compliance with the law in 2018 that might have affected the ordinary course of the Company’s business or that of its subsidiaries as a result of such issues.	YES																

ODS	CONT	DESCRIPTION	RESPONSE OR REFERENCE	INDEPENDENT ASSURANCE																																	
401. EMPLOYMENT																																					
5, 8	401-1	New employee hires and employee turnover	In 2018 there were a total of 3,929 new hires in the Company (including all our operations in Mexico)	YES																																	
			<table><tr><th colspan="2">NEW HIRES</th></tr><tr><td>19%</td><td>women</td></tr><tr><td>81%</td><td>men</td></tr></table>		NEW HIRES		19%	women	81%	men																											
			NEW HIRES																																		
			19%		women																																
			81%		men																																
			Breakdown by business:																																		
			<table><tr><th colspan="3">BREAKDOWN BY BUSINESS</th></tr><tr><th>NEW HIRES</th><th>MEN</th><th>WOMEN</th></tr><tr><td>FLAT GLASS</td><td>63.5%</td><td>10.5%</td></tr><tr><td>Architectural</td><td>22.9%</td><td>2.6%</td></tr><tr><td>Automotive</td><td>37.5%</td><td>7.7%</td></tr><tr><td>Álcali</td><td>4.8%</td><td>0.2%</td></tr><tr><td>CONTAINERS</td><td>14.6%</td><td>6.6%</td></tr><tr><td>Cosmos</td><td>12.1%</td><td>6.0%</td></tr><tr><td>FAMA</td><td>2.5%</td><td>0.5%</td></tr><tr><td>HEADQUARTERS</td><td>1.3%</td><td>1.7%</td></tr><tr><td>TOTAL</td><td>81%</td><td>19%</td></tr></table>		BREAKDOWN BY BUSINESS			NEW HIRES	MEN	WOMEN	FLAT GLASS	63.5%	10.5%	Architectural	22.9%	2.6%	Automotive	37.5%	7.7%	Álcali	4.8%	0.2%	CONTAINERS	14.6%	6.6%	Cosmos	12.1%	6.0%	FAMA	2.5%	0.5%	HEADQUARTERS	1.3%	1.7%	TOTAL	81%	19%
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Breakdown by age:																																					
<table><tr><th colspan="2">BREAKDOWN BY AGE</th></tr><tr><td>18-30</td><td>73.8%</td></tr><tr><td>31-50</td><td>25.3%</td></tr><tr><td>+50</td><td>0.9%</td></tr></table>	BREAKDOWN BY AGE		18-30	73.8%	31-50	25.3%	+50	0.9%																													
BREAKDOWN BY AGE																																					
18-30	73.8%																																				
31-50	25.3%																																				
+50	0.9%																																				
The percentage in 2018 was an average of 33.9% in all our operations in Mexico. Breakdown by business:																																					
<table><tr><th colspan="2">BREAKDOWN BY BUSINESS</th></tr><tr><th>BUSINESS</th><th>% TURNOVER</th></tr><tr><td>FAMA</td><td>28.8%</td></tr><tr><td>COSMOS</td><td>11.9%</td></tr><tr><td>Arquitectónico</td><td>47.8%</td></tr><tr><td>Automotriz</td><td>35.0%</td></tr><tr><td>ALCALI</td><td>46.2%</td></tr><tr><td>PROMEDIO</td><td>33.9%</td></tr></table>	BREAKDOWN BY BUSINESS		BUSINESS	% TURNOVER	FAMA	28.8%	COSMOS	11.9%	Arquitectónico	47.8%	Automotriz	35.0%	ALCALI	46.2%	PROMEDIO	33.9%																					
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ALCALI	46.2%																																				
PROMEDIO	33.9%																																				
8	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	Employee benefits - Page 24																																		

