\*Notice: this document is an English translation of a Spanish-language document and is provided for information purposes only. In the event of any discrepancy, the text of the original Spanish language document shall prevail. The Spanish-language document is available on the following websites: <u>https://www.orbia.com/investor-relations/</u> and <u>www.bmv.com.mx</u>

### **ANNUAL REPORT 2019**

### SUBMITTED PURSUANT TO THE GENERAL PROVISIONS APPLICABLE TO ISSUERS OF SECURITIES AND OTHER MARKET PARTICIPANTS

FOR THE YEAR ENDING 31 DECEMBER 2019



### Orbia Advance Corporation, S.A.B. de C.V.

### Financial figures presented in millions of US dollars (\$)

Avenida Paseo de la Reforma 483, piso 47, Colonia Cuauhtémoc, Alcaldía Cuauhtémoc, Ciudad de México, 06500 Tel. 5366 4000

### Orbia Advance Corporation S.A.B. de C.V. securities listed on the Bolsa Mexicana de Valores, S.A.B. de C.V. (Mexican Stock Exchange).

**I. Orbia Advance Corporation, S.A.B. de C.V.-** (The Company) lists Series One, Class "I" and "II" shares representing the fixed part of its capital stock without right of withdrawal and the variable part of its capital stock, respectively. The shares confer the same corporate and patrimonial rights to their holders.

### Ticker Symbol: ORBIA\*

The ORBIA "\*" Series shares (sole) are registered in the National Securities Registry (RNV - acronym in Spanish) and are listed on the Bolsa Mexicana de Valores, S.A.B. de C.V.

The credit risk rating assigned to the ORBIA "\*" Series shares by Standard & Poor is 'BBB-' on a global scale and 'mxAA/mxA-1+ on a national scale with a stable outlook, by Fitch Ratings is 'BBB' on a global scale and 'AA+' (mex) on a long-term national scale with a stable outlook, and by Moody's is 'Baa3' on a global scale.

Registration in the National Securities Registry does not imply certification of the quality of the securities, the solvency of the Issuer or the accuracy or veracity of the information contained in the Annual Report, nor does it validate any acts that may have been carried out in contravention of the laws.



**II. Orbia Advance Corporation, S.A.B. de C.V.** has the following outstanding share recorded in the National Securities Registry:

Under a Revolving Stock Exchange Certificates Program for an amount of up to 10,000 million Mexican pesos or the equivalent in Investment Units (UDI – acronym in Spanish), authorized by the National Banking and Securities Commission, on March 15, 2012, by means of document number 153/8167/2012, for a period of up to 5 years as of the latter date, Orbia Advance Corporation, S.A.B. de C.V., placed and listed its third issue of 30,000,000 long term Stock Exchange Certificates, with ticker symbol ORBIA 12, with the following characteristics:

ITEM	DESCRIPTION				
Date of Issue:	March 21, 2012				
Maturity Date:	March 9, 2022				
Issue Term:	3,640 days, approximately 10 years				
Par Value:	\$100.00 (MXN one hundred pesos and zero cents) each				
Gross Annual Interest Rate applicable to the Issue:	8.12% (eight point twelve percent), which will remain fixed throughout the third issue period.				
	The interest accrued by the Stock Exchange Certificates during each interest period, and the calculations to determine the amount payable, shall include the calendar days that have effectively elapsed up to the corresponding Interest Payment Date. Payments shall be rounded to two decimal places.				
	To determine the amount of interest payable in each Interest Period on the Stock Exchange Certificates, the Joint Representative shall use the formula and follow the terms and conditions set forth in the corresponding security.				
Interest Payment Intervals:	The interest accrued on Stock Exchange Certificates shall be paid every 182 (one hundred and eighty-two) days, in accordance with the calendar and on the dates stipulated on the corresponding certificate.				
Place and Method of Payment of Interest and Principal:	The principal will be amortized, and the ordinary interest accrued on the Stock Exchange Certificates will be paid, on the date it becomes due and on each of the interest payment dates respectively, by means of electronic transfer of funds, through Indeval, whose address is Paseo de la Reforma No. 255, Piso 3, Col. Cuauhtémoc, C.P. 06500, México D.F. or, if applicable, at the Issuer's offices located at Avenida Paseo de la Reforma 483, piso 47 entre Río Elba y Río de la Plata, Colonia Cuauhtémoc, Alcaldía Cuauhtémoc, Ciudad de México, 06500. The amount owed for arrears interest must be paid at the Issuer's address, in the same currency as the principal amount.				
Amortization:	The Stock Exchange Certificates will be amortized in full upon maturity, i.e. on March 9, 2022, in one installment, by means of electronic transfer and against submission of the corresponding certificate.				
Accelerated Amortization:	The Issuer may accelerate amortization of all (but not part) of the Stock Exchange Certificates on any date prior to their maturity date at a price equal to the Accelerated Amortization Price (as set forth on the relevant certificate), plus accrued and unpaid interest on the principal of the Stock Exchange Certificates, on the accelerated amortization date. Under no circumstances shall the Accelerated Amortization Price be less than 100% (one hundred percent) of the par value of the Stock Exchange Certificates on the Accelerated Amortization date.				
Guarantee	This issuance of Stock Exchange Certificates is guaranteed by the Company's subsidiaries Mexichem Compuestos, S.A. de C.V., Mexichem Amanco Holding, S.A. de C.V., Mexichem Derivados, S.A. de C.V., Mexichem Resinas Vinílicas, S.A. de C.V., Mexichem Flúor, S.A. de C.V., and Mexichem Brasil Industria de Transformação Plástica Ltda. (" <u>Mexichem Brasil</u> "), the latter guarantor is a Brazilian corporation and all of its assets are located outside Mexico. In the event of Mexichem Brasil's insolvency or bankruptcy, the claims of the Holders under the Stock Exchange Certificates will be subject to the preemptive rights set forth by the laws in force in Brazil.				

ITEM	DESCRIPTION
Joint Representative:	The Bank of New York Mellon, S.A.
Depository:	S.D. INDEVAL Institución para el Depósito de Valores, S.A. de C.V.
Tax Regime:	Tax Regime: The withholding rate applicable, on the date of the Supplement, with respect to interest paid pursuant to the Stock Exchange Certificates is subject to. (i) for individuals or legal entities domiciled in Mexico for tax purposes, the provisions of articles 58, 160 and other applicable articles of the Income Tax Act in force and article 21 of the Federal Revenue Act for the 2012 tax year, as well as complementary provisions, and (ii) for individuals and legal entities domiciled outside of Mexico for tax purposes, the provisions of articles 179, 195 and other applicable articles of the Income Tax Act in force and will depend on the beneficiary of the interests. POTENTIAL PURCHASERS OF STOCK EXCHANGE CERTIFICATES SHOULD CONSULT THEIR ADVISORS ON THE TAX CONSEQUENCES OF THEIR INVESTMENT IN THE STOCK EXCHANGE CERTIFICATES, INCLUDING THE APPLICATION OF SPECIFIC RULES WITH RESPECT TO THEIR PARTICULAR SITUATION. THE CURRENT TAX REGIME MAY BE MODIFIED DURING THE DURATION OF THE PROGRAM AND DURING THE TERM OF THIS ISSUE. THERE IS NO OBLIGATION TO REPORT CHANGES IN THE APPLICABLE TAX
	PROVISIONS DURING THE TERM OF THE CERTIFICATES.

### Ticker Symbol of the Stock Exchange Certificates: ORBIA 12

For the ORBIA 12 issue, the credit risk rating assigned by Standard & Poor's is 'mxAA/mxA-1+' on a national scale with a stable outlook and by Fitch Ratings is 'AA+ (mex)' with a stable outlook.

### **Current Stock Exchange Certificates Program**

On November 3, 2017, the National Banking and Securities Commission (CNBV) authorized a new program for revolving stock exchange certificates for the amount of up to 10,000 million Mexican pesos or their equivalent in UDIs through official document number: 153/10875/2017, for 5 years (maturity November 3, 2022).

The purpose of this current program is to be able to issue debt several times in the Mexican stock market. The authorization of this new program does not imply any current or future issuance of debt by Orbia and does not change any of the conditions of the ORBIA 12 issue.

## Policies regarding changes in control, corporate restructurings (including mergers, acquisitions and spin-offs), sale and/or constitution of liens on essential assets of the Issuer, during the term of the ORBIA 12 issue:

As of December 31, 2019, certain financings and Senior Notes or International Bonds issued in 2012, 2014 and 2017 set forth certain restrictions, among which are restrictions on the lien or mortgage of properties, the sale and subsequent lease of assets and limitations on the consolidation, merger or transfer of assets of the Issuer.

Among the negative covenants contained in the current financing of the Company are those typical for this type of corporate financing such as:

(i) <u>Change of control</u>: Debt acceleration clauses in the event of a change of control, pursuant to applicable legislation.

(ii) <u>Corporate Restructuring</u>: Certain restrictions focused on limiting the consolidation, merger and/or transfer of various Issuer assets.

(iii) <u>Essential assets</u>: Various restrictions related to the granting or imposition of liens on certain properties, as well as the imposition of liens on the Company's assets.

**III. Orbia Advance Corporation, S.A.B. de C.V.** has the following outstanding international debt instruments denominated in Dollars:

On September 19, 2012, Orbia Advance Corporation, S.A.B. de C.V., issued and placed Senior Notes for a total amount of \$1,150 million, in two blocks: one of \$750 million, for a ten-year term with a fixed rate coupon of 4.875% and another of \$400 million, for a thirty-year term with a fixed rate coupon of 6.75%. In both blocks of Senior Notes, interest is paid every six months on March 19 and September 19 as of the issue date and until they mature on September 19, 2022 and September 19, 2042, respectively. The Senior Notes have been listed on the Luxembourg Stock Exchange and for trading on the Euro MTF Market. These Senior Notes have not been registered in the National Securities Registry, nor have they been authorized by the National Banking and Securities Commission, nor have they been registered under the regulations of the U.S. Securities Act of 1933, which governs securities transactions in that country, they were only offered to purchasers in the U.S. deemed to be qualified investors as defined by Rule 144-A or Rule 144-A of the U.S. Securities Act, and to purchasers outside the U.S., who do not reside in the U.S., under "Regulation S" of the U.S. Securities Act.

For this issue, Fitch Ratings issued a 'BBB-' rating and Moody's a 'Ba1' rating to the Senior Note for \$400 million maturing in 2042 as well as the Senior Note for \$750 million maturing in 2022. As of the date of this Annual Report, the rating assigned to Orbia's credit risk by Fitch Ratings is 'BBB' with a stable outlook, while the rating assigned by Moody's is 'Baa3' with a stable outlook.

On September 17, 2014, the Company issued and placed Senior Notes for a total amount of \$750 million with a term of thirty years, which accrue a fixed annual rate of 5.875%, payable every six months on March 17 and September 17 as of their issue date until they mature on September 17, 2044. The Senior Notes have been listed on the Luxembourg Stock Exchange and for trading on the Euro MTF Market. These Senior Notes have not been registered in the National Securities Registry, nor have they been authorized by the National Banking and Securities Commission, nor have they been registered under the regulations of the U.S. Securities Act of 1933, which governs securities transactions in that country, they were only offered to purchasers in the U.S. deemed to be qualified investors as defined by Rule 144-A of the U.S. Securities Act, and to purchasers outside the U.S., who do not reside in the U.S., under "Regulation S" of the U.S. Securities Act.

The credit rating assigned for this issue by Standard & Poor's was 'BBB-' on a long-term global scale, Fitch Ratings assigned 'BBB' and by Moody's assigned 'Baa3'. As of the date of this Annual Report, the rating assigned to Orbia's credit risk by Standard & Poors is 'BBB-' on a global scale with a stable outlook, Fitch Ratings assigned 'BBB' with a stable outlook, while the rating assigned by Moody's is 'Baa3' with a stable outlook.

On October 4, 2017, Orbia issued and placed Senior Notes for a total amount of \$1,000 million in two tranches, \$500 million for a ten-year term (maturing on October 4, 2027) and \$500 million for a thirty-year term (maturing on January 15, 2048), which accrue a fixed annual rate of 4.0% and 5.50%, respectively, payable every six months on April 4 and October 4, for the first tranche, and on January 15 and July 15 for the second tranche. The Senior Notes have been listed on the Luxembourg Stock Exchange and for trading on the Euro MTF Market. These Senior Notes have not been registered in the National Securities Registry, nor have they been authorized by the National Banking and Securities Commission, nor have they been registered under the regulations of the U.S. Securities Act of 1933, which governs securities transactions in that country, they were only offered to purchasers in the U.S. deemed to be qualified investors as defined by Rule 144-A of the U.S. Securities Act, and to purchasers outside the U.S., who do not reside in the U.S., under "Regulation S" of the U.S. Securities Act.

The credit rating assigned for this issue by Standard & Poor's was 'BBB-' (Outlook: Stable), Fitch Ratings assigned a BBB rating (Outlook: Negative) and Moody's assigned a 'Baa3' rating (Outlook: Stable). As of the date of this Annual Report, the rating assigned to Orbia's credit risk by Standard & Poors is 'BBB-' on a global scale with a stable outlook, Fitch Ratings assigned a rating of 'BBB' with a stable outlook, while the rating assigned by Moody's is 'Baa3' with a stable outlook.

### **Table of Contents**

		Page
	1. General Information	
a)	Glossary of Terms and Definitions	7
b)	Executive Summary	13
c)	Risk Factors	2119
d)	Other Values	51
e)	Significant Changes to the Rights to Securities Registered in the RNV	52
f)	Destination of Funds	53
g)	Public Documents	51
	2. The Issuer	
a)	History and Development	54
b)	Business Description	68
i.	Main Activity	70
ii.	Distribution Channels	78
iii.	Patents, Licenses, Trademarks and Other Contracts	109
iv.	Main Clients	110
٧.	Applicable Legislation and Tax Situation	111
vi.	Human Resources	113
vii.	Environmental Performance	114
viii.	Market Information	118
ix.	Corporate Structure	118
х.	Description of Main Assets	119
xi.	Judicial, Administrative or Arbitration Proceedings	123
xii.	Shares Representing Capital Stock	123
xiii.	Dividends	124
	3. Financial Information	
a)	Selected Financial Information	126
b)	Financial Information by Business Line, Geographic Zone and Export Sales	131
c)	Relevant Credit Report	132
d)	Discussion and Analysis of Financial Position and Operating Results by Management	140
i. 	Operating Results	142
ii.	Financial Position, Liquidity and Capital Resources	152
iii.	Internal Control	156
e)	Critical and Accounting Estimates, Provisions or Reserves	158
	4. Administration	
a)	External Auditor	160
b)	Related Party Transactions and Conflicts of Interest	160
c)	Directors and Shareholders	161
d)	Corporate Bylaws and Other Agreements	175
	5. Capital Markets	
a)	Shareholding Structure	181
b)	Stock Market Behavior	181
c)	Market Formator	182

### 6. Responsible Persons

### 7. Annexes

- a) Audited Financial Statements for the Years Ending December 31, 2019, 2018 and 2017.
- b) Reports of the Audit Committee for the Years Ending December 31, 2019, 2018 and 2017.

### 1. GENERAL INFORMATION

#### a) Glossary of terms and definitions

The terms used in this Annual Report and listed below shall have the meanings given below. They shall apply equally to the singular and plural forms, which shall be used throughout this document to refer to this glossary:

**Hydrochloric acid**: means an aqueous hydrogen chloride solution. It is the most used acid in the industry after sulfuric acid. It is used for descaling metals and as a neutralizer, reducer and intermediate in organic and inorganic synthesis in the chemical industry, as well as to make cleaning products.

**Hydrofluoric acid or HF**: means a chemical compound produced by mixing calcium fluoride (fluorite) with sulfuric acid. It is mainly used to produce refrigerant gases and fluoropolymers.

**Phthalic anhydride**: means the chemical product used as a raw material to produce plasticizers for plastics, mainly PVC (polyvinyl chloride). It is also used to manufacture polyester resins, alkyd resins, polyols and pigments. Orbia produces phthalic anhydride at its Altamira petrochemical complex.

ANIQ: means the National Association of the Chemical Industry (Asociación Nacional de la Industria Química) in Mexico.

AMEA stands for Asia, Middle East and Africa.

**AMANCO:** means Mexichem Amanco Holding, S.A. de C.V., a holding company of PVC pipe producers and Latin America's leader in water conduction systems.

**ASTM** stands for the American Society for Testing Materials.

BEPS stands for Base Erosion and Profit Shifting.

**International Bonds, Notes or "Senior Notes"**: debt instruments issued by the Company in Dollars in different international markets and not registered in the RNV.(See Section III of the Cover of this Annual Report) Senior Notes have a preferential payment priority over the rest of the Company's unsecured sovereign debt and are unconditionally secured by certain subsidiaries of the Company.

BMV: means Bolsa Mexicana de Valores, S.A.B. de C.V. (the Mexican Stock Exchange)

Camesa: means Grupo Industrial Camesa, S.A. de C.V.

Stock Exchange Certificates or CEBURES: means the negotiable instruments placed for public investors on the Mexican stock market, representing the individual participation of their holders in a collective debt of legal entities or trust property.

**CFE:** means Federal Electricity Commission (Comisión Federal de Electricidad), which is the agency in charge of generating, transmitting, distributing, and marketing electricity in Mexico.

**Single Issuer Circular:** the general provisions applicable to issuers of securities and other participants in the CNBV-issued securities market.

**Clinker:** means an intermediate cement product made by mixing limestone, clay and calcined iron oxide in a kiln at about 1,450 degrees Celsius. One metric ton of clinker is used to make approximately 1.1 metric tons of gray Portland cement.

**Chlorine:** means a pale green, gaseous chemical element belonging to the halogen group. Chlorine is used mainly to manufacture PVC, paint, insecticides, paper and dyes, as well as to kill bacteria in water.

**CNBV:** means the National Banking and Securities Commission (Comisión Nacional Bancaria y de Valores), a decentralized agency of the Ministry of Finance and Public Credit that supervises and regulates financial institutions and issuers of securities in order to ensure their stability and proper functioning in Mexico.

**Compounds:** means physical mixtures of different materials made to achieve combinations of properties that cannot be obtained from the original materials. In the case of Orbia, at least one of the components is polymer matrices, mainly PVC, but polyolefins, styrenes, and engineering plastics can also be used.

Acid grade concentrate or acid grade fluorite: means fluorite mineral (calcium fluoride) from which impurities are removed through a process of selective milling / flotation to comply with a chemical specification of calcium fluoride, 97% minimum content; silica (SiO2), 1.1% maximum content; calcium carbonate (CaCO3), 1.2% maximum content. It also complies with a physical particle size specification. Acid grade concentrate is used to manufacture HF (base for producing refrigerants), aluminum trifluoride, ceramics, propellants, nonstick coatings, among others.

Control (Control Group): the ability of a person or group of persons to perform any of the following acts:

- a) Make, directly or indirectly, decisions at general meetings of shareholders, partners or equivalent bodies, or appoint or remove a majority of the directors, administrators or equivalent of a legal entity.
- **b)** Maintain ownership of rights, directly or indirectly, to vote in respect of more than fifty percent of a legal entity's share capital.
- c) Directing, either directly or indirectly, the administration, strategy or major policies of a legal entity, whether through ownership of securities, by contract or by any other means.

**Copolymer:** means the result of a two-monomer polymerization. The most common polymerization in the vinyl industry is the combination of vinyl chloride monomer with vinyl acetate monomer. The products obtained from this polymerization are called copolymers because two different types of monomer are linked. Copolymers impart different properties to homopolymers, the main one being a reduction in the softening point of a product for better processing and greater flexibility. It is used mainly to make floor tiles, packaging sheets and carpet bases.

**Cracker:** means the system in which different petrochemical products are separated using steam at very high temperatures.

**Dollars**: means the legal tender of the United States, which is the Company's functional and reporting currency.

**Dura-Line**: Dura-Line Corporation, a subsidiary of Orbia and part of the Fluent business group. It conforms the Data Communications Business.

ECU: an electrochemical unit consisting of one unit of chlorine and 1.1 units of caustic soda.

EDC: ethyl dichloroethane.

USA or U.S.A. the United States of America.

**Ethylene:** a gaseous, colorless and flammable hydrocarbon. It is widely used in the petrochemical industry as a raw material for manufacturing polyethylene and PVC resins, as well as ethylene oxide.

Euro or €: the legal tender of the European Union.

**Eurostat:** the Eurostat Economist Intelligence Unit.

**Exploration:** work performed in the ground to identify mineral deposits, as well as quantify and assess any economically exploitable reserves they contain.

**Exploitation:** work to prepare and develop the area comprising the mineral deposit, as well as work to separate and extract mineral products in the deposit.

Fluorite: means the trade name of the mineral calcium fluoride.

Fluorita de México or FDM: means Fluorita de México, S.A. de C.V.

Fluorocarbons: means chemical compounds containing carbon-fluorine bonds.

Aluminum Fluoride or AIF3: means aluminum trifluoride, an inorganic compound used in the electrolytic production of aluminum to lower its melting point, and as a flux.

**Phosphates:** phosphoric acid salts or esters. They are used in various industries, such as soap, soft drinks, food and water treatment.

**Geosynthetics:** means materials composed primarily of polymers such as polypropylene, polyester, polyamide and polyethylene that are transformed into sheets, mantles or three-dimensional structures to be used in contact with soils or other geotechnical materials for different purposes in the world of construction, such as road works, hydraulic works, erosion control systems and environmental activities, among others. The most common types of geosynthetics used in engineering are geotextiles, geogrids, geomembranes, geonets, geocomposites and mantles for erosion control.

**Metallurgical grade:** means fluorite ore selected for its calcium fluoride content and subjected to reduction in size and classification, defined in accordance with customer requirements, and used to produce steel and cement.

**GRI:** stands for the Global Reporting Initiative, an organization created in 1997 by the Coalition of Environmentally Responsible Economies (CERES) and the United Nations Environment Programme (UNEP). The GRI developed the "Sustainability Reporting Standards", the first version of which was published in 2000, the second in 2002 and the third in 2006. Its mission is to improve the quality, rigor and usefulness of sustainability reports so they attain a level equivalent to that of financial reports. It is fundamentally based on the implementation of the triple bottom line: economic, social and environmental. From 2014 GRI introduced changes in the reporting and assessment structure and, through the G-4 Guidelines, the "A+" assessment is gone and the focus is set on Materiality Disclosure. In 2016, GRI launched the first global standards for sustainability reporting that allow all organizations to publicly report on their economic, environmental and social impacts and show how they contribute to sustainable development. The GRI Standards include all the main concepts and disclosures of the GRI G4 Guidelines, enhanced with a more flexible structure, clearer requirements and simpler language.

**Business group:** means the Company divisions made up of one or more businesses, as this item is defined below, brought together by the type of solutions offered to meet the most pressing demands, such as ensuring an adequate supply of water and sources of food for people, within the context of sustainability.

**Sodium hypochlorite:** a clear, slightly yellow (amber), aqueous solution with a characteristic penetrating and irritating odor, containing sodium hydroxide and sodium carbonate. It is widely used for cleaning products.

HDPE stands for high density polyethylene.

**HIS-PVC** stands for suspension PVC resin with high-impact suspension-PVC properties.

**Homopolymer:** means the product obtained from the combining or polymerization of several molecules of a single type or monomer and which may have different characteristics in accordance with their chemical nature. In the case of PVC resins, the monomer used for polymerization is vinyl chloride (VCM), whose molecules, when joined together, produce what is called a homopolymer (many molecules of a monomer of the same type chemically linked to each other).

ICIS stands for Independent Chemical Information Service.

**IFRS:** stands for International Financial Reporting Standards as adopted by the International Accounting Standards Board.

**IHS Markit:** provider of information and analysis for the chemical and petrochemical sectors, among others. Formerly CMAI and SRI.

Ingleside: means Ingleside Ethylene LLC.

Invenergy: means Invenergy Clean Power LLC.

**ISO 9001:** a standard developed by the International Standard Organization that applies to quality management systems (QMS) and focuses on every aspect of quality management that a company needs to have in order to have an effective system to manage and improve the quality of its products or services.

**ISO 14001:** a standard developed by the International Standard Organization specifying the requirements for an environmental management system (EMS), in order to allow an organization to formulate its policies and objectives considering legal requirements and information relating to significant environmental impacts. It applies to environmental aspects that the Organization can control and can expect to influence. It does not establish specific environmental performance criteria.

JV or Joint Venture: means co-investment joint businesses.

Kaluz: Kaluz, S.A. de C.V.

**LMV:** stands for the Securities Market Act.

LIBOR: stands for the London Interbank Offered Rate.

Mexico: means the United Mexican States.

**Business:** means the organization of several companies and/or functions of the Company that together manufacture and market products, services and solutions under criteria of vertical integration, lower volatility of our raw materials, a focus on specialty products and higher profitability. Each Orbia business has a clear mission and the resources to be more responsive, act quickly and be closer to its customers.

**NETAFIM:** Netafim, Ltd. of which Orbia acquired an 80% share on February 7, 2018. It serves as the Precision Agriculture business of the Fluent business group.

**OECD:** Organization for Economic Co-operation and Development (OECD).

**ORBIA** \*: means the stock ticker symbol for the Company's shares on the BMV.

**Orbia, the Issuer, the Company, the Entity, the Company or the Group:** means Orbia Advance Corporation, S.A.B. de C.V. and its subsidiaries.

**OxyChem:** Occidental Chemical Corporation.

**PEMEX:** Petróleos Mexicanos and/or any of its subsidiaries.

**Pemex Etileno (formerly Pemex Petroquímica or PPQ):** a productive subsidiary company of Petróleos Mexicanos, whose charter was published in the Official Gazette on April 28, 2015. It produces, distributes and markets methane, ethane and propylene derivatives, on its own behalf or on behalf of third parties.

Peso, Pesos or Mexican Pesos: the legal tender in Mexico.

**GDP:** Gross Domestic Product.

**Plastisol**: a mixture of an emulsion-type resin (PVC), a plasticizer and other additives in a viscous liquid state (paste) at room temperature that has visco-elastic properties and, depending on the reference resin used, may behave like a dilatant or pseudoplastic. It is usually whitish in color, but this depends to a large extent on the additives used.

**PMV:** Petroquímica Mexicana de Vinilo, S.A. de C.V. which was a joint venture between Orbia and PEMEX until November 16, 2018 and is now a subsidiary of the company.

**PROFEPA:** The Federal Attorney for Environmental Protection, a decentralized administrative body of the Mexican federal government's Ministry of the Environment and Natural Resources (SEMARNAT).

**Program**: refers to (i) the program for issuing and placing a revolving Stock Exchange Certificates program for an amount of up to ten billion Mexican pesos or the equivalent in UDIs, authorized by the CNBV on March 15, 2012, through official notice number 153/8167/2012, for a term of up to 5 years and (ii) the program for issuing and placing revolving stock for an amount of up to 10,000 million Mexican pesos or the

equivalent in UDIs authorized on November 3, 2017, by the CNBV through official document number 153/10875/2017, for 5 years (maturity date: November 3, 2022).

**PVC or Polyvinyl Chloride:** a thermoplastic resin obtained from the polymerization of vinyl chloride. PVC can be produced using four different processes: suspension, emulsion, mass and solution. PVC resins are used mainly in the construction industry for cable and wire insulation, door and window frames, water and sewer ducts and pipes, floors, tiles, etc. It is also used to make, among other things, dolls, balls and inflatable toys. In the automotive industry it is used in door panels, dashboards, seat upholstery, moldings, electrical cables, air and oil filters, automotive sealants and harnesses. In the textile industry it is used to make synthetic leather and canvases. In the packaging industry, it is used to manufacture cylinders and bottles for purified water and cleaning products, films for food wrappers, sheeting for medicine packaging. In the medical sector it is the main material used to make bags for serum and blood, as well as other accessories for healthcare.

**Quimir:** means Quimir, S.A. de C.V., a subsidiary of Orbia, part of the Polymer Solutions Group, which produces industrial and food phosphates.

Reais, "real" or "R\$": means the legal tender of Brazil.

Regulation S: means Regulation S under the US Securities Act.

Rule 144A: means Rule 144A under the US Securities Act.

**Refrigerants:** gases used for refrigeration and air conditioning. They are compounds or mixtures of organic chemical compounds containing mainly hydrogen, carbon, fluorine and chlorine.

RNV or Registry: means the National Securities Registry of the CNBV.

PVC Resins or Vinyl Resins: plastic resins produced by polymerization of vinyl monochloride (VCM).

**Extender Resins:** PVC resins used in Plastisols as an additive with two functions: to help lower viscosity and reduce formulation costs without affecting Plastisol properties.

Roskill Consulting: global metals and minerals research company.

Brine: an aqueous solution saturated with sodium chloride or common salt.

**SEC:** US Securities and Exchange Commission, the US federal agency in charge of supervising the country's financial markets.

**Petrochemical sector:** the predominant sector of companies and/or public and/or private entities engaged in the manufacture and marketing of petroleum products and/or natural gas.

**Chemical sector:** the predominant sector of companies and/or public and/or private entities manufacturing chemical products in general.

**Caustic soda:** the trade name of sodium hydroxide, NaOH, which is widely used in the alumina, soap and detergent industry and the chemical industry in general.

**Suspension:** the system in which small particles of a solid or liquid are suspended within a liquid or gas. In the case of PVC resins, this refers to the production process in which vinyl monochloride (VCM) is suspended in small droplets in water to polymerize and produce PVC resins.

**Holder(s):** the holders and/or owners of the various securities issued by the Company, including but not limited to outstanding shares, Stock Exchange Certificates and/or Senior Notes, as the case may be.

**TIIE:** stands for Interbank Interest Rate of Equilibrium, which is published by Banco de México and serves as a reference for credit contracting in Mexico.

TPA: metric tons per year (one metric ton is equal to 1,000 kilograms or 2,204.6 pounds).

**UDIS:** Investment Units.

EBITDA: stands for earnings before interest, taxes, depreciation and amortization.

**European Union or EU:** the EU is a unique economic and political union comprising 27 European countries covering a large part of the continent, namely Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain and Sweden.

VCM or MCV: stands for vinyl chloride monomer.

Vestolit: means Vestolit, GmbH, a subsidiary of Orbia, part of the Polymer Solutions Group.

**Wavin:** means Wavin B.V., a subsidiary of Orbia, part of the Fluent business group, manufacturer of polyethylene and PVC pipes. It comprises the Building & Infrastructure business group.

WVA stands for World Vinyl Analysis of IHS Markit Chemical World Analysis - Vinyls

### b) Executive Summary

This summary does not purport to contain all the information that may be relevant for making investment decisions regarding the securities mentioned herein. Investors should therefore read the whole Annual Report, including financial information and related notes before making an investment decision. This summary has been prepared in accordance with and subject to the detailed information and financial statements contained in this Annual Report. It is recommended that special attention be paid to the "Risk Factors" section of this Report in order to assess the convenience of investing in the securities issued by Orbia (See section 5 "Capital Markets", paragraph b, "Stock Market Performance" of this Annual Report).

The Company publishes its financial statements in Dollars. Unless otherwise specified, references in this Annual Report to "\$", "Dollars" or "dollars" shall be understood as references to United States dollars, and references to "Peso" or "Pesos" shall be understood as references to Mexican pesos.

The audited consolidated financial statements as of December 31, 2019, 2018 and 2017 and for the years then ended have been prepared based on IFRS. The accounting standards comprise various provisions known as IAS (International Accounting Standard), IFRIC (International Financial Reporting Interpretations Committee) and SIC (Standard Interpretation Committee).

The figures included in this Annual Report have been rounded to millions of dollars (except as otherwise indicated), whereas the figures presented in the Company's financial statements that form part of this Annual Report have been rounded to thousands of dollars (unless otherwise indicated) for convenience of presentation. The percentage figures in this Annual Report have not, in all cases, been calculated based on those rounded figures, but based on the amounts before rounding. For this reason, the percentage figures in this Annual Report may vary from those obtained by making the same calculations using the figures in the financial statements. Certain figures shown as totals in certain tables may not be the arithmetic sum of the figures preceding it, as a result of rounding.

This Annual Report includes forward-looking statements. Such statements are subject to certain known and unknown risks, uncertainties and other factors, some of which are beyond the issuer's control, and could cause the results, performance or achievements expressed or implied in such forward-looking statements to differ materially from actual results. Forward-looking statements feature terms such as "considers," "expects," "forecasts," "projects," "plans," "estimates," "anticipates," and other similar expressions and are contained, among others, in the "Executive Summary," "Risk Factors," "Discussion and Analysis of Financial Position and Operating Results by Management" and "Business Overview" sections.

As a result of the new strategy and global reorganization undertaken by Orbia, and the need to re-launch an identity and image consistent with the mission, vision, philosophy and worldwide presence of the Company, on August 26, 2019, the Extraordinary General Shareholders' Meeting of Mexichem, S.A.B. de C.V., decided to approve the change of its corporate name to ORBIA ADVANCE CORPORATION, S.A.B. de C.V., as such, the investing public should consider that for the purposes of this Annual Report, the new corporate name is used even for events, information, stock quotes, and circumstances that occurred before August 26, 2019.

### 1. The Company

Orbia is a community of companies bound by a shared purpose: to advance life around the world. Orbia's business groups have a collective focus on ensuring food security, reducing water scarcity, reinventing the future of cities and homes, connecting communities with data infrastructure and expanding access to health and wellness with advanced materials.

Orbia's business groups include Precision Agriculture, Data Communications, Building and Infrastructure, Fluor and Polymer Solutions that collectively seek human-centered solutions for global challenges. Orbia has commercial activities in more than 100 countries and operations in 41, with offices in Mexico City, Boston, Amsterdam and Tel Aviv. Due to its global presence the Company decided to name its businesses and business groups in English.

Orbia is a Mexican shareholding business corporation, domiciled in Mexico City. Its main address is Avenida Paseo de la Reforma 483, piso 47, Colonia Cuauhtémoc, Alcaldía Cuauhtémoc, Ciudad de México, Código Postal 06500. Mexico.

Orbia is a leading provider of products and solutions in multiple sectors, including construction and infrastructure, agriculture, health, transportation, telecommunications, energy, and chemicals, among

others. It is one of the world's largest producers of plastic pipes and fittings and one of the largest chemicals and petrochemical companies in Latin America.

Orbia has a global presence and employs more than 22,000 people in more than 41 countries in which it has 128 production plants. It has concessions for the exploitation of 2 fluorite mines in Mexico, 8 training academies, and 19 research and development laboratories. In 2019, it generated sales of \$6,987 million. The Company has more than 50 years of experience and has been listed in the Mexican Stock Exchange for over 30 years.

Orbita's operations consist of three business groups: Polymer Solutions, Fluor and Fluent, the latter includes the Data Communications, Precision Agriculture and Building & Infrastructure businesses.

- Fluent Business Group
  - Data Communications (Dura-Line)
  - Precision Agriculture (Netafim)
  - Building and Infrastructure (Wavin)
- Polymer Solutions (Vestolit) business group
- Fluor (Koura) business group



Regarding the business groups Polymer Solutions and Fluent, Orbia is one of the largest producers of plastic pipes and fittings in the world, and one of the leading producers of PVC resin worldwide, as well as one of the largest producers of chlorine and caustic soda in Latin America, according to data published by IHS Markit. Since 2015 and at the close of 2019, Orbia has been the only European producer of high-impact suspension PVC resins, and a global leader in high-density polyethylene products, pipeline solutions, and pressure pipes for telecommunications.

Fluor Business Group, commercially known as Koura, has one of the largest hydrofluoric acid production capacities and the largest fluorite mine in the world (according to data from the Roskill Consulting report), which makes Koura the only fully integrated producer of refrigerant gases in the Americas.

The Company's main products are: chlorine, caustic soda, ethylene, vinyl chloride monomer (VCM), polyvinyl chloride (PVC), plastic resin compounds, plasticizers, fluorite extraction, fluoro-compounds, hydrofluoric acid, refrigerant and propellant gases, as well as pipes and fittings such as PVC, polyethylene (PE) and polypropylene (PP), high density polyethylene (HDPE) and geosynthetics, which are widely used in the construction, real estate, infrastructure, agriculture and irrigation, drinking water, drainage, automotive, medical and air conditioning industries.

For more information on market shares see Section 2, "The Issuer", paragraph b, "Business Description" for each business group, of this Annual Report.

In 2019, the Company's sales revenues stood at \$6,987 million, showing an annual decline of 3%. At the end of fiscal years 2018 and 2017, the Company's sales revenues were \$7,198 million and \$5,828 million, respectively, representing an annual increase of 24%, mainly due to the purchase of Netafim.

In 2019, the EBITDA stood at \$1,365 million, showing an annual decrease of 2%. In 2018 the EBITDA reached \$1,397 million, representing an increase of 26% compared to the EBITDA reported in 2017, mainly due to the purchase of Netafim.

In recent years, the Company has increased its positioning in markets in Latin America and North America, as well as in European, Asian and African markets; by implementing a strategy that includes organic and inorganic growth and the expansion and vertical integration of its production processes.

Orbia has been in the sustainability index FTSE4Good since 2015. At the end of 2018, Orbia was selected as a member of the first edition of the emerging markets sustainability index, FTSE4Good Emerging Index, after demonstrating good environmental, social, and corporate governance practices.

The Issuer is also a member of the Dow Jones Sustainability Index (DJSI) and a member of the Mexican Stock Exchange's Sustainable IPC index.

Orbia's business strategy emphasizes the importance of being a vertically integrated company with the objective of mitigating volatility in the prices of its main raw materials and thus focusing on marketing products with higher profitability and added value. Orbia's growth strategy is based on the strategic acquisition of companies related to its business groups, as well as technology that could improve and specialize its existing products and processes, which has allowed it to consolidate leadership in its business groups and maintain a geographic presence in the international market in the countries that demand its products, services and solutions. In addition to the foregoing, the Company is also strategically focused on organic growth through its business groups to improve its portfolio of products, as well as its geographic diversification. The Company continues to develop and enhance a platform to offer solutions and integral projects, providing clients with direct solutions and creating long term bonds. Given the integration of the latest acquisitions, Orbia seeks to create synergies, maximizing its capabilities under its current structure.

The following charts provide a breakdown of the percent share of total sales by business group and businesses at the close of fiscal year 2019, excluding parent company revenues and intercompany eliminations within Orbia.

2019 Business group Sales 2019 Fluent business Sales Services, 1.9% Eliminations, Fluor , 11.1% (0.8%)Polymer Precision Agriculture, Solutions. 14.6% 32.1% **Building** & Infraestructure, 32.0% Datacom, 9.2% Fluent, 55.0%

	Year e	ending December	· 31:	Year endi	ng December 31	
	Quantity sold <sup>(1)</sup>			Sales		
Business group	2019	2018	2017	2019	2018	2017
Polymer Solutions	2,565	2,524	2,505	2,334	2,460	2,317
Fluent	1,060	1,082	1,049	3,999	4,077	3,022
Fluor <sup>(2)</sup>	1,152	1,150	1,098	805	837	681
Revenue for Services	-	-	-	136	29	25
Intercompany and Controlling	(143)	(185)	(185)	(287)	(205)	(217)
Orbia Total Sales	4,634	4,571	4,467	6,987	7,198	5,828

(1) Thousands of Tons

(2) Figures taken from Note 26 of Orbia's consolidated and audited financial statements, pages 87-88 (See Annexes)

(3) Does not include Netfim sales volume.

The products manufactured and marketed by Orbia's three business groups are positioned among the first places in the markets of countries where it has a presence.

### 2. Select Financial Information

The consolidated financial statements have been prepared in accordance with International Financial Reporting Standards (IFRS) and on a historical cost basis except for the revaluation of certain long-term assets and financial instruments that are assessed at fair values.

The financial figures included in this Annual Report have been rounded to millions of dollars (except for earnings per share and number of shares which are expressed in units or as otherwise indicated), while the figures presented in the Company's audited financial statements included in the Annexes to this Annual Report have been rounded to thousands of dollars (except as otherwise indicated), for ease of presentation. The percentage figures in this Annual Report have not, in all cases, been calculated based on such figures rounded to millions of dollars, instead they were based on such amounts before rounding. Therefore, the percentage figures in this Annual Report may vary from those obtained by making the same calculations using the figures in the financial statements. Certain financial figures shown as totals in some tables may not be the result of arithmetic sum of the preceding figures due to rounding.

The following tables provide select financial information from Orbia for each of the periods indicated. This information should be read together and is fully subject to the complete terms of Orbia's audited financial statements as of December 31, 2019, 2018 and 2017, including the related notes attached to this Report.

Consolidated statements of income	For the ye	r 31:	
(Figures in Millions of US Dollars)	2019	2018	2017
Continuing operations:			
Net sales	6,987	7,198	5,828
Cost of sales	5,029	5,199	4,319
- Gross profit	1,958	1,999	1,509
Sales and development expenses	625	588	438
Administrative expenses	468	449	336
Other income, net	43	27	26
Exchange gain	(49)	(84)	(9)
Exchange loss	68	132	56
Interest expenses	272	251	195
Interest income	(14)	(20)	(18)
Change in fair value of redeemable non-controlling interest	18	19	-
Monetary position gain	-	(13)	(49)
Share in income of associated entity	(4)	(4)	(2)
Income before income taxes	533	655	535
Income taxes	206	195	178
IncomeProfit (loss) from continuing operations	327	460	357
Discontinued operations:			
Income (loss) on discontinued operations, Net	-	23	(143)
Consolidated net income for the year	327	483	214
Controlling interest	207	355	194
Non-controlling interest	120	128	20
-	\$327	\$483	\$214
Controlling net income per share	\$0.10	\$0.17	\$0.09
Weighted average of outstanding shares	2,100,000,000	2,100,000,000	2,100,000,000

**Consolidated Statements of Financial Position** 

Through December 31:

(Figures in Millions of US Dollars)	2019	2018	2017
Assets			
Current assets:			
Cash and cash equivalents	\$586	\$700	\$1,900
Accounts Receivable, Net	1,352	1,318	1,330
Accounts receivable from related parties	5	5	2
Inventories, Net	834	866	675
Advance payments	65	78	36
Derivative financial instruments	-	-	-
Assets held for sale	9	10	9
Total current assets	2,852	2,977	3,952
Non-current assets:			
Property, plant and equipment, Net	3,349	3,507	3,626
Right of use assets	337	-	-
Investment in shares of associated companies	34	36	31
Other assets, net	89	101	86
Deferred taxes	126	96	153
Employee benefit assets	14	14	17
Intangible Assets, Net	1,766	1,852	1,212
Goodwill	1,492	1,493	698
Total non-current assets	7,205	7,098	5,824
Total Assets	\$10,057	\$10,075	\$9,776
Bank loans and current portion of long-term debt	\$322	\$396	\$45
Current liabilities:	¢200	¢200	<u> </u>
Suppliers	679	794	665
Letters of credit	585	619	697
Accounts payable to related parties	101	117	65
Other accounts payable and accrued liabilities	478	462	464
Dividends payable	134	156	.01
Provisions	52	22	9
Employee Benefits	128	102	42
Short-term lease liabilities	78	18	37
Derivative financial instruments	13	16	15
Liabilities associated with assets held for sale	6	7	9
Total current liabilities	2,577	2,708	2,131
Non-current liabilities:	2,011	2,700	2,101
Bank loans and long-term debt	3,129	3,175	3,210
Employee Benefits	229	196	203
Long-term provisions	223	130	33
Other long-term liabilities	36	44	33
-	264	246	55
Redeemable non-controlling interest Derivative financial instruments	264 67	113	- 166
Deferred taxes			
	335	349	231
Long-term lease liabilities	267	15	39
Long-term income tax Total non-current liabilities	35	41	49 3 965
Total non-current liabilities	4,385	4,197	3,965
i otal nadinities	6,963	6,905	6,095

Consolidated Statements of Financial Position	Through Decem		
(Figures in Millions of US Dollars)	2019	2018	2017
Stockholders' equity:			
Contributed capital			
Capital stock	256	256	256
Share Premium	1,475	1,475	1,475
Update of capital stock	24	24	24
	1,755	1,755	1,755
Earned Capital			
Accumulated earnings	1,059	1,053	1,075
Redeemable non-controlling interest	(227)	(227)	-
Reserve for acquisition of own shares	296	329	380
Other comprehensive income	(508)	(501)	(408)
	620	653	1,047
Total controlling interest	2,375	2,408	2,803
Total non-controlling interest	719	761	878
Total stockholders' equity	3,094	3,170	3,681
Total liabilities and stockholders' equity	\$10,057	\$10,075	\$9,776

### **Financial Indicators**

Indicators	2019	2018	2017
Investments in property, plant and equipment	261	283	254
Depreciation and amortization for the fiscal year	542	462	398
EBITDA	1,365	1,397	1,106
Accounts Receivable rotation (days)	53	50	50
Average supplier payment period (days)	117	118	145
Inventory rotation (days)	61	52	57

### 3. Information on the performance of shares issued by Orbia in the stock market.

During the last three fiscal years analyzed in this Annual Report, ORBIA\* shares have been part of the BMV's Price and Quotation Index ("IPC"). In accordance with the BMV Stock Index, due to its significant volume of daily operations in the Mexican stock market, as of May 2020 its shares remain in the HIGHLY TRADED category. (See section 5) "Equity Market" paragraph b), "Performance of shares in the Stock Market", of this Annual Report).