ODS	CONT	DESCRIPTION	RESPONSE OR REFERENCE	INDEPENDENT ASSURANCE											
5, 8	401-3	Parental leave	All employees are entitled to parental leave.												
			PATERNITY AND MATERNITY LEAVE	MEN	WOMEN	TOTAL									
			Number of employees that took parental leave	243	50	293									
			Employees that returned to work in the reporting period after parental leave ended	245	34	279									
			The reinstatement rate after parental leave is 95% in all our operations.												
402. LABOR-MANAGEMENT RELATIONS															
8	402-1	Minimum notice periods regarding operational changes	Note that all the periods of prior notice of organizational change established in our collective bargaining contracts are respected fully. These agreements also include an assurance of physical safety protection through the review and regular provision of personal protection equipment.												
403. OCCUPATIONAL HEALTH AND SAFETY															
8	403-1	Workers representation in formal joint management-worker health and safety committees	100% of our union agreements and collective bargaining agreements incorporate matters of health and safety through mixed labor-management commissions.												
3 y 8	403-2	Types of injury and rates of injury, occupational diseases, lost days, absenteeism, and number of work-related fatalities or illness	The Incident Rate (IR) is 0.9 incidents for every 100 employees The Days Lost Rate (DLIR) is 29.9 days for every 100 employees The General Illness Rate (GIR) is 4.7 days for every 100 employees The General Illness Days Lost Rate (GIDLR) is 110.6 days for every 100 employees. We report our incident index, which corresponds to the ratio of incidence frequency to seriousness, and this is another factor that reflects the well-being of our employees in the workplace, with a result of 236. Although we are committed to the full protection of all our employees, we regret to report one fatal work-related incident in 2018, an experience that led us to analyze the causes of the accident and to take additional protective measures. To reinforce our safety actions, Vitro introduced a Comprehensive Health and Safety System in all its workplaces. Introduction of this new model is conceived as a strategy to strengthen a proactive approach among production line heads to prevent accidents. The system includes specific targets for incidents, incapacitating incidents, days lost and incident rates for 2019, according to the following table:												
			INDICATOR	2018 (REAL)	2019										
			Incidents	1370	1140	YES									
			Incapacitating incidents	125	114										
			Incident Index	236	145										
			The breakdown by of incapacitating incidents and days lost by gender and region is as follows:			Note: M = Men F = Women									
			VITRO ARCHITECTURAL - UNITED STATES AND CANADA			VITRO MX & LATAM	VITRO AUTOMOTIVE EUROPE	VITRO GLOBAL							
			M	F	TOTAL	M	F	TOTAL	M	F	TOTAL				
			Incidents	18	2	20	23	22	45	50	10	60	91	34	125
			Days Lost	259	7	266	882	646	1528	2002	497	2499	3143	1150	4293
SEVERITY RATE	164.4	6.1	129.3	200.5	863.1	345.0	223.8	47.9	185.2	245.1	150.9	235.6			