### 4. Highlights of the 2019-2017 period.

2019

Change of corporate name - At the Issuer's Shareholders' Meeting held on August 26, 2019, it was decided to approve the change of corporate name to Orbia Advance Corporation, S.A.B. de C.V. This change reflects the new strategy and global reorganization undertaken by the Company, which implies its re-launching of its identity and image in accordance with its mission, vision and philosophy.

### 2018

Establishment and acquisition of new businesses - In 2018, Orbia established and acquired the following businesses:

Acquisition of Netafim - On February 7, 2018, Orbia acquired 80% of the shares of Netafim LTD (Netafim), Israel's leading micro irrigation solutions company, after obtaining all government authorizations and complying with the prior conditions set forth in the Share Purchase Agreement signed in August 2017. The price paid for the acquisition was \$1,424 million. Kibbutz Hatzerim will retain the

remaining 20% of Netafim's share capital. In addition, Orbia signed a "Put/Call Rights" agreement in which, after the fifth anniversary of the closing of the Netafim acquisition agreement, Kibbutz Hatzerim will have, for a period of 10 years, the right to sell to the Company its participation in Netafim ("Hatzerim Put Option") and the Company will have the obligation to acquire it at the price set forth in the respective agreement. After the eighth anniversary of the closing of the Netafim acquisition contract, the company will also have the right to purchase the Kibbutz Hatzerim share in Netafim ("Purchaser Call Option") for a period of 10 years and Kibbutz Hatzerim will have the obligation to sell it in the terms stipulated in the respective agreement. This transaction represented a significant step forward in Orbia's long-term strategy to position itself as a world leader in specialized products and solutions, serving high-growth markets. Orbia consolidates Netafim in the Fluent business group.

- The acquisition was mainly financed as follows: (i) \$239 million cash, (ii) new short-term loan of \$200 million, and (iii) cash flows from the issuance of a long-term bond of \$985 million.
- Acquisition of Sylvin Technologies On January 22, 2018, Orbia acquired Sylvin Technologies Inc. (Sylvin), a manufacturer specializing in PVC compounds based in Denver, Pennsylvania, for \$39 million free of cash and debt. On the date it was acquired, Sylvin had 30 years of experience serving a wide range of industries including: cable, electrical, industrial, automotive, medical and food products. Orbia added Sylvin to the Polymer Solutions business group under the Compounds Business Unit.
- Petroquímica Mexicana de Vinilo On July 6, 2018, Orbia announced that in line with its strategy of consolidating key businesses, it reached an agreement to acquire 44.09% of the shares representing Petroleo Mexicano's (Pemex) share capital in Petroquímica Mexicana de Vinilo, S.A. de C.V. (PMV), through its subsidiary PPQ Cadena Productiva S.L., after approval by the Boards of Directors of both Pemex and Orbia. The transaction amount was approximately \$159.3 million, which is within the valuation ranges of similar companies and prior transactions in the petrochemical sector.

### 2017

- Credit Line Arrangement On December 20, 2017, Orbia announced that it signed a line of credit with BBVA Bancomer of up to \$200 million at a rate of Libor plus 80.5 basis points (bps) for 12 months. The resources of this line of credit were used to complete the acquisition of Netafim.
- Bond Issue On September 27, 2017, Orbia successfully completed the \$1,000 million 144A / Reg S bond offering. The offering is comprised of two stages: \$500 million at a fixed-rate of 4.00% due in October 2027 and \$500 million at a fixed-rate of 5.50% due in January 2048. The proceeds of the offering were used primarily to finance the acquisition of Netafim.
- Cracker start of operation In February 2017, the joint venture formalized on October 31, 2013 between
  Orbia and Occidental Chemical Corporation (OxyChem), in equal shares, called Ingleside Ethylene
  LLC. It started operations on time and on budget of the ethylene cracker at OxyChem's complex located
  in Ingleside, Texas. In the second quarter of 2017, the cracker began commercial operation. The
  cracker, which has a production capacity of 1.2 billion pounds (550,000 cubic meters) of ethylene per
  year, provides OxyChem with a steady supply of ethylene for the production of vinyl chloride (VCM),
  which Orbia uses to produce polyvinyl chloride (PVC resins) as well as PVC pipe. The joint venture also
  includes the gas pipeline and storage plant in Markham, Texas.

### 5. Subsequent Events (2020).

On January 10, 2020, the Issuer informed the investing public that it was in the process of analyzing divestiture options or strategic alliances that would allow it to trigger an operation or synergies with third parties with respect to our Vinyl business (Vestolit).

Following the previous announcement, on May 29, 2020, Orbia informed the investing public that, due to the impact of the COVID-19 pandemic on the world economy and capital markets, it had decided to pause efforts related to a possible divestiture or other strategic options for its Vestolit business (from the Polymer Solutions business group) and wait for a stable environment that would allow it to maximize its shareholder value in a potential transaction related to its Vestolit business. The Company believes that Vestolit is a solid business with a unique global position and strong cash flow generation and will continue to drive sustainable and profitable growth.

On March 5, 2020, Orbia notified its agent bank of the revolving line of credit signed on June 21, 2019, the \$500 million reduction of that line of credit that was originally signed for \$1,500 million, leaving the Entity access to a balance of \$1,000 million.

In March 2020, the World Health Organization ("WHO") declared Coronavirus disease ("COVID-19") a global pandemic. In the first quarter of 2020, the rapid global spread of COVID-19 has caused, and continues to cause, as of the date of this Report, significant disruption to the global economy and is affecting the countries in which we operate.

Given the scale and speed of this evolving pandemic, the Company cannot estimate the full extent of the impact that COVID-19 may have on the equity investment it maintains in its businesses, nor on its operations, liquidity, operating results or financial status as of the date of this report.

The Issuer's management is committed to complying with local regulations in each country where it operates, closely monitoring the situation, and planning and taking steps to minimize the negative impact of the COVID-19 pandemic. However, the future result of such actions remains unclear.

On March 27, 2020, Orbia informed the investing public that, due to uncertainty in the world economy, as well as the potential effects of the global COVID-19 pandemic on the financial and capital markets, the Company, as a precautionary measure and to strengthen its liquidity and financial flexibility, that same day, drew down 100% of its \$1,000 million revolving line of credit. The funds can be used for general corporate purposes, including the payment of debt maturities during this year for approximately \$230 million. It should be noted that the average life of such debt, after the aforementioned drawdown, is 12 years, and the only upcoming relevant maturity is in 2022.

The Issuer may, at any time, when making the monthly interest payments, prepay the entirety of such line of credit without penalty, which has a maturity date in June 2024.

For the first quarter of 2020, the damage has been limited for the Company and its subsidiaries; however, the impact on the rest of 2020 cannot be fully assessed.

Some issues that the industry and clients of our businesses may face in particular are, among others:

- Production interruptions, including facility shutdowns
- Shortage in the supply chain
- Staff illness
- Reduced sales
- Delayed customer collection

### c) Risk Factors

In order to decide whether to invest in securities issued by Orbia, investors must carefully consider, analyze, and evaluate all the information contained in this Annual Report, and in particular, the risk factors described below, which could have a material adverse effect on Orbia's performance and profitability, its financial situation, or the results of its operations, as well as its liquidity.

The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties of which we have no knowledge or which we currently consider non-material may also affect our business operations. Any of the following risks, should they arise, could adversely and materially affect our business, results of our operations, prospects and financial condition. In such a case, the market price of our CEBURES (Stock Exchange certificates), Senior Notes and the shares of ORBIA\* may decline and investors may lose all or part of their investment.

a) Risk Factors related to Our Business and Industry

### The cyclical nature of the industry can diminish our business results and margins.

Some industries in which we operate, including the markets in which we compete, are cyclical. They are sensitive to changes in supply and demand and are affected by the political and economic conditions prevailing in the different countries and regions of the world in which we operate. This cyclical trend can reduce our net sales and margins and lead to the following:

- Unfavorable economic changes in business and the general economy may cause demand for our products to fall; particularly those in the residential, commercial or industrial construction industry are strongly tied to the stability or instability that prevails in each country;
- Considering the competitive environment in which we operate, lower demand can put pressure on the prices of our products;
- The market dynamics of supply and demand for both our products and our raw materials, and the other raw materials that affect them, may result in fluctuations in the prices of some or all of our products or our raw materials, which could affect our sales or margins;

Due to the cyclical nature of the global chemical industry, historically the international chemical market has experienced changing periods of limited supply, which has caused prices to increase and profit margins to increase, followed by an expansion of production capacity, resulting in oversupply with lower prices and profit margins. Mainly in our raw material production business, with chemistry being among them, we set prices for the products we sell based on international market prices. The chemical industries in Europe and Latin America have become increasingly integrated with the global chemical industry for a variety of reasons, including increased demand and consumption of chemicals in these regions, as well as the continued integration of regional and global product markets. Our net sales and gross margins are tied to global industry conditions that we cannot control. We are sensitive to the economic cycles that affect the construction, infrastructure, agricultural and automotive industries.

Throughout history, demand has been vulnerable to such circumstances. This vulnerability can lead to significant changes in our quarterly operating results or our annual results, limiting our ability to forecast our operating performance, cash flows and financial position.

## The operations of the Fluent business group depend on the construction, agriculture and telecommunications industries.

Our Fluent business group is primarily dependent on the viability of the construction, infrastructure, agricultural and telecommunications industries. A slowdown in the growth of these industries in the countries in which we operate, or a negative change in the economic and demographic factors that influence these industries, could have a material adverse effect on the results of our operations, cash flows and financial condition.

### Our operations are heavily dependent on the energy and petrochemical industries.

The energy and petrochemical industries, including the markets in which we operate, are cyclical and have historically undergone periods of slowdown and sometimes recession. The demand for some of our products and services, as well as the supply of some of our raw materials depend on the level of investment by companies in the energy industry, which in turn depends in part on the overall price levels of oil and other energy sources. Oil prices have been very volatile in recent years. A continued decline in our customers' investments in this industry, whether due to a decrease in oil or natural gas prices, could cause delays in our customers' projects, and thus demand for some of our products and services or a lack of supply of some of our raw materials and cause pressure on the expected prices of our products or costs of our raw materials, which in turn could have a material adverse effect on our operating results, cash flows and financial position.

Some of our customers or suppliers also depend on oil and natural gas production levels. Interruptions or decreases in the production of such supplies, due to various circumstances beyond our control, including adverse weather conditions, accidents, decreased access to the financial system, labor contingencies, work stoppages, strikes, or others, may cause delays in our customers' investment projects or increases in the production costs of our raw materials and thereby increase their prices and, in turn, affect our operations results, cash flows and financial position.

## Changes in investment levels in the voice and data telecommunications industry could affect the production and sales of our Data Communications products.

The different investments required by participants in the telecommunications industry to implement fiber optics and broadband communication systems widely influence this industry, including the markets in which we compete. Investment in this industry depends on a variety of factors, including:

- Local and federal regulation of foreign investment in telecommunications.
- · Consumer demand for fiber optics, broadband and wireless networks for products and services;
- Regulatory decisions that limit the installation of new networks and improvements to the existing network;
- Rights of way, and permits from local and state governments, in the countries where we operate, required to access the construction of new networks;
- The evolution and acceptance of new industry standards;
- The pressures related to competition in the sector, including prices;
- Annual budget cycles;
- The impact on industry consolidation;
- Access to financing and general economic conditions of the market;
- Price Levels;
- Existence, creation or improvement of alternative products and;
- Political stability.

Lack of investment in voice and data telecommunications, due to any of these or other factors, could have a material adverse effect on our sales, operating results and financial position.

# The lack of development of new products, production technologies, access to new technologies, the impossibility of developing products that satisfy the needs of the market, the development of raw materials that substitute those we currently use or produce, or the impossibility of successfully implementing productivity and cost reduction initiatives could adversely affect our competitive position.

The markets for many of our products require continuous improvements in quality and performance. To remain competitive, we need to develop and market products that meet market needs in a timely manner. In the event that the market changes unexpectedly, new technologies are developed that we do not have access to, we are unable to develop products that meet market needs in a timely manner or the life cycles of our products are shorter than anticipated and this hinders the recovery of research and development costs or investments related to those specific products, our operating results and financial position could be adversely and significantly affected.

In addition, research and development of new technologies could result in the creation of new products or raw materials that come to replace those we currently produce or use. In the event that we are unable to compete with such new products or raw materials or to access raw materials newer than those we currently use in our production process; our operations results could be adversely and materially affected.

## Failure to stay up to date with current technological advances in the industries in which we operate, develop or seeking commercially unacceptable technologies could affect our business, operations results or financial condition.

Technology is an extremely important concept for business nowadays, as well as for the growth strategy of companies. Our success in the industries in which we operate depends largely on new designs and improvements in the products we develop, implement and that are accepted in the marketplace. Our ability to adapt quickly and to develop new products and technologies that can be updated according to the evolution of the industry and to offer reasonable prices to our customers will determine our competitiveness within the markets in which we operate and to this effect we invested in research and development activities. However, our competitors may develop disruptive products or technologies that are superior to ours, or they may adapt more quickly than we do to new products or related technologies or changing customer demands. If our products and technologies are not able to gain market acceptance because we fail to innovate them or because our competitors offer more attractive products, we may adversely affect our business, financial position and operating results.

### Our business is subject to risks generally associated with international commercial operations and our net earnings and sales could be adversely affected by the economic conditions and outlook in the countries in which we operate.

We market our products in more than 100 countries. Orbia participates in manufacturing and other commercial activities on six continents. As a result, our business is, and will continue to be, subject to the risks generally associated with international manufacturing and distribution, the adverse economic conditions and other political, social and regulatory conditions in the countries where we conduct business that may impact the demand for our products and, ultimately, our net earnings and sales, including:

- · Government regulations on manufacturing and/or foreign investment activities;
- Modifications to policies on customs or trade tariffs on import or export from and to countries;
- Changes in social, political and economic conditions;
- Freight delays;
- Blackouts or shortages of electricity and other public services;
- Restrictions on currency conversion and volatility in foreign exchange markets;
- Restrictions on skilled labor and changes in local working conditions;
- Restrictions related to the sale of products, including trademarks, in connection with third party intellectual property rights;
- Difficulties in complying with contractual obligations in jurisdictions outside of Mexico, as well as in collecting accounts abroad;
- Environmental regulations;
- Tax reforms and other laws and regulations;
- Recessionary conditions or negative or slow economic growth rates;
- · Changes in local or international interest rates that affect the exchange rate; and
- Austerity measures and reduction or elimination of subsidies and incentives to the industries in which we operate.

Some of the countries in which we operate have experienced political and social instability in the past and interruptions or cessation of operations may occur at any of the production facilities or distribution networks in those countries. The foregoing factors, as well as government regulations applicable to foreign investment and/or the import, export or sale of products and market protectionist measures could adversely affect our sales and operations results, and in the past have caused distributors, intermediaries and customers to reduce their spending and to delay or stop purchasing products, which could have an adverse effect on our net sales, operating results, and cash flows.

## Our sales are highly dependent on the strength of the agriculture industry, including subsidies or support by governments for this activity.

Our sales in the Precision Agriculture business are cyclical and highly dependent on the need for irrigated crop production, which, in turn, depends on many factors including total world production, the profitability of agricultural production (including the return on investment for the end users or consumers of our products), agricultural commodity prices, net agricultural income, the availability of loans to farmers, government subsidies, government policies and support for agricultural infrastructure, especially water supply and transportation, rainfall regularity and regional climate change. The status and trend of

government support for farmers and growers, financial assistance and policies related to the use of water for irrigation can affect the demand for our products and irrigation solution systems. As farmers' incomes decline, they may postpone capital investment including the purchase of our products or seek less expensive irrigation options.

In addition, uncertainty or changes in matters such as government subsidies and policies to support agriculture could adversely affect our business, financial status or operating results.

### Conditions in Israel could affect Precision Agriculture business operations

Netafim is incorporated under the laws of Israel. Its principal offices and three of its production plants, including all our manufacturing facilities for drip irrigation products, are in this country. Netafim operations in Israel depend on imported raw materials and the company also exports a significant amount of their products from this country. In addition, all its information and data are in Israel. Since the creation of the State of Israel in 1948, there have been multiple military conflicts in which Israel and surrounding countries have been involved, including opposing Islamic military operations, as well as incidents of terrorist acts and other attacks (including the Second Lebanon War during the summer of 2006 and Israeli military campaigns in Gaza during December 2008, November 2012 and the summer of 2014).

Political, economic and security conditions in Israel can directly affect Netafim's operations. This could be adversely affected by hostilities involving the State of Israel, including terrorist attacks or any other hostility or threat to Israel, the interruption or reduction of treaties between Israel and its trading allies, a significant increase in inflation or a significant reduction in economic and financial conditions in Israel. Any present or future conflict, terrorist attack or tension within Israel's borders or political instability in the region may disrupt international business activities, adversely affecting Precision Agriculture's business and could damage the Company's financial condition and operation results. In addition, these military conflicts could damage production plants in Israel, which would not be easy to replace.

Although Israeli law obliges its Government to pay the reinstatement value derived from damages caused by terrorist attacks or acts of war, there can be no assurance that the policy of that Government will be maintained, or will be sufficient, to compensate the Company for all expenses it may incur. In addition, indirect damages may not be covered. Any loss or damage in which Netafim has been involved, and which has not been paid by the Israeli government, could have an adverse effect on the Company. Certain countries, as well as certain companies and organizations continue or plan to participate in the boycott of Israeli companies, companies with significant operations in Israel, and others. Current and future boycotts, economic strikes or blockades, restrictive laws, policies or practices involving Israel or Israeli businesses, or citizens could adversely affect our business, financial condition or future operating results.

## Our relationship with OxyChem, our partner in Ingleside Ethylene, or the decision-making process of Kibbutz Hatzerim regarding its investment in 20% of Netafim's capital stock, could have a material adverse effect on our financial and business situation.

We have a strategic alliance with OxyChem for the construction, operation and production of ethylene in Texas, USA, in a company called Ingleside Ethylene, LLC, which began in October 2013. In February 2017, the 50:50 joint-venture, called Ingleside Ethylene LLC, began operations, on time and on budget, of the ethylene cracker at the OxyChem complex located in Ingleside, Texas, USA. In the second quarter of 2017, the cracker began commercial operations.

On August 8, 2017, the Company announced that Mexichem Soluciones Integrales Holding, S.A. de C.V. (MSIH), an Orbia subsidiary, had reached an agreement with Kibbutz Hatzerim for the acquisition of: i) voting shares representing 80% of the subscribed and paid-in capital stock, ii) all non-voting shares representing approximately 0.4% of the subscribed and paid-in capital of Netafim, and iii) certain loans granted by some of the shareholders of Netafim, Bluedrip S.ar.I, and Netafim Hatzerim Holdings. Kibbutz Hatzerim will retain the remaining 20% of Netafim's capital stock.

We cannot anticipate the extent and consequences that OxChem decisions may have, or the manner in which Kibbutz Hatzerim will exercise its minority rights contained in the shareholders' agreements, nor the effects this may have on the production and business relationships between the parties, including the Ingleside joint venture or the Netafim partnership.

As a result, Orbia cannot make any guarantees as to how OxyChem, Kibbutz Hatzerim, or any other related strategic partner, may act in the future, nor the response time of its decision-making process, nor

how the new business conditions adopted by such business partners and their subsidiaries will affect us, which could represent a material adverse effect on our business and operating results.

### We face intense competition from other suppliers of similar products

The chemical markets in Latin America, North America, Asia and Europe and other parts of the world, where essentially all of our chemicals are sold, are highly competitive. We generally have no or limited control over the prevailing pricing on international markets of the products we sell that are treated with basic products or raw materials, such as chlorine, caustic soda, resin and fluorite compounds. While the competitiveness of these products, is based on price, performance, product quality, product delivery and customer service. It is difficult to protect our market position for many of our basic products by differentiating them by being of standardized quality, and we may not be able to pass on the cost and price increases associated with those products to customers. In many cases, the competitive environments for our various chemicals may vary significantly at any time, and our ability to adjust the product mix based on market conditions may be limited due to inherent restrictions on production processes. Our competitors include larger companies or those best positioned within international chemical markets, including those in Europe and Latin America, or companies that have greater competitive advantages due to a combination of several factors, such as greater access to financial resources, benefits derived from integration and economies of scale, availability of raw materials at lower costs, diversification and risk management. Our main competitors have received considerable capital investments, which have enabled them to obtain and maintain a significant market share. Such situations, as well as increased competition, may have adverse effects on our operation results, cash flow or financial condition.

## Our contracting model for high-density polyethylene (HDPE) products involves certain risks related to customer retention, which could have a material adverse effect on our financial and business situation.

We sell a substantial amount of high-density polyethylene (HDPE) products under short-term contractual orders. In addition, we have long-term contracts, particularly with agreements for voice and data telecommunications products in the U.S. and India. Most of our contracts contain terms and conditions relating to pricing, including any type of resin transfer provision, and in general our customers are not required to purchase a minimum volume, and contracts can generally be terminated without cause and at short notice. As a result, customers have the ability to discontinue or substantially reduce the acquisition of our products at any time. The loss of customers representing a significant volume of sales; as well as, a significant decrease in customer orders for any reason, changes in manufacturing practices, transfer of part of the business to competitors, an economic recession or the inability to adapt services to the needs of our customers, can have a material adverse effect on our financial position.

## Our contracts executed with OxyChem, ethane, ethylene and VCM suppliers may be insufficient to meet all of our operational and commercial needs, which may affect our production costs due to increases in the price of our raw materials or lack of production capacity.

The supply contracts we enter into with OxyChem, ethane and/or ethylene suppliers or other VCM suppliers may not be sufficient to meet all of our operational and commercial needs, which could have an effect on our production costs due to an increase in the price of raw materials or the services we require, or due to a lack of production capacity at our plants that prevents us from absorbing costs efficiently, as well as the loss of opportunities to sell our products due to lack of access to the raw material used to manufacture them. Ethane is a raw material used to produce ethylene, which in turn is used in the production of VCM, the raw material necessary for the manufacture of PVC. Also, variations in PVC, caustic soda and/or ethane prices in the future could affect our operating results and hinder or delay the recovery of our investment in Ingleside.

### Fluctuations in the prices of our principal raw materials, including natural gas, electric power, sulfur, ethane, ethylene, among others, may adversely affect our business and operating results.

In recent years, the prices of electricity, natural gas, sulfur, ethane and ethylene, among other raw materials and supplies, have experienced significant fluctuations in local and international markets. These fluctuations cause variations in our production costs, which in turn is reflected in the margins of the products we manufacture and market. In addition, prices of petroleum and petroleum products have been volatile, affecting the selling price of products such as ethylene, VCM and PVC, as well as their production costs.

Although we generally transfer any price increase in raw materials to our customers, it is not always possible to do so, so future fluctuations in the prices of electric power, natural gas, ethane, ethylene and sulfur, among others, which we use in manufacturing processes and which have recently experienced volatility, could result in variations in the cost of the supplies we use to produce our products, while variations in the price of oil could, as they have done in the past, impact the prices of some of our products, which in turn could negatively affect our operating results and financial position.

### Any interruption in the supply of raw materials could disrupt our manufacturing operations.

Our ability to achieve our strategic objectives continues to depend, in a large part, on the successful, timely and cost-effective acquisition of electric power and raw materials such as natural gas, ethane, ethylene, electricity, VCM, PVC, Polyethylene and other plastic resins. Currently, we rely on a limited number of suppliers for the production and delivery of these supplies. We cannot ensure the stability of the gas supply, nor the availability of supplies at reasonable prices or that suppliers will continue to supply them. Therefore, in the event of any interruption, discontinuance or other disruption in the markets or the supply of raw materials or electric power, as well as a substantial increase in the costs thereof, could adversely affect our financial condition and operating results. Similarly, a decrease in the supply of certain raw materials, or in the number of raw material suppliers, may result in an increase in the prices paid for the supply of these raw materials, in which case our operating results and financial position could also be adversely affected.

## Maintenance increases and improvements in terms of our production capacity, as well as acquisition operations, generally require significant investments and we cannot guarantee we will achieve the expected return on these.

We have recently made and plan to continue making significant capital investments related to production capacities, environmental protection and safety, safety of workers and facilities, efficiency and modernization of our plants. For example, during 2019, 2018 and 2017, the Company made investments in assets of \$261 million, \$283 million and \$254 million, respectively.

We have acquired or incorporated, and plan to continue to acquire or incorporate, companies or joint ventures to increase our production capacity.

The Company's total investments in 2019, 2018 and 2017, including investments in assets and acquisitions amounted to \$261 million, \$1,709 million and \$254 million, respectively. For more information on acquisitions see "Select Financial Information. Establishment and acquisition of new businesses".

We may not be able to obtain the expected return on our investments if unfavorable conditions arise in our product markets, furthermore our decisions regarding the timing or manner in which such investments are executed are based on future projections of market demand and other factors that may be inaccurate, and we may not obtain sufficient resources to make certain necessary investments, which could have an adverse effect on our operating results, including expenses due to impairment of assets. Furthermore, we may not be able to meet our obligations under the financing we have taken out if we do not obtain the expected return on our investments. In addition, current projects may not be completed on time or at all due to factors such as the inability to obtain financing, regulatory changes, lack of compliance or availability of contractors and subcontractors and logistical problems, in which case, this could have a material adverse effect on our operating results, including as a result of charges for the impairment of assets.

# Our mining concessions may be subject to a declaration of nullity, cancellation, suspension, expropriation or revocation of rights pursuant to applicable legal provisions and/or we may not be able to renew our existing concessions, which could have a material adverse effect on our operations and financial position.

We own the rights to several renewable mining concessions, mostly located in Mexico. In Koura, there are several mining concessions that expire gradually from 2029 to 2061, which are renewable pursuant to the provisions of the Mining Act in Mexico. Koura will take the necessary steps, pursuant to the deadlines established by law, to ensure the renewal of the concessions that are due to expire soon. However, we cannot guarantee that such renewals will be granted. Furthermore, and pursuant to Mexican legislation, Koura is obligated to verify the investments in exploration and exploitation of these concessions, which to date have been carried out in a timely manner. PMV has a mining concession for the salt dome in Veracruz that expires in 2043.

Under Mexican law, mineral resources belong to the Mexican nation, and the Federal Government may grant concessions to individuals to explore and exploit mineral reserves. Our mining rights derive from concessions granted by the Ministry of Economy.

Our mining operations are located principally in Mexico and are subject to the regulations and supervision of the appropriate governmental agencies. Mexican law stipulates that the Federal Government is entitled to declare the rights to the concessions awarded null, cancelled, suspended or void, and such concessions may be subject to additional conditions, or they may not be renewed upon expiration in the event that certain legal grounds are triggered.

In light of the foregoing, the concessions we have in Mexico may be revoked without the right to compensation if the Company is unable to comply with the terms and conditions set forth in the concessions. In addition, the lots of land comprising the mining concessions in Mexico, as well as the related assets of our concessions, could be expropriated in the public interest, with a right to compensation, which could be limited to or less than the market value of the assets. In the event of a dispute regarding the amount of compensation, we may require the judicial authority to determine such amount. The compensation shall be covered by the State in Mexican pesos, even if payment in kind is agreed. Pursuant to the Expropriation Act, the government will pay compensation within a period of 45 working days beginning as of the declaration of expropriation in pesos or through the payment of another asset. The Mining Act and its regulations do not set forth that, if a competent court decides to cancel a concession, the State must pay compensation to the concession holder. If the rights to our concessions are cancelled, terminated, suspended or revoked and we are unable to ensure fair compensation, our operating results and financial position could be adversely affected.

What is more, Mexican law sets forth that mining concessions will last fifty years, beginning as of the date of their registration in the Public Mining Registry and will be extended for the same amount of time if their owners did not incur in the grounds for cancellation set forth by law and this is requested within the five years prior to the expiration of their term. Although we plan to apply for such renewals and will comply with all the conditions necessary to obtain them, we cannot guarantee that the concessions will be renewed because the renewal of concessions is subject to the government's discretion. Our inability to renew any of our concessions could have a material adverse effect on our operations, operating results, financial position and outlook.

Under the terms and conditions of the concessions, we are required to comply with certain obligations under the Mining Act. Non-compliance would result in administrative sanctions imposed by the Ministry of Economy or, as the case may be, following the corresponding administrative action, the authority could decree the cancellation of the concessions. This could result in a material adverse effect on our operations, operating results, financial position and outlook, and would hinder our ability to conduct our operations as we currently do.

Therefore, in the event of a possible expropriation of mining lots or assets used for the exploitation of mining concessions, or if the rights contained in concessions are declared null, cancelled, suspended or revoked, or if we are unable to renew the concessions, it would not be possible to receive adequate or timely compensation, our operating results and financial position may be adversely affected.

## We are exposed to the risk of possible expropriation or nationalization of our assets in some of the countries in which we operate.

We are exposed to a potential risk of expropriation or nationalization of our assets located in the different countries in which we operate. For example, close to 0.01% of the value of our assets as of December 31, 2019 are in Venezuela.

As in the case of Venezuela, some of the countries in which we operate have been subject to volatile political conditions in the recent past and we cannot guarantee that local governments will not impose retroactive changes that could affect our business or eventually force us to renegotiate existing contracts with such governments. These events could materially affect our financial position and operating results.

### The volume of fluorite reserves and our production rate may be different than expected.

The amount of fluorite reserves in our mines are determined under standards and practices established for the mining industry, using geological and engineering data to measure the estimated amounts of fluorite deposits that can be economically recovered and processed by mining.

We have prepared estimates of proven and probable reserves applying the usual methods of evaluation and assumptions generally used by the mining industry. Although we believe the findings of such studies to be reasonable, they are subject to several uncertainties beyond our control that could have a negative impact on future levels of fluorite production. fluorite bodies may not conform to standard geological expectations, and estimates may change as new data becomes available. Because fluorite bodies do not contain grades of purity or uniform types of minerals, our mineral extraction rates may vary at any time.

We cannot guarantee that estimates of our fluorite reserve quantities will not differ substantially from the quantities of minerals that will be definitively recovered. In addition, fluctuations in market prices and changes in operating and capital costs may cause some of our fluorite reserves to be economically unviable for exploitation. Should this occur, we may be unable to obtain enough raw materials to meet our production targets and other commitments, which would have a material adverse effect on our business and operating results.

### Netafim sales are highly dependent on the dynamism of the agricultural industry, including government support to this sector.

Our sales are cyclical and depend largely on the need for agricultural production of irrigated crops which, in turn, depends on many factors, including total global crop production, profitability of agricultural production (including return on investment for the end users of our products), agricultural product prices, farm incomes, availability of financing for farmers, government subsidies for farmers, government policies and support for agricultural infrastructure, water supply and transport, regular rainfall and regional climate change. The state and trend of government support for farms, financial aid and policies regarding the ability to use water for agricultural irrigation can affect the demand for our irrigation products and irrigation system solutions. As farm incomes decline, producers can postpone investments, including the purchase of our products, or look for less expensive irrigation alternatives.

In addition, uncertainty or changes in government subsidies, policies and government support for agriculture may adversely affect our business, financial position or operating results.

## Our customer base depends to a degree on major customers and the loss of all or a portion of business with some major customers may adversely affect our operating results.

In 2019, our top ten customers combined accounted for 10.6% of our total net sales. Our largest single customer accounted for 2.7% of our total net sales in the same year. Because our profitability depends on maintaining a high capacity utilization rate, the loss of all or a substantial portion of an important customer or end user's sales volume could have a negative effect on our sales or operating results. In the event that any of our major customers face financial difficulties, this could affect our operating results by reducing our sales or resulting in the inability to collect accounts and recover the investment made in our production facilities. In addition, a consolidation of our customers could reduce our net sales and profitability, particularly if one of our most important customers were to be acquired by a company related to any of our competitors.

Thus, any negative financial impact on some of our major customers could lead to a reduction in the production and sale of our products, affecting our operating results and financial position.

## Inability to effectively manage our growth could adversely affect our business, operating results and financial situation.

As a result of the acquisition of new companies and our organic growth, our EBITDA has undergone a growth rate of up to double digits. In addition, our operating income and cash flows have increased substantially, which provides flexibility to continue growing while maintaining our core strengths. This has resulted, and will continue to result, in a significant effort in our administrative, operational and financial infrastructure.

However, the integration of our new businesses and their operations is a complex and demanding process. Prior to each acquisition, the acquired companies operated independently, with their own business plans, corporate culture, locations, employees and systems. Any integration of another business with our own could involve significant difficulties, costs and delays, including: (1) deconcentration of the management of day-to-day operations; (2) a likely incompatibility of corporate

cultures; and (3) the inability to achieve planned synergies, in addition to costs and delays in implementing common systems and processes.

Similarly, we believe that additional growth will be required to expand the scope of our operations and the size of our customer base. Our success will depend in part on the ability of our key executives to effectively manage this growth.

To manage our business and grow effectively, we must continue to improve our operational, financial and administrative processes, controls, systems and procedures, as well as our reporting systems and procedures. In addition, hiring new staff will increase costs, which could make it difficult, in the short term, to offset such expenses against revenues. If we are unable to manage our growth effectively, our expenses will increase more than expected, our revenues may decrease or increase at a slower rate than anticipated, and we may not be able to implement our business strategy, which could affect our operations, financial position and results.

### We have recently made and may make important acquisitions that, if not integrated satisfactorily with our company, could adversely affect our operating results.

We have recently made significant acquisitions and may consider making additional important acquisitions to continue our growth. For more information regarding these acquisitions, see the section "Investments made in the last three fiscal years, Chapter 2. The Issuer."

Acquisitions themselves involve risks, including the following:

- Acquired businesses may not achieve the expected results;
- Changes in the economic context with a growth expectation within the markets where the acquired companies are present;
- · Failure to achieve expected synergies and not achieving the expected savings;
- Increases in costs, supplies and energy;
- Difficulties encountered in the integration of operations, technologies and control systems;
- Possible inability to hire or retain key personnel for acquired operations;
- Possible inability to achieve the expected economies of scale;
- Unforeseen liabilities;
- Exercising minority rights in transactions that are not 100% acquired; and
- Unforeseen economic competition and regulatory considerations.

We face, and may face in the future, difficulties in the integration of operations, accounting systems and internet technology systems of some of our acquired companies. If we are unable to successfully integrate or manage the acquired operations, we may not achieve the expected cost savings, increased revenues and levels of integration. This could result in lower profitability or losses on transactions arising from asset impairment tests. In addition, we expect to incur significant expenses associated with the integration of the accounts and systems of the acquired companies. Such costs and impacts may have a negative effect on our operating results and financial position.

#### We are exposed to product risks that could cause damage to third parties.

We may be exposed to risks or damages arising from civil liability to third parties resulting from the use of our products, as well as the resulting court case, regardless of whether such products are used in a manner contrary to instructions. We may also be exposed to damage related to the use of our products in medical grade applications and for the food and beverage industry.

We have purchased standard market insurance coverage for this type of risk. However, we cannot assure you that the safety measures taken to prevent product risks are sufficient or that our insurance coverage will be sufficient to cover all the damages we may incur, in which case our operating results or financial position could be adversely affected.

## Impacts related to climate change could result in additional regulatory or legal requirements, as well as unforeseen investments.

We have carried out different analyses to determine the degree of vulnerability of our operations with the possible effects of climate change.

The effects of climate change identified within the different areas where we operate or have a market share are: desertification and drought, rising sea levels, changes in rainfall patterns, decreased water availability, deforestation and disease, all phenomena that could affect our operating results and financial position, among other factors, due to the need for additional investments to adapt operations to the new conditions, the increase in the price of supplies and energy, the closure of affected operations and relocation of suppliers, protection measures as a result of natural phenomena (for example: construction of dikes in marine installations, flood or fire protection) and the relocation of facilities to sites with more favorable conditions and higher environmental regulatory requirements.

## We are exposed to risks related to extreme weather events, including possible damage to our facilities and the lack of availability of water resources to maintain the operation of our facilities.

Extreme weather events can also have a serious impact on our logistics. Our production facilities could be isolated and be unable to receive or ship products by land or sea, as the case may be. Furthermore, the flow of materials could be interrupted in foreign locations that are strategic for the transport of goods (for example: closed ports in the USA due to hurricanes or inaccessible borders owing to floods in Europe). The Intergovernmental Panel on Climate Change (IPCC) estimates that extreme weather events will increase in number and intensity. As a result, our operating sites are exposed to hurricanes, cyclones, tropical storms or other climate change events, and if they are affected by such events, our operating results and financial position could be affected. In addition, we may be subject to sanctions, third party actions and regulatory authority investigations if we are unable to comply with existing or future approved environmental legislation.

#### Natural disasters, production hazards and other events could adversely affect our operations.

Natural disasters, such as storms, hurricanes and earthquakes, could disrupt operations, damage infrastructure or adversely affect our production facilities. In addition, we are vulnerable to acts of vandalism or revolts that could affect the infrastructure and/or our distribution network. Any of these events could increase our expenses or investments and/or result in a force majeure event under some of our contracts and consequently affect our operating results and financial position.

Our operations are subject to hazards such as fires, explosions and other accidents related to the manufacture, storage and transportation of chemicals. These hazards can range from personal injury to loss of life, property damage and/or destruction of equipment and assets, as well as environmental damage. A material incident at one of our plants or storage facilities could result in the temporary suspension of operations and could result in significant compensatory costs and loss of net sales revenue.

We have insured our plants against damage caused by accidents or other similar incidents, as well as indirect damage resulting therefrom, such as a business interruption. However, if losses are incurred as a result of these events, they may exceed the limits of the insurance policies, or if they do not exceed them, they may not be fully recovered. Damages that significantly exceed the limits of insurance policies, damages that cannot be recovered for any reason, even if they are within the limits of the insurance policies, or were not foreseeable or covered by them, could have a material adverse effect on our operations, operating results, financial position and outlook. In addition, even if we receive payment for insurance policies as a result of a loss, facilities could suffer production interruptions while repairs are being completed, which could materially and adversely affect our operating results, financial position and outlook.

### A decrease in prices or agricultural activity caused by weather or other conditions, crop diseases and natural disasters could lead to a decrease in demand for our products and adversely affect our business, financial condition or operating results.

We need farmers to have funds available to buy our products. Crop prices are a factor in boosting sales of our products. Several factors influence crop prices and profitability, including climate, financial markets and water, as well as other supplies. Weather conditions, especially before the planting season, can significantly affect the purchasing decisions of consumers of irrigation equipment, projects and services in the particular locations in which we operate. Natural disasters, such as regional floods, hurricanes or other storms, and droughts, along with crop diseases, can have significant effects on the demand for seasonal irrigation. Drought conditions, which generally positively affect the demand for long-term irrigation equipment, can adversely affect demand if water sources are not available, governments impose water restriction policies, or if farms reduce land for cultivation. Extreme weather conditions over an extended period of time or consecutive seasons, for example due to climate change, could reduce the availability of funds for farmers to purchase our technology and adversely affect our business, financial position or operating results.

## The loss of key executives of both the Issuer and companies acquired now or in the future as a result of acquisitions could affect our operations.

The integration of the Company's management and operations with different companies depends largely on the human resources involved, who know the details of their management and operations, and have vast experience within the industry.

As a result, the projected results of the acquisitions will depend to some extent on the efforts and integration of the companies' operations with those of the Issuer, and the loss of the services of any key executive of any of these companies in the future, for any reason, could affect our operations and results.

## Our operations could be disrupted or affected as a result of the key management team's duty to perform military service.

Some of the employees in the countries in which we operate are required to report for military service, depending on age and rank within the armed forces. In addition, they may be called to the active reserve service at any time, in emergency circumstances for extended periods of time. For example, Netafim's operations could be interrupted by the absence, for a significant period, of one or more of its key employees as a result of military service. Thus, any duty of our management team or key personnel to perform military service or to report for active reserve service at any time could cause disruption in the operation of our business and adversely affect our operating results or financial position.

### Labor disputes could affect our operating results.

At the end of the 2019 fiscal year, approximately 56% of our employees were subject to collective bargaining agreements with labor unions. Over the past three years, we have had no major labor disputes at our plants and have been able to maintain a good relationship with the unions. However, we cannot guarantee that there will be no temporary suspension, nor that a strike will not take place, before, during the term of, or upon expiration of collective bargaining agreements as a result of political or economic conditions, or for any other reason. In addition, we are unable to estimate the adverse effects that, if any, such temporary suspension, strike or other labor event could have a material adverse effect on our activities, operating results or financial position.

## We are a holding company and do not have significant assets other than the shares in our subsidiaries; as a result, we may not be able to meet our obligations.

We are a holding company with no independent operations or substantial assets other than the net worth of our operating companies. We are therefore dependent on the operating results of our subsidiaries. Our ability to meet our debt and other obligations depends on the generation of cash flow from our subsidiaries and their ability to make such cash available in the form of interest payments, debt payments, as dividends or otherwise. Each of our subsidiaries is a separate legal entity and, under certain circumstances, legal and contractual restrictions may limit our ability to obtain cash from our subsidiaries. In addition, under Mexican law, our Mexican subsidiaries may only pay dividends from retained earnings after a legal reserve has been created and all losses from prior tax years have been absorbed. In addition, the distribution of dividends may be taxable unless they are made from a profit and loss account that has already been subject to tax. If we do not receive distributions from our subsidiaries, we may be unable to make the required principal and interest payments on our debt or to pay other obligations. Any adverse change in the financial position or operating results of our subsidiaries could affect our financial position.

## Inability to raise enough capital to finance acquisitions or expansions could delay or impede the implementation of our business strategy.

We expect that the expansion and continued development of our operations will require significant amounts of capital to finance investments and operating expenses, including working capital requirements, which may not be obtained in full or at least not on acceptable terms.

In addition, our operations may not generate enough cash flow to meet our cash needs, or capital requirements may vary significantly from those planned. In such cases, additional funding may be

required ahead of schedule, or some of the new development and expansion plans may be delayed, or we may miss market opportunities. Future lending instruments, such as credit lines, may contain restrictive clauses and may require us to pledge assets to secure payments on such credit lines. The inability to obtain additional capital and/or to obtain it on satisfactory terms may delay or prevent our expansion and adversely affect our operating results, cash flow and financial position.

## We are subject to certain restrictive negative and affirmative covenants as a result of the credit agreements we have executed, which could limit our future business activities.

On December 31, 2019, we had active debt with a total cost of \$3,796 million (\$3,451 million corresponding to contractual obligations contained in debt contracts and \$346 million in leases) plus \$0.1 million corresponding to letters of credit with maturities of more than 180 days pursuant to a series of lines of credit and securities issues in local and international markets. Under the agreements governing our long-term credit facilities, we are required to comply with certain obligations that limit our financial operations and decisions. These obligations may affect our ability to obtain additional financing, finance our expansion or refinance existing debt. Compliance with our obligations under the credit agreements could limit our ability to undertake future acquisitions including future financing or refinancing of our debts, which could have a negative impact on our operations, operating results and financial position.

# Our ability to sell additional shares in order to raise capital for the expansion of our business will depend, in part, on the market price of our shares, and failure to meet market expectations with respect to our business could have a negative effect on the market price of our shares and limit our ability to sell them.

Our ability to self-finance through capital depends, in part, on the market price of our shares, which in turn depends on multiple market conditions and other factors that could change at any time, including:

- Interest from investors;
- Our financial development;
- Analyst reports regarding us and the economic, political and social environment in Mexico, or the countries where we operate;
- General conditions in the capital and debt markets, which depend largely on the cash flows of our operations, which in turn depend on increased revenues as a result of events, acquisitions or profits;
   Other factors such as abagaa in government regulations or tax laws;
- Other factors such as changes in government regulations or tax laws;
- Judicial or administrative proceedings in any jurisdiction in which we operate that could have an adverse effect on our financial position or income; and

The inability to self-finance through capital, due to any of the above circumstances or any other circumstance, may affect our plans and projects and may also have a negative impact on our operating results or financial position. Furthermore, failure to meet market expectations in terms of our future earnings and cash distributions could adversely affect the market value of our shares and, as a result, our ability to self-finance through capital. Thus, should we be unable to obtain the necessary capital, our operating results could be adversely affected.

### Orbia has opted to hedge a portion of the risk associated with fluctuations in interest rates and/or foreign exchange rates using swaps.

We are exposed to interest rate risk (because we have debt at a variable interest rate) as well as foreign exchange risk (because we have debt and investments in currencies other than the Dollar). Our vulnerability to interest rates is primarily concentrated in the Interbank Equilibrium Interest Rate (TIIE) and LIBOR, which are used for financial liabilities when exchange rate exposure is primarily due to debt and investments in currencies other than the U.S. Dollar. A stress test is conducted to determine our exposure to fluctuations in interest rates, based on total financial debt linked to floating rates that are not hedged, and exchange rates, based on the amounts of principal debt and investments in assets made in currencies other than the U.S. Dollar, resulting in quarterly reports on exposure to interest rate and exchange rate risks that are submitted to our Board of Directors and the corporate governance bodies delegated by the latter. Corporate Finance and Corporate Treasury monitor and manage financial risks related to different operations through internal risk reports, through which risk exposure is analyzed by degree and magnitude. These risks include market risks (currency, exchange rate, interest rate and market value risks), credit risk, liquidity risk and cash flow interest rates.