ODS	CONT	DESCRIPTION	RESPONSE OR REFERENCE	INDEPENDENT ASSURANCE																										
3 y 8	403-3	Workers with high incidence or high risk of diseases related to their occupation	<p>The Comprehensive Health and Safety System (CHSS) is designed to ensure safe conditions in the workplace, and must be followed by every employee from the moment they join the Company.</p> <p>Through an evaluation of risks in equipment, materials and the environment, the Total Loss Control (TLC) system prevents and reduces the possibility of workplace injury.</p> <p>The goals of this system apply to contractors, suppliers, and visitors to our facilities, from the reception of raw materials to packaging of our products.</p>																											
8	403-4	Health and safety topics covered in formal agreements with trade unions	100% of our union agreements and collective bargaining agreements incorporate matters of health and safety through mixed labor-management commissions.																											
404. TRAINING AND EDUCATION																														
			<p>In 2018, 81% of our employees had access to at least one training course. Associates received on average 31.1 hours of training in 2018.</p> <p>By position:</p> <table><thead><tr><th>BY POSITION</th><th>TOTAL</th></tr></thead><tbody><tr><td>Directors</td><td>0.4%</td></tr><tr><td>Managers</td><td>2.6%</td></tr><tr><td>Employees</td><td>24.0%</td></tr><tr><td>Unionized</td><td>70.8%</td></tr></tbody></table> <p>By gender (includes only Mexico and Colombia operations):</p> <table><thead><tr><th>BY GENDER</th><th>TOTAL</th></tr></thead><tbody><tr><td>Men</td><td>77%</td></tr><tr><td>Women</td><td>23%</td></tr></tbody></table>	BY POSITION	TOTAL	Directors	0.4%	Managers	2.6%	Employees	24.0%	Unionized	70.8%	BY GENDER	TOTAL	Men	77%	Women	23%	YES										
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4, 5, 8	404-1	Average hours of training per year per employee	<p>By business:</p> <table><thead><tr><th>BY BUSINESS</th><th>TOTAL</th></tr></thead><tbody><tr><td>Vitro Architectural</td><td>15.7%</td></tr><tr><td>Vitro Automotive</td><td>45.8%</td></tr><tr><td>Chemicals and raw materials</td><td>6.2%</td></tr><tr><td>Containers</td><td>21.4</td></tr><tr><td>Machinery and Molds</td><td>4.9%</td></tr><tr><td>Corporate companies</td><td>3.8%</td></tr></tbody></table> <p>By topic:</p> <table><thead><tr><th>BY TOPIC</th><th>TOTAL</th></tr></thead><tbody><tr><td>Health and Safety</td><td>32%</td></tr><tr><td>Code of Ethics and Human Rights</td><td></td></tr><tr><td>Technical Knowledge</td><td>42%</td></tr><tr><td>Sustainability</td><td>7%</td></tr><tr><td>Others</td><td>17%</td></tr></tbody></table>	BY BUSINESS	TOTAL	Vitro Architectural	15.7%	Vitro Automotive	45.8%	Chemicals and raw materials	6.2%	Containers	21.4	Machinery and Molds	4.9%	Corporate companies	3.8%	BY TOPIC	TOTAL	Health and Safety	32%	Code of Ethics and Human Rights		Technical Knowledge	42%	Sustainability	7%	Others	17%	
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<p>These data include only training for permanent employees, excluding independent professionals outsourcing and interns. Additionally, language classes were given to 203 people in the organization.</p>																														

ODS	CONT	DESCRIPTION	RESPONSE OR REFERENCE	INDEPENDENT ASSURANCE																
1,5,8	404-3	Percentage of employees receiving regular performance and career development reviews	<p>In 2018, 71% of our employees and executives received a performance evaluation, which breaks down as follows:</p> <table><tr><th>BY GENDER</th><th>TOTAL</th><th>BY JOB CATEGORY</th><th>TOTAL</th></tr><tr><td>Men</td><td>74%</td><td>Executives</td><td>7.4%</td></tr><tr><td>Women</td><td>20%</td><td>Employees</td><td>92.6%</td></tr><tr><td>Unspecified</td><td>6%</td><td></td><td></td></tr></table> <p>NOTE: Executives include directors and managers</p>	BY GENDER	TOTAL	BY JOB CATEGORY	TOTAL	Men	74%	Executives	7.4%	Women	20%	Employees	92.6%	Unspecified	6%			YES
BY GENDER	TOTAL	BY JOB CATEGORY	TOTAL																	
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Unspecified	6%																			
405. DIVERSITY AND EQUAL OPPORTUNITY																				
5, 8, 10	405-1	Diversity of governance bodies and employees	<p>Governance structure and committees - Page 19</p> <p>See indicator 102-8. In 2018, we had 421 Older Adults (above 60), representing 2.8% of our total workforce. We also have the “Joining Talents” program, and at the close of 2018 we employed 34 people with disabilities.</p>	YES																
406. NON-DISCRIMINATION																				
5, 8, 16	406-1	Incidents of discrimination and corrective actions taken	<p>Discrimination is defined as any type of distinction, exclusion or preference that has the effect of denying equal treatment or opportunity, when this is based on prejudice rather than on legitimate reasons. Vitro prohibits discrimination in treatment or employment on the grounds of race, color, gender, age, language, ownership, nationality or country of origin, religion, ethnic group, disability, pregnancy, political affiliation or opinion, sexual preference or any other prejudice that might be grounds for discrimination. For more information on instances of discrimination in the reporting period see Page X; all complaints received in our Whistleblower System were analyzed and resolved and the corresponding measures taken.</p>																	
407. FREEDOM OF ASSOCIATION AND COLLECTIVE BARGAINING																				
	407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	<p>Vitro is committed to offering equal opportunities, training and professional development to its employees based only on merit, and to comply with laws on freedom of association, privacy, collective bargaining, immigration, work days, wages and hours, as well as laws prohibiting slavery, forced and child labor, human trafficking and workplace discrimination.</p>																	
408. CHILD LABOR																				
8, 16	408-1	Operations and suppliers at significant risk for incidents of child labor	<p>100% of our operations have Recruitment and Hiring policies that prohibit the employment of minors, as established in each country where we operate.</p> <p>We know that diversity is the basis for our success. For this reason, we are committed to recruiting, hiring and promoting our employees based solely on their work experience, job skills and respect for our values. We support a diverse, inclusive workplace, open communication, and channels for effective feedback. Additionally, we comply with all applicable labor laws, including the payment of wages and benefits, and we establish the controls necessarily to avoid all kinds of forced or child labor.</p>																	

ODS	CONT	DESCRIPTION	RESPONSE OR REFERENCE	INDEPENDENT ASSURANCE
409. FORCED OR COMPULSORY LABOR				
8	409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	100% of our operations have Recruitment and Hiring policies that prohibit the employment of minors, as established in each country where we operate. We know that diversity is the basis for our success. For this reason, we are committed to recruiting, hiring and promoting our employees based solely on their work experience, job skills and respect for our values. We support a diverse, inclusive workplace, open communication, and channels for effective feedback. Additionally, we comply with all applicable labor laws, including the payment of wages and benefits, and we establish the controls necessarily to avoid all kinds of forced or child labor.	
410. SECURITY PRACTICES				
16	410-1	Security personnel trained in human rights policies or procedures	As of December 31, 2018, 58% of our Security Personnel had been trained in Human Rights issues. NOTE: This includes the Vitro Code of Ethics course	
411. RIGHTS OF INDIGENOUS PEOPLES				
2	411-1	Incidents of violations involving rights of indigenous peoples	There were no material or significant incidents of non-compliance with the law in 2018 that might have affected the ordinary course of the Company's business or that of its subsidiaries as a result of such issues.	
412. HUMAN RIGHTS ASSESSMENT				
	412-1	Operations that have been subject to human rights reviews or impact assessments	The Quality of Life at Work Survey provides our employees and opportunity to self-evaluate, and it is applied in 100% of our workplaces, addressing issues relating to human rights at work; based on the results of this Survey we have identified no potential impact in the area of human rights.	
	412-2	Employee training on human rights policies or procedures	A variety of courses on human rights were given in the organization, with a total of 122,296 work-hours given to executives, employees and union members. NOTE: This includes the Vitro Code of Ethics course.	
	412-3	Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	At Vitro, our suppliers are key to the Company's growth. Our relationship with suppliers is based on mutual benefit, trust, and a long-term commercial relationship. We therefore conduct our relationships, trade agreements and contracts with suppliers in an honest, transparent manner, offering equal opportunities for all parties by presenting proposals, obtaining contracts and respecting human rights.	