Hedging transactions are regularly evaluated to ensure that they are aligned with interest rates and related risks thereby guaranteeing the most effective hedging strategy is in place. Had the TIIE and

LIBOR interest rates increased 100 basis points in each reporting period and all other variables remained constant, pre-tax earnings for the 2019, 2018 and 2017 fiscal years would have decreased by \$4 million, \$4 million and \$1 million, respectively. This is mainly due to the Company's exposure to Libor and TIIE interest rates on long-term loans.

Orbia performs sensitivity analyses for a 10% increase or decrease in U.S. Dollars against relevant foreign currencies. The sensitivity analysis only includes monetary items listed in currencies other than the functional and reporting currencies and adjusts their conversion at the end of the period by a fluctuation of 10%. Thus, by weakening the foreign currency (other than the Dollar) by 10% against the main currencies, the greatest effect in terms of results in 2019, 2018 and 2017 would have been in Euros with \$123 million, \$91 million and \$114 million, respectively. Secondly, the effect would have been \$24 million, \$18 million and \$7 million in Pesos for the years 2019, 2018 and 2017, respectively.

The Company cannot assure that the stress tests and hedges it performs are sufficient to cover possible contingencies derived from the stress scenarios considered, or from significant fluctuations in interest rates and exchange rates, which would adversely affect its financial position and operating results.

In addition, transactions with financial derivatives involve certain risks other than currency and interest rate risks, such as counterparty risk (collection risk), risks posed by unusual transactions in underlying or benchmark assets, and risks arising from the need to increase the collateral provided, among others. In the event that any such risks arise, we may suffer a material adverse effect to our results and financial position.

Market practices and documentation of derivative financial instruments in Mexico may differ from those in other countries. The execution and enforcement of these types of operations depends on our ability to develop adequate management and control systems and to hire and retain qualified personnel. These factors could further increase the risks associated with such operations and, as a result, could have a material adverse effect on our operating results and financial position.

## The adoption of new accounting pronouncements, as well as changes in existing accounting pronouncements, could have a material adverse effect on our operating results and financial position.

From time to time, the IASB (International Accounting Standards Board) reviews and updates its accounting standards, issues interpretations of existing standards and issues new ones. We report our results and financial position pursuant to IFRS. Changes in the IFRS, its interpretations and the issuance of new standards may cause our future reported results and financial position to differ from current expectations, or our historical results to differ from those previously reported due to the adoption of such changes, interpretations or new accounting standards.

We regularly monitor possible accounting changes, interpretations and the issuance of new standards and when these are concluded by the IASB, we determine the possible impact and disclose significant future changes in our financial statements. Several new accounting standards, applicable to annual periods after January 1, 2019, have been issued by the International Accounting Standards Board ("IASB") and have not been fully applied to the preparation of our Financial Statements. For further information, see *Note 3 "Basis of presentation" of the audited financial statements included in the section " Annexes"* of this Annual Report.

As a result of the foregoing, our consolidated financial statements may not be comparable against prior periods if we do not adopt a retrospective method of presentation that takes these new standards into consideration. We are currently evaluating the effect that the adoption of these accounting standards may have on our operations and cannot guarantee that the initial application of these new accounting standards will not have a material adverse effect on our operating results and financial position. For more information, see Note 3 of our audited consolidated financial statements included in the Financial Statements attached to this Annual Report.

### We may not be able to protect our intellectual property rights

We may not be able to prevent third parties from using our patents and trademarks without our authorization or from otherwise infringing on our intellectual property rights. The intellectual property laws of the various jurisdictions in which we operate and the enforcement of such laws by the authorities in such jurisdictions may not be efficient, which may affect our ability to protect our rights over our intellectual property. We cannot guarantee that we will be successful if we try to enforce our intellectual

property rights. Because we believe that our patents and trademarks are one of our competitive advantages, if we are unable to enforce these intellectual property rights, our business could be adversely and substantially affected. In addition, any legal proceedings to enforce our intellectual property rights could be costly and could adversely affect our operating results.

## We employ and develop technologies that may infringe on certain third-party intellectual property rights

We cannot guarantee that our processes and products do not infringe, or will not infringe at any time, on the intellectual property rights of third parties, or that such third parties will not sue or take legal action in this regard in the future. We cannot guarantee that third parties will not take any legal action for possible infringement on their intellectual property rights by the Company, or that such third parties will not win these legal actions.

Any legal action or proceeding by third parties could:

- Be lengthy;
- Result in a lawsuit or arbitration proceeding, the diversion of the attention of the technical and administrative personal of our principal business, as well as the diversion of financial resources from our operating businesses in order to use them to protect the Company against such actions;
- Require the development of products and services that do not violate third party intellectual property rights, or that adapt to royalty schemes or licensing contracts; and
- Require the use of any product or process that violates the rights of others to cease.

As a result, if any or all of these events were to occur, our operating results and financial condition could be adversely affected.

### Higher financial compensation may be required to pay employees for technological innovation

In some of the countries in which we operate, inventions conceived by any employee during his or her employment by a company will be considered an "invention service" and will belong to the employer, as is the case, for example, with the Israeli Patent Law 5727-1967. Thus, employees who develop an "invention service" may be entitled to receive royalties derived from the profits generated by the employer as a result of the commercialization of said "invention service", unless such employee waives his or her right to receive royalties or other company's employees generally agree to waive such claims, we may face claims for royalties or other compensation relating to "invention service" from employees who do not waive their right. As a result of such claims, we would be required to pay royalties or additional compensation to employees, or be forced to litigate such claims, which could adversely affect our business and operating results.

## We are subject to legal and administrative proceedings in certain countries in which we operate, the results of which could adversely affect our business.

We currently operate in more than 40 countries around the world and distribute in more than 100 nations. In some of these countries we have are the plaintiff or defendant in multiple judicial or administrative proceedings regarding our routine operations. We are fully committed to complying with applicable laws and regulations in the jurisdictions in which we operate.

Although the company has policies and procedures outlining how the Issuer and its employees and agents should act in order to ensure compliance with the standards and laws in force in the jurisdictions in which we operate, these and other procedures may be initiated in such jurisdictions and the Company may be the defendant or plaintiff in such cases, therefore we cannot guarantee that the Company will not be party to or involved in such proceedings or that the outcome of such proceedings will be in Orbia's interests. In the event that such proceedings are initiated and/or the outcome thereof is not in the Company's interests, and the Company is unable to protect its interests, the Issuer's operations, operating results or financial position may be adversely affected.

## The costs of breach of environmental, health and safety laws, as well as any contingencies arising in relation to such laws, may increase, adversely affecting our operations, operating results, cash flows or financial position.

We produce, distribute and transport hazardous materials as part of our operations, which involves risks of leaks and spills that could potentially affect both ordinary people and the environment. We also

produce, distribute and sell products that are dangerous or have certain levels of global warming potential that may be restricted in the future. As a result, we are subject to various laws and regulations relating to environmental protection, health and safety, among other factors, that govern the generation, storage, handling, use, repair, disposal, transport, emission and discharge of hazardous materials on land, in the air or in water, as well as the health and safety of our employees. In addition, chemical producers are sometimes subject to unfavorable trade perceptions as a result of the environmental impact of their businesses, which could have an adverse effect on our operating results, cash flow and financial position.

Given the nature of our products, we are required to obtain permits from government authorities for certain operations. We cannot guarantee that we have or will always fully comply with such laws, regulations and permits. If we violate or breach these laws, regulations or permits, regulators may fine or otherwise sanction us. We could also be responsible for any consequences arising from human exposure to hazardous substances or other environmental damage.

Environmental protection laws are complex, change frequently, and tend to become stricter over time. Although we have budgeted for the capital requirements and operating expenses necessary to continue to comply with environmental, health and safety laws, we cannot guarantee that the latter will not change or become stricter in the future, or that regulations applied in certain countries or regions will also be applied and/or adjusted in other countries or regions due to the adoption of international treaties. Subsequent changes in or additions to existing laws or regulations, or the enforcement or application of such laws or regulations, could cause us to incur significant unforeseen capital expenditures, which could affect our future profitability or financial position. Therefore, we cannot guarantee that the expense of complying with, or the expenses arising from, stricter or different interpretations of applicable and future safety, health and environmental laws, as well as our responsibilities arising from past or future releases of, or exposure to, hazardous substances, will not adversely affect our business, operating results, cash flow or financial position.

## In the event that the Company does not comply with legal provisions regarding the prevention of corruption, bribery and money laundering, we could be subject to significant fines and our reputation and operations could be adversely affected.

The Company operates in several countries and is subject to complex regulatory frameworks, enforcement of which is becoming increasingly stricter. The Issuer's corporate governance practices and the processes it uses to ensure compliance with the legal provisions to which it is subject may be insufficient to prevent violations of applicable laws, regulations and accounting or corporate governance standards. The Company may be affected by violations of its code of ethics, its anti-corruption policies and its business conduct protocols, as well as instances of fraudulent conduct and corrupt or dishonest practices by its employees, contractors or other representatives. Failure to comply with applicable laws and regulatory measures could damage the Company's reputation, lead us to incur significant fines or penalties and adversely affect our operations, our ability to use the financial markets and, therefore, our financial position.

### The use of social networks could adversely affect and impact our reputation.

The use of social networking platforms and similar media, including blogs, social networking sites and other forms of communication via the internet, which allow individual access to a wide audience and interested persons and their influence as agents of perception and opinion, has grown at a phenomenal rate worldwide. Inappropriate and/or unauthorized use of certain social media platforms may result in trademark damage or leakage of information that could have legal implications, including the improper dissemination and/or disclosure of personal data. In addition, negative or inaccurate comments or information involving the company sent through social networks could damage our reputation, brand image and goodwill.

Consumers value readily available information about retailers, manufacturers and their assets and services, and often act on that information without further research, verification or considering its veracity. Easy access to information on social networking platforms and mobile devices is virtually immediate, as is its impact. Social networking platforms and mobile devices immediately publish the content that their subscribers and participants input, often without filtering or reviewing the veracity of their content.

The opportunities to spread information, including false or inaccurate information, are virtually unlimited. Information that concerns us, or that could seriously affect us, may be transmitted through such platforms and devices at any time. This information could be inaccurate and harmful to us and could damage our business. This damage could be immediate, and we may not have the opportunity to alter it or even correct it. These platforms may also be used to disclose trade secrets or put other valuable assets at risk, and in both cases, damage or affect our business, operating results and financial position.

### Changes in information technology could adversely affect our operation.

Our business growth must go hand in hand with the constant evolution and progress of information technologies (IT), as well as the multiple hardware and software upgrades launched. If our information systems are unstable or obsolete, this could affect our business by reducing the flexibility of our customer value propositions or increasing operational complexity. Any such consequences could have a material adverse effect on our business and operating results.

## Our operations could be affected by a failure, interruption or collapse of our IT (Information technology) system.

The efficient execution of our operations is based on the implementation of IT-related processes and systems, which are used to effectively manage data, communications, network connectivity and other operational and business processes. Although we constantly improve our IT systems and protect our data with advanced security measures, system errors, interruptions or security breaches, such as computer viruses or theft of information or data, may occur. These failures, interruptions or collapses could have a material adverse effect on our operating results or financial position.

# Security failures in our information system and technological systems and processes could materially affect our subsidiaries, affiliates, suppliers and customers, as well as restrict or adversely affect access to our networks and operating systems, or expose us to significant legal, financial, operational and even reputational consequences.

The execution of our business requires the use and storage of personally identifiable information (PII) from customers, employees and business partners. This information may include, but is not limited to, data, names, addresses, telephone numbers, e-mail addresses, contact preferences, tax identification numbers, and account payment information. Because of our profile and the amount of PII we handle in our business, and the amount of strategic industrial and technological information stored in our different internal systems, we are vulnerable to cyber-attacks and database infiltration.

We require usernames and passwords in order to access our IT systems. We also use authentication and encryption technology designed to secure the transmission and storage of data and to restrict access to our data or accounts. These security measures are exposed to third party failures or human errors, alterations, incorrect password control or other irregularities. For example, outsiders may attempt to fraudulently persuade employees or customers to disclose usernames, passwords or other sensitive information that could be used to gain access to our IT systems, directly affect our Treasury Department, and extract sensitive or confidential information for illegal transactions or extract information that could expose the Company to the risk of claims of violation of current General Data Protection Regulations (GDPR). Emails with executable attachments containing malicious software that, due to their complexity, are difficult to block and modify the delivery pattern, could lead to database infiltration.

We invest a significant amount of resources on network security, data encryption and other security measures to protect our systems and data, but these security measures cannot provide absolute protection. If we are victims of infiltration of our internal systems and are unable to protect sensitive or strategic data, such infiltration could cause a material adverse change in our business, operating results and our relationships with business partners and customers, as well as have an adverse effect on the Company's operating results and financial position.

## Cyber-attacks or other disruptions to our network or information systems could have an adverse effect on our business.

Cyber-attacks and disruptions to networks and systems, including the introduction of computer viruses, malicious code, denial of service, faulty software and other disruptions or unauthorized access to company systems, have increased in frequency, range and impact in recent years. The preventive actions we take to reduce the risk of cyber incidents and protect our network and information may not be enough to stop a massive cyber-attack in the future. The costs associated with a potential massive cyber-attack on our systems include increased expenses associated with strengthening cyber security measures and decreased losses associated with disruption of our services, lawsuits, and damage to our reputation.
Cyber-attacks or other disruptions to our security network or information systems could cause equipment failure or disrupt our operations. Such failures, even when they occur over a short period of time, could cause significant losses or declines in the market price of our shares. In addition, potential losses from cyber-attack events and disruptions to our network could exceed our insurance coverage. Furthermore, cyber-attacks may lead to the distribution, without our consent, of valuable financial information and confidential data of our customers and business, resulting in failures to protect the privacy of our customers and business, which could have adverse effects on our operating results, reputation or financial position.

## (b) Risk Factors relating to Mexico and other countries in which the Company has its main operations.

The Company's financial position and operating results are exposed to general economic conditions in the countries in which we operate. Orbia has a presence in various markets such as construction, refrigerants, agriculture/irrigation, industry, automotive, consumer, telecommunications (voice and data), energy, and urban and rural infrastructure, among others. The Company actively contributes to the development of Mexico and the countries in which it has an industrial and commercial presence through its subsidiaries, by focusing on each of its strategic sectors and channeling its products to intermediate or end consumers. As a result, Orbia has manufacturing and marketing assets and operations in several countries in the Americas, including: Mexico, Argentina, Brazil, Chile, Colombia, Costa Rica, Ecuador, El Salvador, the United States, Guatemala, Honduras, Nicaragua, Panama, Peru, and Venezuela. In addition, the Company has operations in Europe, Africa and Asia as a result of the acquisitions of AlphaGary (now Orbia Specialty Compounds), Fluent Europe (Wavin), Vestolit, Fluent US/Canada and Fluent AMEA (Dura-Line) and Netafim. In view of the foregoing, Orbia has 128 production plants in 41 countries with a commercial presence in more than 100 countries. Consequently, Orbia's activities, financial position, and operating results are largely subject to the overall situation of the economies of the countries in which it operates and the purchasing power of their populations.

# Epidemics in the countries where we carry out our production and commercial operations or pandemics that affect all countries could interrupt operations by suspending activities, breaking supply chains or blocking product distribution chains.

In January 2020, an epidemic was reported in Hubei Province, China, particularly in the capital Wuhan, an industrial center with a significant presence of the automotive sector.

The rapid spread of the epidemic and the number of deaths forced the Chinese government to take measures by suspending activities, mass isolation and the interruption of transport routes, to stop the epidemic from spreading throughout the country.

China's complex network of investments, alliances and trade relations with the rest of the world has kept a constant flow of foreigners in and out of the country. This condition facilitated the rapid spread of the epidemic to other countries and soon to virtually the entire world.

The World Health Organization declared it a pandemic, which has infected hundreds of thousands of people and the death of tens of thousands worldwide. The virus causing the pandemic has been named COVID-19.

To stop the rapid advance of the pandemic, many countries, including the most economically developed, implemented isolation measures, social distancing, canceled large events, closed factories, movie theaters, restaurants and borders.

The health measures have had a significant impact on the global economy: an abrupt rise in unemployment, the breakdown of supply chains, a halt to productive activities, a fall in sales and consumption, a fall in cash flows from business operations, non-payment of loans and financial commitments.

The governments of the United States, the European Union and several other countries have approved economic support packages to support and prevent further damage to their respective labor, financial and economic markets.

The COVID-19 pandemic and its human and economic consequences are unprecedented, and so it is difficult to estimate the final consequences of this phenomenon.

The operations, results and financial standing of Orbia, its business groups and their respective subsidiaries may be affected by the pandemic caused by COVID-19, and other epidemics that may occur in the future, especially those of greater geographical scope.

# Changes in governmental policies in Mexico and other major countries in which the Issuer operates could adversely affect the Company's operations, operating results, financial position and outlook.

The Mexican Federal Government, as well as the governments of other major countries where the Issuer operates, including the USA, Brazil, Germany, the United Kingdom and India, among other countries, have exerted and continue to exert significant influence over the economies of their respective countries, or the political community in which they operate. Of net sales to third parties by destination in 2019, classified by geographical area, the Company generated 34% in Europe, with 7% and 5% generated in Germany and the United Kingdom respectively, 31% in North America, with 18% generated in the USA and 9% in Mexico, 21% in South America, with 7% in Brazil and 14% in other countries, and India at 5%.

Accordingly, the actions and policies of the governments of the countries in which the Company operates, relating to the economy as a whole and the sectors in which we operate, could have a material impact on the Company, and more generally on the market conditions, prices and returns of the Company's securities currently traded on the local and international markets.

There can be no guarantee that changes in the policies of the governments of the countries in which the Company operates will not adversely affect our operations, operating results, financial position and outlook.

## The economic, political and social conditions in Mexico, the USA, Germany, the United Kingdom, Colombia, Brazil and India may adversely affect the Company's operations.

The Company's financial performance may be significantly affected by the economic, political and social conditions in the markets in which it operates. In the past, many countries in Latin America, including Mexico, Brazil and Colombia, Asia, including India, and now the United Kingdom, have suffered major economic, political and social crises. The Company cannot predict whether changes in government will result in reforms of government policies and, if so, whether such reforms will affect our operations. In particular, the Company's operations may be affected by conditions in Mexico, the USA, Germany, the United Kingdom, Colombia, Brazil and India, its largest markets. For example, in July 2018, presidential elections were held in Mexico and there was a change of leadership and the political party in power that has led to changes in the country's economic, political and social situation, which is beyond the Company's control.

#### The Company is subject to exchange controls in some of the countries in which it operates.

The Company is currently subject to exchange controls in some of the countries in which it operates, such as Venezuela, Brazil, Argentina, India, South Africa and China, among others. These controls restrict access to foreign currencies and limit the possibility of transferring funds outside such countries, including funds for interest or principal payments on outstanding debt. In addition, these controls affect our capacity to receive dividends and other distributions from subsidiaries in these countries. For example, Pavco de Venezuela, one of the Company's subsidiaries, has encountered difficulties in obtaining the foreign currency required to conduct commercial transactions in its day-to-day operations. Additionally, in February 2013, the Venezuelan government significantly devalued its local currency, from 4.30 bolivars to the U.S. dollar to 6.30 bolivars to the U.S. dollar, and during 2013 and 2014, made several modifications to its exchange rate regime. As of the fourth quarter of 2014, Orbia opted for the Alternative Foreign Exchange System (SICAD) to convert its operating results, meaning the exchange rate used was 12 bolivars to the dollar, according to the auction held on September 25, 2014. However, as of the second quarter of 2015, the Company adopted the SICAD II exchange rate regime, in which it opted to convert the results at an exchange rate of 198.69 bolivars to the dollar. In 2016 the exchange rate used was 673.76 bolivars to the dollar and in 2017 it was 3,345.00 bolivars to the dollar. In order to convert the figures as of December 31, 2019 and 2018, Orbia determined a theoretical exchange rate related to the effects of inflation, allowing them to be balanced. Therefore, these figures were converted at the exchange rate of 284,052,162 and 223,090,269 bolivars per U.S. dollar, respectively for the year ending December 31, 2019, the Company's net sales in Venezuela represented less than 0.01% of Orbia's total consolidated sales, thus significantly reducing the Company's total contribution.

If the Company is prohibited from transferring funds outside of the aforementioned countries or is subject to similar restrictions in other countries in which it operates, Orbia's operating results and financial position could be adversely affected.

# Political, geopolitical and economic developments around the world, and particularly in the countries in which the Company operates or to which it sells its products and/or services, could adversely affect the Company's business plans, financial position and operating results.

The U.S. economy maintained sustained economic growth for more than ten years at the end of 2019, which is considered to be the longest historical period of expansion recorded in that country.

As a result of the COVID-19 pandemic that spread worldwide in the first few months of 2020, many economic activities were suddenly suspended in most countries. This caused a significant drop in national and global Gross Domestic Product, which is evident in the negative figures for the first quarter of 2020 and probably for the following periods of this year as well.

The economies of the European Union countries decelerated in 2019 and have recorded marginal growth in their respective GDPs, with a decline in the industrial sector and a service sector that has sustained their economies.

The emergence of the COVID-19 pandemic, which has affected the entire world, has forced the temporary suspension of activities in many economic areas that are not essential to life, creating uncertainty about the immediate future of the economy in each country, by region and worldwide.

Financial institutions such as the World Bank, the International Monetary Fund and some central banks claim that the economic damage is inevitable, but difficult to quantify. This situation has made virtually all estimates of economic growth published before the pandemic obsolete.

The measures taken to limit the spread of the epidemic in many countries include the suspension of nonessential production activities, closing borders to the passage of people and goods, among others. Though the duration of the health emergency is short, as is desirable, it is not possible to estimate the impact on economies or the permanence of blockade measures affecting international trade and global tourism.

Furthermore, trade and political tensions and warlike conflicts in some parts of the world, result in measures such as new tariffs, economic sanctions from developed countries on other countries for political reasons, and the termination or suspension of international agreements.

Orbia is likely to lower its financial results or see its financial situation affected if current or future international relations drastically modify the current or future balance causing unilateral or multilateral decisions to the detriment of any country, community of countries or region.

Therefore, given Orbia's balance and geographical presence in more than 100 countries, any political, geopolitical, and economic development in the world, and especially in the countries in which the Company operates or to which it sells its products and/or services, could adversely affect the Company's business plans, financial position, and operating results.

Thus, given that the Company produces using raw materials that in previous years have not undergone a price reduction at the same rate as the reduction in oil prices, and sells in markets where the price of the end product has reduced at the same rate, operating margins have been affected as has the financial position of the Issuer. Thus, any political, geopolitical or economic condition, as well as any development that affects the raw materials used in place of those used by the Company that result in changes in the market prices of the Issuer's end products, could affect our operating margins and financial position.

#### Orbia may be affected by the 2020 US presidential election.

In November 2020, the presidential election will be held in the United States and either President Donald Trump will be reelected for a new four-year term or the incumbent president will be replaced by an opposing candidate from the Democratic Party.

During the current U.S. President's administration, restrictive trade policies have been established for exporting countries to have access to the U.S. market, including Mexico. Trump has also used economic measures to force other countries to support his geopolitical interests.

Prioritizing U.S. interests over those of the rest of the nations has led to or increased political tensions that affect free trade operations and could eventually affect Orbia's operations.

A change of US president in the 2020 elections could also generate paradigm shifts in current international relations and may affect Orbia's operations.

## Events in Mexico or other countries could adversely affect the Mexican and other Latin American economies, the market value of the securities in which Orbia trades, and its operating results.

The market value of securities of Mexican companies is affected by economic and market conditions in both developed and emerging countries. Although in such countries they may differ significantly from those presented in Mexico, adverse economic conditions could expand regionally or investors' reactions to events in any of these countries could have an adverse effect on the market value of securities of Mexican issuers. In recent years, for example, the prices of Mexican debt and equity securities have on occasion undergone substantial declines as a result of events in Mexico or in other countries and markets.

Furthermore, in recent years, there has been a greater correlation between economic conditions in Mexico and economic conditions in the U.S. and the European Union as a result of the free trade agreements signed by Mexico with the aforementioned regions, which have contributed to increasing economic activity among these countries and regions, akin to what happened during the recent economic crisis that affected both the U.S. and Europe. The Mexican economy continues to be strongly influenced by the U.S. and European economies and, therefore, the termination of free trade agreements or other related developments, further deterioration in economic conditions or delays in the recovery of the U.S. or European economy could affect recovery in Mexico and Latin America. These events could have a material adverse effect on the Company's operating results and revenues, which could affect the Company's liquidity, financial position and/or the market price of the securities issued by the Company.

# Inflation and government measures to restrict inflation and/or reactivate economies may adversely affect the economies of the countries in which the Company operates, as well as the Company's business, its operations and the market prices of its securities.

In the past, Mexico and certain countries in which the Company operates (including Argentina, Brazil, Colombia and Venezuela) have experienced high rates of inflation. Although many of these countries have maintained low inflation rates in the recent past, except for Argentina, there is no guarantee that this trend will continue. Measures taken by the governments of these countries to control inflation have often included maintaining a restrictive monetary policy with high interest rates, which has restricted the availability of credit and reduced economic growth. Inflation, actions to combat it and public speculation of possible additional measures have contributed significantly to a lack of economic certainty in many of these countries, and increased volatility in stock markets.

These countries could experience high levels of inflation in the future. Periods of high inflation could reduce the growth rate of their economies, which could result in a reduction in demand for the Company's products and a reduction in sales. Inflation may increase some of Orbia's expenses and costs, which it may not be able to pass on to its customers and, as a result, may reduce its margins and net income. In addition, high inflation generally leads to local increases in interest rates and, as a result, the costs of repaying debt contracted at variable rates may increase, resulting in a decrease in net income. Consequently, inflation and its effects on local interest rates may lead to reduced liquidity in the local capital and loan market, which could affect the Company's ability to refinance its debt in such markets. Any reduction in sales or net income, and any deterioration in Orbia's financial performance, could affect the Company's liquidity and financial position.

The Company recognizes the effects of inflation in hyperinflationary economies, i.e., where cumulative inflation compounded over the last three years is greater than 100%. In 2019, 2018, and 2017, Orbia recognized the effects of inflation on its operations in Venezuela and Argentina.

Foreign exchange fluctuations of the currencies of the countries in which the Company operates, compared to the U.S. Dollar, and a significant fluctuation in variable interest rates could adversely affect the Company.

In the past, fluctuations in exchange rates in currencies other than the U.S. Dollar against it have affected operating results and could continue to result in decreases in sales and net earnings reported by the Company.

Until January 1, 2013, Orbia considered that the functional currency applicable to certain subsidiaries was the local currency. In 2013, the Company determined that, in accordance with current operating conditions, including new operations and plant capacity expansion, the functional currency should be modified to the U.S. dollar. Furthermore, the functional currency of most of Netafim's operations is the corresponding local currency; however, the currency used by Netafim for information purposes is the Dollar. Therefore, the Company is required to convert assets, liabilities, expenses and revenues from its operations in local currency to the U.S. Dollar at the corresponding exchange rates. Thus, Orbia is exposed to exchange risk in relation to the U.S. Dollar in subsidiaries through transactions whose recording and functional currency is different from the U.S. Dollar. The currencies to which the Company is exposed are the Mexican peso, the Brazilian real, the Colombian peso, the euro, the British pound sterling, the Czech crown, the South African rand, the Turkish lira, the Indian rupee and the Polish zloty, among others.

Approximately 91% of the Company's outstanding loans are expressed in U.S. Dollars, although the Company has hedges that mean that 97% of its outstanding loans are in U.S. Dollars, 2% are in Mexican pesos and the remaining 1% are in other currencies (Turkish lira, rupees, etc.). Of the Company's total revenues, approximately 35% are expressed in local currencies that differ from the U.S. Dollar and Euro and 65% are expressed either in U.S. Dollars or Euros. Loans in Dollars and other currencies generate interest based on fixed and variable interest rates. The Company's fixed interest rate U.S. Dollar and other currency loans represent 88.6% of Orbia's total loans and 91.6% of the loans in that currency.

Moreover, 9% of Orbia's loans are denominated in currencies other than the U.S. dollar, of which 59% (5.5% of total loans) bear interest at a fixed rate, while 41% (3.8% of total loans) bear interest at a variable rate (related to the TIIE). Any devaluation of the U.S. Dollar against the various currencies of the countries in which the Company operates and whose functional currency differs from the U.S. Dollar, or any increase in interest rates in countries in which the Company has floating rate loans, would have an adverse impact on Orbia's net income, operating results and financial position.

## Antitrust laws in Mexico and other countries in which Orbia operates may limit our ability to expand our operations.

In Mexico and in the countries where Orbia operates, antitrust laws and related regulations could adversely affect our ability to acquire, sell, and execute joint ventures. The approval of the Federal Economic Competition Commission in Mexico, and of the authorities of each country on this matter, is required for acquisitions, sales or significant joint ventures to be carried out. Failure to obtain antitrust authority approvals could result in fines, mandatory divestiture of assets, termination of key acquisition contracts, or the inability to continue business acquisitions or conclude those already agreed upon. The Company continues to expand its operations and may face stricter audits by the competent competition authorities in the various countries in which we operate or in the countries which we intend to enter.

Orbia currently has a relevant position in most of the markets in which we operate in both Latin America and Europe, according to data published by IHS Markit WVA, IHS Markit Chlor-alkali Market Report, Eurostat Economist Intelligence Unit, and market studies conducted by Orbia. Therefore, as our operations and market position increase, the risks that may arise with antitrust regulations related to future acquisitions increases, which could have a material adverse effect on the Company's financial and operating results.

#### Breach or the imposition of stricter government regulations could adversely affect us.

The Company is subject to various federal, state and municipal laws and regulations in the countries in which it operates, including those relating to mining, manufacture, use and handling of hazardous materials, environmental protection, workplace safety and consumer protection. Concessions, permits, licenses and authorizations from various government authorities must be obtained, conserved and renewed on a regular basis in order to carry out our projects and operations. At all times, we seek to comply with these laws and regulations. Failure to comply with the foregoing would result in fines, plant closures, cancellation of licenses, revocation of authorizations or concessions or other restrictions on our ability to operate, which could have an adverse impact on our financial position.

Regulations governing the chemical industry have become more restrictive over time. We cannot be sure that new and more restrictive regulations will not be adopted or be applicable, or that there won't be stricter interpretations of current laws and regulations. Any such event may require incurring additional expenses to meet these new requirements in so far as possible, which would increase the cost of operation.

## The Mexican Congress and the legislative authorities of the countries in which Orbia has a presence may approve legislation that results in increases in tax obligations.

In recent years, the Mexican government and some of the governments of the countries in which the Company operates have implemented various reforms to the tax laws applicable to companies, including Orbia. If the Mexican government or any of the governments of the countries in which Orbia operates carry out tax law reforms that result in significant increases in tax obligations, Orbia may be required to pay higher amounts pursuant to such changes, which could have a significant negative impact on our operating results.

In December 2019, the Mexican government enacted several reforms to the federal tax laws, which - subject to specific provisions - entered into force on January 1, 2020. The most relevant points include: (1) the income tax rate for corporations was kept at 30%; (2) new provisions were included to implement international guidelines, such as the recommendations issued by the Organization for Economic Cooperation and Development (OECD), among others; (3) the powers of the Mexican tax authorities were strengthened; (4) a general anti-abuse rule and new transparency obligations for taxpayers and tax advisors were included; (5) additional limitations on the deductibility of interest were included; (6) tax deductions for payments made to entities resident in a low tax jurisdiction were limited; (6) additional rules are included that strengthen the applicable "Preferential Tax Regime" regime.

The Company's business, financial position and operating results could be adversely affected by the changes.

The Company cannot conclude with certainty of what all the final outcomes of such reforms and potential changes to the tax laws of the countries in which it operates could be on its business, and furthermore, some governments may make significant changes to their tax policies in response to their weakened economies. Adverse or unanticipated taxation of the Company's business may have a material adverse impact on the Company's financial position and operating results.

In addition, taxation in several of the jurisdictions in which the Company operates or does business is often complex and subject to interpretation. The tax position of the authorities could differ from the Company's current or historical tax position, which could result in the payment of higher taxes on items for which the Company was not previously taxed, in addition to the conduction of audits of previous years and tax payments, as well as the imposition of additional taxes. Some of these actions and evaluations could be exhaustive and could result in the imposition of material sanctions, fines and/or updates. A focused analysis of each of the jurisdictions in which the Company operates is required to evaluate the various fiscal positions of the authority in turn, and thus be able to take the necessary actions. The various unfavorable resolutions taken by the authorities, the payment of additional taxes, the imposition of penalties, the payment of fines, sanctions, expenses or restatements resulting from changes and updates in the tax and fiscal position of the various authorities in any of the jurisdictions in which the Company does business could materially and adversely affect our operating results, financial position and cash flow.

# IFRS differ in several respects from U.S. financial reporting standards or many of the Financial Reporting Standards that apply in the countries in which Orbia operates or in which our securities are traded.

In Mexico, the U.S. and other countries, securities laws and regulations have been enacted to promote full and accurate disclosure of corporate information to investors. However, the Company is not required to comply with most of the securities laws in force in the USA or other countries and, therefore, the information reported may differ from and be presented in a manner that differs from the information available to companies operating or trading in the USA or other countries that are required to report their information according to securities listing standards pursuant to such regulations. The Company's financial statements are prepared in accordance with IFRS, which are different from the United States Generally Accepted Accounting Principles, in various respects.

#### (c) Risk Factors related to Securities Issued by the Company.

#### The market price of outstanding shares can fluctuate significantly.

Volatility in the market price of ORBIA\* shares could prevent investors from being able to sell their shares at the same price or at a higher price than they paid for them. The market price and market liquidity of ORBIA\* shares could be significantly affected by several factors, some of which are beyond the Company's control and cannot be directly related to the Company's performance. These factors include, but are not limited to:

- Changes in the market valuation of companies offering similar products;
- Economic, regulatory, political and market conditions in Mexico, the U.S., Europe and other countries;
- Industry conditions or trends;
- Emergence of technological innovations that could make products and services less attractive or obsolete;
- The introduction of new products and services by the Company or its competitors;
- · Historical and projected quarterly and annual operating results;
- · Differences between actual or expected results and analysts' and investors' expectations;
- Announcements by the Company or third parties and events affecting operations;
- Announcements, results or actions taken by competitors;
- Perceptions of the Company investors or of the services it provides;
- Changes in financial or economic estimates by securities analysts;
- Environmental events, consumer perceptions of environmental issues and compliance with environmental laws;
- The announcement of significant operations or capital commitments made by the Company;
- Changes in laws or regulations;
- Currency devaluations and imposition of capital controls;
- · Incorporation or departure of key management personnel; or
- Future sales of shares.

In addition, the securities markets and, in particular, the securities markets of companies in Mexico and Latin America have experienced extreme fluctuations in prices and volumes that have often been unrelated to, or disproportionate to, the operating performance of these companies. Broad market and industry factors could materially and adversely affect the price of Shares, regardless of actual operating performance.

### Relatively low liquidity and high volatility of the Mexican stock market could cause share prices and trading volumes to fluctuate significantly.

Orbia's shares are listed on the Mexican Stock Exchange. Although the Mexican Stock Exchange is one of the largest stock exchanges in Latin America in terms of market capitalization value, it remains relatively small, liquid and volatile compared to other foreign stock markets, mainly in Europe and the USA. Although the public participates in securities transactions through the Mexican Stock Exchange, a significant portion of these transactions are carried out on behalf of institutional investors. These market characteristics could limit Shareholders' ability to sell their shares and could adversely affect the market price of the shares. The trading volume of securities issued by companies incorporated or operating in emerging markets tends to be lower than the trading volume of securities issued by companies incorporated or operating in more developed countries.

## Under Mexican law, shareholders' rights may be more limited, different or vague than in other jurisdictions.

The corporate affairs of the Company are governed by the provisions of its articles of association and Mexican law, which may differ from the legal principles that would apply if it were incorporated in any jurisdiction in the USA, such as the states of Delaware or New York, or in any jurisdiction other than Mexico. For example, under Mexican law, the protection afforded to minority shareholders and the fiduciary duties of directors and officers are, in some respects, lesser than or different to those in the USA or other jurisdictions. In particular, the legal regime of the fiduciary duties of directors in Mexico is not as comprehensive or developed as it is in the USA. In addition, the criteria for determining the independence of directors differ from the criteria applicable under the other laws.

The rights of holders of the outstanding shares who protect their interests in connection with any act by the Board of Directors, the Company or any of its members or its principal officers due to breach of their duty of loyalty may be limited or vaguer than the rights granted in other jurisdictions. In particular, any action against the Company's officers and directors can only be initiated by holders of at least 5% of the outstanding shares, as opposed to a single shareholder or group of shareholders, and are derivative actions on behalf of the Company rather than the affected shareholders. In addition, rules and guidelines on related party transactions and conflicts of interest may not be as well defined in Mexico as they are in the USA, leaving the shareholders at a possible disadvantage. Furthermore, the duties of loyalty and diligence of directors and officers are defined only in the LMV and have not been interpreted or defined by the competent courts to date; consequently, the judicial interpretation of the meaning and scope of such duties is uncertain. Recently several reforms were published in Mexico that allow for the institution of class actions, however, the procedures for instituting such actions have not been defined. To date, there has not been a sufficient number of claims relating to breach of fiduciary duties, whether through class actions or derivative actions, to give rise to legal claims based on breaches of fiduciary duties or to assist in predicting the outcome of a potential claim. As a result of the foregoing, minority shareholders of the Company have greater difficulty in practice in deciding whether to exercise their rights against the Company or its directors, officers or controlling shareholders than they would have as shareholders of a company incorporated in the United States.

# There can be no guarantee that Orbia will be able to pay or maintain cash dividends, and its dividend policies are subject to change. Payment and the amount of dividends are subject to decision by shareholders.

The Company's Board of Directors must submit its audited consolidated annual financial statements for the previous fiscal year at Orbia's Annual General Shareholders' Meeting for approval. Once shareholders approve the Company's audited consolidated annual financial statements, shareholders allocate the net income for the previous fiscal year.

The dividend policy is recommended by the Board of Directors and approved by the Company's Shareholders' Meeting. While Orbia's principal shareholders continue to own a majority of the shares representing the Company's capital stock, such shareholders may determine whether dividends will be paid and the amount of such dividends. As a result of the foregoing, there may be years in which the Company does not distribute dividends and others in which a substantial portion of Orbia's earnings is distributed. If the latter occurs, the Company's growth potential could be limited.

Orbia's dividend payment policy depends on the generation of profits, flow generation, and projected investments in its different business groups. There are several factors that may affect the availability and intervals of cash dividend payments to Orbia's shareholders. The amount of cash available for dividend payments may be affected by various factors, including operating results, financial position, future capital requirements, contractual or legal restrictions stipulated in Orbia's current or future financings, those of its subsidiaries, and the ability to obtain resources from its subsidiaries, as well as many other variables. Cash available for dividend payments can vary significantly from estimates. Even when the Company intends to pay such dividends, there can be no guarantee that the Company will be able to pay or maintain cash dividends or that dividends will increase in the future. The results could differ significantly from the estimates informing the Board of Directors' recommendation to the Shareholders' Meeting to pay dividends or adjust the dividend policy.

There is no dividend payment policy. Until 2017, Orbia applied a criterion of paying up to 10% of the EBITDA for the corresponding fiscal year as a dividend, but this is not a formally adopted policy since there is no document setting it forth in writing, rather it was adopted at the request of the controlling shareholder.

In any event, under Mexican law, the Company can only make dividend payments when the losses of previous years have been paid or absorbed and the payment of the respective dividend is expressly approved by the shareholders. In addition, and pursuant to Mexican law, prior to a dividend distribution, at least 5% of the Company's net income must be allocated to the legal reserve fund until such reserve fund equals 20% of Orbia's capital stock. Additional amounts may be allocated to other reserve funds as determined by the shareholders, including the amount to be allocated to the share repurchase fund. The remaining balance of retained earnings, if any, may be distributed as dividends.

In 2017, the payment of the ordinary dividend of \$147 million was decreed, payable in 4 installments during 2018.

In 2018, an extraordinary dividend of \$150 million was declared, payable during the second half of 2018, the last installment payment was made on February 26, 2020 and an ordinary dividend of \$168 million was declared, payable in four installments during the course of 2019, which was paid in full in that fiscal year.

On December 2, 2019, Orbia's shareholders decided to approve the payment of a dividend of \$180 million payable in four installments during 2020.

## If additional shares are issued in the future, shares may be diluted, and the trading prices for ORBIA\* shares may decrease.

As part of our business strategy, future acquisitions or corporate requirements and other expenses may be financed by issuing additional capital stock. Any issuance of Orbia's capital stock would result in the dilution of our investors' equity. In addition, future issues of shares or sales by controlling shareholders, or the announcement of such an issue or sale, could result in a decrease in the market price of the Shares. Thus, Orbia cannot guarantee that in the event that the Company needs to finance future acquisitions or other corporate expenses and for this purpose requires financing through the issuance of additional shares, the price of the Issuer's securities will not fluctuate, and therefore investors may find it difficult to sell their ORBIA\* shares, or that they may be sold at the same price or at a price higher than the price paid for them. The market price and market liquidity of ORBIA\* shares could be affected by the issuance of additional shares in the future.

## The principal and related shareholders, who control Orbia, may have interests that differ from the rest of the shareholders and the holders of the Stock Exchange Certificates and/or Notes.

At the time of this Annual Report, the Company's principal shareholder is Kaluz, which is controlled by the Valle Perochena family which owns approximately 42.91% of the voting capital stock, so it should be considered a significantly influential shareholder pursuant to the LMV. The Valle Perochena brothers individually own 0.52%; other shareholders related to the Valle family that is: (a) Ignacio del Valle Ruíz with 5.09% and (b) various individuals and companies related to a greater or lesser extent to the Valle family have 3.11%, own approximately 8.20% of the voting capital stock, consequently along with Kaluz they should be considered a group, which will have significant influence over the Issuer, pursuant to the LMV.

#### Possible breach of the requirements to maintain a list of securities in the Mexican Stock Exchange or to register them in the National Securities Registry could affect the price of securities.

Orbia, as a result of the registration of its Shares and its Stock Exchange Certificates in the RNV and their listing in the BMV, is subject to compliance with various disclosure requirements, among others, in order to maintain such registration and listing. In the event that Orbia is unable to comply with such requirements, the listing of Shares and Stock Exchange Certificates on the BMV could be suspended or even cancelled. In such an event, the market price of the Shares, Stock Exchange Certificates and Notes would be adversely affected.

## Lack of a market for outstanding shares or a decrease in the marketability of shares could affect share prices.

Orbia's outstanding shares are part of the sample of shares listed on the BMV whose averages are included in the IPC, according to the information on the behavior of ORBIA\* shares in the BMV.

In accordance with the Marketability Index of the BMV, as of April 2020, the share was ranked among those that are grouped in the High Marketability category which includes the shares with the most stock exchange activity in the last six months. Since December 2008, ORBIA\* has been included in the High Marketability category.

The Company cannot guarantee that the quotation, the volume, the amount traded and the number of transactions executed in the BMV will enable it to maintain the current position of ORBIA\* as a High Marketability security, nor that in the face of decrease in the marketability of the share, ORBIA\* will remain as part of the sample of the shares that make up the IPC. A lack of volume, amount traded and the number of shares traded could affect the marketability of the Company's share and this could cause the Issuer to be removed from the sample of shares that make up the IPC, which could negatively impact the Company's share price.

#### The Company records significant levels of debt

On December 31, 2019, the Company's total active debt was \$3,796 million (\$3,451 million for the purposes of covenants contained in debt contracts and \$346 million in leases), and its stockholders' equity was \$3.094 million. As a subsequent event, on March 27, 2020, the Company drew down \$1,000 million from its Revolving Line of Credit as a precautionary measure considering the uncertainty caused by the COVID-19 pandemic. The Company's level of debt may have significant consequences for the investor. Among other consequences, debt may:

- Limit our ability to generate sufficient cash flows, or obtain additional financing, for working capital, capital expenditures, acquisitions or other future general corporate purposes;
- Limit the collaterals and guarantees that we can offer to obtain additional financing.
- Restrict our ability to pay dividends;
- · Require a substantial portion of cash flow from operations to make debt service payments;
- Limit flexibility to plan for or react to changes in operations and industry conditions;
- Limit our ability to carry out additional acquisitions;
- Place the Company at a competitive disadvantage compared to our less leveraged competitors; and
- Increase the Company's vulnerability to the effects of the adverse economic conditions inherent to the industry.

There can be no guarantee that the Company will continue to generate cash flows in sufficient amounts to service its debt, meet its working capital and capital expenditure requirements or carry out its expansion plans. If sufficient operating cash flow cannot be generated, or in the event that additional loans or financing cannot be requested, it will probably be necessary to sell assets, reduce capital expenditures, refinance all or a portion of existing debt, or obtain additional financing through equity or debt issuances. If this happens, there can be no guarantee that the debt will be refinanced, that assets will be sold or that additional financing will be obtained on terms that are acceptable to the Company. In addition, the capacity to incur additional debt will be limited as stipulated in the credit line agreements. (See section 3, "Financial Information," item c) Relevant Credit in this Annual Report).