ODS	CONT	DESCRIPTION	RESPONSE OR REFERENCE	INDEPENDENT ASSURANCE								
413. LOCAL COMMUNITY												
	413-1	Operations with local community engagement, impact assessments, and development programs	100% of our operations participate in local communities through Health Campaigns, family and volunteer events, some of which are mentioned in the Social Impact section on Page 28.	YES								
416. CUSTOMER HEALTH AND SAFETY												
	416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	There were no material or significant incidents of non-compliance with the law in 2018 that might have affected the ordinary course of the Company’s business or that of its subsidiaries as a result of such issues.									
417. MARKETING AND LABELING												
	417-1	Requirements for product and service information and labeling	The only Vitro product that directly reaches end consumers is table salt, produced by Industrias del Álcali. Because of the nature of this product, we follow specific labeling regulations and comply with the Mexican Official Standard 040-SSA1-1993, which establishes labeling requirements for table salt and controls the use and consumption of iodized salt, so that end consumers can make informed decisions. We ensure that our products meet the highest quality standards, including ISO-9001 and ISO-22000 certification, as well as the National Chemical Industry Association’s Comprehensive Stewardship System (SARI).	YES								
	417-2	Incidents of non-compliance concerning product and service information and labeling	<div><div>The only Vitro product directly present with end consumers is table salt, produced by Industrias del Álcali. Because of the nature of this product, we follow specific labeling regulations and comply with the Mexican Official Standards.</div><div>Reports of Client Complaints at Industrias de Álcali for failure to comply with packaging and labeling standards.</div><table><tr><td>NOM-040-SSA1-1994</td><td>None</td></tr><tr><td>NOM-051-SCFI-1994</td><td>None</td></tr><tr><td>NOM-030-SCFI</td><td>None</td></tr><tr><td>NOM-010-STPS-2015</td><td>None / in the process of implementation</td></tr></table></div>	NOM-040-SSA1-1994	None	NOM-051-SCFI-1994	None	NOM-030-SCFI	None	NOM-010-STPS-2015	None / in the process of implementation	YES
NOM-040-SSA1-1994	None											
NOM-051-SCFI-1994	None											
NOM-030-SCFI	None											
NOM-010-STPS-2015	None / in the process of implementation											
	417-3	Incidents of non-compliance concerning product and service information and labeling	There were no incidents relating to non-compliance with regulations on marketing communications, including advertising, promotion and sponsorships.									
418. CUSTOMER PRIVACY												
16	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	In 2018, there were no identified claims of violations of customer privacy or loss of customer data. Users of the websites of Vitro and its subsidiaries are entitled to exercise their ARCO rights (Access, Rectification, Cancellation and Opposition) by directly sending their request to the person responsible at the e-mail protecciondedatos@vitro.com For more information about Vitro’s Privacy Notice, visit the corporate website at vitro.com/es/aviso-de-privacidad	YES								
419. SOCIOECONOMIC COMPLIANCE												
	419-1	Non-compliance with laws and regulations in the social and economic area	There were no material or significant incidents of non-compliance with the law in 2018 that might have affected the ordinary course of the Company’s business or that of its subsidiaries as a result of such issues.	YES								

Independent assurance report on the 2018 Annual Report to Vitro, S.A.B. de C.V., to the Management of Vitro.

Responsibilities of Vitro and independent reviewer


The Management of Vitro is responsible for the elaboration of the 2018 Annual Report (AR) for the period from January 1st to December 31st, 2018, as well as ensuring its content, definition, adaptation and maintenance of the management systems and internal control from which the information is obtained, and which is also free of material misstatement due to fraud or error. Our responsibility is to issue an independent report based on the procedures applied during our review.

This report has been prepared exclusively in the interest of Vitro in accordance with the terms of our agreement letter dated January 24th, 2018, therefore we do not assume any responsibility to third parties and is not intended to be nor should it be used by someone other than the Management of Vitro.

Scope of our work

The scope of our assurance was limited which is substantially lower than a reasonable assurance scope, therefore the assurance provided is also lower. This report in no case can be understood as an audit report.

We conducted the 2018 AR review under the following conditions and/or criteria:

- 
- a) The review of the GRI Standards disclosures in accordance with the reporting requirements as specified in the GRI Content Index of the 2018 AR.
 - b) The data consistency between the information included in the 2018 AR with supporting evidence provided by the Management.

We have complied with the independence and ethics requirements of the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants (IESBA Code) based on integrity, objectivity, professional competence and due care, confidentiality and professional behavior principles.


Assurance standards and procedures

We have performed our work in accordance with the International Auditing Standard ISAE 3000 Revised Assurance Engagements other than Audits or Reviews of Historical Financial Information issued by the International Auditing and Assurance Standards Boards (IAASB) of International Federation of Accountants (IFAC).