Additionally, the Company may incur additional debt in the future. The modalities under which the Notes and Stock Exchange Certificates were issued allow Orbia and its existing and future Subsidiaries to incur additional debt, as do the vehicles that govern the Company's existing debt. If the Company incurs additional debt, the above risks could be exacerbated.

#### Lack of market for notes and stock exchange certificates.

The secondary market for Notes and Certificates is limited and there is a possibility that such a market will not develop. There are several factors to which the price at which Notes and Certificates are traded is subject, such as the level of general interest rates and market conditions for similar instruments. The liquidity of the Notes and Certificates may be adversely affected if such a secondary market does not develop and the Holders thereof may not be able to dispose of their Notes and Certificates or that, if one does develop, that it will provide liquidity to Holders. For this reason, Holders should be prepared to hold on to the Notes and/or the Certificates until their maturity and assume all risks arising therefrom. Neither Orbia nor the corresponding placement intermediaries are obligated to generate a secondary market for the Notes and/or the Stock Exchange Certificates, nor do they guarantee that such a market will develop, therefore the Holders assume the risk that in the future there may not be buyers for such securities.

The contractual documents that govern the Notes, the Stock Exchange Certificates, and the instruments that regulate the existing debt impose significant operating and financial restrictions, which could prevent capitalization on business opportunities presented to Orbia.

The contractual documents that constitute and regulate the Notes, as well as the Stock Exchange Certificates and the instruments that govern Orbia's existing debt, contain restrictions that limit the Company's ability to take certain actions in the future and to participate in certain transactions, either directly or through its subsidiary companies. Furthermore, under some of the current debt agreements we have entered into, the Company is required to maintain specific financial ratios and confirm our compliance at any time. Events beyond the control of the Company may affect our ability to comply with these obligations and mean that we may not be able to adhere to these limitations and verify compliance.

Failure to perform any of these obligations could result in an event of breach, which could, in turn, cause the immediate and accelerated maturity of all amounts due under such contracts or securities. The restrictions set forth in the contracts and securities that constitute their debt could limit the Company's ability to take advantage of attractive growth opportunities for currently unforeseen business, particularly if they were limited to increasing debt or making investments in order to take advantage of such opportunities.

# The contracts and securities governing the debt, including the Notes and Exchange Certificates, contain cross default provisions that may cause all debt issued under such instruments to become due and payable immediately as a result of a default event set forth in another unrelated debt instrument.

The instruments governing the Notes and the Stock Exchange Certificates contain certain obligations and the contracts or securities governing other loans also contain obligations and, in some cases, require Orbia and its subsidiaries to comply with and demonstrate compliance with certain financial ratios. Any breach of these obligations could result in an event of default on the corresponding contract or security, which in turn could result in the related debt or other credits established under different instruments becoming immediately due and payable. In such an event, Orbia would need to obtain financial resources from alternative sources, which it may do under favorable or unfavorable conditions, at the necessary time, or it may not obtain any resources at all. Alternatively, any default event could require Orbia to sell assets or reduce its operations to satisfy its obligations to its creditors. Past events could affect the Company's ability to grow, its financial position or operating results.

Orbia may not be able to obtain the financial resources necessary to finance the consequences of a change of control offer set forth in the terms of the instruments governing the Notes or the Stock Exchange Certificates.

Pursuant to the provisions of the contractual documents of the Notes or the Stock Exchange Certificates, if an event occurs that triggers a change of control (as defined in such documents), Orbia will be obligated to offer to purchase each series of Notes or the Stock Exchange Certificates at a price equivalent to 101% of the principal value of each series of Notes or Stock Exchange Certificates, plus accrued and unpaid interest at the time of purchase. Such events could affect the company's ability to grow and its financial position or operating results. In the event of a change of control, Orbia will need to refinance a very significant amount of its debt, including the Notes, as well as other loans under other contracts or lines of credit. Orbia may not have sufficient financial resources available to make the obligatory purchase of the Notes under such circumstances, and the Company would therefore be in breach of this obligation, which in turn would trigger a cross default provision as set forth by any other debt instrument. Any debt that Orbia owes in the future may also place restrictions on the repurchase of the Notes due to the aforementioned change of control.

#### The debt payment guarantees by Orbia's subsidiaries may not be immediately enforceable.

Each series of Notes and/or the Stock Exchange Certificates, as well as other financing, are fully and unconditionally guaranteed jointly and severally by certain subsidiaries of Orbia. These guarantees provide creditors with the basis for filing a direct payment claim against such subsidiaries; however, such guarantees may not be immediately enforceable under applicable law.

Pursuant to applicable law, in the event that any of these subsidiaries is subject to a bankruptcy or insolvency proceeding, any payment of the guarantee granted to Orbia could be considered a fraudulent payment and declared null and void because the other creditors of said subsidiary would not be given equal treatment. If any of these events should occur, the likelihood of payment of the Notes and/or the Stock Exchange Certificates, or other financing when applicable, and their respective market value would be materially adversely affected. In addition, pursuant to the Bankruptcy Act and other applicable legislation in Mexico, if Orbia or any of its guarantor subsidiaries or guarantors are declared bankrupt, the payment obligations for Orbia loans or loans its guaranteeing subsidiaries (i) would be converted into Mexican pesos and from pesos to Investment Units or UDIs (units adjusted to the official inflation rate recognized by Banco de México), and would no longer be adjusted to the exchange rate of the Mexican peso to the U.S. Dollar, after the first conversion (ii) payment would be made at the same time as all other creditors' claims; (iii) would be subject to the result of recognition of priority or preferential obligations; and (iv) payment of the Notes and/or Stock Exchange Certificates or other financing would be subject to preferential payment of certain obligations including tax, labor and social security debts and credits with specific collateral, which would take precedence over any other claims, including claims of any investor with respect to the Stock Exchange Certificates and/or the Notes or such collateral.

Furthermore, the validity of each guarantee is subject to the existence and validity of the principal obligation being guaranteed. Because of the foregoing, its performance is not separate from the guaranteed principal obligation.

A federal court, or in the absence thereof, any other court, may rule in favor of such a determination if it finds, among other factors, that a guarantor subsidiary exercises its guarantee or grants a lien (or, in some jurisdictions, where such guarantor is obligated to make payments under the pledged assets):

- and such guarantor subsidiary would have received compensation less than the reasonable equivalent or a reasonable value compared to that which it would have received for granting its guarantee or for the granting of a lien;
- and/or such guarantor subsidiary:
  - 1. was (or was declared) insolvent due to the granting of the guarantee;
  - 2. was or was about to conduct a deal or transaction in which its assets constituted unreasonably small capital for conducting its business;
  - 3. intended to incur, or considered that it would incur, obligations that were beyond its capacity to pay at the time of maturity;

It was a defendant in a damage proceeding, or already had a judgment issued against it for damages and, in any event, after the judgment became final, the judgment was not complied with.

If an attempt was made to legally enforce the guarantees, enforcement could be subject to a court ruling, and because the guarantee had been granted for the direct benefit of the Company, and only indirectly for the benefit of the guarantor, the obligations of the guarantor in turn could be incurred for less than their fair value or fair compensation. A court could therefore invalidate the obligations under the guarantees and related agreements and subordinate them to the other debts of the guarantor in turn or take other actions harmful to the holders of the Notes and Stock Exchange Certificates.

Although courts in different jurisdictions measure insolvency differently, in general, a company would be considered insolvent if the sum of its debts, including contingent and unpaid debts, exceeds the fair value of its assets, or if the current value of its assets is less than the amount that would be required to pay the liabilities of its debts, including contingent and unpaid debts, as they become payable.

If the guarantees cannot be exercised under the above conditions, the Notes and the Stock Exchange Certificates would be subordinated to all the liabilities, including the accounts payable, of the guarantor subsidiaries. As of December 31, 2019, the Company's guarantor subsidiaries had total liabilities of \$1,886 million. A court may also issue a judgment against the holders of the Stock Exchange Certificates and/or Notes ordering them to reimburse any amounts paid to them under such guarantees or to exercise the proceeds of the guarantees. If any guarantee or lien were invalidated, the holders of the notes would no longer have a direct claim against the guarantor subsidiary, even though there was no guarantee that the assets of the respective subsidiaries would be sufficient to pay the Notes and/or the Stock Exchange Certificates in full.

#### The provisions of Mexican law may make it difficult for holders of Notes and/or Stock Exchange Certificates to convert the amounts paid by the Company to the holders in Mexican pesos into U.S. dollars or to achieve recognition of the full value of such payments.

Orbia is obligated to pay the Notes and other credits in U.S. dollars. However, under Mexico's Monetary Act, payment obligations in Mexico in foreign currencies, either by agreement or by order of a judge, may be made in Mexican pesos at the exchange rate at the time and place of payment or of the corresponding court. Pursuant to the foregoing, Orbia will be obligated to pay loans taken out in currencies other than Mexican pesos, as set forth by Mexico's Monetary Act, and the Company cannot guarantee that the amounts paid will be converted by the beneficiary into U.S. dollars or that, if converted, such amount paid will be sufficient to acquire dollars in the same amount of the principal, interest, or additional payments derived from such instruments or loans in currencies other than Mexican pesos.

## Holders of the Notes and the Stock Exchange Certificates may be limited in their ability to institute proceedings or lawsuits against the Company in Mexican courts.

Orbia and some of its guarantor subsidiaries are companies incorporated under the laws of Mexico. Almost all of its directors and key executives, as well as the directors and key executives of many of its guarantor subsidiaries are Mexican citizens and residents. A significant percentage of the Company's assets and those of some of its guarantor subsidiaries are in Mexico, and a very significant percentage of the Company's sales and those of some of the guarantor subsidiaries originate from sources in Mexico. Therefore, it could eventually be difficult for holders of Notes and other debt instruments taken out by Orbia in currencies other than the Mexican peso to serve process and bring legal proceedings or lawsuits against the Company or its guarantor subsidiaries outside of Mexico or against its directors or key executives or to enforce judicial rulings issued by courts or tribunals outside of Mexico's jurisdiction, in all matters relating to civil obligations under laws of jurisdiction outside of Mexico, including proceedings instituted pursuant to the civil provisions of U.S. securities laws or other U.S. laws.

#### Charging interest on interest may not be enforceable in Mexico.

Mexican law does not permit charging interest on interest and, as a result, the accrual of interest in the event of default on ordinary interest payments on the Notes, the Stock Exchange Certificates and other loans taken out by Orbia may not be enforceable in Mexico.

# The payment of the Notes and the Stock Exchange Certificates, as well as the related guarantees, may be structurally subordinated with respect to the debt obligations of the guarantor subsidiaries as well as subsidiaries who are not guarantors of Orbia, in the same way other debt that does not have the same guarantee structure would be structurally subordinated to that which does.

The Notes constitute part of Orbia's guaranteed debt and their payment preference is equal to that of other debts, but they could be structurally subordinated with respect to the payment of other guaranteed credit obligations and also structurally subordinated to debts contracted by the guarantor and non-guarantor subsidiaries. Although the holders of the Notes and the Stock Exchange Certificates have a direct right to claim payment, this right is not guaranteed over the assets and properties of Orbia or of the guarantor subsidiaries; therefore, the payment of the Notes or Stock Exchange Certificates is subordinated with respect to the debt of Orbia and its subsidiaries that have a specific applicable guarantee for payment up to the value of such assets. In addition, under Mexican law, the payment obligations of the Notes and/or the Stock Exchange Certificates are subordinated to certain preferences established by law, including wage and salary claims, guaranteed obligations, social security, workers' housing funds, taxes, fees for and expenses of lawsuits. Similar legal preferences may apply in other jurisdictions where subsidiary guarantors have been incorporated. In the event of Orbia's liquidation, such legal payment preferences will prevail over any other claim, including those of any holder of the Notes or the Stock Exchange Certificates.

## A decrease in Orbia's credit risk rating and/or its loans could adversely affect our ability to access credit markets.

If any of the credit ratings are downgraded by the rating institutions, or if the current ratings are subject to negative reviews by the rating agencies, the Company's ability to access the credit markets could be seriously affected and the associated costs of financing could increase. Changes in credit ratings could also affect the price of the Company's securities, including the Notes and the Stock Exchange Certificates.

#### d) Other Securities

The securities that Orbia has registered in the RNV and trades in the BMV are:

i. Ordinary, nominal, without stating a nominal value, freely subscribed shares representing the capital stock of Orbia Advance Corporation, S.A.B. de C.V., and which grant full corporate and patrimonial rights to all holders of such shares, listed under the ticker symbol ORBIA\*, and;

ii. Long-term Stock Exchange Certificates issued under a Program of Stock Exchange Certificates for up to \$10,000 million (ten billion Mexican pesos and zero cents), which can be placed among the investing public. The original authorization of this Program was granted by the CNBV on December 19, 2008 for an amount of up to \$4,000 million (four billion Mexican pesos and zero cents), to be issued within a period of 5 years, and the CNBV itself authorized increasing the amount to up to \$10,000 million (ten billion Mexican pesos and zero cents) maintaining the term of issues within a period of 5 years, as of March 15, 2012. On November 3, 2017, the CNBV authorized a new program valid for 5 years, for an amount of up to \$10,000 million (ten billion Mexican pesos and zero cents).

As of the date of this Annual Report, the following issue has been placed and listed under the Stock Exchange Certificates Program:

ORBIA 12 issue (third of the Program) for 30 million long-term Stock Exchange Certificates, with a par value of 100.00 (one hundred Mexican pesos and zero cents) each, issued on March 21, 2012, maturing on March 9, 2022 through a single payment on the latter date, for a term of 3,640 days, approximately 10 years, paying an annual gross interest rate of 8.12% (eight points twelve percent), which will remain fixed during the term of this third issuance. This issuance of Stock Exchange Certificates is guaranteed by the Company's subsidiaries Mexichem Compuestos, S.A. de C.V., Mexichem Amanco Holding, S.A., Mexichem Derivados, S.A. de C.V., Mexichem Resinas Vinílicas, S.A. de C.V., Mexichem Flúor, S.A. de C.V., and Mexichem Brasil Indústria de Transformação Plástica Ltda. ("Mexichem Brasil"), the latter is a Brazilian corporation and most of its assets are located outside Mexico. In the event of Mexichem Brasil's insolvency or bankruptcy, the claims of the Holders under the Stock Exchange Certificates will be subject to the preference set forth by the laws applicable in the Federal Republic of Brazil.

The Bank of New York Mellon, S.A. acts as joint representative, and S.D. INDEVAL Institución para el Depósito de Valores, S.A. de C.V. acts as depository.

iii. Senior Notes or Notes

On September 19, 2012, Orbia Advance Corporation, S.A.B. de C.V., issued and placed Senior Notes for a total amount of \$1,150 million, in two blocks: one of \$750 million, with a ten-year term and a fixed rate coupon of 4.875% and another of \$400 million, with a thirty-year term and a fixed rate coupon of 6.75%. In both blocks of Senior Notes, interest is paid semi-annually on March 19 and September 19, from their date of issue until their maturity on September 19, 2022 and September 19, 2042, respectively. The Senior Notes have been listed on the Luxembourg Stock Exchange for trading on the Euro MTF Market. These Senior Notes have not been registered in the RNV, nor have they been authorized by the CNBV, nor have they been registered under the regulations of the U.S. Securities Act of 1933, which governs securities transactions in the U.S., they were only offered to purchasers considered qualified investors as defined by "Rule 144-A" of the U.S. Securities Act, in that country, and outside the U.S., to non-U.S. residents, under "Regulation S" under the same U.S. Securities Act.

On September 17, 2014, Orbia Advance Corporation, S.A.B. de C.V., issued and placed Senior Notes for a total amount of \$750 million, with a term of thirty years, which accrues a fixed annual rate of 5.875%, payable semiannually on March 17 and September 17 from their date of issue until their maturity on September 17, 2044. The Senior Notes have been listed on the Luxembourg Stock Exchange for trading on the Euro MTF Market. These Senior Notes have not been registered in the RNV, nor have they been authorized by the CNBV, nor have they been registered under the regulations of the U.S. Securities Act of 1933, which governs securities transactions in the U.S., they were only offered to purchasers considered qualified investors as defined by "Rule 144-A" of the U.S. Securities Act, in that country, and outside the U.S., to non-U.S. residents, under "Regulation S" under the same U.S. Securities Act.

On October 4, 2017, Orbia Advance Corporation, S.A.B. de C.V., issued and placed Senior Notes for a total amount of \$1,000 million, in two tranches. The first tranche, in the amount of \$500 million, with a ten-year term, accrues a fixed annual rate of 4.0%, payable semiannually on April 4 and October 4 from its issuance date until its maturity on October 4, 2027. The second tranche, for the remaining \$500 million, with a 30-year term, accrues a fixed annual rate of 5.50% payable semiannually on January 15 and July 15 from its issuance date until its maturity on January 15, 2048. The Senior Notes have the option of being redeemed at 100% of the book value of the principal 3 months before maturity for the first tranche and 6 months before maturity for the second

tranche. The Senior Notes have been listed on the Luxembourg Stock Exchange for trading on the Euro MTF Market. These Senior Notes have not been registered in the RNV, nor have they been authorized by the CNBV, nor have they been registered under the regulations of the U.S. Securities Act of 1933, which governs securities transactions in the U.S., they were only offered to purchasers considered qualified investors as defined by "Rule 144-A" of the U.S. Securities Act, in that country, and outside the U.S., to non-U.S. residents, under "Regulation S" under the same U.S. Securities Act.

Orbia is up to date on the submittal, during the last three fiscal years, of all the legal, operational, administrative, and financial information that it is required to submit, by virtue of the fact that the outstanding shares and their Stock Exchange Certificates are registered in the RNV and listed on the BMV. Similarly, the Issuer is up to date on the submittal during the last three fiscal years of all the legal, operational, administrative and financial information that it is obliged to submit pursuant to the contracts for the issuance of international debt to the agent (Deutsche Bank National Trust Co and The Bank of New York Mellon), as well as the revolving credit to the agent bank (J.P. Morgan Chase N A).

The Issuer provides information to the investing public on an annual basis, which includes the reports presented to the Ordinary General Shareholders' Meeting approving the results of the previous year, the resolutions of the shareholders' meetings, quarterly information, information on repurchase fund operations and notices of relevant events.

#### e) Significant Changes to the Rights of the Securities Registered in the Registry

In the last three fiscal years, the securities held by the Company registered in the Registry have not undergone significant changes to the rights they confer on their holders.

#### f) **Destination of Funds**

During the 2019, 2018 and 2017 tax years, the Company did not register securities in the RNV. Nor are there resources pending application as a result of securities issuances carried out in previous years. (See Section 1, "General Information", item d, "Other Securities", of this Annual Report).

On October 4, 2017, Orbia Advance Corporation, S.A.B. de C.V., issued and placed "Senior Notes" that had not been registered in the RNV, nor had they been authorized by the CNBV, nor had they been registered pursuant to the regulations of the U.S. Securities Act of 1933, which governs securities transactions in the United States of America. These notes were only offered to purchasers within the U.S. deemed to be qualified investors pursuant to Rule 144-A of the U.S. Securities Act, and outside the U.S., to non- U.S. residents, under "Regulation S" of the U.S. Securities Act. This issue was for a total amount of \$1,000 million, in two tranches. The first ten-year tranche accrues a fixed annual rate of 4.0% and is payable every six months on April 4 and October 4 as of the date of issue and until maturity on October 4, 2027. The second 30-year tranche matures on January 15, 2048. The funds were destined toward the acquisition of 80% of Netafim's capital stock.

#### g) Public Documents

Investors may check the public documents and information submitted by the Company to the CNBV and the BMV, at the BMV's offices located at Avenida Paseo de la Reforma número 255, Colonia Cuauhtémoc, C.P. 06500, México, Distrito Federal, or on its website: <u>www.bmv.com.mx</u>, or on the CNBV website at the following website: <u>www.cnbv.gob.mx</u>

Orbia has provided the CNBV and the BMV with the information required by the LMV, the Sole Issuer Circular (CUE), the internal regulations of the BMV, and other applicable provisions, therefore such information is available to investors.

Copies of the above documentation and this Annual Report may be obtained upon request from any investor by contacting the Company's person responsible for investor relations, Mr. Gerardo Lozoya Latapi, <u>gerardo.lozoya@orbia.com</u>, telephones (52 55) 5366 4084, Address: Avenida Paseo de la Reforma 483, piso 47, Colonia Cuauhtémoc, Alcaldía Cuauhtémoc, Ciudad de México, 06500, México, or on Orbia's website: <u>www.orbia.com</u>.

#### 2. THE ISSUER

#### a) History and Development of Orbia

i. Company Name and trade name of the Issuer

Orbia or the Company, as it is commercially known, was originally incorporated under the name of Grupo Industrial Camesa, S.A. and in 1984 adopted the variable capital corporation regime. On April 27, 2005, the Company changed its name to Mexichem, S.A. de C.V. and on December 6, 2006, it adopted the regime of publicly-traded variable capital corporation.

At the Company's Shareholders' Meeting held on August 26, 2019, it was decided to approve the change of its corporate name to Orbia Advance Corporation, S.A.B. de C.V. This change reflects the new strategy and global reorganization undertaken by the Company, which implies the re-branding of its identity and image in accordance with its mission, vision and philosophy.

ii. Date and Place of Incorporation and Duration of the Issuer

The Company was incorporated by means of public deed number 34,080, dated June 30, 1978, issued by Notary Public number 112 in and for the Federal District, the first official transcript of which was recorded in the third book of the Commerce Section of the Public Registry of Property and Commerce for the Federal District, in volume 1066, on page 190 and under number 212. The duration of the Company is indefinite.

iii. Address and telephone numbers of main office

Avenida Paseo de la Reforma 483, piso 47, Colonia Cuauhtémoc, Alcaldía Cuauhtémoc, Ciudad de México, 06500, México

Telephone: + 5255 5366 4000 Web address: <u>www.orbia.com</u>

iv. Historical Events

#### 1953

Orbia's origins date back to 1953, when the company Cables Mexicanos, S.A., a manufacturer of wire rope, was incorporated. It later changed its name to Aceros Camesa, S.A. de C.V.

#### 1978

A holding company called Grupo Industrial Camesa, S.A. de C.V. (GICSA) was incorporated, which controlled Aceros Camesa, S.A. de C.V. and its subsidiaries. GICSA shares were listed in the BMV in the same year it was incorporated.

#### 1986

GICSA acquired the company Compañía Minera las Cuevas, S.A. de C.V., whose main activity consisted of the exploitation of fluorite mines in the state of San Luis Potosí.

#### 1997

Grupo Empresarial Privado Mexicano (GEPM), held by the Valle family, acquired GICSA, which in turn acquired a 50.4% stake in Química Pennwalt, S.A. de C.V., a company that produces chlorine, caustic soda, hydrochloric acid, resins, PVC compounds and other derivatives. The French chemical group Elf Atochem held 49.3% of the shares in Química Pennwalt, S.A. de C.V.

#### 2003

GICSA acquired 100% of the Mexichem, S.A. de C.V. shares.

#### 2004

In May 2004, Química Flúor, S.A. de C.V., a producer of hydrofluoric acid, was acquired, and the company's operations were integrated with that of Compañía Minera Las Cuevas, S.A. de C.V. Through this acquisition, the Company became the largest integrated producer of hydrofluoric acid in the Americas.

In December 2004, the Company acquired Grupo Primex, S.A. de C.V., the market leader in Mexico and Latin America in the production of PVC resins and compounds, as well as of phthalic anhydride. Through this acquisition, the Company positioned itself as the leading producer of PVC resins in Mexico and the third-ranking producer in Latin America.

#### 2005

In order to focus on the chemical business, the Company sold its wire rope business in June 2005.

That same year, the Company changed its corporate name from Grupo Industrial Camesa, S.A. de C.V. to Mexichem, S.A. de C.V. in order to strengthen the strategic positioning achieved by the Group in the chemical sector. The Group's strategic vision was focused on this sector and sought consolidation and vertical integration of its production chains, which is why it only acquired companies related to its value chains (which are now business groups).

#### 2006

Química Flúor, S.A. de C.V. and Mexichem Flúor, S.A. de C.V. merged, with Mexichem Flúor, S.A. de C.V. surviving.

Orbia began its international expansion in February 2006 with the acquisition of Bayshore Group, a business that produces PVC compounds in the United States.

#### 2007

In order to consolidate its PVC business, in February 2007 the Company acquired Amanco Holding, Inc., a PVC pipe producer and leader in Latin America in water conveyance systems. Through this acquisition, Orbia formed the Fluent business group.

In March that same year, the Company acquired the PVC resin manufacturer Petroquímica Colombiana, S.A. (PETCO).

In June 2007, the Company acquired a 50% share of C.I. Geon Andina, S.A., a producer of PVC compounds, located in Colombia.

#### 2008

In January 2008, the Company acquired 70% of the capital of DVG Industria e Comercio de Plásticos Ltda. (Plastubos), a Brazilian company specializing in the production of rigid PVC pipes for drinking water and drainage, for the housing, infrastructure, irrigation and electricity markets. Subsequently, the Company exercised the call option on the remaining 30%.

In April 2008, the Company acquired 100% of the shares representing the capital stock of Fluorita de Río Verde, S.A. de C.V., along with the production plants located in the municipalities of Río Verde, San Luis Potosí and Álamos de Martínez, Guanajuato, as well as the mining concessions to exploit the Fluorita "Lilia II" and "La Esperanza" mines. This company produces Fluorite concentrates, which are basically used for consumption by Mexichem Fluor, in its plant located in Matamoros, Tamaulipas.

In June 2008, the Company acquired 100% of the shares representing the capital stock of Quimir, S.A. de C.V., a Mexican company that produces and markets industrial and food phosphates.

Also, in June 2008, the Company acquired Geotextiles del Perú, S.A., securing Orbia's position as a leader in the geotextiles market and at the same time it expanded its offering of other geosynthetic solutions in the Peruvian market.

That same month, the Company acquired the Brazilian company Fiberweb Bidim Industria e Comercio de Nao-Tecidos Ltda., which manufactures and sells nonwoven products for Geotextiles.

In November 2008, the company acquired Colpozos, S.A., located in Cali, Colombia, which alongside its well drilling, construction, maintenance and repair activities for water extraction, it designs, builds and installs water management solutions in applications such as pumping and irrigation systems.

#### 2009

On March 31, 2009, the Company acquired 100% of the capital stock of Tubos Flexibles, S.A. de C.V., a Mexican company that produces PVC pipes and fittings.

In August 2009, the Issuer's capital stock was increased by 153,600,000 new shares, representing an increase in capital of \$2,258 million Mexican pesos.

In September 2009, a 60,000 MT per year capacity aluminum fluoride plant was inaugurated at the Mexichem Flúor, S.A. de C.V. facilities located in Matamoros, Tamaulipas. A \$60 million investment was made in this plant.

In September 2009, the first placement of Stock Exchange Certificates issued by Orbia was made in the Mexican debt market for \$2,500 million Mexican pesos, for a 5-year term with a 28 Day Interbank Equilibrium Interest Rate (28 Day TIIE) plus 2.44 basis points under the ticker symbol MEXCHEM 09. The funds obtained were used to refinance debt and change its maturity profile, with only 15% of its total debt remaining in the short term. On July 20, 2011, Orbia decided to exercise its right to accelerate all of the Stock Exchange Certificates of this first placement by paying the holders the amount set forth in the corresponding instrument plus the premium for accelerated amortization stipulated therein.

In October 2009, the Company acquired the remaining 50% of the shares in C.I. Geon Andina, S.A., a company that produces PVC compounds, located in Colombia.

During the month of November 2009, the first placement of Senior Notes in the amount of \$350 million over 10 years at an annual rate of 8.75% ("bullet bonds") was made. The funds obtained were used for general corporate purposes, including working capital and possible future acquisitions. An amount of \$267.1 million was prepaid in September 2012.

#### 2010

In January 2010 Amanco del Perú, S.A. (now Mexichem Perú, S.A.) increased its share of the capital stock of Plastisur, S.A., a PVC pipe manufacturer, from 25% to 98.45%. Plastisur merged with Tuberías y Geosistemas del Perú, S.A., a subsidiary of the Company, immediately after Orbia increased its equity interest.

In March 2010, the Company acquired the Refrigerants division of Ineos Group with a presence in the United Kingdom, the United States, Canada, Japan and Taiwan. Through this acquisition, Orbia strengthened its global presence in the refrigerant gas market for the automotive, medical, and construction sectors.

In June 2010, the Fluor Business Group (formerly the Fluor Chain), inaugurated Hydrofluoric Acid plant II in the city of Matamoros, Tamaulipas, which has a capacity of 30,000 MT per year and an investment of \$40 million. This investment was financed with the Company's own funds and bank loans.

In October 2010, Orbia acquired 100% of the shares of Policyd, S.A. de C.V. (a manufacturer of PVC resins) and 100% of the shares of Plásticos Rex, S.A. de C.V. (a manufacturer of PVC pipes). Included in the payment to the seller for this transaction were all the assets, rights and property necessary for the operation of the Santa Clara Plant, owned by the Company, located in the municipality of Santa Clara, Estado de México. Policyd, S.A. de C.V. merged in October 2010 with Mexichem Resinas Vinílicas, S.A. de C.V. and Plásticos Rex, S.A. de C.V. merged with Mexichem Soluciones Integrales, S.A. de C.V. in June 2011.

#### 2011

On January 7, 2011, Orbia acquired 100% of the shares representing the companies AlphaGary Corporation and AlphaGary Limited, PVC compound producers located in the United States and the United Kingdom, respectively. This acquisition, which brought new technologies, gave Orbia the potential to research and develop new products.

On August 31, 2011, the Issuer signed a revolving line of credit for \$1,000 million for a term of three years, under a Club Deal format, at a rate of LIBOR plus 90 basis points, which allowed the Company to increase

its financial flexibility and take advantage of opportunities that arose in its markets to consolidate its strategic growth plans while improving its debt repayment profile.

On September 2, 2011, Orbia offered and placed the second issue of Stock Exchange Certificates under the Program with the ticker symbol MEXCHEM 11 (as it had not yet changed its corporate name as of that date nor upon the issue's maturity), for an amount of \$2,500 million Mexican pesos. The principal was due in a single payment on September 2, 2016, paying a gross interest rate equivalent to TIIE plus 60 basis points. The funds were used to pay the bridge loan used to accelerate the payment of the issue of MEXCHEM 09 Stock Exchange Certificates, therefore, the issue did not increase the total amount of active debt, but it did strengthen the financial structure, reduce the financial cost and modify its long-term maturity profile.

In December 2011, Plastubos, which was acquired in 2018, merged with Mexichem Brasil Industria de Transformação Plástica Ltda.

#### 2012

In January 2012, the Company acquired 100% of the shares of Fluorita de México, S.A. de C.V., a company located in the municipality of Múzquiz, Coahuila. Through this acquisition, Mexichem gained access to Fluorita's high-purity mining concessions.

On March 15, 2012, the CNBV authorized the expansion of the Stock Exchange Certificates Program for an amount of up to 10,000 million Mexican pesos or its equivalent in UDIS and for a term of up to 5 years as of the date of such expansion. Orbia therefore publicly offered and placed on September 9, 2011 25,000,000 Stock Exchange Certificates, and on March 21, 2012, 20,000,000 Stock Exchange Certificates of the MEXCHEM 11 issue, so that this issue would reach a new total of 45,000,000,000 Stock Exchange Certificates with a par value of 100.00 Mexican pesos each. The principal was accelerated in a single payment on September 23, 2014.

On March 21, 2012, Orbia made the third issue of Stock Exchange Certificates (ORBIA 12) under the Program, for 30,000,000 Stock Exchange Certificates, with a par value of \$100 Mexican pesos each, with the maturity date of March 9, 2022 through a single payment, for a term of approximately 10 years, paying a gross annual interest rate of 8.12%, which will remain fixed during the term of this third issue.

In May 2012, Orbia acquired, through a public offering, 95.7% of the shares of Wavin, B.V., a company located in the Netherlands. This company produces plastic pipe systems. It has operations in 18 European countries. In March 2013, the Company acquired the remaining 4.3% of Wavin, B.V. shares.

At Orbia's Ordinary and Extraordinary General Shareholders' Meetings held on April 30 and May 18, 2012, respectively, shareholders approved the payment of a dividend of \$136 million (1,800 million Mexican pesos), payable from the Company's CUFIN account. This dividend was paid, according to each shareholder's choice, either (i) in kind through the delivery of one Issuer Share for every 45 Shares of the corresponding shareholder, or (ii) in cash at the rate of \$10 Mexican peso per Share. In order to facilitate the payment of this dividend, the shareholders authorized a capital increase of up to 40,000,000 Shares. As a result, at the May 18, 2012 Shareholders' Meeting, shareholders approved the issuance of 28,029,771 Shares at a subscription price of \$45 Mexican pesos for each new Share. The corresponding funds were used to pay the dividend to the shareholders who elected to receive the cash payment. The remaining 11,970,229 shares were issued as payment of the dividend in kind to the shareholders who decided to receive payment in Shares.

On September 14, 2012, Orbia announced the results of its cash redemption offer for a total of \$350 million of debt instruments at an 8.75% rate due in 2019 (the "**Redemption Offer**"). In addition, consent was requested from the holders of debt instruments in order to make modifications to the terms and conditions of such securities. The Redemption Offer and consent expired on September 13, 2012, and on the expiration date, \$267 million of the outstanding amount of the debt instruments (or 76.32% of those securities) accepted the offer and gave their consent. The Redemption Offer was settled on September 19, 2012, paying a consideration of \$1.245 Mexican pesos for each Mexican peso of par value plus unpaid accrued interest on the settlement date.

On September 19, 2012, Orbia successfully finalized the transaction for the issuance of long-term debt instruments, and due to the excess demand for this issue (over 17 times), it was decided to increase the initial amount of the debt instruments to be issued, with a resulting value of \$1,150 million. The issuance

was made in two blocks: one of \$750 million for a 10-year term with a fixed rate coupon of 4.875% and another of \$400 million for a 30-year term with a fixed rate coupon of 6.75%.

The Company used the proceeds from the issuance of \$1,150 million for corporate purposes and, in general, primarily to prepay debt as follows: (i) up to \$600 million for the prepayment of its revolving credit dated August 26, 2011, and (ii) up to \$436 million to repay long-term debt, of which \$333 million (principal of \$267 million and premium of \$65 million) has been used to repurchase debt instruments maturing in 2019, through the Redemption Offer that expired on September 13, 2012, \$38 million (\$484 million Mexican pesos) to repay the loan taken out with BBVA Bancomer and \$65 million to pay a loan from Bancolombia, S.A., and (iii) prepaid interest and fees of \$16 million. The remaining balance of \$97.8 million was left in the Company's cash.

On October 9, 2012, Orbia concluded its primary public offering of shares; through which it increased its authorized variable capital stock by issuing 260,000,000 Single Series, Class "II" shares with a price of 60.00 Mexican pesos per share (par value of \$1.3192 Mexican pesos per share and the differential generated a premium on share subscription); the amount of funds obtained was \$1,211 million (\$15,600 million Mexican pesos), which are presented net of placement expenses and their income tax effect of \$1,185 million.

#### 2013

In March 2013, Orbia reached an agreement with PolyOne Corporation to acquire 100% of its specialty PVC resin operations in the United States, assets consisting of two production plants and a research and development center. Through this acquisition, Orbia entered the specialized resin products market with higher margins. The approximate value of this acquisition was \$250 million.

During 2013 Orbia signed the joint venture agreement with Oxy to build an Ethylene Cracker in Texas, USA. This is part of the vertical integration strategy to capture the competitive advantage of shale gas in North America.

During 2013 PMV, the strategic alliance between Orbia and Pemex began operations in the last quarter of 2013, in line with the plan to increase the capacity of VCM from around 120 thousand tons/year to more than 400 thousand tons/year.

#### 2014

On June 30, 2014, the Company took out a \$1,500 million five-year revolving line of credit with a rate of LIBOR plus 95 basis points at 1.35 basis points; this range depends on the utilization level and the rating assigned by S&P and Fitch. With this revolving credit, Orbia increased its financial flexibility to take advantage of the opportunities that arise in its markets to consolidate its strategic growth plans.

On September 17, 2014, the issuance of a \$750 million 30-year Senior Note under Rule 144-A / Reg S with a spread of 270 basis points on U.S. Treasury bonds was completed. The Senior Note was payable on maturity. The proceeds were mainly used to refinance the "MEXICHEM 11" issue maturing in 2016 and to fund acquisitions.

On September 19, 2014, Orbia acquired 100% of the shares of Dura-Line Holding Inc. from CHS Capital. Dura-Line, based in Knoxville, Tennessee, USA, has a strong presence in the telecommunications market in several countries and regions around the world. This includes the United States, India, Europe, South Africa and others. This acquisition was valued at \$630 million.

On September 23, 2014, Orbia accelerated all the "MEXCHEM 11" stock certificates.

In December 2014, Orbia acquired 100% of the shares of Vesto PVC Holding GmbH (Vestolit). Vestolit is the only European producer of high-impact suspension PVC resin (HIS-PVC) and the second largest producer, also in Europe, of PVC paste and the sixth largest European producer of PVC resins. Vestolit is in Marl, Germany. Its total installed PVC capacity is 415 thousand tons per year. This acquisition strengthened the Company's position in the European market. Additionally, this acquisition gave Orbia access to new technologies and best practices that have improved the operations of its Polymer Solutions business group. Vestolit was acquired for a total of \$219 million euros in cash and assumed liabilities. As of December 1, 2014, Vestolit was consolidated into the Vinyl Business Group for accounting purposes.

On December 31, 2014, Mexichem UK Ltd. acquired from E.I. Du Pont de Nemours and Company the exclusive worldwide rights for the distribution and sale of pharmaceutical grade HFC-227ea/P, for the

regulated medical and pharmaceutical market for medical propellants. This transaction supports the Company's strategy with a focus on global growth through participation in specialty products. The product is used to safely release various medicines in aerosol form, including fixed-dose inhalers for the treatment of asthma. The product will be sold under the ZEPHEX® brand, owned by Orbia, the world's leading brand of medical propellants with approximately 75% of the market for medical inhalers produced worldwide. The acquisition price was \$4.1 million.

#### 2015

On May 12, 2015, Orbia inaugurated a new manufacturing plant in Hyderabad, India. The plant produces high pressure ducts and pipes for the water, telecommunications (voice and data) and gas markets. The new plant is Orbia's fourth plant in India, along with two others located in Goa and one in Neemrana, near Delhi. The location of the Hyderabad plant in southern India will provide Orbia with a strategic location to export to Southeast Asia, serve customers in southern India, and capture new business opportunities in the region. The opening of the plant is part of Orbia's ongoing strategy to become a global, vertically integrated chemical company with a focus on specialty products and solutions. An investment of \$3.4 million was made in the plant.

#### 2016

On October 26, 2016, the Company announced the acquisition of Gravenhurst Plastics Ltd. (GPL) in Temiskaming, Ontario, Canada in order to reinforce its global growth model in value-added specialty products. GPL supplies high-density polyethylene (HDPE) piping and ducts for fiber optics as well as construction products in the Canadian market. The transaction was consolidated into the Fluent business group and had a value of \$13 million paid in cash.

On November 28, 2016, Orbia announced the acquisition in the United Kingdom of 100% of the shares of Vinyl Compounds Holdings Ltd. (VCHL), a leading supplier of PVC compounds serving a wide range of industries including: building and construction, pipe and profile manufacturing, footwear and consumer goods. The Derbyshire-based PVC composite manufacturer, VCHL, generated annual revenues of approximately \$40 million at the time of acquisition. Orbia consolidated VCHL's operations under its Compounds business unit, a leading supplier of PVC compounds, which is part of the Polymer Solutions business group. This acquisition had a value of £24 million pounds, equivalent to \$30 million paid in cash.

#### 2017

In February 2017, the 50/50 joint venture formalized on October 31, 2013 between Orbia and Occidental Chemical Corporation (OxyChem), the Ingleside Ethylene LLC, began operations on time and on budget of the ethylene cracker in the OxyChem complex located in Ingleside, Texas, USA. During the second quarter of 2017, the Cracker began commercial operations. The Cracker has a production capacity of 1.2 billion pounds (550,000 metric tons) of ethylene per year and provides OxyChem with a continuous source of ethylene for the production of vinyl monochloride (VCM), which Orbia uses to produce polyvinyl chloride (PVC resins) used to make PVC pipes, among other products. The total amount invested during 2017 and 2016 alone was \$62 million and \$350 million respectively (based on asset accounting and not cash flow). The joint venture also includes the gas pipeline and storage plant in Markham, Texas, USA.

On March 23, 2017, Orbia announced that the U.S. International Trade Commission (ITC) found that imports of refrigerant gas R-134a were causing material damage to the R-134a production industry in the United States. The decision was the result of a year-long investigation by the U.S. Department of Commerce, which found that imports of R-134a from China were entering the United States at prices below fair value. On February 22, 2017, the Department of Commerce announced that imports from China of R-134a engaged in dumping practices and imposed anti-dumping duties of between 148.79% and 167.02%.

In August 2017, Mexichem Soluciones Integrales Holding, S.A. de C.V. (MSIH), an Orbia subsidiary, reached an agreement to acquire: i) voting shares representing 80% of the subscribed and paid-in capital stock of Netafim, ii) all non-voting shares representing approximately 0.4% of the subscribed and paid-in capital of Netafim, and iii) certain loans granted by some of the shareholders of Netafim, Bluedrip S.ar.I, and Netafim Hatzerim Holdings, Cooperative Association Limited, in favor of Netafim.

On September 27, 2017, Orbia successfully completed the \$1,000 million 144A / Reg S bond offering. The offering consists of two tranches: \$500 million 4.00% fixed rate bonds due in October 2027 and \$500 million 5.50% fixed rate bonds due in January 2048. The proceeds of the offering were used primarily to finance the acquisition of Netafim, L.T.D. (Netafim).

On December 20, 2017, Orbia announced the decision of PVM shareholders not to rebuild its VCM production capacity. As a result, the VCM business, the assets and liabilities associated with the production of ethylene and the ancillary services associated with VCM and ethylene were classified on that date as discontinued operations in its consolidated financial statements and other statements. Thus, all impacts and recognized revenues related to the incident at the VCM plant are reported as discontinued operations. In 2018, \$22.8 million of revenue was recorded in the same item of discontinued operations for complements to the estimates made by Orbia the previous year. In addition, PMV's decision not to rebuild the VCM plant resulted in the additional cancellation of \$196 million related to the assets of the Ethylene plant and ancillary services related to the VCM and Ethylene plants, which were also listed as discontinued operations.

#### 2018

On January 22, 2018, Orbia announced that it acquired Sylvin Technologies Inc. (Sylvin), which is a manufacturer specializing in PVC compounds based in Denver, Pennsylvania, USA. for \$39 million free of cash and debt. Sylvin, on the date of the announcement, had a 30-year history serving a wide range of industries including: cable, electrical, industrial, automotive, medical and food product industries. Orbia consolidated Sylvin into the Polymer Solutions business group under the Compounds business unit. By combining Sylvin's customer-oriented business model, its strong work force, and application development capabilities with Orbia's global compound business, they will be able to offer greater added value to their U.S. customers. Sylvin's key raw materials are PVC resins, plasticizers, and stabilizers, which should result in synergies with the operations of Orbia's Polymer Solutions business group.

On February 7, 2018, Orbia completed the acquisition of 80% of the shares of Netafim LTD (Netafim), a leading Israeli company in micro irrigation solutions, after obtaining all government authorizations and fulfilling the prerequisites required in the Share Purchase Agreement signed in August 2017. The price paid for the acquisition was \$1,424 million. Kibbutz Hatzerim will retain the remaining 20% of Netafim's capital stock. This transaction represented a significant step forward in Orbia's long-term strategy to position itself as a world leader in specialized products and solutions, serving high-growth markets. Orbia consolidated Netafim in the Fluent business group.

The acquisition was mainly financed as follows: (i) cash of \$239 million, (ii) new short-term loan of \$200 million, and (iii) cash flows from the issuance of a long-term bond of \$985 million.

On July 6, 2018, Orbia announced that in line with its strategy of consolidating key businesses, it reached an agreement for the acquisition of 44.09% of the shares representing the capital stock held by Pemex in Petroquímica Mexicana de Vinilo, SA de CV. (PMV), through its subsidiary PPQ Cadena Productiva S.L., after approval by the Boards of Directors of both Pemex and Orbia. The transaction amount was approximately \$159.3 million, which is within the valuation ranges of comparable companies and prior transactions in the petrochemical sector. Orbia completed the acquisition on November 16, 2018, meaning that, from that date, PMV was exclusively a subsidiary of Orbia and its activity, as of that date until the date of this Annual Report, only consisted of the operation of the chlorine-soda plant.

#### 2019

Change of corporate name - At the Company's Shareholders' Meeting held on August 26, 2019, it was decided to approve the change of corporate name to Orbia Advance Corporation, S.A.B. de C.V. This change reflects the new strategy and global reorganization undertaken by the Company, which implies the re-branding of its identity and image in accordance with its mission, vision and philosophy.

For the Company's management, the fiscal year marked the culmination of the implementation of a multiyear growth strategy based on acquisitions, which significantly increased our global footprint and market penetration.

We defined and announced a new name, purpose, and strategy that reflects our ability to meet the most pressing global challenges and our commitment to advance life around the world.

We reorganized into five business groups focused on providing customer-driven solutions through the verticals of Data Communications (Dura-Line), Precision Agriculture (Netafim), Building & Infrastructure (Wavin), Fluor (Koura) and Polymer Solutions (Vestolit). We also started to implement our "play-to-win" strategy to capitalize on organic growth opportunities and generate greater operational and financial performance.

#### Subsequent events (2020)

On January 10, 2020, the Issuer informed the investing public that it was in the process of analyzing divestiture options or strategic alliances that would allow it to trigger an operation or synergies with third parties with respect to our Vinyl business (Vestolit).

Following the previous announcement, on May 29, 2020, Orbia informed the investing public that, due to the impact of the COVID-19 pandemic on the world economy and capital markets, it decided to pause efforts related to a possible divestiture, or other strategic option, of its Vestolit business (from the Polymer Solutions business group) and wait for a stable environment that would maximize shareholder value in a potential transaction related to its Vestolit business. The Company believes that Vestolit is a solid business with a unique global position with a strong cash flow that will continue to drive sustainable and profitable growth.

On March 5, 2020, Orbia notified its agent bank of the revolving line of credit signed on June 21, 2019, the \$500 million reduction of that line that was originally signed for \$1,500 million, leaving a balance of \$1,000 million available to the Entity.

In March 2020, the World Health Organization ("WHO") declared the Coronavirus disease ("COVID-19") a global pandemic. During the first quarter of 2020, the rapid global spread of COVID-19 caused, and continues to cause, as of the date of this Report, significant disruption to the global economy and it is affecting the countries in which we operate.

Given the scope and speed of this unfolding pandemic, the Company cannot estimate the full extent of the impact that COVID-19 may have on the equity investment it maintains in its businesses, nor on its operations, liquidity, operating results or financial status as of the date of this report.

The Issuer's management is committed to complying with local regulations in each country where it operates, closely monitoring the situation, and planning and taking steps to minimize the negative impact of the COVID-19 pandemic. However, the future result of such actions remains unclear.

On March 27, 2020, Orbia informed the investing public that, due to the uncertainty in the world economy, as well as potential effects of the global COVID-19 pandemic on the financial and capital markets, the Company, as a precautionary measure, and to strengthen its liquidity and financial flexibility, on March 27, 2020, drew down 100% of its \$1,000 million revolving line of credit. The funds can be used for general corporate purposes, including the repayment of debt maturities during this year for approximately \$230 million. It should be noted that the average life of such debt, after the drawdown, is 12 years, and the only upcoming relevant maturity is in 2022.

The Issuer may, at any time, coinciding with the monthly interest payments, prepay the entirety of such line of credit without penalty, which has a maturity date in June 2024.

For the first quarter of 2020, the damage has been limited for the Company and its subsidiaries; however, the impact on the rest of 2020 cannot be fully estimated.

Some issues that the industry and our business clients may face include the following:

- Production interruptions, including facility shutdowns
- Shortage in the supply chain
- Staff illness
- Reduced sales
- Delayed customer collection

#### General business strategy

For several years Orbia defined and implemented a growth strategy based on acquisitions, which significantly increased its global presence and market penetration. (See item b) "Business Description", "Business Strategy", of Chapter 2 ": The Issuer" in this Annual Report).

#### Changes in the way the business is managed

The Company has continued with the corporate restructuring of its subsidiary businesses in order to align, integrate and optimize the productive processes of its value chains considering the business acquisitions

made. Orbia continues to make changes to corporate names and mergers of several of its subsidiary businesses.

On January 31, 2018, the appointment of Daniel Martínez-Valle as Orbia's new CEO was announced, following the departure of Antonio Carrillo Rule. Orbia's Board of Directors confirmed Daniel Martínez-Valle's position on February 7, 2018.

In early 2018, Andrés Múgica, who was President of the Fluor business group, became the head of Building & Infrastructure Latin America (Amanco - Fluent Latam) operations. Amanco and Wavin (Fluent Europe) form the Building & Infrastructure business. Marteen Roef, who had been President of Fluent Europe (Wavin), took over as President in 2018, while Peter Hajdu took over as President of the Data Communications business (Dura-Line) (Fluent US/Canada and AMEA). The appointments of both Maarten Roef and Peter Hajdu followed the retirement of Paresh Chari, then President of the Fluent business group. On February 7, 2018, Orbia completed the acquisition of Netafim. Gaby Miodownik is CEO of this acquired company as of March 1, 2020.

In early 2018, Sameer S. Bharadwaj, President of the Compounds business unit (part of the Polymer Solutions business group), also took over as President of the Fluor business group. Sameer participated as a member of the Advisory Board of the Fluor business group from 2010 to 2016 demonstrating in-depth knowledge of the business group.

On May 17, 2019, Mr. Sheldon Hirt was appointed Vice President, General Counsel at Orbia. Also, on August 5, 2019, Mr. Edgardo Carlos was appointed Vice President of Finance.

#### Summary of Corporate and Structural Changes

The following are the most significant changes that have allowed the Company to create process synergies and efficiencies:

#### In the Polymer Solutions business group (Vestolit):

The following changes have been made in the Polymer Solutions business group (formerly the Vinyl business group):

Chlorine-Soda process. The subsidiaries currently in charge of the Chlorine-Soda process are Mexichem Derivados and PMV.

On December 20, 2017, Orbia announced the decision of PMV shareholders not to rebuild the production capacity in VCM. Consequently, the joint venture for the production of VCM, the assets and liabilities associated with the production of ethylene and the auxiliary services associated with VCM and ethylene were classified on that date as discontinued operations in Orbia's Financial Statements for the years 2017, 2016 and 2015. In addition, PMV's decision not to rebuild the VCM plant resulted in the cancellation of an additional \$196 million related to the assets of the ethylene plant and the auxiliary services related to the VCM and ethylene plants, which are also listed as discontinued operations. Thus, all impacts and recognized revenues related to the incident at the VCM plant are listed as discontinued operations. This represents the exit of PMV from the VCM and Ethylene businesses in Mexico, but not from the chlorine-soda business, whose plant will continue to be operated by PMV.

On July 6, 2018, Orbia announced that in line with its strategy of consolidating key businesses, it reached an agreement for the acquisition of 44.09% of the shares representing the capital stock held by Pemex in PMV, through its subsidiary PPQ Cadena Productiva S.L., after the approval by the Boards of Directors of both Pemex and Orbia. The amount of the operation came to approximately \$159.3 million, a value within the valuation ranges of comparable companies and prior transactions in the petrochemical sector. Orbia completed the acquisition on November 16, 2018, so that, as of that date, PMV was exclusively a subsidiary of Orbia and its activity, as of that date, consisted only of the operation of the chlorine-soda plant.

In February 2017, the 50/50 joint venture formalized on October 31, 2013 between Orbia and Occidental Chemical Corporation (OxyChem), Ingleside Ethylene LLC, began operations on time and on budget of the Ethylene Cracker at OxyChem's complex located in Ingleside, Texas. During the second quarter of 2017, the Cracker began commercial operation. The Cracker has an annual production capacity of 1.2 billion pounds (550,000 metric tons) of ethylene per year and provides OxyChem with a continuous source of ethylene for the production of vinyl chloride monomer (VCM), which Orbia uses to produce polyvinyl chloride (PVC resins) used to manufacture PVC pipe, among other products. The total amount invested during 2017

and 2016 alone was \$62 million and \$350 million, respectively (based on asset accounting rather than on a cash flow basis). The joint venture also includes the gas pipeline and storage plant in Markham, Texas, USA.

On January 22, 2018, Orbia announced the acquisition of Sylvin Technologies Inc. a specialized PVC compound manufacturer based in Denver, Pennsylvania, USA, for \$39 million free of cash and debt. Sylvin recorded total sales of \$29 million in 2017. The company has a 30-year history of serving a wide range of industries including: the cable, electrical, industrial, automotive, medical, and food product industries. Orbia consolidated Sylvin into the Polymer Solutions business group under the Composites business unit.

In the Fluent business group (Building & Infrastructure - Wavin and Amanco-, Data Communications - Dura-Line-, and Precision Agriculture -Netafim-)

In this group (formerly Integrated Solutions Chain), the following changes have been made:

In August 2017, Mexichem Soluciones Integrales Holding, S.A. de C.V. (MSIH), a subsidiary of Orbia, reached an agreement for the acquisition of: i) voting shares representing 80% of the subscribed and paidin capital stock, ii) all non-voting shares representing approximately 0.4% of the subscribed and paid-in capital stock, both of Netafim, and iii) certain loans granted by some of the Netafim shareholders, Bluedrip S.ar.I, and Netafim Hatzerim Holdings, Cooperative Association Limited, in favor of Netafim.

In 2019 we reorganized into five business groups focused on providing customer-driven solutions through the verticals of Data Communications (Dura-Line), Precision Agriculture (Netafim), Building and Infrastructure (Wavin), Fluor (Koura) and Polymer Solutions (Vestolit).

#### In the Fluor (Koura) business group

On March 23, 2017, the Company announced that the U.S. International Trade Commission (ITC) found that imports of R-134a refrigerant gases were causing material damage to the R-134a producing industry in the United States. The decision was the result of a one-year investigation by the U.S. Department of Commerce, which found that imports of R-134a from China were entering the U.S. at prices below their fair value. On February 22, 2017, the Commerce Department announced that imports from China of R-134a were dumped and imposed antidumping duties ranging from 148.79 percent to 167.02 percent.

#### **Changes to Offered Products and Services**

The strategy established by the Company is to maintain the competitiveness of our Fluor and Polymer Solutions businesses and to focus even more on its Building & Infrastructure, Data Communications, and Precision Agriculture businesses within the Fluent business group, all guided by Orbia's purpose, putting the customer at the center of Orbia's development by creating and developing innovative products and services that benefit people and their standard of living around the world ("human-centered" innovation), seeking every day to impact, with our solutions and products, in a positive way, people and organizations around the world, such is the case of Building & Infrastructure (Wavin and Amanco), which has defined a new purpose: "building healthy and sustainable environments", in line with Orbia's purpose "to advance life around the world". With this, we continue to pursue the goal of expanding into differentiated and high-margin specialty products, evolving from a production-oriented company to one that is much more consumer-centric, ensuring the supply of its raw materials, products and services.

The acquisition of Química Flúor added hydrofluoric acid to the product portfolio, which is needed to produce multiple specialty products in the Fluor business group. The acquisition of Mexichem Resinas Vinílicas in Mexico and Colombia brought with it the production of vinyl resins in suspension and emulsion, copolymer, homopolymer, Blender and Extender resins. The integration strategy for the Fluor business group has allowed the incorporation of the aluminum fluoride to the product portfolio with its plant in Tamaulipas; with the acquisition of Ineos Fluor it burst into the refrigerant market with higher value-added products, and the latest acquisition of Fluorita de México gave it access to the highest purity fluorite worldwide.

The acquisition of Wavin in May 2012 added new technologies and products to the Fluent business group's offering, especially in the following areas:

- Water management and conveyance through roof drainage via siphon, rainwater infiltration/attenuation units and filters.
- Heating and cooling of surfaces by means of roof heating systems and underfloor cooling systems. Indoor heating and cooling solutions.

- High-spec systems for heating and cooling water, as well as high-spec systems for floors and waste containment.
- High spec Hot & Cold-water systems as well as high spec Soil & Waste systems
- Water treatment systems.

The joint venture with Oxy incorporated the production of ethylene for the integration of the Polymer Solutions business group.

With the 2014 acquisitions of Dura-Line (Data Communications), Vestolit and the license to distribute and sell pharmaceutical grade HFC-227/eaP propellant and the 2016 acquisitions of Gravenhurst in Canada and Vinyl Compounds Holdings in the UK, Orbia entered new markets and regions with higher margin specialty products.

With Dura-Line (Data Communications), Orbia included in its portfolio high density polyethylene (HDPE) products in conduit pipe solutions, pipe protectors and pressure pipes for telecommunications (voice and data), as well as in the energy and infrastructure industry.

With Vestolit (Polymer Solutions), the Company included high impact suspension PVC resin (HIS-PVC) and PVC paste.

The acquisition of the license for the distribution and sale of pharmaceutical grade HFC-227ea/P adds a medical propellant to the Fluor business group.

With Gravenhurst (Data Communications), Orbia entered the Canadian telecommunications market with specialty polyethylene products, while with Vinyl Compounds Holdings the Company acquired a leading supplier of PVC compounds serving a wide range of industries including: building and construction, pipe and profile manufacturing, and footwear and consumer goods in the United Kingdom.

Netafim (Precision Agriculture) gave Orbia access to intelligent technology, which eventually can be used in water conveyance systems and other sectors, offering a platform from which it is possible to create intelligent industrial solutions around existing production lines that serve the markets of infrastructure, housing and data communication and other sectors. The Issuer believes that this acquisition will also strengthen its global presence and impact in key growth markets and allow it to grow in the replacement market and diversify and expand the end markets where it sells its products.

Finally, Sylvin Technologies will enable the Company to offer greater added value to its U.S. customers. Sylvin's key raw materials are PVC resins, plasticizers and stabilizers, which should bring synergies to the operations of the Polymer Solutions business group.

#### Changes to the corporate name

The Company changed its name to Orbia Advance Corporation, S.A.B. de C.V., through an Extraordinary General Shareholders Meeting held on August 26, 2019.

#### Bankruptcy

As can be seen from the Company's audited financial statements, the Company does not fall within any of the circumstances established in Articles 9 and 10 of the Commercial Bankruptcy Act, and to date there is no risk, nor is it known that it could be or has been declared bankrupt.

#### Judicial, administrative or arbitration proceedings

The Company and its subsidiaries are involved in various civil, commercial, fiscal and labor lawsuits; these proceedings arise from the normal course of business and are common to the industries in which they participate.

As of December 31, 2019, the Company is not aware of any Judicial, administrative or arbitration proceedings that, if resolved unfavorably for the Issuer, could have a material adverse impact on the Company's operating results and/or financial status.

Nevertheless, in compliance with applicable regulations, internal policies and good practices, the Company and its subsidiaries maintain provisions to meet any obligations that may arise as a result of the proceedings to which it is a party.

To the extent known to the Company and its subsidiaries, as of December 31, 2019, none of its shareholders, directors and principal officers are involved in any judicial, administrative and/or arbitration proceeding that might materially affect the results of operations or financial status of the Company in a adverse way.

Furthermore, neither the Company nor its subsidiaries are party to any fiscal proceedings that may affect the results of operations or financial status of the issuer in a material adverse way.

#### Effect of Laws and Government Regulations on Business Development

All Group companies incorporated in Mexico are subject to the Income Tax Act, and the Value Added Tax Act, among others.

The mineral Exploration, Exploitation and Processing operations of the Fluorite Process is regulated by the Mining Act, which set forth that such activities may only be carried out by Mexican individuals, ejidos (communal farmland) and agrarian communities and companies incorporated under Mexican law, through mining concessions granted by the Ministry of Commerce and Industrial Development (now the Ministry of the Economy).

In accordance with the provisions of the Mining Act, the Fluor business group is required to register with the Public Registry of Mining and Mining Mapping, as well as to regularly report its estimated ore reserves.

The Company is a prominent player in the chemical industry in Mexico, Latin America and Europe. Orbia and its subsidiaries participate in the secondary petrochemical industry by obtaining the raw materials it requires from PEMEX or international suppliers. Through its international expansion strategy, the Issuer could enter the basic petrochemical industry through the acquisition or incorporation of companies in countries whose legislation allows this activity, as well as new activities derived from the recent energy reform, under the terms established in secondary legislation.

Companies located in the United States, Colombia, Brazil and other countries in Latin America, Europe and Asia are governed by their respective tax laws.

#### Investments Made in the Last Three Fiscal Years

The Orbia's strategy has been to grow through acquiring companies with whom they are able to create synergies and in recent years has increasingly focused on ensuring that through constant capital expenditures on modern technology, the Company can maintain high levels of efficiency and low production costs while improving its leadership position in the markets in which it operates. The following table shows our capital expenditures for the periods indicated with figures in millions of Dollars.

Year ending I		
2019	2018	2017
261	283	254
(23)	(4)	(6)
36	71	35
-	1,427	-
274	1,777	283
	<b>2019</b> 261 (23) 36 -	261         283           (23)         (4)           36         71           -         1,427

Furthermore, the Company is constantly making investments in technology in order to penetrate and grow downstream businesses and become closer to consumers to offer them high value-added products, as well as differentiated solutions and services.

Acquisitions and new businesses established during the years ending December 31, 2019, 2018 and 2017 included:

 On July 6, 2018, Orbia announced that in line with its strategy of consolidating key businesses, it reached an agreement for the acquisition of 44.09% of the shares representing the capital stock held by Petróleos Mexicanos (Pemex) in PMV, through its subsidiary PPQ Cadena Productiva S.L., after approval by the Boards of Directors of both Pemex and Orbia. The transaction amount is approximately \$159.3 million, which is within the valuation ranges of comparable companies and precedent transactions in the petrochemical sector.

2. On February 7, 2018, Orbia completed the acquisition of 80% of the shares of Netafim LTD a leading Israeli company in precision irrigation solutions, after obtaining all government authorizations and meeting the prerequisites required in the Share Purchase Agreement signed in August 2017. The price paid for the acquisition was \$1,424 million. Kibbutz Hatzerim retained the remaining 20% of Netafim's share capital. This transaction represented a significant step in Orbia's long-term strategy of positioning itself as a world leader in specialized products and solutions, serving high-growth markets. Orbia has consolidated the financial statements of Netafim in the Fluent business group.

The financial statements of Netafim were consolidated in the financial statements of Orbia, as of this date. The acquisition was primarily financed as follows: (i) cash in the amount of \$239 million, (ii) new short-term loan in the amount of \$200 million, and (iii) cash flows from the issuance of a long-term bond in the amount of \$985 million.

- 3. On January 22, 2018, Orbia acquired Sylvin Technologies Inc. (Sylvin), which is a manufacturer specializing in PVC compounds based in Denver, Pennsylvania, USA for \$39 million free of cash and debt. By then, Sylvin had a 30-year history serving a wide range of industries including: the cable, electricity, industry, automotive, medical and food products industries. Orbia consolidated Sylvin into the Polymer Solutions business under the Compounds business unit. By combining Sylvin's customer-focused business model, strong work force, and application development capabilities with Compound's business group (Orbia's Polymer Solutions business, currently in the group) they were able to offer greater added value to their U.S. customers. Sylvin's key raw materials are PVC resins, plasticizers, and stabilizers, which should result in synergies with the operations of Orbia's Polymer Solutions business group.
- 4. In February 2017, the 50/50 joint venture formalized on October 31, 2013 between Orbia and Occidental Chemical Corporation (OxyChem), Ingleside Ethylene LLC, began operations on time and on budget for the ethylene cracker at the OxyChem complex located in Ingleside, Texas, USA. During the second quarter of 2017, the cracker began commercial operation. The cracker, with a production capacity of 1.2 billion pounds (550,000 cubic meters) of ethylene per year, provides OxyChem with a continuous source of ethylene to produce vinyl chloride (VCM), which Orbia uses to produce polyvinyl chloride (PVC resins) as well as PVC pipe. The joint venture also includes the gas pipeline and storage plant in Markham, Texas. Construction began in the second quarter of 2014. The joint venture is in the Company's consolidated financial statements and is reported as part of the Polymer Solutions business group.

The following table shows the acquisitions made from 2017 to 2019, together with their installed capacity and sales (in millions of Dollars) by each company as of December 31, 2019.

Acquisition date	Company	Product	Business Group	Installed Annual Production Capacity	Sales 2019 (millions)	Sales 2018 (millions)	Sales 2017 (millions)
January 22, 2018	Sylvin Technologies	Compounds	Polymer Solutions	13,500 (1)	28	29	N/A
August 7, 2017*	Netafim	Micro irrigation solutions	n Fluent	8,500 (2)	1,063	997**	950**
(4) T							

Tons per year (TPA)
 Millions of meters

\*The transaction was announced on August 7, 2017; however, it was formalized on February 7, 2018 after obtaining all government authorizations and the prior conditions required by the Share Purchase Agreement

\*\* Netafim's sales in 2018 are included considering the full year of 2018

Includes all products, installed capacity in 2019. NA- Not applicable.

#### **Public Offers**

During the past 3 fiscal years, the Company has not been the subject of any public offering for control of the Company, nor has it made any offer to assume control of other companies whose shares are listed on the Mexican Stock Exchange or on any other foreign stock exchange.

Orbia has not made public offerings of capital since 2005.

#### Public Offerings of Debt in Mexico

On March 21, 2012, Orbia Advance Corporation, S.A.B. de C.V. made the third issue under the Program, "ORBIA 12" for 30 million Stock Exchange Certificates, with a par value of \$100.00 Mexican pesos each, maturing on March 9, 2022 through a single payment, for a term of approximately 10 years, at an annual gross interest rate of 8.12%, which will remain fixed during the term of this third issue. This issuance of Stock Exchange Certificates is guaranteed by the Company's subsidiaries Mexichem Compuestos, S.A. de C.V., Mexichem Amanco Holding, S.A. de C.V., Mexichem Derivados, S.A. de C.V., Mexichem Flúor, S.A. de C.V., and Mexichem Brasil Indústria de Transformação Plástica Ltda.

The joint representative for the issue of ORBIA 12 Stock Exchange Certificates is The Bank of New York Mellon, S.A., and the depository is Indeval, and the issue's credit risk rating, assigned by Standard & Poor's is 'mxAA/mxA-1+' on a national scale and with a stable outlook and by Fitch Ratings is 'AA+' (mex)' with a stable outlook.

#### Public Offers of Debt Abroad

On September 19, 2012, Orbia Advance Corporation, S.A.B. de C.V., issued and placed Senior Notes for a total amount of \$1,150 million, in two blocks: one of \$750 million, for a ten-year term with a fixed rate coupon of 4.875% and another of \$400 million, for a thirty-year term with a fixed rate coupon of 6.75%. In both blocks of Senior Notes, interest is paid every six months on March 19 and September 19 as of the issue date and until they mature on September 19, 2022 and September 19, 2042, respectively. The Senior Notes have been listed on the Luxembourg Stock Exchange and for trading on the Euro MTF Market. These Senior Notes have not been registered in the National Securities Registry, nor have they been authorized by the National Banking and Securities Commission, nor have they been registered pursuant to the regulations of the U.S. Securities Act of 1933, which governs securities transactions in the United States of America, they were only offered to purchasers in the U.S. deemed to be qualified investors according to the definition in Rule 144-A of the U.S. Securities Act, and to purchasers outside the U.S., who do not reside in the U.S., under "Regulation S" of the U.S. Securities Act.

On September 17, 2014, Orbia Advance Corporation, S.A.B. de C.V., issued and placed Senior Notes for a total amount of \$750 million, for a term of thirty years, that bear interest at a fixed annual rate of 5.875%, payable every six months on March 17 and September 17 as of their issue date and until their maturity on September 17, 2044. The Senior Notes are listed on the Luxembourg Stock Exchange and traded on the Euro MTF Market. These Senior Notes have not been registered in the National Securities Registry, nor have they been authorized by the National Banking and Securities Commission, nor have they been registered pursuant to the regulations of the U.S. Securities Act of 1933, which governs securities transactions in the United States of America, they were only offered to purchasers in the U.S. deemed to be qualified investors according to the definition in Rule 144-A of the U.S. Securities Act, and to purchasers outside the U.S., who do not reside in the U.S., under "Regulation S" of the U.S. Securities Act.

On October 4, 2017, Orbia Advance Corporation, S.A.B. de C.V., issued and placed Senior Notes for a total amount of \$1,000 million, in two tranches. The first tranche is over ten years and accrues a fixed annual rate of 4.0%, payable every six months on April 4 and October 4 as of the issue date and until maturity on October 4, 2027. The second tranche is over 30 years and accrues a fixed annual rate of 5.50%, payable every six months on January 15 and July 15 as of the issue date and until maturity on January 15, 2048. Senior Notes may be redeemed at 100% of the book value of the principal 3 months before maturity for the first tranche and 6 months before maturity for the second tranche. The Senior Notes are listed on the Luxembourg Stock Exchange and traded on the Euro MTF Market. These Senior Notes have not been registered in the National Securities Registry, nor have they been authorized by the National Banking and Securities Commission, nor have they been registered pursuant to the regulations of the U.S. Securities Act of 1933, which governs securities transactions in the United States of America, they were only offered to purchasers in the U.S. deemed to be qualified investors according to the definition in Rule 144-A of the U.S. Securities Act, and to purchasers outside the U.S., who do not reside in the U.S., under "Regulation S" of the U.S. Securities Act.

#### b) General Business Description

#### **Business Strategy**

In 2019, Mexichem S.A.B. de C.V., a manufacturer of PVC pipes, resins, compounds and specialty chemicals with a legacy of more than 50 years of success and business growth, proudly became Orbia Advance Corporation S.A.B. de C.V. This transition goes beyond the introduction of a new name: it represented a new strategy, an operational reorganization and aligned capabilities to address some of the world's most pressing challenges and mark the beginning of a new era of social and environmental contributions.

At Orbia, we acted and started on a journey of transformation in several important ways over the course of 2019, of which we'd like to highlight the following:

- Supporting the company's fundamental purpose with a name, identity, brand architecture, purpose and values that live up to our ambitions as a truly global company.
- Prioritizing customer-centric approaches through analysis and the implementation of capital and operational strategies designed to meet customer demand, capitalize on organic growth opportunities, and deliver superior operational and financial performance.
- Integrating innovation into our culture with large-scale innovation initiatives, including our first Orbia Employee Challenge to encourage employees to think profoundly and differently about creating new solutions to the most pressing challenges, and a company-wide transformation timeline focused on talent development, people-centered innovation, digitization, operational excellence and regeneration.
- In 2019, the Company created a \$130 million corporate venture capital fund to invest in the early stages
  of startups to accelerate innovation processes through Orbia. The strategy is to partner with these
  startups to expand our product offering, lower costs and enter new markets, among other things.
- Moving forward in Orbia's transformation journey, we continue to look for opportunities to align and evolve what we do together as a sustainability driven company working to advance life around the world.

Orbia has grown through acquisitions of companies related to its business groups, which has allowed it to consolidate and expand its leadership in all of them and maintain a geographical presence in the international market in the countries where there is demand for its products. The Company is developing a global growth model in which the focus is based on maintaining and consolidating the global competitiveness of its Polymer Solutions business group and strengthening its businesses in the Fluor business group by focusing on and specializing in its end markets such as Building & Infrastructure (Wavin and Amanco), Data Communications (Dura-Line) and Precision Agriculture (Netafim), maximizing the current capacities of these groups to improve margins and boosting organic growth, as well as the introduction to new markets. Orbia seeks to create a customer-centric platform to offer customers solutions and proposals according to their needs, creating long-term bonds. Through the integration of its latest acquisitions, Orbia seeks to promote collaboration and generate the greatest possible synergies, maximizing its resources under the current financial structure.

In order to achieve these objectives, the Company has implemented the following strategies:

#### Commitment to safety, social and environmental responsibility

The Issuer will continue to focus not only on economic development, but also on its commitment to environmental and social sustainability. As part of this commitment, it carries out sustainability reporting under the Global Reporting Initiative (GRI) methodology, as a means of evaluating and establishing goals and work programs in order to fulfil its promises. In 2017, it began reporting carbon footprint, risks, opportunities, governance and actions to reduce greenhouse gas emissions in the Carbon Disclosure Project (CDP). In 2018, the Issuer joined the United Nations Global Compact, reporting on the commitment and actions for the ten principles of the compact in the sustainability report since that year.

In 2019, it joined the United Nations Global Compact Water Mandate, committing to 6 areas of water management. Today, the Issuer is one of a select group of 175 companies worldwide that have joined this pact. The Issuer complies with the new GRI criteria based on materiality disclosure and independent third-party review of relevant indicators. In effect, this independent third party assures the data in the report in accordance with the ISAE 3000 assurance standard. In addition, the Issuer has begun to align the

information in the sustainability report with the requirements of the Sustainability Accounting Standards Board (SASB) for our industry and has set long-term goals that it monitors year after year.

Likewise, the company has been implementing internationally recognized safety systems such as ISO 45001, OHSAS 18001 and the *International Safety Rating System* (ISRS), focused mainly on the safety of its employees worldwide. Since 2016, it has also been implementing PSM (Process Safety Management) in its production processes. Thus, Orbia works in all its businesses to ensure that every day, its more than 22 thousand employees return home safe and sound.

#### A model of purpose-driven growth on a global scale

In the second half of 2018, Orbia announced that it was initiating a journey of transformation into a futureproof and purpose-driven organization. This means that our organization is identifying infrastructure problems and challenges in communities and cities around the world and developing innovative solutions to solve them. This approach to our business is another concern about identifying the challenges of today, as well as analyzing growth trajectories and predicting the challenges of tomorrow. Thus, the Company has decided to place greater emphasis on its end markets, placing the customer and its needs at the center of its strategy, in order to develop increasingly specialized, technological, and innovative products and solutions known as "human-centered," in which Orbia has identified and can continue to identify pressing challenges. Orbia has adopted greater discipline in deciding to invest in all projects, both organic and inorganic, through a capital allocation model that includes, first of all, the risks, mitigations, alignment to Orbia's strategy, global and local growth potential, profitability, and operational capacity. As mentioned at the beginning of this section, Orbia continued this journey of transformation and 2019 was a very important year for this process.

## A continuous focus on highly efficient operations, reducing volatility through vertical integration and improving profitability through resource optimization

The Company's vertical integration strategy has reduced exposure to any price volatility of our main raw materials: the Fluor business group is 100% integrated from the exploitation of fluorite to the production of refrigerant gases; while since February 2017, the Polymer Solutions business group is approximately 70% integrated with the Ethylene group and has thus achieved significant integration from salt extraction to PVC production, which has allowed and will allow Orbia to improve profitability through better cost management. In addition, Orbia focuses on improving the return on invested capital in order to achieve and maintain it above its weighted average cost of capital, through the assets and operations it has at present.

#### A continuous focus on specialty and value-added products

Orbia is focused on the development of a portfolio of value-added products, seeking to create a customercentric platform to offer solutions and proposals according to the customer's needs, creating long-term bonds. The Issuer has developed a state-of-the-art process to purify the fluorite it extracts from its mine at a significantly reduced cost, in order to produce HF, as it is a value-added product. In addition, the acquisition of Wavin, PolyOne's U.S. PVC Specialty Resin assets, as well as the recent acquisitions of Dura-Line, Vestolit, Vinyl Compounds, Gravenhurst, Netafim and Sylvin Technologies, are part of our strategy to continue integrating the Orbia into higher value-added products and services and to develop increasingly specialized, technological and innovative products and solutions known as "human-centered," in which Orbia has identified and can continue to identify pressing challenges.

The Issuer will continue to use its competitive advantage in the development of new and advanced production processes through its 19 research and development centers. These centers also develop new products focused on customer needs, making products available to customers through an extensive distribution network in the markets in which they participate. The Issuer will also continue to develop and implement its own technologies and processes that will generate significant benefits for Orbia and for the entire industry in general. For example, the Company has its own technology to produce PVC resins, PVC pipes, compounds, plasticizers and HF purification. These technologies allow it to produce unique tubes that meet the requirements of most infrastructure projects and other competitive advantages. In addition, Orbia has developed solutions based on fluoro compounds for the cement industry that allow for the optimization of Clinker production, which not only has economic benefits but also benefits the Company's environmental impact by reducing its carbon footprint.

#### A continued focus on customer relationships

Orbia seeks to be the leader in its markets by manufacturing high-quality products at competitive prices. The Company seeks to increase both its scale and the efficiency of its production and innovations through research, placing the customer at the center of its strategy, in order to provide them with low-cost solutions that meet their needs. Orbia will continue to develop relationships with its new and existing customers through long-term contracts in order to encourage their loyalty by seeking to expand the partnership with them, helping them to develop new products. For example, the Company designs custom products such as cable and wire insulation with special applications, three-gallon bottles, and other construction materials including window frames, laminate floor bases, and blinds, many designed to meet the needs of their strategic markets. In addition, Orbia's customer service department offers technical assistance. Orbia seeks to create new businesses and cultivate customer loyalty by offering new products and services, which will help generate sales during periods of low demand.

#### Maintaining an agile and solid financial structure

Orbia seeks to maintain a solid and flexible financial base that will allow it to achieve its growth objectives. The Company operates at a net debt/EBITDA ratio of no more than 2.0 in the long-term, which is how it ensures liquidity through a revolving credit line of up to \$1,000 million, which was exercised during the month of March 2020. When a project requires exceeding 2.0 net debt/EBITDA, the project must generate value, make perfect sense with the Company's business, meet the profitability conditions required by its corporate governance bodies, and present a plan to return to no more than 2.0 net debt/EBITDA in a period of less than 18 months. Orbia will maintain and continue to implement financial strategies, including a conservative debt profile, a conservative hedging structure, as well as strategies to hedge exposure to foreign exchange rates, and thus be able to continue executing its growth strategy.

#### Implementing a business culture

Orbia's current operations are the result of 30 business acquisitions that have positioned the Company as a leader in different countries, regions, and markets, through the integration of diverse companies and work cultures. In this sense, the Issuer considers that a consolidated business culture is important for meeting the objectives set by the Company itself and the market. Orbia is proud to establish and spread among its companies its mission, vision, unique values, and strict adherence to its Code of Ethics as part of this organizational culture so that its employees are not only aware of it, but also apply it to their daily lives.

i. Main activity.

Orbia is a leading provider of products and solutions in multiple sectors, from the petrochemical to the construction, infrastructure, agriculture and irrigation, health, transportation, telecommunications, and energy sectors among others. It is one of the world's largest producers of plastic pipes and fittings.

With a global presence, Orbia employs more than 22,000 people in more than 41 countries in which it has 128 production plants, concessions for the exploitation of 2 fluorite mines in Mexico, 8 training academies, and 19 research and development laboratories. It generated sales in 2019 of \$6,987 million.

With a more than 50-year trajectory and more than 40 years of trading on the Mexican Stock Exchange, Orbia applies a business model based on vertical integration and strategic acquisitions through which it has direct access to raw materials and its own technology, allowing it to compete in a global environment. As a result, Orbia offers a wide range of materials, products, solutions, and finished products that contribute to the success of its customers and improve people's quality of life.

Through its commitment to being a good corporate citizen, Orbia offers total value to all its stakeholders, such as customers, employees, investors, and others around the world, every day.

Orbia's operations consist of three business groups: Polymer Solutions, Fluor and Fluent. The last group comprises the Building & Infrastructure - Wavin and Amanco-, Data Communications - Dura-Line-, and Precision Agriculture -Netafim businesses.

#### **Competitive Advantages**

Orbia focuses on creating value for its stakeholders, including its shareholders, customers, and suppliers, through the development and continuous improvement of its products and services, starting from its basic

raw materials. Through vertical integration of the market of products with higher added value, we seek to obtain better results. Our main competitive advantages are as follows:

## Vertically integrated operations with direct access to raw materials that generate economies of scale and reduce operating expenses

Orbia, a leader in the markets in which it participates, is characterized by its strategy focused on low-cost production through constant investments in its own state-of-the-art technology; integration of its basic raw materials in its two main production chains; creation of synergies in logistics, purchasing, systems, treasury, human resources and other functions, and constant development and implementation of cost-efficiency projects.

With the Polymer Solutions group, Orbia is partially integrated (approximately 65%) to its main raw material, ethylene, and thus the production chain is integrated from the extraction of salt to the production of plastic compounds. It has facilities for the production of salt for industrial consumption, ethylene, chlorine, soda, VCM chlorine derivatives, PVC and specialty resins, as well as compounds, in addition to being integrated to one of the main raw materials for the manufacture of plasticizers: phthalic anhydride.

In the Fluent Business group (Building & Infrastructure - Wavin and Amanco-, Data Communications – Dura Line-Precision Agriculture -Netafim-) – the main raw materials are PVC resin, polyethylene and to a lesser extent, propylene. These are supplied at the best price available on the market, either through purchases from third parties or through the Polymer Solutions group in the case of PVC, when it is efficient and at competitive prices.

Koura, of the Fluor business group, - has its own fluorite mines, including the world's largest one, making it the only fully integrated global producer of its raw material. This integration gives Koura an unparalleled competitive advantage, not only in Mexico but also worldwide. Koura is the only company in the world with a vertically integrated value chain, from the extraction of fluorite, through hydrofluoric acid, to the production and sale of refrigerant gases and medical propellants in the Americas, Europe, and Asia.

Over the past 17 years, Orbia has acquired companies or formed joint ventures to vertically integrate its operations and increase access to the raw materials needed for its operations.

## Our leading position in the PVC and plastic pipe markets in Latin America and Europe and considerable growth projections as well as being an undisputed global leader in the fluorite market.

Orbia is one of the largest pipe producers in Europe and Latin America, a leader in the production of PVC resin in Latin America, according to IHS Markit, and maintains a leading position worldwide. The Company believes that the primary markets for such products in the infrastructure and construction industries could experience sustained growth over the next few years, particularly in the Latin America and Asia Pacific regions.

Net sales to third parties in 2019, by geographical area of destination, were primarily concentrated in the United States, Mexico, Germany, Brazil, the United Kingdom and India, representing 18%, 9%, 7%, 7%, 5% and 5%, respectively. In terms of geographical source of income, Mexico represents 19% of total sales, approximately 14% of sales are made in dollars, and the remaining 5% in pesos. Over the past five years, the Company has expanded its operations throughout the Western Hemisphere, the Middle East and Africa and now has production facilities in 10 Latin American countries, as well as facilities in the United States, Canada, Japan, China, the United Kingdom, Oman, South Africa and Israel. There are attractive growth projections in infrastructure and construction in the emerging markets in which Orbia sells its main Polymer Solutions and Fluent business group products due to a significant housing deficit, insufficient infrastructure, lack of access to water and sanitation and electricity, etc. Meanwhile, in developed countries, the greatest challenge is large-scale maintenance and improvement of transport, water, electricity and telecommunication networks.

Thus, the Issuer expects a sustained demand for PVC in the coming years in line with reports by IHS Markit (2020 World Analysis – Vinyls) and estimate an annual growth of between 3.1% and 3.6% in the period from 2019 to 2024.

Orbia has a strong presence in the American, European, and Asian markets due to its unique position within the Fluor business group. Furthermore, it has the concession rights for the exploitation and extraction in Mexico of the world's largest fluorspar mine and has modern plants for the production of HF and refrigerant gases, which allows it to forge solid relationships with strategic market participants. In addition, the proximity

to the end fluorochemicals market in the U.S. affords it a competitive advantage. The Company frequently enters into long-term dollar-denominated contracts with reputable international customers for the sale of the fluorite and HF it produces. The Company's global positioning will allow it to explore opportunities in order to supply more value-added products.

## Our proven ability to integrate and operate acquired companies throughout the Americas, Europe, the Middle East, Asia and Africa

Since 2003, Orbia has grown rapidly by consolidating 30 finalized business acquisitions. The acquisition of Netafim is part of the Company's growth strategy, which gives it access to smart technology for use in water supply solutions and other sectors.

The Company believes that the acquisition of Netafim is transformational and will further push its strategy toward specialty solutions, products and services, positioning it as an innovative leader in the high-growth market of precision irrigation. By acquiring Netafim, Orbia has become a leading developer of solutions for addressing two of the mega-trends facing the world: food and water shortages, and for responding to the need to increase crop yields and meet the highest sustainability standards with respect to fertilization. Netafim has a long history at the forefront of creating smart solutions in the irrigation market. This acquisition gives Orbia access to this smart technology, which can be used in water supply and in other sectors, providing a platform from which it is possible to generate smart industrial solutions based around existing production lines that serve the infrastructure, housing, and data communication markets as well as other sectors. The Issuer believes that this acquisition will also strengthen its global presence and impact in key growth markets and allow it to grow in the replacement market and diversify and expand the end markets in which it sells its products.

Successful acquisitions have contributed to the significant growth of Orbia's net sales and EBITDA, making it a leader in the industries in which it operates.

Thus, the geographical diversification of the contribution of Orbia's sales, the diversification of its products, which has led to more than 60% of its sales coming from finished and specialty products, and an increasing generation of cash flow, has changed Orbia's profile considerably, from a company based on commodities and chemical products, to a company increasingly based on innovative and specialty products, which has made it more and more resilient in the face of constant changes in the global economy.

#### Our management team with extensive industry experience

Orbia's key executives have extensive experience in leadership positions in top-tier global companies, with an average of more than 10 years' working in similar industries and more than 20 years of professional experience. The administrative team has a proven track record of operating successfully in the industry, particularly facilitating Orbia's operations and integrating new acquisitions in order to grow and strengthen its businesses.

#### Strong relationships with major suppliers and long-term contracts

Orbia operates under long-term product supply contracts with its main domestic and foreign customers and suppliers, which allows for sustainable development. Based on growth potential and size, Orbia has defined the market segments it wishes to participate in and, under this contract scheme, has positioned itself alongside strategic clients in high growth potential markets. This lends the company a competitive advantage that is difficult for its competitors to match.

Based on the size of the market and its growth potential, Orbia has identified more attractive markets and has entered into and expects to enter into strategic contracts with market leaders that give it a unique advantage over its competitors that do not have similar strategic alliances.

#### Considerable economies of scale in strategically located low-cost plants

Orbia benefits from an important economy of scale in the global fluorite market for the following reasons: (1) it has the rights to the world's largest fluorite mine, according to estimates made by experts certified by the Mining and Metallurgical Society of America, and through the acquisition of FDM, it has increased the potential reserves of the highest purity fluorite, (2) it has one of the world's largest HF production capacities, according to the latest survey conducted by Roskill Consulting in 2019, (3) it has established strong relationships with strategic market participants, (4) it has become a world leader in the chemical fluorite market, especially in the production of refrigerant gases, and (5) it is close to the U.S. fluorocarbon market.

Koura operates under long-term US dollar-denominated contracts with international customers for the supply of acid grade fluorite. Koura believes that, given its global scale, this should enable it to explore opportunities within the fluorochemicals industry with a greater number of value-added products, either through joint ventures with established producers or through direct acquisitions.

The Polymer Solutions business group begins its processes by extracting salt from its own mines to produce PVC resin, which is one of the main raw materials used in the manufacture of plastic pipes in our Fluent business group.

In October 2013, a joint venture was formalized with OxyChem for the construction of an ethylene cracker in Ingleside, Texas, USA. The commencement of commercial operations stated during the second quarter of 2017 at the Ethylene Cracker in Texas, which has allowed Orbita to reap the benefits of vertical integration in the value chain from ethane to PVC, which in turn generates a substantial reduction in the costs of PVC production, as well as direct management of the production and supply of its main raw material, ethylene.

With Ingleside's Ethylene cracker operating at 100% capacity, the Polymer Solutions group is approximately 65% vertically integrated, including Vestolit's installed capacity in PVC production.

Raw materials and production facilities are in advantageous geographic areas, which allows the Company to reduce operating costs. Orbia also owns (through a joint venture) a port terminal in Altamira, which not only reduces costs, but also affords it better access to export markets. The salt dome and chlorine, caustic soda and PVC facilities in Mexico are located near the oil zones of the Gulf of Mexico, while the fluorine mine and HF production facilities are near the border with the USA and the coasts of the Gulf of Mexico.

This location gives the Company immediate access to the market that has the highest fluorine demand in the world: The USA. The EBITDA margin reported in the Fluor business group at the end of the 2019 fiscal year was 39.2%.

#### Innovation through research, development and patented production processes

Orbia has a product research and development department with human resources and facilities that allow it to innovate in processes and products that are tailored to its customers' needs. The Company has its own technology for its production processes which places it at the forefront of technology since it has developed in its different production chains, unique designs that give it advantages over its global competitors. The Company's 19 research and technology centers are located in Mexico, USA, the Netherlands, Italy, India, the Czech Republic, the United Kingdom and Israel and focus on the development of new products and the alignment of processes to achieve safety and optimization of its production chain. In the Fluor business group, cutting-edge technology for fluorite purification has been developed in the hydrofluoric acid process. This innovation has succeeded in lowering the annual production cost of HF. Additionally, as a result of the acquisition of Wavin, Orbia gained access to new technologies and products developed by this business group, with whom it already had technology transfer contracts. In total, the Company has more than 500 patented products.

The following is a summary of each business group comprising the Company's main activities:



#### 1. Polymer Solutions Business Group (formerly Vinyl).

This business group consists of six manufacturing processes: (i) basic chemicals including ethylene, chlorine, caustic soda and their derivatives, VCM, EDC and specialty chemicals; (ii) phosphates used in food and beverages, soaps and detergents, fertilizers and food supplements; (iii) the Vinyl Process, which produces general resins used for pipes and fittings, cable, flexible and rigid films, bottles, etc.; (iv) specialty resins used for flooring, wallpaper, coatings, among others; (v) the Plasticizer Process that produces phthalic anhydride and a wide variety of plasticizers used in the processing of plastic resin; and (vi) the Compound Process, which produces plastic resins used to produce products with different applications such as medical products, industrial and consumer products, products for the construction industry, among others. The product is a calcium-zinc stabilizer used in the processing of PVC.