Our review work included the formulation of questions to the Management as well as various departments of Vitro that have participated in the elaboration of the 2018 AR and the application of certain analytical and sample screening tests procedures that are described below:

- a) Meetings with staff of Vitro to learn the principles, systems and applied management approaches.
- b) Analysis of the process to collect, validate and consolidate the data presented in the 2018 AR.
- c) Analysis of scope, relevance and integrity of the information included in the 2018 AR in terms of the understanding of Vitro and of the requirements that stakeholders have identified as material aspects.
- d) Selected sample review from the evidence that supports the information included on the 2018 AR.
- e) Quality assurance by an independent partner of the project that verifies consistency between this report and the proposal, as well as work process quality and deliverables.

The following table details the revised contents according with the Sustainability Reporting Standards Guideline:



102-15	302-1	401-1 (new employee hires)	413-1
102-17	305-1	403-2	417-1
102-41	305-2	404-1	417-2
102-8	306-2	404-3	418-1
205-2	307-1	405-1	419-1

These indicators were selected for the independent review in accordance with the following criteria:

- a) Materiality of Vitro referred in the 2018 AR.
- b) Information provided during the meetings with the interviewed staff.
- c) Review of the evidence provided by Vitro staff of this project.

Conclusion

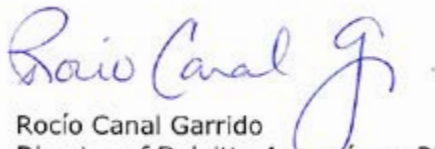
Based on our work described in this report, the performed procedures and the evidence obtained, nothing comes to our attention that could make us believe that the indicators and disclosures reviewed in the 2018 AR contain significant errors or have not been prepared in accordance with the reporting requirements established in the GRI Standards. For those GRI Standards disclosures and indicators of the Disclosure Sector where Vitro did not report in quantitative terms (numeric) the independent reviewer reviewed the qualitative information, which includes procedures, policies, evidence of the activities performed, among others.

Action alternatives

Deloitte has provided Vitro a report with the most significant action alternatives for future reporting, which do not modify the conclusions expressed in this independent review report.

Deloitte Asesoría en Riesgos, S.C.

Deloitte Touche Tohmatsu Limited affiliate Firm



Rocío Canal Garrido
Director of Deloitte Asesoría en Riesgos, S.C.
April 3rd, 2019

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STOCK MARKET

Bolsa Mexicana de Valores (BMV)
Ticker Symbol
VITROA

Dividend Policy

The declaration, amount and payment of dividends, are determined by the majority of shareholders entitled to vote at the Ordinary General Shareholders' Meeting. This decision is generally based on the recommendation of the Board of Directors. The terms and conditions for dividend payment, declared by the relevant Ordinary General Shareholders' Meeting, are generally proposed by the Board of Directors, whose purpose regarding dividends is to maintain a sound financial structure that allows the Company to pay dividends consistently.

This annual report refers to various brands, which are the property of their respective owners, for the sole purpose of informing the performance of Vitro's industrial and commercial activities to its shareholders and the general public, to comply with legal requirements applicable to companies that are listed on stock markets. This annual report may contain certain forward-looking statements and information related to Vitro, S.A.B. de C.V. ("Vitro" or "The Company") and its subsidiaries, which reflect Vitro's current outlook and/or expectations regarding its performance, business and future events. Forward-looking statements include, without limitation, any statement that may predict, project, indicate or imply future results or events, performance or achievements, and may contain such words as "believe", "anticipate", "expect", "estimate", "could", "foresee", "potential", "could be", and other words and phrases of similar meaning. Such statements are subject to several risks, uncertainties and assumptions. We caution you, that a number of important factors could cause actual results to differ materially from the plans, objectives, expectations, estimates and intentions expressed in this document. In no event shall Vitro or any of its subsidiaries, affiliates, shareholders, executives, general managers, agents or employees be liable to third parties (including investors) for any investment, business decision of any type or action taken contingent on the information or statements contained within this document, or any consequential, special or similar damage. This document and its contents are proprietary information, and may not be reproduced or disseminated, complete or partially, without Vitro's prior written consent.