The Polymer Solutions group had net sales of \$2,334 million in 2019, \$2,460 million in 2018, and \$2,317 million in 2017, which represented approximately 32%, 34% and 38% of Orbia's total sales (before holding company revenues and intercompany eliminations) in those years. Orbia owns the rights to a salt dome in Mexico with more than 30 years of potential reserves and operates modern production facilities for chlorine, caustic soda, PVC resins, and compounds. It is the largest producer of specialty resins, and the fifth largest producer of PVC resins in the world.

#### 2. Fluent Business Group

Building & Infrastructure business - Wavin and Amanco-, Data Communications - Dura-Line - Precision Agriculture – Netafim) This business group produces PVC, polyethylene and polypropylene pipes and fittings, precision drippers for polyethylene irrigation, and geosynthetics and geotextiles. The products of this Business group are used for water management systems for irrigation, drinking water and sewerage, surface heating and cooling systems, water treatment systems including for soil and waste applications, gas and telecommunications. In 2019, 2018 and 2017, the Fluent business recorded sales of \$3,999 million, \$4,077 million and \$3,023 million, respectively (before holding company revenues and eliminations), which represented approximately 55%, 57% and 50% of Orbia's net sales (before holding company revenues and eliminations) for each of those years, respectively.

#### 3. Fluor Business Group:

**Koura Business:** The process of this business group is divided into 3 stages: (i) the Fluorite Process, which consists of the extraction of fluorite, used for the production of hydrofluoric acid in the cement, steel, ceramic and glass industries, (ii) the Hydrofluoric Acid and Aluminum Fluoride process, used for the production of refrigerant gases, downstream and in the aluminum industry and (iii) the Refrigerant and Propellant Gases process, used in air conditioning and medical applications. This business group includes the mining concession for the world's largest fluorite mine with an installed annual production capacity of approximately 1.7 million TPA, representing approximately 20% of the world's annual fluorite requirements. The mine has proven reserves of about 64 million tons (40 years) according to the latest estimate made by experts certified by the Mining and Metallurgical Society of America. Sales of the Fluor business group or Koura during 2019 reached \$805 million, representing approximately 11% of Orbia's net sales for each of those years (before holding company revenues and eliminations). In 2018 and 2017, this business group's sales were \$837 million and \$681 million, respectively.

#### Climate Change Summary

Orbia has carried out different analyses to determine the degree of exposure to the possible effects of climate change on its operations.

The effects of climate change identified in the different areas where Orbia has operations or market presence are desertification and drought, increase in sea level, changes in rainfall patterns, decrease in water availability, deforestation and diseases. All these phenomena could affect the Company's conditions, operating results and financial condition, due to the need to generate investments for the adaptation of operations, the increase in the price of supplies and power, the closure of affected operations, and the relocation of suppliers, protection measures against natural phenomena, the relocation of facilities to places with more favorable conditions and greater environmental regulatory requirements.

In this regard, the main anticipated risks are the physical risk to current and future facilities, and the availability of water for their operation. Orbia carries out risk assessments and detection of opportunities due to climate change in the regions where it operates for each site. Preventive actions have been identified and
based on this; actions are being taken to mitigate such risks. Operating risks in areas at sea level have been identified and mitigated through constant monitoring of hurricanes, with the support of forecasting models from the National Hurricane Center in Miami. This makes it possible to plan actions corresponding to the supply chain and plant operations, as well as to prevent difficulties that may be triggered by this type of event.

Extreme weather events can also have a serious impact on the company's logistics, since production units could be isolated without the ability to receive or ship product by land or sea. Likewise, the flow of materials may be interrupted in places outside the company, but strategic for the transport of goods (ports closed in the USA due to a hurricane or border bridges that are inaccessible due to flooding in Europe). Thus, Orbia's operating sites are exposed to hurricanes, cyclones and tropical storms due to Climate Change, and if affected by such phenomena, the Company could see its operating results and financial situation affected.

As an example of the above, in September 2017, as a result of Hurricane Harvey, certain subsidiaries of the Polymer Solutions business group declared a Force Majeure situation related to the supply of all their PVC resin suspensions, copolymers and emulsions produced in Mexico, Colombia and the U.S., because their main supplier of VCM and other raw materials had declared Force Majeure.

Since the Intergovernmental Panel on Climate Change (IPCC) predicts that extreme weather events will tend to grow in intensity and number, Orbia has been designing contingency plans that seek to normalize operations as soon as possible. Redundant transportation options, different routes and logistic means or emergency inventories are some examples that are considered in the plans. If it manages to operate almost normally facing these events, it will have a clear advantage over the competition, lacking these measures.

While climate change can have negative impacts on operations, it can also represent interesting business opportunities such as:

- Opening new markets for products that contribute to the adaptation and mitigation of the effects of climate change
- Sustainability and positioning as a result of consumer preference for companies committed to environmental care and social responsibility

# Summary of changes in working capital

Orbia maintained financial discipline in order to maximize the Company's performance in the long term. Specifically, in 2019 Orbia increased its working capital needs by \$112 million compared to 2018 as a result of increased requirements from Fluent especially in Netafim, as well as in the Vestolit business, both due to a reduction of suppliers.

# Integrated Companies

The following organizational chart shows the corporate structure of the Company at the time of this Annual Report, indicating the positioning of the subsidiaries in relation to the business groups.



As of December 31, 2019, the following main subsidiary businesses were part of the Group:

**Mexichem Resinas Vinílicas, S.A. de C.V.** is a subsidiary of the Polymer Solutions business group, which produces and sells PVC resins for the plastic industry. It owns the shares of: i) Mexichem Ethylene Holding Corp., 50% of the shares of Ingleside Ethylene LLC, which represents the Orbia and OxyChem ethylene Cracker joint venture, ii) Mexichem Resinas Colombia, S.A.S. (iii) Vestolit, GmbH, manufacturers and marketers of PVC resins, and others.

**Mexichem Compuestos, S.A. de C.V.** is a Mexican company that produces compounds for various market sectors. It is a subsidiary of the Polymer Solutions business group and owns the shares of: i) Mexichem Specialty Compounds, Inc. located in the United States, ii) Mexichem Specialty Compounds, Ltd., a company located in the United Kingdom that produces polyvinyl chloride and special thermoplastic compounds, and iii) C.I. Mexichem Compuestos Colombia, S.A.S., a manufacturer of flexible compounds.

**Mexichem Flúor, S.A. de C.V.,** which belongs to our Fluor business group, commercially known as Koura. Its main activity is the extraction and sale of fluorite, as well as the production of hydrofluoric acid. It owns that shares of the subsidiaries that produce refrigerant gases in the UK and the U.S. As of January 1, 2011, most of its products have been distributed by its subsidiary, Mexichem Flúor Comercial, S.A. de C.V. The company is consolidated in the Flour (Koura) business group.

**Mexichem Soluciones Integrales Holding, S.A. de C.V.** is our trading subsidiary for the Fluent business group (Building & Infrastructure - Wavin and Amanco-, Data Communications - Dura-Line-, and Presicion Agriculture -Netafim-) and consolidates and owns the shares of: i) Mexichem Amanco Holding, S.A. de C.V., which owns the shares of Fluent business group in Latin America and Wavin, B.V., the holding company of the Fluent Business in Europe (Building & Infrastructure); ii) Dura-Line Holdings, Inc., which owns the shares of subsidiaries located in the United States, Czech Republic and AMEA (India, Oman and South Africa), which distribute microducts (Data Communications), and iv) as of February 7, 2018, 80% of the shares representing the capital stock of Netafim, L.T.D, which owns the shares of subsidiaries located in Latin America, Spain, Australia, India, China and Israel. (Precision Agriculture). In addition, owns the shares of the subsidiary located in Canada.

Orbia's stake in the capital stock of the subsidiaries as of December 31, 2019, 2018 and 2017 by business group is shown below.

Country	Equity Stake %
Mexico	100
Mexico	100
Mexico	100
Germany	100
USA	100
United Kingdom	100
United Kingdom	100
	Mexico Mexico Mexico Germany USA United Kingdom

Wavin GmbH, (Building & Infrastructure) Wavin Hungary Kft. (Building & Infrastructure) Wavin Ireland Ltd., (Building & Infrastructure)	Hungary Ireland	100 100
	Linear -	400
	Germany	100
Wavin France S.A.S., (Building & Infrastructure)	France	100
Wavin-Labko Oy, (Building & Infrastructure)	Finland	100
Business Group	Country	Equity Stake %
	-	<b>_</b>
Wavin Estonia OU, (Building & Infrastructure)	Estonia	100
Norsk Wavin A/S, (Building & Infrastructure)	Norway	100
Nordisk Wavin A/S, (Building & Infrastructure)	Denmark	100
Wavin Ekoplastik s.r.o. (Building & Infrastructure)	Czech Republic	100
Infrastructure)	China	100
Wavin (Foshan) Piping Systems Co. Ltd. (Building &		
Wavin Belgium N.V. (Building & Infrastructure)	Belgium	100
Wavin Nederland B.V. (Building & Infrastructure)	Netherlands	100
Wavin N.V. (Building & Infrastructure)	Netherlands	100
(Building & Infrastructure)	Brazil	100
Mexichem Brasil Industria de Transformação Plástica, Ltda.	-	
Mexichem Argentina, S.A. (Building & Infrastructure)	Argentina	100
Mexichem del Perú, S.A. (Building & Infrastructure)	Peru	100
Mexichem Ecuador, S.A. (Building & Infrastructure)	Ecuador	95
Pavco de Venezuela, S.A. (Building & Infrastructure)	Venezuela	100
Mexichem Colombia, S.A.S. (Building & Infrastructure)	Colombia	100
Mexichem Panamá, S.A. (Building & Infrastructure)	Panama	100
Mexichem Costa Rica, S.A. (Building & Infrastructure)	Costa Rica	100
Mexichem Nicaragua, S.A. (Building & Infrastructure)	Nicaragua	100
Mexichem El Salvador, S.A. (Building & Infrastructure)	El Salvador	100
Mexichem Honduras, S.A. (Building & Infrastructure)	Honduras	100
Mexichem Guatemala, S.A. (Building & Infrastructure)	Guatemala	100
Infrastructure)	Mexico	100
Mexichem Soluciones Integrales, S.A. de C.V. (Building &		
Infrastructure)	Mexico	100
Mexichem Amanco Holding, S.A. de C.V. (Building &		
Mexichem Soluciones Integrales Holding, S.A. de C.V.	Mexico	100
Inc.) (Data Communications)	Canada	100
Mexichem Canada Limited, Inc (antes Gravenhurst Plastics,		
Dura-Line Holdings, Inc. (Data Communications)	USA	100
Communications - Dura-Line-, Precision Agriculture -Netafim-):		
luent (Building & Infrastructure - Wavin and Amanco-, Data		
Mexichem Fluor Taiwan Ltd.	Taiwan	100
Mexichem Fluor Japan Ltd.	Japan	100
Mexichem UK Ltd	United Kingdom	100
Mexichem Fluor Canada Inc.	Canada	100
Mexichem Fluor Inc.	USA	100
Fluorita de México, S.A. de C.V.	Mexico	100
Mexichem Flúor Comercial, S.A. de C.V.	Mexico	100
Mexichem Flúor, S.A. de C.V.	Mexico	100
luor:		
Sylvin Technologies Inc.	USA	100
Ingleside Ethylene LLC	USA	50
2017 the percentage was 55.91%)	Mexico	100
Petroquímica Mexicana de Vinilo, S.A. de C.V. (in 2018 and		
C.I. Mexichem Compuestos Colombia, S.A.S.	Colombia	100
Mexichem Speciality Resins, Inc.	USA	100
Mexichem Resinas Colombia, S.A.S.	Colombia	100

Wavin Latvia SIA, (Building & Infrastructure)	Latvia	100
UAB Wavin Baltic, (Building & Infrastructure)	Lithuania	100
Wavin Metalplast-BUK Sp.zo.o. (Building & Infrastructure)	Poland	100
Wavin Romania s.r.l. (Building & Infrastructure)	Romania	100
OOO Wavin Rus (Building & Infrastructure)	Russian Federation	100
Wavin Balkan d o.o., (Building & Infrastructure)	Serbia	100
AB Svenska Wavin, (Building & Infrastructure)	Sweden	100
Pilsa A.S., (Building & Infrastructure)	Turkey	100
Wavin Ltd. (Building & Infrastructure)	United Kingdom	100
Warmafl oor (GB) Ltd., (Building & Infrastructure)	United Kingdom	100
Wavin Ukrain O.O.O.T.O.V., (Building & Infrastructure)	Ukraine	100
Netafim Ltd. (Precision Agriculture)	Israel	80

ii. Distribution Channels

iv. Main Customers

viii. Market Information

This section "Main Activity" of the Annual Report describes in detail the topics (ii) Distribution Channels, (iv) Main Customers and (viii) Market Information (numbering is in accordance with the numbering in Annex "N", Instructions for preparing the Annual Report) of the Sole Issuer Circular for each of the business groups and their respective businesses and/or processes and products:

- (a) Polymer Solutions business group (formerly Vinyl)
  - (a.1) Salt-Chlorine-Soda-Ethylene-VCM process
  - (a.2) Chlorine-Soda process
  - (a.3) Vinyl and Compounds process
- (b) Fluent business group, including its businesses
  - (b.1) Building & Infrastructure
    - (b.2) Data Communications
    - (b.3) Precision Agriculture
- (c) Fluor business group
  - (c.1) Fluorite process
  - (c.2) HF process
  - (c.3) Chlorine Fluorine Process

# (a) Polymer Solutions business group (formerly Vinyl or Chlor-Vinyl Chain)

The process begins with the extraction of salt, by injecting water into the salt dome, converting it into brine, which is then transported by pipes to the plant which converts it into chlorine and caustic soda by applying an electric current. Chlorine is combined with ethylene to form vinyl chloride monomer (VCM), which is polymerized to produce polyvinyl chloride (PVC). Currently Orbia is self-sufficient in VCM for its plant in Germany and obtains the necessary VCM for the production of PVC in America from OxyChem, although it also has supply contracts with other suppliers in smaller amounts, a situation that is expected to continue in the future. Ingleside began the ethylene cracker start-up process in February 2017, starting commercial operations in the second quarter of 2017, allowing Orbia to reap the benefits of vertical integration of the Polymer Solutions business group for PVC, which in turn will allow Orbia to reduce its PVC production costs.

PVC is a versatile plastic that has countless everyday uses, such as: pipes for transporting drinking water and for irrigation; coatings for electrical conduction cables; profiles for constructing windows, doors, facades or entire houses; tiles, floors, furniture coverings, automobile parts and household appliances, clothing and footwear, containers and packaging, medical devices, adhesive tapes, and many others.

This business group also produces plastic resin compounds, specially formulated to meet the specific requirements of customers who transform this polymer into end use goods. Compounds incorporate the various additives necessary for the processing of plastic resins, and those required to obtain the functional properties unique to each use.

PVC resins can be combined with other additives to make value-added products such as compounds, pipes and coatings.

The main production chain of the Polymer Solutions business is as follows



In addition to what is shown in the graph above, the Polymer Solutions business group produces and sells by-products derived from the production of chlorine and caustic soda.

The Polymer Solutions business group has 23 sites with 31 plants operating in Mexico, Colombia, the United States, the United Kingdom and Germany focused on the production of PVC and specialty resins, compounds, VCM (only in Germany) and various by-products such as chlorine and caustic soda. In addition to the ethylene cracker from the joint venture with OxyChem and the salt mine thirty-eight plants are ISRS (International Safety Rating System) certified, sixteen are OSHA 18001 certified, six are ISO 45001 certified, thirty-four are ISO 9001 certified and twenty-four are ISO 14001 certified in addition to sixteen SARI (Responsible Care) certified sites and ten are Clean certified sites. These plants meet strict safety, health and environmental protection standards throughout the manufacturing life cycle strict standards of safety, health and environmental protection throughout the manufacturing life cycle.

The Polymer Solutions business group consists of the following subsidiaries:

- Mexichem Derivados, S.A. de C.V. and Mexichem Derivados Colombia, S.A.S. and Petroquímica Mexicana de Vinilo, S.A. de C.V., which produce chlorine, caustic soda and specialized chlorinated products such as sodium hypochlorite, hydrochloric acid, and other specialized chemicals;
- Mexichem Resinas Vinílicas, S.A. de C.V., and Mexichem Resinas Colombia, S.A.S., leaders in Latin America in the production of PVC resins;
- Mexichem Specialty Resins Inc., a leader in the production and marketing of specialized resins;
- Quimir, S.A. de C.V., a producer of industrial and food phosphates;
- Mexichem Compuestos, S.A. de C.V., and Mexichem Compuestos Colombia S.A.S., producers of compounds and plasticizers;
- Mexichem Specialty Compounds (formerly AlphaGary Corporation and AlphaGary Ltd.), manufacturers of PVC and PVC-free compounds;
- Vestolit GmbH, producer of chlorine, caustic soda and PVC resin in high-impact suspension (HIS-PVC) and PVC resin in paste;
- Ingleside Ethylene LLC, which began producing ethylene in February 2017 and began commercial operations in the second quarter of the same year;
- Vinyl Compounds Holdings Ltd. (VCHL), a leading supplier of PVC compounds.
- Sylvin Technologies Inc. a specialist manufacturer of PVC compounds.

From 2017 to date the Polymer Solutions Business Group has made the following acquisitions and entered into the following joint ventures:

**Sylvin Technologies, Inc.,** On January 22, 2018, Orbia announced the acquisition of Sylvin Technologies Inc., a PVC composite manufacturer based in Denver, Pennsylvania, for \$39 million free of cash and debt. Sylvin recorded total sales of \$29 million in 2017. As of the date of this report, the company had a 30-year history serving a wide range of industries including: cable, electrical, industrial, automotive, medical and food products. Orbia consolidates Sylvin's financial statements in the Polymer Solutions Business group.

#### Sales

In 2019, the Polymer Solutions business group's sales and EBITDA (including inter-group transactions), were \$2,334 million and \$475 million, 5% and 15% lower, respectively, compared to 2018. In 2018, net sales were \$2,460 million and EBITDA was \$557 million, an increase of 6% and 10%, respectively, compared to the previous year. In 2017, Polymer Solutions had net sales of \$2,317 million and EBITDA of \$507 million.

In fiscal years 2019, 2018 and 2017, Polymer Solutions contributed 32%, 33% and 38% of the Company's net sales (before controller income and intercompany eliminations) and 35%, 40% and 46% of its consolidated EBITDA, respectively.

The table below shows the Polymer Solutions business group's production and sales volumes for 2019, 2018 and 2017.

	As of De	cember 31	
Polymer Solutions business group (1)	2019	2018	2017
Volume (thousands of tons)	2,565	2,524	2,505
Net sales (2)	2,334	2,460	2,317

<sup>1.</sup> The above amounts have only been adjusted to eliminate intra-group (but not inter-group)

business transactions. <sup>2</sup> In millions of dollars.

		Year end	ling Decembe	er 31:		
	Vol	ume Sold <sup>(1)</sup>			Sales <sup>(2)</sup>	
Polymer Solutions	2019	2018	2017	2019	2018	2017
Chlorine	105	121	104	24	18	15
Soda	394	375	390	214	242	191
Hypochlorite	171	157	149	23	18	16
Hydrochloric Acid	62	59	54	10	10	7
Salt	26	33	34	2	1	1
Phosphates	41	41	40	53	49	47
Other <sup>(3)</sup>	60	33	35	45	30	29
Sum Derivatives	860	820	807	370	368	307
Vinyl <sup>(4)</sup>	1,515	1,529	1,522	1,486	1,638	1595
Compounds	232	237	234	513	525	482
Eliminations	(41)	(62)	(58	(35)	(71)	(67)
Polymer Solutions Total	2,565	2,524	2,505	2,334	2,460	2,317

(1) Tons.

(2) Figures in millions of Dollars.

(3) Includes sales of Colombia Derivatives, Ethylene and other products.

(4) Includes Vinyl, Mexichem Specialty Resins and Vestolit.

In addition, the following chart shows a breakdown of sales by business in 2019.

# Sales per product 2019



Information excluding inter-chain transactions within the same Business Group

# (a.1) Salt-Chlorine-Soda-Ethylene-VCM Process

Orbia has plants for the Salt-Chlorine-Soda process in Mexico where it produces chlorine, caustic soda, hydrochloric acid, sodium hypochlorite; and in Germany where it mostly produces VCM, chlorine, and caustic soda. It also has plants that produce industrial and food phosphates. Likewise, in a 50/50 joint venture with OxyChem, the Issuer produces ethylene in a cracker located in Ingleside, Texas.

#### Products

**Chlorine.** It is mainly used for the production of long-life products such as VCM, which is the basic raw material for PVC production, titanium dioxide production (raw material for white paints), bleaching of cellulose in the pulp and paper industry, production of agrochemicals, water treatment, disinfection and purification, and chemical and pharmaceutical industry in general.

**Caustic soda.** It has an endless number of applications; the main ones include: the production of oils, soaps and detergents, regeneration of ionic exchange resins for water treatment, washing of glass bottles, bleaching of cellulose in the pulp and paper industry, production of refined sugar, dyeing of cotton fabrics, production of agrochemicals, manufacture of gelatins, cleaning products in general, among others.

**Sodium hypochlorite.** It is mainly used for the manufacture of liquid bleach, as a general sanitizer, for the treatment and purification of water, manufacture of industrial catalysts, for bleaching paper, among others.

**Hydrochloric acid**. It is used for the production of high fructose which in turn is used as sweetener in the soft drink, candy and brewing industries; it is widely used for drawing and pickling metals, it is used in the pharmaceutical industry for the production of medicines, manufacture of pigments and dyes, and manufacture of ferric chloride, which is used in the lithography industry, among others. It is widely used for the manufacture of plastics and rubber, in the oil industry, and ceramics, among others.

**Ethylene.** Ethylene is the most important segment of the petrochemical industry and is converted into a large number of final and intermediate products such as plastics, resins, fibers and elastomers, including polyethylene (PE) and polyvinyl chloride (PVC), solvents, coatings, plasticizers and antifreezes, among the most widely used.

**VCM.** Vinyl chloride monomer is used almost entirely (96-98%) in the manufacture of polyvinyl chloride or polyvinyl chloride resin (PVC), a very versatile product that has applications in the medical and construction sectors, as well as in cable sheathing, piping, rigid and flexible profiling, and toys.

**Industrial and food phosphates.** Used mainly for the manufacture of detergents, fertilizers, animal feed, ceramics, water treatment, textiles, toothpastes, beverages, sausages, dairy products and bakery.

Plants and Mines (See Section 2, "The Issuer", item x, "Description of its Main Assets" of this Annual Report).

# Raw Materials

The main raw materials in the Salt-Chlorine-Soda Process are salt, natural gas and electricity, which were on average 9%, 13% and 74%, respectively, of the production cost in 2019 in the Derivatives business unit of the Polymer Solutions business group. In Mexico, these raw materials are obtained through long-term supply contracts, with periodic reviews, with the National Water Commission (water), Federal Electricity Commission (electric power), a supply agreement was signed with Iberdrola S.A. de C.V. to supply electric power to PMV which started in September 2019; PEMEX Industrial Transformation (natural gas), with the exception of salt, which is extracted from the concession for the exploitation of the company's salt dome.

#### Sales and Marketing

For product sales in this process, Orbia has long-term contracts with some customers, for which it has established sales schemes that promote loyalty through discounts for volume acquired during specific periods of time. Long-term contracts represent approximately 63% of chlorine sales and 53% of caustic soda sales; and provide for the use of a price formula based on North American reference prices provided by IHS Markit and ICIS. The remaining volume is sold on the spot market at prices calculated by reference to the prevailing sales price at that time. In Europe, 100% of the chlorine produced is used to produce VCM and derivatives, caustic soda is sold to third parties.

#### Main Clients

The clients of the Salt-Chloro-Sose-Ethylene-VCM Process are located mainly in the secondary sector (1) the petrochemical, secondary chemical, agrochemical and pharmaceutical industries; (2) PVC resin production, plastics processing, (3) soap and detergents, cellulose and paper, matches, and polymers such as polyurethane products for hygiene and cleaning of hospitals and homes, (4) water treatment, bottling, and metal-mechanical industry.

#### **Distribution Channels**

The products of the Salt-Chloro-Sose-Ethylene Process are basic raw materials and are marketed directly to the industries as a business to business model that use them as inputs to produce other products. Sales are made through the sales force in our own branches and distributors.

#### Distribution Contracts

The sale of Salt-Chloro-Sose-Ethylene Process products is made directly to customers, so there are practically no distribution contracts for these products.

#### Cyclic Behavior

The chemical industry within the scope of raw materials production behaves in accordance with the international economy expansion and contraction cycles and the supply and demand conditions.

# Positive and Negative Aspects of its Competitive Position

The Company maintains its leadership position in the domestic market and has managed to maintain competitiveness levels comparable to those of U.S. producers, Orbia's main international competition, through significant investments and the commercialization of products with greater added value.

#### Market Share

The following graph shows Orbia's participation in the caustic soda market in Mexico during 2019:



Source Orbia market research based on ANIQ import-export reports and IHS Markit.

The total capacity in the caustic soda market in North America is 16.2 million metric tons.



Source: IHS Markit

In Europe, caustic soda is locally consumed and produced due to the high cost of transportation and storage. The market is very fragmented, with local producers competing in specific geographic markets. Orbia competes with producers integrated in the production of caustic soda such as Nourvon Covestro and Dow Chemicals.

In 2019, the total chlorine capacity in Europe reached 11.5 million tons. The following graph shows the main chlorine producers, based on the IHS Markit report.



#### Source IHS Markit

The international market share of these products for Orbia is not substantial since it only exports its excess production.

#### (a.2) Process Chlorine and Caustic Soda

Salt-Chlorine-Soda (alkali or chlor-alkali) is a term that refers to the chemistry of chlorine and caustic soda, produced mainly by electrolytic processes. Chlorine and caustic soda are co-products that result from the disintegration of salt into components by means of the electrolysis process. This process produces a fixed ratio of chlorine and caustic soda, which is referred to as an Electrochemical Unit (ECU). An ECU consists of 1 unit of chlorine and 1.12 units of caustic soda. The main materials used in this process are electricity and salt, electricity being the main cost.

Although chlorine is used in many chemical processes, its main use is in the production of vinyl resins for the manufacture of PVC. Caustic soda is used in the production of pulp and paper, organic chemicals, soaps and detergents, textiles, oils and aluminum.

The chlor-alkali industry is cyclical due to the direct impact of economic growth on demand, where periods of low profitability and growth are often followed by periods in which attractive margins justify capacity expansion. In general, the demand for chlorine depends on the construction sector, while the demand for caustic soda depends on the manufacturing sector.

Most chlor-alkali producers are regional, with Dow Chemical Company being a notable exception, as it is a multinational and global company with a strong presence in North America and Europe.

According to a study by IHS Markit Chlor-Alkali 2020 World Analysis, chlorine consumption is expected to present an annual average worldwide increase of 2.1%.

Traditionally, chlorine demand drives the chlor-alkali production rate as chlorine plants are often integrated by facilities producing chlorine derivatives such as vinyl and PVC resins. The demand for chlorine is highly dependent on the demand for vinyl (particularly PVC resin). Since most of the chlor-alkali production is not composed of users of caustic soda, their demand may vary significantly.

Vinyl production, particularly PVC resin, is the largest use of chlorine in the U.S. As shown in the chart below, in 2019, 44% of the chlorine produced is used to manufacture PVC resins. PVC is one of the most versatile polymers and it is widely accepted as it can be molded for a variety of uses in the construction industry, including rigid and flexible tubing, pipe fittings, and wire/cable coatings, among other applications.



Source IHS Markit

Caustic soda in the USA is used in a large number of industrial applications in the manufacture of organic chemicals (28%) such as propylene oxide and epichlorohydrin, inorganic chemicals (27%) such as titanium dioxide and aluminum, as well as in the production of pulp and paper (17%). In 2019, the total production capacity of caustic soda in the USA was 15.0 million tons per year, and 14.2 million tons for chlorine.



Source IHS Markit

In Mexico, caustic soda has many industrial uses, including organic (28%) and inorganic (27%) chemical products, as well as in the production of soaps and detergents (10%). The total production capacity of caustic soda in Mexico in 2019 was 594,000 tons, and 551,000 tons for chlorine, while the production of caustic soda and chlorine of the Issuer, in the same year in Mexico was 156,000 and 140,000 tons, respectively. In 2019, the demand for chlorine in Mexico was 187,000 tons, while the demand for caustic soda was 404,000 tons according to IHS Markit.



Source IHS Markit

In the last 20 years there has been a significant change in the use of technologies to produce chlor-alkali. Membrane cell technology intensified its use in the mid-1980s, which has replaced mercury cell technology because membrane technology inherently brings environmental improvements and reduced energy costs. In Western Europe, chlorine-soda production based on mercury technology was converted to membrane cell technology in 2018. Some chlorine-soda plants with asbestos-based diaphragm cells are modifying this material with another asbestos-free polymer and their operation is still approved and regulated by their respective governments. Orbia does not use mercury technology in its chlorine processes.

Caustic soda production in Europe in 2019 reached 10.1 million tons, an increase of 1.7% compared to 2018.

# **Europe: Demand for Chlorine**



Source IHS Markit

#### Chlorine and caustic soda prices

In North America, buyers of chlorine tend to concentrate, while consumers of caustic soda are generally more fragmented. Some of the largest buyers of chlorine have multi-year supply contracts, which include maximum prices and/or discounts to mitigate price volatility in the Spot Market.

(a.3) Vinyl and Composite Process

#### Products

The main products of the Vinyl Process are PVC Resins and plastic Compounds used to manufacture pipes and fittings, profiles and floors for the construction industry, as well as upholstery, films, bottles, containers, footwear and applications for the medical field such as bags for blood, dialysis and catheters.

The following are results of the Vinyl Process:

PVC resins with very diverse applications, mostly for the construction sector, such as cable coatings, window frames, pipes for carrying drinking and sanitary water, toys, balls, containers, hoses, chairs, decorative items, house, automotive industry and many more.

In the Composite Process, materials are produced for:

Cables, flexible profiles, footwear injections, automotive use, computer circuit-holders, injection of accessories for pipes and similar items, purified water bottles, production of containers and packaging by bio-orientation process, containers for edible oils, vinegar, detergents, cleaners, juices, sauces, coffee powder, among others.

Plants. (See Section 2, "The Issuer", item x, "Description of its Main Assets", of this Annual Report).

The production capacity of the vinyl and compounds manufacturing process as of December 31, in 2019 there was an average of 1.8 million tons of PVC resin and 430,000 annual tons of compounds.

#### Raw Materials

The main raw material used in the Vinyl Process is VCM, which in 2019 represented 69% of the production cost. Orbia buys VCM from third parties, such as Westlake and OxyChem. According to its installed capacity for PVC production at the end of 2019 in its Vinyl Process, the Company required more than 1.8 million tons of VCM for all its plants (1.4 million tons in America and 0.4 million tons in Europe). With the operation of the Ingleside Ethylene Cracker, OxyChem produces VCM at a lower cost allowing Orbia to maintain or improve its profit margins. In the Americas, the Company maintains an integration of approximately 85% to Ethylene, while considering the PVC production capacity in Germany, its global integration is approximately 65%.

At the production plant in Europe (Germany), the most important raw material purchased from third parties is ethylene, which is purchased through two valid supply contracts with prices established on a monthly basis, while salt is obtained from SGW, a subsidiary of the Company, and electricity from Evonik Industries.

#### Sales and Marketing

In order to sell vinyl products and compounds, Orbia maintains long-term contracts with its main customers and sales schemes that promote loyalty through volume discounts acquired during specific periods of time. Long-term contracts are continuously renewed and provide for the use of price formulas based on international references. Some of these references influence the cost of VCM, which allows Orbia to maintain differentials between the price of VCM and the price of PVC throughout the cycles. Likewise, these contracts provide their customers with adequate market conditions and competitive prices. Approximately 45% of PVC Resins sales are made under this scheme. The remainder is sold on the Spot Market at the reference price at the time of sale.

# Main Customers

PVC products are used by customers in the manufacture of pipes and fittings, flexible and rigid profiles, upholstery, flexible and rigid films, bottles and containers, synthetic floors, blinds, laminated polystyrene, toy industry, footwear and articles for the medical industry, among others. Excluding intercompany sales, the Vinyl and Composites business that is part of the Polymer Solutions business group represents 4% of Orbia's total sales, and the most important customer represents 1%, thus, there is no dependence on one or more customers, since the loss of such customers would not adversely affect the results of operations or Financial Position.

# **Distribution Channels**

The products of this process are marketed directly to the industries that use them as inputs to produce other products. There is no special sales method, as all sales are made through the sales force in our own branches and distributors.

PVC is sold directly to customers, so they have virtually no distribution contracts for their products.

#### Cyclic Behavior

Orbia is the largest producer of polyvinyl chloride (PVC) in Latin America and the fifth largest in the world, as well as the largest producer of specialty resins globally. The global PVC market is linked to the construction industry, which depends on the contraction and expansion of global regions and countries' economies. The balance between world supply and demand continues with a surplus of supply and the balance is increasingly better in the North America and Europe regions.

#### Positive and Negative Aspects of its Competitive Position

The Vinyl Process maintains the strategy of vertically integrating its business to be competitive in the markets it serves, investing in projects that have the purpose of ensuring the national and international competitiveness of its products, as well as the development of specialized and differentiated products.

In the recessionary stages of the national and international economic cycle, demand may be reduced, and oversupply generated, affecting the international prices of the products manufactured by the Company. The products manufactured and traded by the Issuer compete in global markets, and are therefore subject to the supply and demand trends of such markets and, therefore, to international prices that may affect profit margins, based on the efficiency levels of each producer. The vertical integration strategy has allowed the Company to consume a high percentage of intermediate products for final processes, reducing the impact of a decrease in the prices of basic products.

The supply and co-investment contract with OxyChem, and the acquisition of Policyd (a major resin producer in Mexico) have contributed to a strong position in the PVC market. In addition, with the latest acquisition of Vestolit in Europe, Orbia increased its portfolio of specialty products made to measure with high-impact suspension PVC resins (HIS-PVC). Orbia is the only producer with this technology in Europe and, with the current capacity, it is also the largest producer of specialty resins in the world.

The main competitors in the PVC market in Latin America and Europe are Shintech, Inc., Formosa Plastics (FPC), Westlake/Vinnolit, Inovyn, and OxyChem (OXY).

Worldwide PVC resin producers by company in 2019 (Average annual capacity)

Position	Company	Capacity ('000 Tons)	Ownership Interest
1	Shin-Etsu	4,150	7%
2	Westlake	3,193	6%
3	Formosa Group	3,114	6%
4	INEOS	2,195	4%
5	Orbia	1,797	3%
6	Оху	1,683	3%
7	Xinjiang Zhongtai	1,560	3%
8	Hubei Yihua	1,350	2%
9	Hanwha	1,325	2%
10	Others	35,572	64%
	Total	55,939	100.0%

Source IHS Markit

# Market Share

# Vinyl Process

In 2019, Orbia's share of the Mexican PVC resin market was 42%, as shown in the graph below:



# Participation of the Mexican Market

Source IHS Markit and Orbia

The total market capacity of PVC resin in Mexico is 505,000 metric tons in 2019.

# **Composite Process**

Orbia's market share in Mexico for compounds, phthalic anhydride, and plasticizers is shown below.



# General Industry Information

Orbia focuses on the manufacture of products that are used in the construction, housing, infrastructure, telecommunications, water supply, automotive, sewage, and drainage and irrigation industries, among others. In addition, it participates in industries that use chlorine, caustic soda, chlorine derivatives and resins. It also manufactures transformed products, including pipes and fittings for the transportation of fluids such as water and other PVC compounds.

#### PVC resin

PVC is manufactured by polymerization of the VCM, which is formed from the joint reaction of ethylene and chlorine. The PVC resin has multiple applications such as pipes and connectors for water conduction (particularly for use in housing and sanitation), profiles, films and sheets, bottles, wire and cable coating, and floors, among others.

PVC is the third most used plastic in the world after polyethylene and polypropylene. According to IHS Markit, global demand for PVC reached approximately 46.6 million metric tons in 2019, which is largely supplied to the construction sector. From 2018 to 2019, world demand for PVC grew at a rate of 3.1%. The pipe represents more than 45% of all PVC consumption worldwide. The estimated average annual growth rate of PVC demand until 2027 is between 3.1% and 3.6%.

PVC is a versatile plastic that has numerous applications for everyday use, such as: pipes to transport drinking water, sewage or water for irrigation, electrical cable coatings, profiles for the construction of windows, doors, façades or complete houses, tiles, floors, furniture coatings, automotive parts and appliances, clothing and footwear, containers and packaging, medical devices, adhesive tapes and many others.

In the PVC production chain, vertical integration is a priority issue which, if not done, could lead to the disappearance of non-integrated PVC producers. Additionally, vertical integration to manufactured products can affect this industry. It is believed that non-integrated PVC producers will face significant challenges in competing with integrated consumers, who normally have significantly lower production costs.

The PVC industry is largely affected by changes in energy prices, particularly crude oil and natural gas (including shale gas), from which ethane is derived and subsequently transformed into ethylene, the key component of the PVC production chain.

The following graphs illustrate the impact of the cost of ethylene on PVC and polyethylene products as of December 31, 2019:

Polyethylene Pipe Cost Structure				
Ethylen 56%	Other 44%			
PVC Pipe Cost Structure Ethylen <sub>28%</sub>	Other ; 72%			
PVC Cost Structure				
Ethylen 35%	Other 65%			
VCM Cost Structure				
Ethylen <sub>46%</sub>	Other 54%			
Ethylene price components				

# Ethlene Other Margin 41% 25% 34%

#### Source IHS Markit

According to IHS Markit, the demand for PVC in the last year has faced a 3.1% increase in global consumption. Developing countries are expected to drive demand growth, as investments in infrastructure and housing are required to sustain population growth. The lack of infrastructure projects has negative impacts on competitiveness and productivity. The key markets for Orbia's PVC products are the United States, Mexico, much of Latin America, particularly Brazil and Colombia, Western Europe, India, and Turkey.

Currently, there is no significant growth in per capita PVC consumption in Latin America compared other markets, such as USA, India or Turkey.

Unlike the chlor-alkali and PVC industries in the USA and Western Europe, Orbia focuses on markets that enjoy constant growth in areas such as government investments and infrastructure and construction projects related to high housing deficits, particularly in countries such as Mexico, Brazil, Turkey, Peru, Colombia, and Ecuador, according to figures from each country's Institutes of Statistics and Censuses.

Within the PVC applications in Mexico, Colombia, India and the U.S., most of the production is destined for pipes and fittings. The distribution of PVC applications in Mexico, Colombia, India and the U.S. is shown in the following charts.











Source IHS Markit

Within the countries analyzed, both India and the U.S. are the markets with the highest demand for PVC, with per capita consumption of this product of 2.41 and 13.74 kg, respectively, as you can see in the chart below:



PVC Consumption per Capita (Kg/person)

Source IHS Markit

(b) Fluent Business Group (Building & Infrastructure - Wavin and Amanco-, Data Communications - Dura-Line-, and Precision Agriculture -Netafim-)

This Business Group integrates Orbia's processes and products with greater contact with the general public. Its most important products are: PVC, polyethylene and polypropylene pipes, accessories and fittings for conducting fluids such as water and natural gas; voice and data conduction; water collection and conduction systems and solutions for infrastructure and construction such as heating and hot and cold water in houses and buildings; systems and solutions for the conduction of water in the irrigation of fields and crops, as well as geosynthetics, which the group produces and markets throughout Latin America, Asia (India and China), Africa (South Africa), Middle East (Oman), Europe, USA and Canada, and which contributes to the welfare and development of millions of people.



The Fluent Business Group divides its operations into three businesses and five regions: (i) Building & Infrastructure (Amanco and Wavin) which is comprised of the Fluent LatAm, Fluent Europe Fluent Asia Pacific regions; (ii) Data Communications (Dura-Line) which mainly comprises the Fluent US/Canada and Fluent AMEA regions; and (iii) Precision Agriculture (Netafim). In each of them, the brands and the marketing of the products and/or solutions are different, as described below.

Through its Building & Infrastructure business (Amanco and Wavin), Orbia is the global leader in Latin America and Europe in the production and distribution of plastic piping systems, fittings, and accessories for safe and efficient conduction of the water supply, better sanitation and hygiene, climate-resilient cities and better building performance. The Fluent Business Group in LatAm and Europe is focused on the (residential and commercial) construction and infrastructure markets. In LatAm, it mainly has technical solutions with geosynthetics such as nonwoven geotextiles, fabrics, geomembranes and geogrids for the execution of civil, environmental and infrastructure works, as well as other products for the construction sector and other industries such as mining.

Through the Data Communications (Dura-Line) business, primarily in the US/Canada and AMEA regions, the Company has positioned itself as a leader in the production and distribution of pipelines and accessories and solutions for cable and fiber optics for voice and data conduction, as well as pipelines for natural gas conduction and distribution.

Finally, through the Precision Agriculture business (Netafim), the company is the world leader in the production and sale of intelligent precision irrigation solutions, with 29 subsidiaries and 17 plants located in Israel, Turkey, the Netherlands, Spain, South Africa, Mexico, Brazil, Peru, Chile, China, Colombia, Australia, India and the United States, serving more than 110 countries.

The Company offers solutions in agricultural, civil and project engineering, related to the management, use and control of water in the agricultural, livestock and aquaculture areas. All this allows the Company to offer the widest range of solutions according to its customers' needs.

In the Building & Infrastructure business in Latin America (Fluent LatAm - Amanco), the Issuer is perceived to be the largest producer of pipes, fittings, systems and solutions for water conduction aimed at the construction industry (residential and commercial) and for infrastructure through their main brands "Amanco", "Pavco" and "Plastigama". It has production facilities in 12 Latin American countries, including Mexico, as well as a commercial presence in 24 countries and more than 50,000 points of sale throughout the region and is staffed with approximately 6,500 employees. Construction is one of the main drivers for the plastic piping systems market, both housing and infrastructure.

In Europe (Fluent Europe), the Company is one of the leading suppliers of plastic piping systems and water conduction solutions through Wavin and its main brand "Wavin", offering innovative products through a global network of distributors, plumbing dealers, civil contractors, housing developers, large installers, utilities and municipalities. Its European headquarters are located in Zwolle, The Netherlands, and it has commercial presence in 25 countries that conduct business through 28 manufacturing and assembly plants. The Building & Infrastructure business in Europe (Fluent Europe - Wavin) has incorporated new technologies and products into the offer of the Fluent Business group, especially in the following fields of application: water transport and handling systems, as well as systems in buildings for waste and soil ("Soil & Waste") and for heating and cooling systems ("Hot & Cold"), including surface heating and cooling.

In the Data Communications business (Fluent US/Canada and Fluent AMEA), Orbia completed the acquisition of Dura-Line based in Knoxville, Tennessee, USA on September 19, 2014. Dura-Line has 18 manufacturing plants in the United States, India, Oman, Europe and South Africa. The Company is a global leader in high-density polyethylene (HDPE) products in voice and data conduction, as well as natural gas pressurized piping and solutions. The clients are large North American corporations, as well as multinational companies that rely on the high quality of the products and services provided by the Company. With this acquisition, Mexichem advanced its strategy of consolidating itself as a global, vertically integrated company with a focus on products and specialty solutions. In 2015, Data Communications business opened three new manufacturing plants, two in India (Hyderabad and Neemrana) and the other in Clinton, Tennessee, USA; it also closed the Middlesboro Kentucky plant. In 2016, the Company incorporated the acquisition of Gravenhurst in Canada into its Data Communications business.

Netafim is aimed at high-growth markets and produces solutions to address two of the global megatrends: water and food.

At the close of December 2019, sales and the EBITDA of the Fluent business group (Building & Infrastructure - Wavin and Amanco-, Data Communications - Dura-Line-, Precision Agriculture -Netafim-), including Netafim, represented \$3,999 million and \$612 million, which is an increase of 2% and 16% compared to the 2018 figures, respectively. For 2018, Fluent's revenue and EBITDA were \$4,077 millionand \$527 million, respectively, resulting in growth of 35% and 37%, respectively, compared to 2017, mainly due to the integration of Netafim. As of December 31, 2017, net sales were \$3,023 million with an EBITDA of \$385 million, resulting in a 5% increase and a 9% decrease, respectively. The Fluent business group contributed 55%, 56% and 42% of net sales (before parent company revenues and intercompany eliminations) and 46%, 38%, and 35% of Orbia's total EBITDA in 2019, 2018 and 2017, respectively.

# Sales

The following table shows the sales of the Fluent business group (Building & Infrastructure - Wavin and Amanco-, Data Communications - Dura-Line-, and Precision Agriculture -Netafim-) for the period 2017 to 2019.

		As of Decem	ber 31,	
<b>Fluent</b> (Building & Infrastructure - Wavin and Amanco-, Data Communications - Dura-Line-, and Irrigation -Netafim-) <sup>(1)</sup>	2019	2018	2017	
Total sales (in millions of Dollars)	3,999	4,077	3,023	
<sup>1</sup> The above amounts have only been adjusted to	eliminate intra-st	ring (but not inter-string	) transactions.	

The consolidated sales of the Fluent business group (Building & Infrastructure - Wavin -, Data Communications - Dura-Line-, and Precision Agriculture -Netafim-) by region in the period 2019 to 2017 were as follows:

	Year ended December 31:		
	2019	2018	2017
Fluent business group <sup>(1)</sup>			
Total Fluent LatAm (Building & Infrastructure - Amanco)	1,032	1,076	1,132
Total Fluent Europe (Building & Infrastructure - Wavin)	1,320	1,385	1,321
Total Fluent US (Data Communications) (2)	531	536	449
Total Fluent AMEA (Data Communications)	110	159	138
Total Netafim	1,063	945	-
Eliminations	(58)	(24)	(17)
Total Fluent	3,999	4,077	3,023

(1) Figures in millions of Dollars.

(2) Beginning in 2017, the Fluent US/AMEA region was separated into Fluent US/Canada and Fluent AMEA

# Products

The Company, in the Fluent business group (Building & Infrastructure - Wavin and Amanco-, Data Communications - Dura-Line-, Precision Agriculture -Netafim-), specializes in the manufacture and marketing of pipes used to protect cables, which include fiber optics, copper, and electrical cables for telecommunications, voice and data transfer, electricity and CATV; as well as piping systems for the transportation and storage of water, sewerage, drainage, and pipes for natural gas distribution through the subsidiary, Netafim, manufacturing and developing precision agriculture irrigation systems. Fluent is focused on three main segments:

# (b.1) Building & Infrastructure (Wavin):

Housing: The Company produces PVC, polyethylene and polypropylene piping systems, available in sizes ranging from 1/2" (12 mm) to 4" (110 mm), with a cemented (weldable) joint and a complete program of fittings for applications in single-family homes, residential complexes, high-rise buildings, commercial buildings, hotels, swimming pools, landscaping and certain industrial applications, produced under ISO or ASTM (American Society and Testing Materials) standards according to applicable local regulatory requirements. It also produces systems for hot water, which allows for a whole range of solutions for different types of works, in diameters from 20 mm (1/2") up to 110 mm (4"), PVC sanitary and ventilation systems, and it has recently introduced solutions in polypropylene. It also offers a complete program of fittings and accessories, in various diameters, standards and colors, guaranteeing an excellent performance of its pipes, fittings and accessories. The systems are available in two versions: rigid with solid walls and flexible with corrugated walls. The wide range of fittings allows its application in domestic, commercial and industrial installations. PVC pipes and other plastics are manufactured in 5 different designs for use in single-family homes and large industrial buildings. The main characteristics are: resistance to ultraviolet rays and corrosion, maintenance-free mechanical rubber union that avoids deformations due to temperature differences. The "piping systems" concept seeks to offer integral solutions, for which it is essential to complete the sanitary systems of some components that guarantee the same quality and useful life throughout the installation. For this, the Company offers a range of siphons, siphoned floor sinks and other accessories for sanitary applications inside the house.

Construction: The Company produces ductile bio-oriented PVC for potable water conduction by bioorientation of the PVC molecules, generating a laminated layered structure, which significantly increases the mechanical resistance and strength of the pipe. Amanco's "Biaxial" technology has a lower wall thickness, which makes it more flexible, lighter, and easier to handle, guaranteeing savings in installation and energy consumed for the operation of the systems. With the "Novafort" technology, it produces sanitary sewage and rainwater pipes with double-structured wall, manufactured in a double extrusion process, with a smooth interior wall and corrugated exterior with "Elastomeric" sealing union, which ensures the hermeticity of the joint and a fast installation; this prevents the filtration of water from the conduits, protecting the environment by guaranteeing that the transported waters do not filter and eventually contaminate the subsoil water. "Novafort" is made of inert material, guaranteeing excellent resistance to the action of chemical substances and to the corrosive attack of the materials present in the water it transports, as well as of the soils in which it is installed. The Company produces HDPE water tubing in sizes greater than 1,000 millimeters with technology that allows for easy location of the tubing from the surface. In addition, Orbia produces and sells CableCon<sup>™</sup> solutions for use in other infrastructure markets, such as electric lighting, motors for commercial agricultural machinery, and energy distribution. HDPE pipes are also used for underground high voltage LT/HT cables.

# (b.2) Data Communications (Dura-Line)

*Telecommunications*. The Company produces highly engineered ducts, micro ducts and cable management solutions for the telecommunications market (voice and data) and offers multiple ducting solutions under the Dura-Line brand. The SILICORE duct is manufactured with a high-density polyethylene (HDPE) rigid cover and solid polymer coating. The duct has an external cover and slippery center that eliminates the need for lubrication, reduces friction and protects the cable before, during and after installation. The Wave Rib conduit is coated with reverse oscillating waves to reduce friction and facilitate cable placement which lowers installation costs. The Tornado Plus Conduit product is specially designed to facilitate better installation because it creates an air chamber that allows cable installation over long distances. The company is a leader in the development and manufacture of short diameter duct installations. SILICORE, also known as a solid

lubricant in lining, is a micro duct system for use primarily in broadband and cable television and telecommunications applications. These patented solutions provide network flexibility by installing fiber that extends the growth of data networks without the need to increase the installation of trenches.

Through its CableCon product line, Dura-Line is the leading supplier of pre-installed cable duct solutions in North America by volume and amount sold. CableCon is a system in which fiber optic, coaxial or power cables are pre-installed on our factory production line, reducing customer installation costs. CableCon's increased customer base has been achieved through Dura-Line's ability to customize the solutions it offers its customers with products that meet their needs.

The Company has developed a new line of micro duct solutions designed to be used inside and outside buildings in order to improve network capabilities in enterprises. Orbia's technology provides a comprehensive solution to meet future growth needs with affordable installation costs. Through its CableCon<sup>™</sup> product, the Company is the leading provider of volume and sales-based conduction solutions in North America. CableCon<sup>™</sup> is a conduction system in which the fiber is pre-installed in the conduit, which lowers installation costs for the customer. The increase of Cable-Con's consumers has been achieved through a customized production according to their needs.

It also sells a wide range of accessories for users in the telecommunications sector (voice and data) such as connectors, woven fiber optic tapes, cable television, and equipment installation. Fittings are designed to streamline and improve the installation of piping and duct solutions.

(b.3) Precision Agriculture (Netafim):

Through the acquisition of Netafim, The Company produces intelligent solutions for the precision irrigation market under its own brand.

Within Netafim, our technologically advanced micro-irrigation solutions consist mainly of drip irrigation solutions, but we also sell sprinklers and micro-sprinkler products. We primarily serve the agricultural market, while some of our products are used in landscaping and mining applications.

Netafim's broad product portfolio includes drippers, drip lines, strategic system components (such as filters, valves and air valves) and advanced digital technology for agriculture. Advanced digital farming technology provides solutions for irrigation and fertigation and, in 2018, we launched an integrated digital agricultural system with monitoring, analysis and control capabilities. We also provide end-to-end solutions that include bulk water supply, feasibility studies and design, implementation, after-sales support and maintenance system. In addition, through our leading presence in the irrigation market, we have built a deep agricultural knowledge base and offer our agronomic services and support to help our end users maximize the productivity of their systems.

We operate under the Netafim brand, which we believe is well known in key agricultural markets and symbolizes its proven track record as a pioneer and innovator in the agricultural irrigation market. Since the introduction of the world's first commercial drip irrigation system in 1966, Netafim has invested years of research into micro irrigation to maximize the benefits of this technology. As a result of this investment, we have been, pioneers in key micro-irrigation advanced technology, such as low-pressure and pressure-compensated drippers. We have become a world leader in advanced micro-irrigation by helping the world "grow more with less", as our customers demonstrate by generally achieving higher crop yields while using less water, less land and energy resources, and allowing reduced use of other inputs such as labor, nutrients and crop protection.

# Plants

(See Section 2, "The Issuer", item x, "Description of its Main Assets", of this Annual Report).

# Raw Materials

The main raw materials used by the Fluent business Group (Building & Infrastructure - Wavin and Amanco-, Data Communications - Dura-Line-, and Precision Agriculture -Netafim-) are PVC, polyethylene and polypropylene resin.

# (b.1) Building and Infrastructure (Wavin)

During 2019, for the Building & Infrastructure business in Latin America (Fluent LatAm - Amanco), approximately 70% of the cost of sales in the manufacturing of its products was PVC resin. The company purchases 54% of this raw material through U.S. and local suppliers in countries where logistics costs or tariffs make the PVC resin produced by the Company very expensive, while the rest is obtained from the PVC resin subsidiary of the Polymer Solutions business group, Mexichem Resinas Vinílicas, from its operations in Mexico and Colombia.

Additionally, Colombia and Brazil signed a free trade agreement which, as a result of the acquisition of Mexichem Resinas Colombia, has allowed Orbia to export to Brazil under better conditions, a situation that has placed it in a competitive position to distribute to the Andean and South American regions from the PVC resin plant in Colombia.

In the case of the Building & Infrastructure business in Europe (Fluent Europe - Wavin), 52% of its raw materials are Polyolefin: (PE) polyethylene and (PP) naphtha-based polypropylene, while the remaining 48% is PVC resin (virgin and recycled) and additives, of which the Polymer Solutions business group provides approximately 11%.

# (b.2) Data Communications (Dura-Line)

For Data Communication's business in US/Canada and AMEA (Fluent US/Canada and Fluent AMEA), the main raw material is medium and high-density polyethylene resin, the price of which is substantially subject to fluctuating market conditions. A significant determinant in the price of resin is the price of oil, which routinely experiences volatility. Purchases of this raw material are made from a small number of local suppliers. Generally, these contracts have a duration of between one and three years. The Company has a long-standing business relationship with regional resin suppliers, with an average eleven-year tenure. In terms of prices, contracts with suppliers are based on market prices according to the applicable region.

# (b.3) Precision Agriculture (Netafim)

Finally, for the Precision Agriculture business (Netafim), the main raw materials are polyethylene (PE) resins in different grades and products made from PVC resins.

# Sales and Marketing

Regarding pipe system sales, the Fluent business group (Building & Infrastructure - Wavin and Amanco-, Data Communications- Dura-Line-, Precision Agriculture -Netafim-) has established a series of programs aimed at the different market sectors. Such a strategy is the result not only of an assessment of consumer profiles and needs, but also of new trends in distribution channels, where there is a growing influence of large retailers.

The strategy resulting from these factors focuses on:

- Management of retail networks to improve loyalty,
- Innovation in services to provide consulting and training support,
- Providing tailor-made products and services for construction companies and telecommunications customers,
- A specialized sales force,
- Alliances for turnkey services with selected construction and telecommunications companies,
- Turnkey solutions for irrigation, including community irrigation projects
- Transparency in transactions, technical support to improve the productivity of the Company's customers, and
- Specialized services for access to credit and insurance.

# Main Customers

The main customers of the Fluent business group (Building & Infrastructure - Wavin and Amanco-, Data Communications - Dura-Line-, Precision Agriculture -Netafim-) belong to the construction and infrastructure industry, divided into housing (self-construction) and construction, which includes large and small construction companies, installers, governments that perform public works, telecommunications and energy companies, and individual and large corporate farmers. Most of these end users are served and supplied through large and medium sized wholesalers.

Due to this business group's large number of customers, for the Building & Infrastructure business in Latin America (Fluent LatAm - Amanco), the top ten customers represented 1.0% of Orbia's sales, as a result of diversification and the type of customer it serves, while in Europe (Fluent Europe - Wavin) the top ten customers represented approximately 5.3% of the Company's sales.

In turn, the top ten customers of the Data Communications business (Fluent US/Canada and Fluent AMEA) represented about 3.5% of the Company's sales in 2019. Finally, in the case of Netafim, its top ten customers represented 2.5% of Orbia's total net sales in 2019.

As of December 31, 2019, the ten main clients of the Fluent business group (Building & Infrastructure - Wavin and Amanco-, Data Communications - Dura-Line-, Precision Agriculture -Netafim-) represent 10.6% of Orbia's total sales, of which the biggest client represents 2.7%, so there is no dependence on one or more clients, since their losses would not adversely affect the Company's operating results or financial position.

# **Distribution Channels**

This Business Group's products are distributed through more than 100,000 direct and indirect points of sale, including large construction companies, as well as small retail stores.

At Building & Infrastructure in Latin America (Fluent Latam - Amanco), products are distributed through more than 50,000 points of sale, mostly with greater direct customer contact, while Europe (Fluent Europe - Wavin) operates primarily through indirect distribution, which means that its products are shipped to wholesalers or retailers who have central warehousing, as well as multiple retail outlets. In total, the Company operates approximately 65,000 points of sale in Europe, including direct distribution as well as construction companies, and works closely with its network of distributors throughout Europe to provide them with the best service, a broad portfolio of solutions and effective supply chain management.

Data Communications business (Fluent US/Canada and Fluent AMEA) distributes its products to more than 1,700 customers both directly and through distributors in more than 50 countries, providing solutions and building long-term relationships with customers.

Finally, Netafim distributes its products directly and through a global network of more than 3,000 distributors in more than 110 countries.

# Cyclic Behavior

The behavior of sales of the products in this business group is influenced by the economic cycles of each of the countries in which it operates, especially by the activity of the construction, housing, telecommunications and agriculture sectors.

Seasonality is similar for Building & Infrastructure in Europe through Wavin and Data Communications in US/Canada (Fluent Europe and Fluent US/Canada). Normally, the first and fourth quarters of each year have the lowest cycle caused by winter; however, climatic conditions in recent years have varied in such a way that the behavior of can be affected in different ways.

Netafim's seasonality depends on the climate of the countries in which it operates; the second quarter of each year is the one with the highest demand, followed by the fourth quarter, while the first quarter and the third quarter have less demand. In Europe, there is an increase in demand for the company's products during the spring months. Meanwhile, countries in the Southern hemisphere show a greater demand from September and October, which is the beginning of their spring season. Finally, in December, there is an increase in demand for its products driven by an increase in sales in the USA and India.

# Positive and Negative Aspects of its Competitive Position

The main competitive advantages of the Fluent business group (Building & Infrastructure - Wavin and Amanco-, Data Communications - Dura-Line-, Precision Agriculture -Netafim-) are its leading position in the Building & Infrastructure business in almost all Latin American countries and in many of the 25 European countries in which it maintains a commercial relationship; the Data Communications business, with a presence in regions such as the United States, and countries such as India, Oman South Africa and Canada, achieved a wide distribution network, as well as greater brand recognition. The Fluent business group faces strong international competition in the countries in which it participates.

In the Building & Infrastructure business in Latin America, according to market research, Orbia through Amanco is the largest producer, Tigre is the second largest, and Aliaxis is the third largest producer of PVC pipes and fittings. The remainder is distributed among several local producers.

In Europe, its main competitors include The Aliaxis Group, Uponor, Pipelife, Aalberts Industries, Geberit and GF Piping Systems.

For Datacom's business in US/Canada and AMEA, the main competitors are Performance Pipe (a division of Chevron Phillips Chemical Company), LP, Blue Diamond Industries, LLC, JM Eagle and, to a lesser extent, small regional manufacturers, as well as some European companies such as Gabo Systemtechnik GmbH (d.b.a. Gabocom) and Emetelle. In developing countries, the competitive landscape is much more fragmented when compared to markets in the US, Canada or Europe.

Netafim's main competitors in the world are: Jain Irrigation, Rivulis/Eurodrip, Irritec, Toro, Metzer and smaller local competitors in the countries where it is present.

#### Market Share

The Building & Infrastructure business in Latin America (Fluent LatAm - Amanco) has approximately 31% market share in the PVC pipe market; in this region, it is estimated that it has a significant market share in most of the countries in which it has a presence, given that it is the market leader in most of the countries. Regarding the European market, market share is estimated to be 14% for a wide variety of applications in and around buildings, as well as in infrastructure.

Netafim has an approximate market share in precision irrigation products of 35% in North America, 40% in Latin America, 35% in Europe and 20% in AMEA.

#### General Industry Information

The industry has diverse applications in plastic pipes and related products for commercial construction, infrastructure, telecommunications and irrigation. The main inputs are PVC, medium and high-density polyethylene and polypropylene, which are used to create tubes of various types and sizes and drippers to meet customers' needs. The demand for pipes, fittings and solutions in the Building & Infrastructure business (Fluent LatAm - Amanco and Fluent Europe - Wavin) and Data Communications (Fluent US/Canada and Fluent AMEA), is highly related to the construction and infrastructure GDP and the penetration of digital telecommunications, industries in which moderate and high growth is expected worldwide, respectively, in the coming years. In developed economies and Western Europe, construction activity has more or less stabilized since 2009, which means that the market is growing at a slow rate. Demand in Western Europe accounts for around 10% of global consumption and is mostly concentrated in profiles (30% of total demand) followed by pipes and fittings. In addition, plastic pipe is a substitute for copper, concrete, cement and iron pipes.

Additionally, PVC belongs to a cyclical industry linked to the behavior of the Gross Domestic Product. The demand for PVC is influenced by economic growth, so that GDP is a strong indicator of plant utilization factors. A strong GDP, compared to that of other countries, indicates a high utilization factor and therefore high PVC prices, and the opposite in the case of a low GDP. In mature and industrialized markets, the relationship between PVC demand and economic growth is practically direct, while in emerging countries the ratio of PVC demand to economic growth is multiplied by 2 in most cases, due to a higher growth potential than in industrialized countries.

Finally, in the Precision Agriculture business (Netafim): according to the Food and Agriculture Organization of the United Nations (FAO), only 324 million hectares of the 1.6 billion hectares of arable land are equipped with irrigation systems, representing approximately 20% of arable land. Approximately 77% of the land equipped for irrigation uses flood irrigation, the least sophisticated and efficient water-efficient method of irrigation. Sprinkler irrigation systems, which are deployed on approximately 18% of irrigated land, are generally used on large, uniform tracts of land. Meanwhile, micro-irrigation is the most technologically advanced form of irrigation in use and is currently implemented on approximately 5% of the world's irrigated land. Micro-irrigation systems pump water through piping systems equipped with drippers and drip lines, as well as micro-sprinklers.

# (c) Fluor Business Group (Koura)

The value chain of this Business Group originates in calcium fluoride, better known as fluorite, a non-metallic mineral that acts as a flux, among other applications.

Koura holds the concession for the exploitation and extraction of the world's largest fluorite mine located in the state of San Luis Potosi in Mexico, among other concessions. Fluorite in its natural state (whose concentration varies between 50% and 90%) is used in the steel, cement, glass and ceramics industry helping with the elimination of impurities in steel manufacturing, improving the molecular structure of the clinker in the cement, generating energy savings, are among the main benefits. This type of fluorite is called metallurgical grade.

Concentrated fluorite (with a minimum concentration of 97% without impurities) is known as acid grade and is used in the production of hydrofluoric acid, which is obtained through a chemical process using sulfuric acid from sulfur. Koura competes with China in the production of this acid. China is the main producer, generating approximately 60% of world sales.

Hydrofluoric acid is mainly used in the manufacture of refrigerant gases and propellant gases for air conditioning, refrigerators, freezers and medical applications for the treatment of respiratory diseases. It is also used as an input in the production of gasoline and aluminum fluoride, the pickling of stainless steel, in nuclear fuels, in the manufacture of integrated circuits, in the manufacture of specialized plastics such as fluoropolymers and in the production of fluorinated salts such as lithium salts, which are used in batteries. Koura is one of the world's leading producers of hydrofluoric acid.

The Company is one of the world's leading suppliers of refrigerant gases, primarily R-134a gas, used primarily in the automotive and refrigeration industries. R-134a gas is also used as propellant gas in medical devices such as inhalers for asthmatics, an application in which Koura has nearly 75% of the world market.

Eight operating plants established in Mexico, the United Kingdom, the United States, Taiwan and Japan were added to Koura, of which 5 are certified in accordance with ISO-9001, 3 with ISO-14001, 1 with OHSAS 18001, 2 with TS 16949, 1 with Clean Industry Certification by Profepa, 1 with Integral Responsibility certification by ANIQ and 2 with ISRS (International Safety Rating System) level 7. The 3 chemical process plants of this business group are signatories of the chemical industry's voluntary commitment to Responsible Care.

The oversupply of production in China resulted in an average reduction of 16% in the prices of acid grade fluorite from January 2015 to January 2018. This situation is mainly caused by a worldwide overproduction of aluminum and refrigerant gases, mainly from China. Similarly, from 2015 to early 2018, aluminum prices decreased 6%, so aluminum producers have had to operate below production cost and close several aluminum plants.

From 2012 to 2016, fluorite prices were on a constant downward trend. However, market conditions changed dramatically in 2016 when China, the largest fluorite producer in the world, significantly reduced its production capacity due to the implementation of new environmental laws. The decrease in Chinese fluorite production resulted in a restructuring of the supply chain and a global price increase. In 2018 fluorite reached prices close to \$500, the highest values in 6 years. The average 2019 fluorite price was \$257 per ton and our highest price in 2019 was \$354 per ton.

Nowadays, Orbia is the world's largest producer of fluorite and integrated HF, except for China. In addition, the Company is one of the world's largest producers of hydrofluoric acid (HF), considering the operations in Mexico, and the largest supplier in the U.S. Spot Market.



The Fluor business group (Koura) is one of the world's largest integrated producers of refrigerants. Orbia also continues its commitment to provide new-generation refrigerants that are more environmentally friendly.

#### Sales

The volumes and sales of Fluor Business Group in the last three fiscal years have been as follows:

	Years ending December 31:					
	Volu	me Sold <sup>(1</sup>	)		Sales	
Fluor	2019	2018	2017	2019	2018	2017
Acid Grade, Metallurgical Grade Fluorite, Acid Grade, HF and ALF3	1,121	1,115	1,056	474	409	354
Refrigerant and Medical Gases	57	58	59	379	472	360
Eliminations	(25)	(23)	(17)	(50)	(45)	(33)
Total Fluor	1,152	1,150	1,098	805	837	681

#### (1) Millions of Tons

#### (c.1) Fluorite Process

The activities of this process focus on the exploitation of fluorite, which is commercialized in two basic presentations: (i) metallurgical grade, used in the production of steel, ceramics, glass and cement; and (ii) acid grade, used in the production of hydrofluoric acid, which is the main raw material for the manufacture of virtually all compounds containing organic and inorganic fluorite, including fluorocarbons, fluoroelastomers as well as aluminum fluoride for the production of aluminum.

# Products

The Fluorite Process extracts and processes:

Metallurgical grade fluorite, flux for the steel and cement industry

There are different sizes for the metallurgical gravel, depending on the size required by the customer for its final process (fine, chunk, standard, and special). The calcium fluoride grade is in the range of 50% and 90%.

Acid grade fluorite, raw material to produce hydrofluoric acid and aluminum fluoride

Acid grade fluorite has a calcium fluoride content of at least 97%.

# Plants and mines

(See Section 2, "The Issuer", item x, "Description of its Main Assets", of this Annual Report).

#### Raw materials

The main raw materials in the Fluorite Process are: (i) electricity, (ii) water, and (iii) consumables. The supply of these raw materials is obtained under the scheme of long-term supply contracts with periodic reviews. Thus, contracts are maintained with CFE and the National Water Commission, in some cases through concessions to exploit their own wells.

The main suppliers of raw materials in Mexico are the National Water Commission (water), the Federal Electricity Commission (electric energy) and PEMEX Transformación Industrial (natural gas).

#### Sales and marketing

Koura maintains long-term contracts with its main metallurgical-grade and acid-grade fluorite customers, in which sales schemes have been established to promote customer loyalty for specific periods of time. Long-term contracts (between 3 and 5 years) provide for the use of a price formula based on international reference prices, which provides Koura with long-term stability.

#### Main customers:

The products of this process are used by customers in the iron and steel, glass, ceramics, aluminum, cement and chemical industries (fluorocarbons for refrigeration, propellants, foaming agents, thermoplastic polymers, etc.). The total sum of the ten most important clients of the Koura represents 5% of Orbia's total sales. No single customer for this process represents more than 1% of the Company's total sales and, therefore, there is no dependence on one or more customers, since the loss thereof would not have a material adverse effect on the Company's results of operations or financial position.

#### **Distribution Channels**

Fluorite process products are marketed through distributors worldwide, as well as direct plant deliveries, through railroads, marine vessels, and auto transportation. There is no special sales method, as all sales are made through the sales force in our own branches and with distributors.

Regarding freight, these are operated through long-term contracts with railway and maritime companies, in which a consideration is established represented by a fixed part (rent) and a variable part, which includes a price per kilometer or mile traveled, which is linked to the price of fuels, guaranteeing a reliable and continuous supply for the operation of the plants.

# Distribution contracts

Sales through distributors are made through long-term contracts, who purchase the described fluorite products directly for resale in the markets in which they are present.

#### Cyclic behavior

The Fluorite process of the Fluor Business Group shows low cyclical behavior on a regular basis.

#### Positive and Negative Aspects of its Competitive Position

The Fluorite Process has an important logistical advantage by producing 1.7 million tons of Fluorite in three different locations and with rail access to the cities of Altamira and Tampico, which are worldwide distribution ports. In comparison, according to data from Roskill Consulting, China produces about 3.8 million tons in more than 650 mines, currently being the world leader in the production of fluorite; and representing Koura's greatest competition in the country as a whole.

Likewise, Koura stands out for its constant investments and productivity alliances with the union bases, which have allowed significant increases in productivity in recent years. The grade quality of the ore naturally extracted from the mine must be added, which reduces the application of additional processes after extraction in order to be sold as metallurgical grade. Finally, it should be noted as a positive aspect for Koura that the Company has long-term contracts with its main customers.

#### Market share

The following graph shows the distribution of fluorite reserves worldwide in 2019, which according to USGC and internal analysis, global reserves are equivalent to approximately 310 million tons.



Source: USGS internal report and analysis.

Koura maintains an important 20% share of the global fluorite market and exports around 80% of its production worldwide. China has a 59% share of the global market, South Africa 5%, and Mongolia 4%. These countries are its greatest competitors. China's annual production fell 8% since 2016 and the country became a net importer of fluorite for the first time.





Source: Roskill Consulting and internal analysis (2019)

(c.2) Hydrofluoric Acid (HF) and Aluminum Fluoride (AIF<sub>3</sub>) Process

Hydrofluoric acid (HF) is produced by reacting fluorite (CaF<sub>2</sub>) with sulfuric acid. Once produced, hydrofluoric acid undergoes several stages of distillation to achieve the 99.99% purity necessary to meet the high standards demanded by the market. Sulfuric acid is made by Koura from sulfur which is converted into sulfuric acid once it comes into contact with air at high temperatures and water. Koura is one of the world's largest producers of HF.

Aluminum fluoride is an essential element for the manufacture of aluminum and is produced by the reaction of hydrofluoric acid (HF) with aluminum hydroxide. From its Matamoros plant, Koura supplies several of the world's leading aluminum producers.

# Products

Acid grade fluorite is a mineral with a minimum calcium fluoride concentration of 97%. By making it react with sulfuric acid, which comes from sulfur, hydrofluoric acid is generated; it is mainly used in (1) the manufacture of refrigerant gases and propellant gases for air conditioning, refrigerators, freezers and medical applications for treatment of respiratory diseases, (2) the manufacture of highly specialized plastics known as fluoropolymers, (3) the manufacture of aluminum fluoride, (4) the manufacture of high octane gasolines, (5) cleaning of metallic surfaces such as the pickling of stainless steel, and in other uses to a lesser extent, such as the manufacture of uranium fluoride for the nuclear industry, the manufacture of integrated circuits and fluorinated salts for a wide variety of applications.

# Plants

# (See Section 2, "The Issuer", item x, "Description of its Main Assets", of this Annual Report).

Koura owns and operates one of the largest HF plants in the world, located in the city of Matamoros, Tamaulipas, Mexico, with an annual installed capacity of 143,000 tons. The plant is strategically located to have easy access to its main raw materials in Mexico and exports 97% of its production of hydrofluoric acid, mainly to the USA, as well as 100% of its production of aluminum fluoride. The Matamoros plant is operated with the highest technology in compliance with all applicable regulations.

The concepts of "Sales and Marketing", "Main Customers", "Distribution Channels", "Distribution Contracts", "Cyclical Behavior", "Positive and Negative Aspects of its Competitive Position" and "Market Share" of the HF Process are described in the Fluorocarbon Process.

# Raw materials

The main raw materials used in the production of HF are acid grade fluorite and sulfur. Fluorite has traditionally been obtained from the San Luis Potosi mine and, to a lesser extent, through purchase from third parties.

# Sales and marketing of hydrofluoric acid (HF) and aluminum fluoride

The Issuer has several long-term HF supply contracts with its major customers in North America. Aluminum fluoride is sold to customers through purchase orders or contracts with a term of less than or equal to one year.

(c.3) Refrigerant Gases and Fluorocarbons Process

# Fluorocarbons

Fluorinated hydrocarbons or fluorocarbon compounds are aliphatic compounds that have fluorine atoms or a combination of carbon and fluorine in their structure. They have a highly developed industrial application: they are used as anesthetics in medicine, as propellant gas in aerosols, they are also used as degreasers in metallurgy, as cleaners of electrical and electronic contacts, but their most important use is as refrigerants in air conditioning systems and domestic and industrial refrigeration.

*Refrigerants*: Fluorocarbons combine good thermodynamic properties (with boiling points below targettypical temperatures, high vaporization heat, moderate density in liquid form and high density in gaseous phase) with a safe (low toxicity and flammability) and non-corrosive nature.

*Propellants*: Fluorite-based propellants are used to safely deliver a variety of medications in aerosol form, including use in inhalers for the treatment of asthma. Koura acquired exclusive worldwide rights to sell and distribute the product for the regulated medical and pharmaceutical market under its ZEPHEX® brand, the global brand of medical propellant gases contained in about 75% of inhalers produced worldwide.

# Plants.

(See Section 2, "The Issuer", item x, "Description of its Main Assets", of this Annual Report).

#### Raw materials

The main raw material used in the production of refrigerant gases is HF, which comes mostly from our plant in the city of Matamoros for our production of refrigerant gases at our plant in St. Gabriel in the state of Louisiana, USA, and is mainly imported from third parties for our production of refrigerant gases in the city of Mihara, Japan.

# Sales and marketing of refrigerant gases

Koura sells refrigerants worldwide through regional distributors, key to the aftermarket, mainly without a contract or with a short-term contract. It sells directly to OEM (original equipment manufacturers) on short-term contracts.

Medical thrusters are sold in bulk directly to pharmaceutical companies under contract and packaged for business through agents and distributors without contract.

#### Main customers:

The total sum of the ten most important clients of the Koura Global Business Group represents 5% of Orbia's total sales. No single Fluor customer represents more than 1% of the Company's total sales and, therefore, there is no dependence on one or more customers, since the loss of such customers would not have a material adverse effect on the Issuer's results of operations or financial position.

#### **Distribution Channels**

Koura markets its products directly to customers and with some distributors. There is no special sales method, as all sales are made through the sales force in our own branches and through distributors.

#### Distribution Contracts

The sale is made directly to customers so most do not have distribution contracts.

#### Cyclic Behavior

There are no seasonal cyclical behaviors for the Fluoric Acid Process and Refrigerant Gases market.

# Positive and Negative Aspects of its Competitive Position

The main competitive advantage of the Hydrofluoric Acid and Refrigerant Gases Process lies in the vertical integration with respect to its main raw material, fluorite, which it obtains from its mines in Mexico, giving it long-term viability by having a guaranteed supply, which differentiates it from the main non-integrated producers dependent on Fluorite's external supply. As previously mentioned, China is the main producer of fluorite worldwide, and it should be noted that its strategy has consisted of using this mineral to manufacture finished products in this industry, such as fluorocarbons and fluoropolymers, thus significantly reducing the supply of ore in metallurgical or acid grade worldwide.

On the other hand, Koura has a strategic and unique geographic location that gives it access to the North American market (one of the main consumers of hydrofluoric acid and other fluorochemicals in the world), which gives the Company a sustainable competitive advantage that is difficult to match. In addition, Koura's proximity to such an important market for such products as the North American market represents a significant competitive advantage with respect to the strict transportation regulations applicable to hydrofluoric acid.

#### Market share of the Fluor Business Group (Koura)

The Issuer estimates that global demand for hydrofluoric acid (HF) in 2019 was 1.54 million tons, of which 57% were produced in China, 21% in North America and 6% in Europe. The strongest demand growth during 2019 occurred in Asia, driven by growth in final HF applications.

Koura competes with Honeywell International and Solvay in the HF market.

The following figures refer to the world production capacity of HF; there is currently a total production capacity of approximately 2.6 million metric tons, plus another 1.0 million tons that are reserved to produce aluminum fluoride AIF3.



Geographic Share of Global Hydrofluoric Acid Production Capacity (2019)

#### Fluor Industry Overview

Fluorochemicals are compounds containing the chemical element fluorine, which obtained by mining and processing fluorite; they are used in refrigerant gases, fluoropolymers and fluoroelastomers.

In 2019, worldwide production of fluorite was approximately 6.8 million metric tons according to Roskill Consulting's estimates and internal analysis.



# World Fluorite Production (2019)

Source: Roskill Consulting 2019, internal analysis

In 2019, the leading country in fluorite production was China, accounting for 59% of the world's annual production. The rest of world production is predominantly concentrated in Mexico, Mongolia and South Africa, which together contributed an additional 29% to world production in the same year.

Most acid grade fluorite is consumed in the production of HF, required for the manufacture of fluorochemicals, followed by aluminum production and steel manufacturing. World consumption of acid-grade fluorite grew by 5% during 2019.

Koura is the world's largest fluorite producer, accounting for approximately 96% of Mexico's active production capacity, which is equivalent to approximately 20% of Fluorite's annual global needs.

HF is the most important chemical derived from fluorite. The world's largest HF production capacity is in China, followed by North America and Western Europe.

	2019	2018	2017
China	1,992	1,540	1,500
North America	220	220	220
Europe	257	261	241
Asia	167	237	212
Mexico	196	196	152
Rest of the World	127	111	67
Total	2,959	2,565	2,392

# World production capacity of hydrofluoric acid (thousands of metric tons from 2017 to 2019)

#### Source: Roskill Consulting 2019

Do-Fluoride in China, the largest producer of HF in the world, has about 10% of world capacity. Excluding China, Koura was the largest producer of HF in the world during 2019, followed by Honeywell adding plants in the USA and Germany. Most of Koura's production is exported to the USA where it is consumed to produce fluorocarbons and other applications.

# General Description of Industrial Processes of the Issuer

Orbia has different technologies for manufacturing its products. In many cases, it uses its own technologies, such as PVC production, fluorite purification, Compounds and piping, among others.

The main processes for the manufacture of the Company's most important products by business and business group are explained below:

# (a) Polymer Solutions Business Group

Within the Polymer Solutions business group, the main production processes are Chlorine-Soda and PVC Resin. The processes are described below.

# Chlorine-Soda Process

Chlorine and Caustic Soda are obtained mainly by electrolysis of Sodium Chloride (NaCl) in aqueous solution, called the chlor-alkali process. The industry employs three methods: mercury cell electrolysis, diaphragm cell electrolysis and membrane cell electrolysis. Orbia uses diaphragm and membrane electrolysis cells.

# Ethylene Process

The industrial process to produce ethylene is carried out using ethane from cryogenic units, which is fed to pyrolysis furnaces, also called Crackers. During the cracking of ethane in the Crackers, ethylene, hydrogen and other hydrocarbons are produced; these products are subsequently separated at low temperatures for use and to achieve the purification of ethylene to polymer grade.

Orbia in its strategic partnership with OxyChem in Ingleside, has been producing ethylene since February 2017.

# VCM Process

VCM is manufactured from chlorine and ethylene. These raw materials are reacted in a catalytic reactor to form an intermediate product called dichloroethane (Ethylene Dichloride or EDC). Purified dichloroethane undergoes thermal decomposition to produce VCM.

VCM is produced in Vestolit, Germany.

# Vinyl Process

In the production of PVC, three basic processes are used worldwide for the polymerization of VCM: by suspension, by emulsion and by mass. Orbia uses only the first two processes, of which approximately 79% of its production is obtained by suspension and 21% by emulsion. Both processes are explained below:

# PVC by suspension

This is the most widespread and used process in the world. Using this method, VCM is combined with water in the presence of a suspending agent. Water and VCM are added in a reactor with agitation to form a suspension of VCM in an aqueous phase. Once mixed, this suspension is stable until polymerization begins, which occurs when a VCM-soluble starter is added to the mixture.

# PVC by Emulsion

The elaboration of PVC Resins by emulsion (including those made by the micro-suspension process) are generally used in the formulation of Plastisol for coatings and molding.

In the emulsion dispersion process, the VCM, water, emulsifier and catalyst are loaded into a stainless-steel reactor where they are agitated. The reaction occurs under pressure and at moderate temperatures in a cooling reactor to remove the heat produced during polymerization.

The dispersion resin process is often more complex than suspension technology. The polymerization cycle time can be 2 to 3 times longer than in the suspension process. Catalysts are more water soluble than VCM.

# Compounds

Plastic resins are used for the manufacture of Compounds; the resin is combined with other additives through a mixing process in order to obtain a mixture that integrates the appropriate quantities in the entire mixture. From this part of the process, a *dry blend* is obtained, and it is cooled to a certain temperature and through various steps and processes it is converted into pellets for sale.

# (b) Fluent business group (Building & Infrastructure - Wavin and Amanco-, Data Communications - Dura-Line-, and Precision Agriculture -Netafim-)

Orbia has a unique technology in Latin America to produce pipes that carry drinking water. This technology is called Biaxial because the pipe undergoes bio-orientation of its molecules axially and longitudinally, generating a structure of laminar layers, providing the pipe significantly greater mechanical resistance compared to conventional pipes, and flexibility that makes them virtually unbreakable. This technology allows a thinner wall in the manufacture of the pipe, and this makes them lighter, easy to manipulate and increases the water conduction area, guaranteeing savings in the handling, installation and consumed energy for the operation of the system.

PVC Resin is used for the manufacture of pipes, fittings, hoses and flexible floors; different additives are added to the resin, which later undergoes the extrusion and injection transformation process, as applicable.

Data Communication's business (Fluent US/Canada and Fluent AMEA) manufactures specialized ducts for the telecommunications sector from its main raw material, polyethylene. The manufacturing process of telecommunication ducts consists of using virgin polyethylene with certain additives to then go through the transformation process by extrusion in one or two stages depending on the product to be manufactured. These ducts are specially produced and customized for the diverse clients with specific requirements in the telecommunications sector.

Data Communication's business also manufactures specialized pipelines for the infrastructure sector for natural gas transmission from its main raw material, polyethylene and, until 2016, for pressurized water transmission, a business that was discontinued. The pipe manufacturing process consists of using virgin polyethylene of a specific grade for each gas conduction application, adding certain additives and then going through the extrusion transformation process. These pipelines ensure compliance with existing standards for natural gas handling.

# (c) Fluor Business Group

The different industrial processes of the Fluor Business Group are mentioned below:

# Fluorite Process

Fluorite ore is extracted from the mine, along with some impurities such as carbonates and silicates. The ore is crushed and ground to small particle sizes to separate impurities.

The milled material must comply with a certain particle size, so it is classified with the help of cyclone filters, screens and separators; the part that does not meet the required specifications is returned to the mill.

The classified material is conditioned by adding oleic acid and dispersant and adjusting the pH. This is done in order to carry out the flotation process, where fluorite is concentrated, and impurities are separated.

Concentrated fluorite is in an aqueous medium and needs to be separated. The solids are separated from the water with the aid of a sedimentation tank and rotary filters, thus obtaining acid grade Fluorite.

The main stages for obtaining Fluorite are:

Exploration: Consists of locating, evaluating quality and quantifying mineral reserves.

**Planning:** In this stage, the ore preparation, development, decking, extraction, hauling and dipping works (extraction of ore to the surface using double drum electric winches) are projected, as well as the services (water, electric power, compressed air, ventilation, workshops, canteens, etc.), mining equipment and personnel of the operations.

**Mine Production**: The ore drilling and decking activities are carried out by means of controlled blasting, extraction by means of scoop tram equipment from the mined area to the loaders, trucking to the primary crushing area, where the ore is sent to the extraction sites (dipping), to be deposited on the surface to the preparation and crushing plants.

**Preparation and Crushing Plants**: These plants receive the ore extracted from the mine, where it is screened to obtain the metallurgical grade ore in its different sizes and obtain fine by-product (-3/4" product), which are the raw materials for the benefit plants.

**Processing Plants**: fine material is concentrated in these plants, fed to at least 97% CaF<sub>2</sub> purity (acid grade).

# Hydrofluoric Acid Process

The manufacture of hydrofluoric acid consists of making Fluorite react with sulfuric acid; hydrogen fluoride, better known as hydrofluoric acid, is obtained from this reaction. Sulfuric acid is obtained by oxidation of sulfur into sulfur dioxide SO<sub>2</sub>, to convert it into sulfur trioxide SO<sub>3</sub> and then to obtain sulfuric acid.

#### Aluminum Fluoride Process

The production of aluminum fluoride is based on hydrofluoric acid, which evaporates and overheats before being injected in gaseous form into a pair of double bed fluidized reactors. In the reactors, it contacts and reacts with aluminum hydroxide, which is in solid form, to produce aluminum fluoride. This product leaves the reactor in solid form at high temperature (700°C) so it must be cooled before being sent to storage and transport. Aluminum fluoride is used in the production of metallic aluminum.

#### **Refrigerant Gas Process**

Refrigerant gases are fluorocarbons that are produced by the fluoridation of trichloroethylene with hydrofluoric acid. Once the reaction takes place, the hydrochloric acid that is produced as a by-product must be removed and the product must be distilled. Fluorocarbons are used in air conditioning equipment for automobiles.

- iii. Patents, Licenses, Trademarks and other contracts
- a) Patents and Licenses

We own, license or have rights to more than 500 patents, more than 2,000 trademarks, various patent applications and trademark registrations, as well as technology licenses in Mexico, Brazil, Colombia, the Netherlands and several other countries, which are currently used, or will eventually be used, in our operations. Most of our patents relate to the development of new products and processes for manufacturing and will expire by 2027. Likewise, we renew our brands on a regular basis. For Fluent Latin America (Amanco), in 2019 we have initiated a brand refresh process that will position Wavin as a global brand while maintaining local brand positioning. While we believe that our patents and trademarks are valuable because of our broad range of products and services, we do not believe that the loss or expiration of any patent or trademark would have a material adverse effect on our results of operations, financial condition or the continuity of our business. As of December 31, 2019, we and our subsidiaries had more than 500 patents and industrial property designs issued or pending, both in Mexico and abroad.

# b) Research, Development and Innovation

Orbia recognizes the importance of innovation and development to remain a leader in its markets. The investments and actions in R&D are oriented to improve the performance of our products in benefit of the clients and to fulfill stricter regulations in the different geographic markets where we compete. We maintain 19 research and development centers with a technology center focused on developing technology to create products, improve processes and applications that positively impact the quality of life of users through comprehensive products and solutions.

The Polymer Solutions business group has research and development centers located in Mexico (2), USA (3), Germany (2), Colombia (1) and the United Kingdom (2); the Fluor business group (Koura) has R&D centers in the United Kingdom (1) and Mexico (2). The Fluent business group (Building & Infrastructure - Wavin and Amanco-, Data Communications - Dura-Line-, and Precision Agriculture -Netafim-) has R&D centers located in the Netherlands, Czech Republic and the United States. Netafim adds a research center to Orbia's operations while, as of the date of this report, the Company inaugurated an innovation laboratory in San Francisco, California to explore innovative improvements to our existing products and/or new non-existing products for all business groups.

Orbia has successfully developed value added specialty PVC products that are specially formulated to meet the special technical characteristics required by customers in the construction industry, services, civil infrastructure, water piping, basic sanitation, transportation, energy, and telecommunications.

Orbia organized a Technology Committee (Innovation Board) located in the Netherlands in its Building & Infrastructure business to create synergies between Europe and Latin America (Fluent Europe - Wavin and Fluent LatAm - Amanco) focusing on satisfying the global market it serves and transferring technology between Europe and Latin America. The result has been that global solutions have been created and a technical team has been executing relevant technological changes in manufacturing processes.

The strategy in the R&D centers focuses on increasing project payback and meet customer requirements by geographic regions; if necessary, projects are created in the countries that require it. This regional approach has enabled research and development centers to better serve the technological needs of our customers.

Orbia maintains its strategy of migrating to higher added value products in the three business groups: in Polymer Solutions, with the assets of Mexichem Specialty Resins, Mexichem Specialty Compounds, focused on high-end plastic compounds, and Vestolit, the largest producer of high-impact PVC resins. For example, the Company is developing a new generation of flexible PVC resins that are safer, more durable, and use less energy to manufacture final products, or the development of better retardant solutions for cable production. In Fluent, in its Building & Infrastructure business (Wavin and Amanco in Fluent Europe and Fluent LatAm) through its Technology Committee and its R&D centers, generating innovative products such as heating systems that are digitally controlled via mobile phones (Sentio) or plastic bicycle paths (PlasticRoad). In its Data Communications business (Fluent US/Canada and Fluent AMEA), with highdensity polyethylene products by means of pressure ducting and piping solutions for telecommunications (voice and data) and energy, while in its Precision Agriculture business (Netafim), through their Netbeat digital farming, with technologies that allow farmers to control their crops through their mobile phone through the installation of systems (NetBeat) that allow the Company to support it with the support of agronomists and technologists who, through this digital technology, advise them on the management of nutrients, fertilizers and irrigation and in the general management of their field during the production process; in Fluor (Koura), with the development and marketing of medical grade propellants, and fluorocomposites for the cement industry.

Orbia invested \$56 million in Research, Development, and Innovation during 2019, \$41 million in 2018, and \$25 million in 2017.

c) Brands

The trademarks owned by Orbia are registered either directly by the Company or by its subsidiaries in various countries in which it operates or could initiate operations.

The main brands under which Orbia markets its products are:

Polymer Solutions Business Group	
Line of business	Brand
PVC Resins	Primex, Iztavil, Petco,
PVC Specialty Resins	Vestolit
Compounds	Provin, Polivisol, Vindex B, Iztablend
Specialty Compounds	Alphagary, Alphaseal, Evoprene, Garaflex and
	Smokeguard
Plasticizers	Iztablend, Lugatom

Fluent business group (Building & Infrastructure - Wavin and Amanco-, Data Communications - Dura- Line-, and Precision Agriculture -Netafim-)	
Line of business	Brand
Civil Construction, Infrastructure	Amanco, Pavco, Plastigama, Plastubos
Geosynthetics.	Amanco, Pavco, Bidim
Irrigation.	Amanco, Pavco, Plastigama, Colpozos, Netafim
Telecommunications, Energy, Infrastructure.	Dura-Line
Plastic piping systems and solutions to customers in civil construction, agriculture and wholesalers, plumbing dealers, housing developers, large installers, telecommunications companies, utilities and municipalities.	Amanco, Pavco, Plastigama, Plastubos, Aquacell, Chemidro, Climasol, Hep 2 O, HepVO, Q-Bic, QBB, Tegra, Quickstream, Warmafloor, Warmawall, Wavin

Fluor Business Group (Koura)	
Line of business	Brand
Medical Propellants	Zephex, Respia
Refrigerants	Klea, Arcton

Currently, globalization forces companies to differentiate themselves from others in order to compete in the international market; for this reason, brands are important for the development of the Company, as they are distinctive signs that denote quality of the products marketed under them.

The brands are distinctive signs which allow to identify the diverse products that the Company offers in the market. These brands are fundamental assets to the business and maintaining a good reputation is essential to attracting and retaining our customers.

The trademarks listed above are valid at the time of this publication and are periodically renewed.

d) Mining Concessions

The Company has rights to several renewable mining concessions, all of which are located in Mexico. Within the Fluor Business Group, there are several mining concessions that will expire between 2029 and 2061, all of which are renewable pursuant to Article 15 of the Mining Law in force.

iv. Main Clients

See Section 2) "The Issuer", item b, "Description of Business" "Main Activity" for each Business Group, of this Annual Report.

Orbia's top ten customers combined accounted for 10.4% of its total net sales in 2019. Orbia's largest individual customer represented 2.7% of its total net sales in 2019, so there is no dependence on one or more customers, since the loss of such customers would not adversely affect the Company's results of operations or financial position.

Orbia enters into and maintains various contracts within the ordinary use of its operations, such as software licenses, supply of raw materials, manufacture, purchase and rental of machinery, marketing, distribution,
and sale and financing, among others, which may be short, medium, and long term, in accordance with the ordinary needs of the operation.

v. Applicable Legislation and Tax Situation

Our operations are subject to the laws and regulations of the countries in which we operate.

## Corporate Aspects

The Company and its subsidiaries are subject to various laws, regulations and government provisions in the different countries where Orbia's businesses are located.

Orbia and its Mexican subsidiaries are constituted as a public-traded and variable capital companies, respectively, in accordance with the applicable provisions of the Mexican Securities Market Act (LMV) and the General Business Organizations Act, the Commercial Code, applicable legislation and its by-laws.

Since the shares representing the Issuer's capital stock are registered in the RNV and listed on the BMV, Orbia is subject to the provisions of the LMV, the Single Issuer Circular issued by the CNBV, as well as other general provisions applicable to issuers with securities registered in the RNV which, among other cases, require the delivery of periodic information and the preparation of an annual report.

## Applicable Legislation

In Mexico, Orbia and its Mexican subsidiaries are subject to various laws, regulations and general provisions.

These include, but are not limited to, the following:

## Mining Legislation

Under Mexican law, mineral resources belong to Mexico and a concession granted by the Federal Government is required to explore and/or exploit mineral reserves. The rights of the Koura business in Mexico to mineral deposits derive from concessions granted by the Ministry of the Economy, in accordance with the Mining Act and the regulations thereof.

Mexican legislation establishes that mining concessions will have a duration of fifty years, from the date of they are entered into the Public Mining Registry and will be extended for an equal term if their holders did not did not fall under the grounds for cancellation included in the Mining Act and its Regulations within the five years prior to the end of their terms.

Although Koura plans to apply for the renewals of the mining concessions and meets all the conditions necessary to obtain them, it cannot guarantee that the concessions will be renewed, as the Federal Government has the power to decide on whether or not it will renew the concessions. Our inability to renew any of the concessions could have a material adverse effect on our operations, operating results, financial status and economic outlook. (See Risk Factors).

## **Environmental Legislation**

The operations of Orbia and its subsidiaries in Mexico are subject to the General Ecological Balance and Environmental Protection Act; the General Prevention and Integral Management of Hazardous Waste Act; the National Water Act and the Federal Environmental Responsibility Act, each with its own regulations.

We are subject to many environmental laws and regulations in each of the jurisdictions in which we operate. These laws and regulations impose increasingly stringent environmental protection standards with respect to air emissions, wastewater discharges, the use and handling of waste or hazardous materials, waste disposal practices, and the remediation of environmental damage or pollution, among other things. These standards cause us to incur substantial environmental costs and liabilities, including liabilities associated with the disposal of assets and past activities, even when they are performed by previous owners or operators and, in some jurisdictions, regardless of the fault or legality of the original activity.

To prevent, control and remedy environmental problems and promote compliance with administrative requirements, we maintain an environmental policy designed to monitor and control environmental issues. Our environmental policy requires each subsidiary to respect local laws and comply with our own internal

regulations to minimize the use of non-renewable resources and the generation of hazardous and other wastes. We strive to use processes that are designed to reduce the impact of our operations on the environment at all stages of production and at all our operations worldwide. We are committed to complying with all applicable laws and believe that we are in substantial compliance with all applicable environmental legislation.

We frequently incur capital expenditures that have an environmental component or are affected by environmental provisions. However, we do not maintain separate accounts for mixed capital and capital expenditures. Environmental expenditures that extend the useful life, increase capacity, improve safety or efficiency of assets, or are incurred to mitigate or prevent future environmental pollution, may be capitalized. Other environmental expenditures are expensed when incurred. For the years ended December 31, 2017, 2018 and 2019, our capital expenditures and repair expenses were not significant. However, our environmental expenditures may increase in the future.

Our commitment to the environment and social responsibility is a fundamental part of our corporate culture and values. As a result, we have implemented several community support initiatives in the vicinity of our production facilities and have formed alliances with major universities in those regions for the joint development of integration and training programs.

Foreign subsidiaries are governed by the applicable Environmental legislation of each country where they have operations.

## Labor and Social Security Legislation

The Mexican subsidiaries that that are considered employers are subject to the Federal Labor Act and the Social Security Act.

Foreign subsidiaries are governed by the applicable labor and social security legislation in each country in which they operate.

## Intellectual Property Legislation

Regarding the protection of its trademarks and patents and other intellectual property rights, Orbia and its subsidiaries in Mexico are governed by the Industrial Property Act and its Regulations.

Foreign subsidiaries are governed by the applicable Intellectual Property legislation in force in each country where the registration of a trademark or patent is to be registered or renewed.

## Tax Situation

## Income Tax

Income tax is based on taxable income, which differs from the gain reported in the consolidated income statement and other comprehensive income, due to items of taxable income or expense or deductible in other years and items that are never taxable or deductible. The Company's current tax liability is calculated using the tax rates enacted or substantially approved at the end of the reporting period by the countries in which the Company and its subsidiaries are located.

The following table shows the legal income tax rates applicable for 2019 in each of the countries in which we operate.

Country	%	Country	%
Germany	34	Indonesia	25
Argentina	35	Ireland	13
Austria	25	Italy	24
Belgium	29	Japan	30
Brazil	34	Latvia	20
Bulgaria	10	Lithuania	15
Canada	27	Mexico	30
China	25	Nicaragua	30
Chile	27	Norway	22
Colombia	33	Oman	15
Costa Rica	30	Panama	25
Croatia	18	Peru	30

Denmark	22	Poland	19
Ecuador	25	United Kingdom	19
El Salvador	30	Czech Republic	19
Slovakia	21	Republic of Serbia	15
United States of America	21	Romania	16
Estonia	20	Russia	20
Spain	25	South Africa	28
Finland	20	Sweden	22
France	33	Switzerland	24
Guatemala	25	Singapore	17
Greece	28	Thailand	20
Netherlands	25	Taiwan	17
Honduras	25	Turkey	22
Hungary	9	Ukraine	18
India	34	Venezuela	34
Israel	23		

In the ordinary course of business, Orbia applies various treaties to avoid double taxation and is responsible for withholding taxes.

#### vi. Human Resources

The personnel hired by Orbia's subsidiaries are presented below:

Personnel	2019	2018	2017
Unionized employees and temps	12,426	12,879	11,227
Non-unionized	9,697	9,228	6,444
Total	22,123	22,107	17,671
% Unionized employees and temps	56%	58%	64%
% Non-unionized	44%	42%	36%
Total	100%	100%	100%

At the close of 2019, the number of Orbia employees did not vary significantly compared to the previous year. The percentage of unionized workers compared to the total number of workers was 56%.

During the last 3 years, there has been no labor conflict with a material impact on the total operation of the company to report in Orbia's plants, maintaining a positive relationship with the unions, which is characterized by mutual understanding and support to achieve significant changes for the Group's companies. Unionized workers of the subsidiary companies are affiliated to the corresponding unions and labor centers in each locality.

Orbia administers its labor relations in accordance with applicable labor legislation and in terms of policies, procedures, and a Code of Ethics.

In addition, each plant has a specific area that coordinates labor relationships.

With respect to remuneration practices, Orbia has a salary structure based on the principles of internal equity under an international methodology and standard for job evaluation and external competitiveness, in which there are salary tabulators designed and updated based on each country's salary market practices and macroeconomic indicators.

From 2016 to 2018, Orbia has transformed its talent management model by implementing processes and policies with global reach and based on best market practices to attract, retain, evaluate, develop, compensate, and recognize its talent. To achieve this transformation, we have completed the implementation of a technology platform that allows us to administer and manage the key processes of human resources management; this global initiative ended in 2018.

Orbia is aware that in order to become a world-class company, its people play a preponderant role. The Company requires extraordinary people doing extraordinary things, which is why the Company works to build a work culture where its human resources perform to the best of their abilities and in an inclusive and diverse environment. Orbia seeks to have a committed workforce that works with passion and deep connection to its purpose and values. In 2018, the Company dedicated efforts and resources to measure

the level of commitment of its employees, as well as innovation capabilities. Regarding the level of commitment, it was found that 86% of the Company's global workforce is committed, empowered and energized to do their job. At the end of 2018, actions were initiated to increase the level of commitment of its employees. For this reason, we launched a global recognition program that will allow us to recognize employees for the efforts they demonstrate in their daily work. The commitment level study is applied every two years.

Certain subsidiaries of the Company have defined benefit plans funded for qualifying employees of its subsidiaries. Defined benefit plans are administered by a fund legally independent of the Entity. There is a pension fund board which is responsible for investment policy in relation to the fund's assets.

In its Code of Ethics, Orbia includes its position regarding diversity, establishing it as an important pillar for the success and strengthening of the Company. In 2018, the Issuer completed training on its compliance policies and code of ethics; 100% of its employees globally were trained in person or online. It also launched its diversity and inclusion policy, which aims to create a culture that incorporates different ideas and perspectives where its employees have the opportunity to perform to their fullest capacity. Orbia hopes to achieve this objective by acting in accordance with applicable legislation, fostering communication and dialogue, as well as collaboration.

vii. Environmental Performance

## Sustainability Model -

## Commitment to safety, social and environmental responsibility

Orbia's purpose is to improve people's lives with outstanding products and services. To achieve this, we are committed to responsible business growth, while complying with the laws and regulations of the countries in which we operate, minimizing the risks to our processes and products, and creating shared value for social progress.

## Materiality

In early 2016, Orbia completed its first global materiality analysis, through which it identified the most relevant issues for stakeholders based on their economic, social, and environmental impacts. In 2019, given the acquisition of Netafim and the transformation into 5 business groups, a new materiality analysis was performed. The exercise was carried out at the level of each business group, and then information was added at the Orbia level. The materiality matrix is shown below. The 10 main material issues identified for Orbia are:

- 1. Health and Safety
- 2. Innovation
- 3. Solutions for resilience
- 4. Development, commitment and talent retention
- 5. Investments in local communities
- 6. Emissions
- 7. Quality and safety of products
- 8. Sustainable sourcing
- 9. The Circular economy
- 10. Water use and discharge



#### Sustainability strategy and goals

Orbia contributes to sustainable development at a global level through its wide range of products, services and solutions that help solve some of the biggest challenges in the world. We are committed to responsible business growth, in line with regulatory compliance in all countries where have a presence. We continually seek to minimize any risks identified in our production processes and products. We also work to reduce the environmental footprint of the products and services we offer, producing the greatest value for our stakeholders, with the least possible impact. See our <u>Sustainability policy</u> for more details on our commitment.

As a result of our updated materiality analysis and given that the previous objectives expired in 2018, we have created new long-term objectives, listed in the table below:

Area of impact	Objective	Target Year	Baseline (year)
Climate change	Achieve zero net carbon emissions	2050	N/A*
Air emissions	Reduce Sulphur oxide (SOx) emissions by 60%	2025	1,355 tons (2018) **
Environmental management	100% of sites certified with an environmental management system	2025	55% (2019)
Waste	100% of the plants will send zero waste to landfills	2025	N/A*
Safety	Total Recordable Injury Rate (TRIR) below 0.2 for employees and contractors	2025	0.71 (2019)
Safety	Process Safety Event Rate (PSER) below 0.5	2025	N/A*

\* Baselines for carbon footprint, waste and Process Safety Event Rate (PSER) targets will be published in 2020, following standardization of data measurement processes across different businesses.

\*\* The baseline for SOx emissions is 2018, as 2019 was an atypical year for operations at the highest emission site (due to a 1 month scheduled maintenance shutdown).

We will determine a few additional targets in 2020.

Also, in line with our new purpose to advance life around the world, we have identified the United Nations' Sustainable Development Goals (SDGs) to which we can contribute as a company.

The 6 SDGs to which we contribute through our products and solutions are as follows:

SDG	What are we doing?
2: Zero Hunger	Our greatest contribution to ensuring global food security is through our precision irrigation systems, which allow farmers to produce more with less water. Through our <i>Precision Agriculture</i> business group, we are the global leader in precision irrigation and fertigation solutions, which enable farmers to grow more food efficiently using less water, as well as other scarce resources.
3: Good Health and Well- Being	We are a global leader in solutions for the health sector. Our Fluor-based products provide the majority of propellant gases for metered dose inhalers. In addition, our PVC resins are widely used in applications across the spectrum of healthcare infrastructure, facilities and devices.
6: Clean water and sanitation	Our broad portfolio of products, services and technology for planning, design, construction, monitoring and maintenance of water and sewage management systems ensures the most efficient use and distribution of water for residential, industrial and municipal use. We develop innovative solutions for urban drainage and rainwater harvesting that allow better adaptation to climate change. We participate in social responsibility projects with our communities through initiatives such as Water Funds in Latin America, which allow us to protect and preserve water sources, as well as water basins. In addition, we have adopted efficient use practices within our operations, where most of our plants have closed water cycles.
8: Decent work and economic growth	We are a fair and decent employer for our nearly 22,000 employees worldwide. We provide employment opportunities to members of the communities in which we operate by striving to improve their quality of life and contribute to local economic development. We also provide our employees with the conditions and environment they need to reach their potential through our talent and leadership development programs.
9: Industry, Innovation and Infrastructure	Our products contribute to the development of reliable, resilient and quality infrastructure that advances economic development and human well-being. We offer soil management solutions for the structural improvement of road infrastructure works, significantly reducing the use of inert materials, such as gravel, and increasing the quality and life cycle of projects.
11: Sustainable cities and communities	We produce materials that contribute to improve structures. PVC is a low maintenance and long- lasting building material thanks to its strength and durability. We offer solutions for the installation of optical fiber cable at an intra-urban and inter-urban level, which connect the world and improve access to high-speed, high-performance information technologies.

## Climate change

Orbia has performed various analyses to determine the degree of exposure to the possible effects of climate change on its operations. In 2019, a climate change risk analysis was performed in line with the recommendations of the Task Force on Climate-related financial Disclosures (TCFD). This analysis covered 12 priority sites in three of our business groups in six countries.

The main findings of the analysis were as follows:

Physical risks: In general, experts from the ERM consulting firm concluded that the physical risk of our priority sites is from low to medium. This is due to exposure to weather events, including cyclones, floods, fires, temperature extremes and water stress.

The analysis was not limited to physical facilities; it also considered the impact on logistics and the flow of raw materials.

As an example of the above, in September 2017, as a result of Hurricane Harvey, certain subsidiaries of the Polymer Solutions business group declared Force Majeure in relation to the supply of all their PVC resin suspensions, copolymers and emulsions produced in Mexico, Colombia and the U.S. because their main supplier of vinyl chloride (VCM) and other raw materials had declared Force Majeure.

Since the Intergovernmental Panel on Climate Change (IPCC) forecasts that extreme weather events will tend to increase in intensity and number. Redundant transport options, different routes and logistics means, or emergency inventories are some examples that are considered in the plans.

**Market, technological and regulatory risks (transition):** In addition to the direct effects of weather phenomena, other impacts on the business were analyzed that have to do with government or trade regulations, new market rules or the emergence of technologies. For this case, and taking a 2030 horizon, a higher exposure was projected, with some high business risks resulting from a transition to a low carbon economy. They are likely to include market pressure to use low-carbon materials, more extensive regulation of global carbon prices, or increases in the cost of resources, mainly electricity and water by 2030. Scenarios of increased water stress, for example, could affect water costs for our operations. Such scenarios, in turn, are likely to impact the supply chain or production processes from the standpoint of continuity and cost.

The conclusions of this analysis based on TCFD recommendations are very useful in the development of specific risk mitigation plans for our businesses. These plans will include reducing our carbon exposure, which goes hand in hand with our commitment to set science-based targets for emissions reductions.

**Opportunities:** In addition to the consideration of risks resulting from climate change, opportunities for Orbia were also analyzed, such as solutions for resilience that allow adaptation to climate change or replacement of products by others with lower carbon footprint. Orbia already has a range of products that provide resilience to high rainfall, for example, or solutions to replace water piping systems or installation of fiber optic ducts, without affecting or minimizing the impact on traffic and operation of a city; It is also the leader in precision agriculture, which, due to the higher productivity per hectare and the efficient use of agrochemicals, minimizes the growth of the agricultural frontier and therefore deforestation, while eliminating or minimizing the pollution of rivers and aquifers by runoff and leaching. Similarly, we have started an effort to replace gases with others with a lower greenhouse effect. These are just a few examples of what the Issuer is doing at present, and as a result of the climate risk study, we estimate that the adoption of products and solutions that take into account the opportunities of a more carbon-regulated context and that allow the Company to face the onslaught of climate change will be accelerated.

Water is a fundamental part of our operation, from the consumption of water in the extraction process and in our operations, to the solutions and products we provide for collection, distribution, sanitation and irrigation. Therefore, all but one of the Wavin, Netafim and Dura-Line plants have a closed circuit.

Through our company Netafim, we offer solutions or precision irrigation systems that help reduce water consumption in the agricultural sector, which, it should be noted, is responsible for about 70% of water consumption.

Our infrastructure materials company, Wavin, offers solutions for better water management as well as more efficient building solutions. As an example, our range of rainwater management products can prevent flooding or at least minimize impacts. In addition, our "trenchless" pipe renewal technology helps reduce losses in water distribution networks in large cities.

At Koura, research is being conducted to develop low-carbon propellant gases to reduce the environmental footprint of existing ones.

## Awards, Certifications and Distinctions:

The following are a few of the awards, recognitions, and certifications that Orbia and its business groups received during the year:

## **Distinctions:**

- Member of the Dow Jones Sustainability Index (DJSI)
- Member of the IPC Sustainability Index on the Mexican Stock Exchange
- Member of the FTSE4Good Index
- Latin Trade Index Americas Sustainability Award
- Socially Responsible Company Certificate granted by Cemefi
- PREAD Recognition: District Environmental Excellence Program in Colombia for commitment to environmental management and performance
- Inclusive Employer by ANDI (Colombian National Business Association)
- Gold Ekos award, for being the most efficient company in the Plastics and Rubber sector in Ecuador
- Green Award in Costa Rica for the use of renewable energy

## Certifications:

- ISO 14001: Environmental Management Systems
- ISO 50001: Energy management
- EMAS: Eco-Management and Audit Scheme in the European Union
- ESOS (Energy Savings Opportunity Scheme)
- Clean Industry awarded by the Mexican Environmental Authority
- OHSAS 18001: Occupational Health and Safety Management Systems
- ISO 45001: Occupational Health and Safety
- ISRS (International Safety rating system)
- Certificate in Health and Safety Self-Management, Ministry of Labor and Social Welfare (STPS)
- IQNet SR10 Social responsibility management system in Germany.

- SARI: Integral Responsibility Administration System granted by the Mexican National Chemical Industry Association.
- Mexico, without child labor
- Family-friendly company
- Kosher Certificate, granted by Calidad Kosher, S.C.
- ISO 9001: Quality Management Systems
- ISO 22000: Food Safety Management
- NSF: NSF International is an independent, nonprofit, objective product testing and certification agency that sets global performance standards for a wide variety of household and industrial products

## viii. Market Information.

For more information see Section 2, "The Issuer", item b, " Business Overview", sub-item i "Main Activity" of each business group, in this Annual Report.

Orbia is one of the largest producers of pipes in Europe and Latin America; it is a leader in the production of PVC resin in Latin America, and it maintains a leading position worldwide, according to IHS Markit. The Company believes that the primary markets for such products in the infrastructure and construction industries should experience sustained growth over the next several years.

Orbia has a strong presence in the Americas, Europe, and Asia due to its unique position within the Fluor Value Chain. The Company holds the concession rights for the exploitation and extraction of the world's largest fluorite mine in Mexico and has modern plants for the production of HF and refrigerant gases, which allows it to forge solid relationships with strategic market participants. In addition, the proximity to the final fluorochemical market in the U.S. gives it a competitive advantage. The Issuer commonly enters into long-term dollar-denominated contracts with reputable international customers for the sale of the fluorite and HF it produces. The Company's global positioning will allow it to explore opportunities in order to provide more value-added products.

## Corporate Structure

For practical purposes, the companies representing each process are mentioned. The events, results and operating data described correspond to the corporate structure in force as of December 31, 2019.



Orbia's main significant subsidiaries are:

Mexichem Resinas Vinílicas, S.A. de C.V. is a subsidiary of the Polymer Solutions business group of our Ethylene Chain, which manufactures and sells PVC resins for the plastic industry and owns the shares of i) Mexichem Ethylene Holding Corp, owner of 50% of the shares of Ingleside Ethylene LLC, a company that represents the Orbia and OxyChem joint venture in an ethylene cracker, ii) Mexichem Resinas Colombia, S.A.S. and iii) Vestolit, GmbH, companies that manufacture and market PVC resins.

Mexichem Compuestos, S.A. de C.V. is a Mexican company that manufactures compounds for various niches in the market; it is a subsidiary of the Polymer Solutions business group and owns the shares of i) Mexichem Specialty Compounds, Inc. located in the U.S., and ii) Mexichem Specialty Compounds, Ltd., a company located in the United Kingdom that manufactures polyvinyl chloride and special thermoplastic compounds, and iii) C.I. Mexichem Compuestos Colombia, S.A.S., which manufactures flexible compounds.

Mexichem Flúor, S.A. de C.V. is a company that belongs to our Fluor business group, commercially known as Koura, whose main activity is the extraction and sale of fluorite, as well as the production of hydrofluoric acid. It owns the shares of subsidiaries that produce refrigerants in the United Kingdom and the United States. As of January 1, 2011, most of its products are distributed by its subsidiary Mexichem Flúor Comercial, S.A. de C.V. The company is consolidated in the Fluor, or Koura, business group.

Mexichem Soluciones Integrales Holding, S.A. de C.V. is our trading subsidiary for the Fluent business group (Building & Infrastructure - Wavin and Amanco-, Data Communications - Dura- Line-, and Precision Agriculture -Netafim-), and consolidates and owns the shares of i) Mexichem Amanco Holding, S.A. de C.V. which owns the shares of the Fluent business group in Latin America and Wavin, B.V. the holding company of the Fluent Business in Europe (Building & Infrastructure); ii) Dura-Line Holdings, Inc., which owns the shares of the subsidiaries located in the United States the Czech Republic and AMEA (India, Oman and South Africa), which distribute micro ducts, (Data Communications), and iv) as of February 7, 2018, 80% of the shares representing the capital stock of Netafim, L.T.D., which owns the shares of subsidiaries located in Latin America, Spain, Australia, India, China and Israel (Netafim). It also owns the shares of the subsidiary located in Canada.

## Description of Major Assets

The main assets of Orbia's Business Groups are listed below, all of which are free of liens or encumbrances of any kind, since none of them constitute a guarantee of any kind of financing, except for a mortgage on a property owned by the Company in its Building & Infrastructure operations in Peru (which guarantees compliance with obligations under a financial lease contract for a total amount of \$9 million), and assets that are being acquired through financial lease contracts that serve as natural security for compliance with the obligation to pay the respective lease amount, which represent a total amount of \$160.8 million. All assets are insured, in optimum condition and there are no environmental measures affecting their use.

The following table provides information on Orbia's main production plants. In accordance with the provisions of Article 33, item b), point 1, of the Single Issuer Circular, the Company has determined that the information on the percentage of utilization of the installed capacity of plants in the Polymer Solutions business is strategic, therefore it reserves the disclosure of this information in this Report.

Business group	Process	Country or Region	Number of Plants	Type of Asset	Products	Installed Capacity	% of use in 2019
Polymer Solutions	Chlorine- Soda	Mexico	1	Mine	Brine	250	N/A
Polymer Solutions	Chlorine- Soda	Mexico	2	Plants	Chlorine, Caustic Soda, Derivatives	895	N/A
Polymer Solutions	Chlorine- Soda	Colombia	1	Plants	Chlorine, Caustic Soda, Derivatives	50	N/A
Polymer Solutions	Chlorine- Soda	Germany	2	Plants	Chlorine, Caustic Soda, Derivatives	970	N/A
Polymer Solutions	Chlorine- Soda	Mexico	4	Plants	Phosphates	146	N/A
Polymer Solutions	Chlorine- Soda	United States	1	Plant	Ethylene	550	N/A
Polymer Solutions	Vinyl	Mexico	5	Plants	PVC Resins	781	N/A
Polymer Solutions	Vinyl	Colombia	3	Plants	PVC Resins	500	N/A
Polymer Solutions	Vinyl	United States	2	Plants	PVC Resins	116	N/A
Polymer Solutions	Vinyl	Germany	2	Plants	PVC Resins	400	N/A
Polymer Solutions	Vinyl	Mexico	2	Plants	Compounds	68	N/A
Polymer Solutions	Vinyl	Colombia	1	Plant	Compounds	22	N/A
Polymer Solutions	Vinyl	United States	3	Plants	Compounds	98	N/A
Polymer Solutions	Vinyl	United Kingdom	2	Plants	Compounds	118	N/A
Fluent LatAm – Amanco	Fluent	Latin America	25	Plants	Pipes and fittings	561	70%
Fluent Europe – Wavin	Fluent	Europa	28	Plants	Pipes and fittings	758	53%

Fluent US/Canada – Data Communications	Fluent	United States, Canada	12	Plants	HDPE ducts, micro ducts	247	73%
Fluent AMEA – Data Communications	Fluent	India, Oman, South Africa, China	6	Plants	HDPE ducts, micro ducts	93	60%
Fluor	Fluorite	Mexico	2	Mines	Acid and metallurgical grade fluorite	>1,700	100%
Fluor	Fluorite	Mexico	3	Plants	Acid grade fluorite	>800	100%
Fluor	HF	Mexico	2*	Plants	Hydrofluoric acid	143	84%
Fluor	AIF3	Mexico	1	Plant	Aluminum Fluoride	60	66%
Fluor	Refrigerant Gases	United States	1	Plant	Fluorinated hydrocarbons and refrigerants	39	87%
Fluor	Refrigerant Gases	Japan	1	Plant	Fluorinated hydrocarbons and refrigerants	21	67%

\* A productive unit that includes 2 plants

The following describes the Company's most significant fixed assets with the following plants as part of its Fluent business group (Building & Infrastructure - Wavin -, Data Communications - Dura-Line-, and Precision Agriculture -Netafim-):

Building & Infrastructure in Latin America (Fluent LatAm - Amanco) owns and operates 25 plants in 12 countries in Latin America, with a combined installed production capacity of 773,000 tons of PVC extracts, PVC and injected polyethylene and polyethylene products, using state-of-the-art transformation technologies.

Building & Infrastructure in Europe (Fluent Europe - Wavin) owns 28 manufacturing plants and points of sale and distribution in 25 countries in Europe, with a combined installed production capacity of 758,000 tons. It has procedures in place to comply with the standards established by ISO 9000 and ISO 9001, which are reviewed and certified by independent certifying companies. These plants operate in accordance with regionally established health and safety policies, complying with ISO 12001 and similar standards.

Datacom (Fluent US/Canada - Dura-Line) owns 13 manufacturing and assembly plants located in the United States and Canada, with a combined installed production capacity of 258,000 tons. It has procedures in place to comply with ISO 9001 standards, as well as other standards relevant to competent authorities, which are reviewed and certified by independent companies. Design practices are subject to various customs and regulatory testing to ensure that products meet or exceed customer expectations and applicable regulatory requirements.

Datacom (Fluent AMEA - Dura-Line) owns 6 manufacturing and assembly plants located in India, Oman, China and South Africa, with a combined installed production capacity of 100,000 tons. It has procedures in place to comply with ISO 9001, ISO 14001, OHSAS 18001 standards, Underwriters Laboratory and Bureau of India Standards certifications, as well as other standards relevant to competent authorities, which are reviewed and certified by independent companies. Design practices are subject to various customs and regulatory testing to ensure that products meet or exceed customer expectations and applicable regulatory requirements.

Precision Agriculture (Netafim) owns 17 manufacturing and assembly plants located in Australia, Brazil, Chile, Colombia, China, India, Israel, Mexico, the Netherlands, Peru, South Africa, Spain, Turkey and the USA, with a sales volume of 6 million meters in fiscal year 2019.

In the 2017-2019 period, Orbia announced the acquisitions of: Netafim in Israel in the Irrigation business, Sylvin Technologies in the U.S. and Vinyl Compounds Holdings Limited in the United Kingdom in the Compounds Business Group (Polymer Solutions business group) and Gravenhurst in Canada in Data Communications (Fluent business group), which include the following within their main assets, and which are accounted for in the table above:

Sylvin Technologies (2018): company headquartered in Denver, Pennsylvania, USA, which has a plant and is a manufacturer specializing in PVC compounds.

Netafim (2017): company headquartered in Israel and present in more than 30 countries with 17 plants, has a share of approximately 30% in the global market for irrigation solutions for agriculture, greenhouses, landscaping and mining, meeting demand from more than 110 countries.

Additionally, in 2019, the Company carried out different investments of a permanent nature that are part of maintenance and organic growth, which added up to \$261 million in investment in assets (without including joint ventures), among which are:

Polymer Solutions - \$8.1 million to the VCM process at the Vestolit plant; process improvements in the US of \$1.4 million and \$4.4 million to produce cables and wires in the Compounds business.

Fluent (Building & Infrastructure - Wavin and Amanco-, Data Communications - Dura-Line-, and Precision Agriculture -Netafim-) - \$1.7 million to produce specialized pipe in Colombia; expansion of facilities and production in the USA for \$3.5 million.

Fluor - \$18.6 million for our mine in Mexico for maintenance and business continuity.

Orbia believes that there are currently no environmental measures affecting the use of its assets, which guarantees compliance with all environmental requirements at all its facilities.

So that Orbia's operations are not suddenly affected, its policy is to have predictive preventive maintenance programs applied to its assets, including machinery, diverse equipment, etc. The objective of this is to maintain the facilities in optimal conditions, complying with government rules and regulations according to each country and, if necessary, corrective maintenance will be used, without this being the recurrent case for the Issuer. The Company allocates approximately 2.7% of its sales to preventive, predictive and corrective maintenance. All these resources have been financed through the Company's own cash flow.

Under applicable Mexican law, mineral resources belong to the Mexican nation and the Federal Government may grant concessions in favor of individuals to explore and exploit mineral reserves. The Company's mining rights derive from concessions granted by the Ministry of Economy, in accordance with the Mining Law, which is regulated by article 27 of the Constitution and its regulations. The current Mining Law, enacted in 1992, simplified procedures for obtaining concessions, extended the term of exploitation of concessions from 25 to 50 years and eliminated direct taxes on mining activities. This law was recently reformed, being its main adjustments to establish a single concession for Exploration and Exploitation.

Mining concessions grant various specific rights to the concessionaire, including: (i) carry out Exploration and Exploitation works within the mining lots covered; (ii) dispose of the mineral products obtained in said lots as a result of the works carried out during their term; (iii) dispose of the lands within the surface they cover, unless they come from another mining concession in force; (iv) obtain the expropriation, temporary occupation or constitution of easement of lands indispensable for carrying out exploration, exploitation and benefit works, as well as for the deposit of lands, tailings, slags and grease, as well as to constitute underground easements of passage through mining lots; (v) make use of the waters coming from the ploughing of the mines for the exploration or exploitation and benefit of the minerals or substances that are obtained and the domestic use of the personnel employed in them; (vi) preferably obtain a concession on the waters of mines for any use other than those indicated in the preceding numeral, under the terms of the law of the matter; (vii) transfer its ownership or the rights established by numeral (i) to (vi) above to persons legally gualified to obtain them; (viii) reduce, divide and identify the area of the lots they cover, or unify it with that of other adjacent concessions; (ix) desist from these concessions and the rights deriving therefrom; (x) group two or more of them for the purpose of checking works provided for by this law and to submit statistical and technical reports; (xi) request administrative corrections or duplicates of their titles; and (xii) obtain the extension of mining concessions for the same period of validity.

Orbia generally owns the land to which each of its concessions refers, although ownership is not required to operate a concession.

In the Polymer Solutions Business Group, the plants have an average surface area of 33 hectares, as well as an average age of 48 years. 89% of the plants are owned.

## Insurance

Orbia has contracted the following coverage at the controlling company level for all the companies that make up the group, usually required by and according to the standards for the mining, chemical, and petrochemical industries:

## A. Multiple business insurance (assets and business interruption), which covers:

Wide fire coverage, including hydro meteorological risks, earthquake and volcanic eruption covering: building, contents (machinery and equipment), inventories and gross profit.

Technical branches, covering machinery breakage, electronic equipment, (underground) mobile equipment without circulation plates.

Diverse branches, covering robbery with violence, money and values and broken glass.

The values declared for this insurance have been reported considering the replacement value for fixed assets and the last purchase price for inventories. Gross profit has been determined based on the approved budget for 2019 and the sums insured vary according to the values of each company.

**B.** Cargo transport insurance that covers all shipments where there is an insurable interest (purchases, sales, inter-warehouses, etc.).

**C.** Civil liability insurance that covers damages (including pollution) to third parties in their property and persons, as well as damages caused because of such direct damages.

**D.** Civil liability insurance for directors and civil servants, which protects such persons against claims by third parties arising from wrongful acts committed in the exercise of their functions.

E. Crime Insurance that covers damages as a result of criminal acts, both internal and external.

F. Credit Insurance whose objective is to cover the risk of non-payment or prolonged default by debtors.

In addition to the insurance mentioned above, each subsidiary has insurance policies according to its need, or to comply with contractual obligations and/or applicable legislation in the place where it is located.

Although we are convinced that we have adequate, sufficient coverage compliant with industry practices, also considering our particular operations, there is a possibility that insurance coverage against possible unforeseen losses and other liabilities may not be sufficient in some extremely catastrophic or very unpredictable cases. Likewise, if the losses derived from a loss exceed the insured limit, the result would have an adverse effect on Orbia's financial result, which is not anticipated or foreseen within the expenses and/or costs.

The following companies and their affiliates and/or subsidiaries that are part of the Orbia group have independently contracted similar insurance schemes outside of the insurance contracted and controlled at the controlling company level: Netafim Ltd, Dura-Line Holdings, Inc., Vestolit GmbH, Wavin B.V, Mexichem Brasil Indústria de Transformação Plástica Ltda and Mexichem Trading Comercio, Importacao e Exportacao S/A.

## xi. Judicial, Administrative or Arbitral Proceedings

The Company and its subsidiaries are involved in various civil, mercantile, fiscal and labor lawsuits. These proceedings are generated in the normal course of business and are common in the industries in which they participate. As of December 31, 2019, there are no known judicial, administrative or arbitration proceedings that could be unfavorable to the Company and that could have a significant adverse impact on the operating results and/or financial position of the Issuer.

Notwithstanding the foregoing, in compliance with applicable regulations, internal policies and good practices, the Company and its subsidiaries maintain certain provisions to meet obligations that may arise as a result of the procedures to which it or its subsidiaries are party.

To the best knowledge of the Company and its subsidiaries, as of December 31, 2019, none of its shareholders, directors or main officers are involved in any judicial, administrative and/or arbitration proceedings that could significantly affect the operating results or the financial condition of the Issuer.

Likewise, neither the Company nor its subsidiaries are party to any tax proceedings that could affect the operating results or the financial situation of the Issuer in a significant adverse manner.

#### xii. Shares representing Capital Stock

The capital stock as of December 31, 2019, 2018 and 2017, is represented by 2,100,000,000 shares, ordinary, nominative with voting rights and without par value, which are fully paid. The fixed portion of the capital is represented by Class I nominative shares with no right of withdrawal. The variable part of the capital is represented by Class II nominative shares, without par value. As of December 31, 2019, 2018 and 2017 the number of shares and amount of capital was as follows:

Subscribed capital-	Number of shares	Amount (millions of dollars)
Class I	308,178,735	\$ 38
Class II	1,791,821,265	\$ 219
TOTAL	2,100,000,000	\$ 257

At the close of December 2019, the Company does not hold open positions in derivative instruments that could be settled in kind whose underlying are ORBIA\* shares.

In the last three fiscal years, 2019, 2018 and 2017, Orbia has not modified the number or amount of outstanding shares representing its capital stock.

As of December 31, 2019, the Company had acquired 47,891,427 of its own shares through the use of funds authorized by the Ordinary General Shareholders' Meeting for the Repurchase Fund, which the Issuer purchases on the stock market, with a charge to its stockholders' equity.

#### Dividends

In the last three fiscal years 2019, 2018, and 2017, Orbia has declared cash dividends, as follows:

		Table of Dividenda	
General Shareholders' Meeting	Dividend Declared in millions of USD	Number of Payments	Date of Exhibitions
16-Nov-17	147	4 payments	Feb, 28, May 30, Aug, 29, Nov 28, 2018
20-Aug-18	150	5 payments	Dec. 24, 2018 (\$50 million), from May 29 2019 to Feb. 26 2020 (\$100 million)
26-Nov-18	168	4 payments	Feb.27, May 29, Aug. 28, Nov 27, 2019
2-Dec-19	180	4 payments	Feb.26, May 27, 2020, plus two payments on dates that are to be determined
2-Dec-19	180	4 payments	

## Table of Dividends

During the General Ordinary Stockholders' Meeting of Orbia held on August 20, 2018, it was agreed to pay an extraordinary dividend for the equivalent in Pesos of up to \$150 million, to be paid to the shares of the Company that are outstanding on each payment date, excluding the shares that are in the Company's repurchase fund. Such dividend was determined to be payable in four equal installments within 12 months following the holding of such Meeting in accordance with the payment schedule to be determined by the Company's management, applying the published exchange rate determined by the Bank of Mexico for the payment of obligations in Dollars, applicable on each date of the ex-dividend with respect to each payment date. On December 14, 2018, the Issuer announced the payment of the first partial payment of the extraordinary dividend in the amount of \$50 million, which was made on December 24, 2018. During the Ordinary and Extraordinary Annual Shareholder Meeting held on April 23, 2019, after the explanations offered by the Secretary of the Meeting on the reasons and effects of the respective proposal, the extension of the payment term of the extraordinary dividend declared in the Ordinary Shareholders' Meeting held on August 21, 2018 for the remaining \$100 million was approved, so that the payment may be concluded within the 12 (twelve) months following the Shareholders' Meeting held on April 23, 2019. The above with the objective of aligning the Company's cash flows to the current cycle.

During the General Ordinary Stockholders' Meeting of Orbia held on November 26, 2018, it was agreed to pay a dividend equivalent to \$168 million to be distributed among the outstanding shares, discounting the amount corresponding to the shares that are in the Company's repurchase fund in each partial payment. The dividend will be paid in Mexican pesos in four equal installments, each equivalent to \$42 million during the 12 months following such meeting, for outstanding shares, excluding those shares held by the Company as a result of the share repurchase program on each of the payment dates, at the exchange rate published in the Official Federal Gazette by the Bank of Mexico. On November 27, 2018, the Company notified that each of the four installments will be paid on each of the following four dates: February 27, May 29, August 28 and November 27, 2019.

The Company's shareholders approved, at an Ordinary General Meeting held on December 2, 2019, the payment of a cash dividend in the amount of \$180 million, in four payments. The first was on February 26, 2020, the second on May 27, and the remaining two will be paid in the coming months.

The declaration, amount and payment of dividends are approved by the Ordinary General Shareholders' Meetings, upon recommendation of the Board of Directors, and dividends may only be paid from retained earnings of accounts previously approved by the shareholders, provided that a legal reserve has been created and any losses from previous fiscal years have been paid or absorbed.

The distribution of Orbia's dividend payment depends on the generation of profits, generation of cash flow, and projected investments in its different Business Groups (see Section 1, "General Information," item c, "Risk Factors," sub-item c, "Risk Factors Related to Securities Issued by the Company").

The amount and payment of Orbia's future dividends, if any, will be subject to applicable law and depend on a variety of factors that may be considered by the Board of Directors or shareholders, including future results of operations, financial condition, capital requirements, investments in possible acquisitions or other growth opportunities, legal and contractual restrictions on current and future debt instruments, and the ability to obtain funds from subsidiaries. Such factors may limit the ability to pay future dividends and may be considered by the Board of Directors in recommending, or by the shareholders in approving, the payment of future dividends.

There is no dividend payment policy; Orbia applied a dividend payment criterion of up to 10% of the EBITDA of the corresponding fiscal year, even though it is not a formally adopted policy and there is no document that establishes it.

xiv. Exchange controls and other limitations affecting security holders

Orbia is a business corporation incorporated under Mexican Law, where there are currently no laws or regulations restricting the export or import of capital, including exchange controls, or affecting the transparency of dividends, interest or other payments to holders of securities issued by the Company to foreign investors.

## FINANCIAL REPORTING

#### **Selected Consolidated Financial Information**

The following tables present selected consolidated financial information for Orbia for each of the periods indicated. This information should be read in conjunction with and is subject in its entirety to the complete terms of Orbia's audited financial statements as of December 31, 2019, 2018 and 2017, including the related notes. Financial Statements are prepared in accordance with International Financial Reporting Standards (IFRS), hereinafter IFRS.

The Company publishes its financial statements in Dollars. Unless otherwise specified, references in this Annual Report to "\$", "Dollars" or "dollars" shall be construed as references to U.S. dollars and references to "Peso", "Pesos" or "Mexican Pesos" shall be construed as references to Mexican pesos. See notes on the audited financial statements in Section 8, "Annexes", "Consolidated Financial Statements", in this Annual Report.

The comparability of the financial information presented in the following table, as well as that of the Audited Consolidated Financial Statements, is affected by certain events that occurred in the years 2018 and 2017. The financial statements of Netafim have been consolidated in Orbia's financial statements as of February 7, 2018. Therefore, Mexichem's (now Orbia's) 2018 consolidated income statement includes the operations for the period from February 7 to December 31, 2018 for Netafim and for that reason only, they are not comparable with the 2017 consolidated financial statements.

In addition to the foregoing, there are factors of an uncertain nature that may make Orbia's past performance, as shown in the financial statements, not indicative of its future performance. Such factors are described in detail in Section 1, "General Information", item c, "Risk Factors".

A few notable events that affect the financial figures that are presented, analyzed and commented on in this section are the following:

## (1) Discontinued operations for the years 2019, 2018 and 2017

On April 20, 2016, an explosion occurred at the Pajaritos Petrochemical Complex, where two of the three PMV subsidiary plants were located: the VCM and the Ethylene plants. The VCM plant (Clorados III) was the most damaged, with the greatest economic impact being the recognition of the loss of assets and the closure of the plant. At another site, PMV has the chlorine and soda production plant, whose facilities were not damaged, but there was business interruption in the supply of raw material from this plant to the VCM plant. The economic impacts of this incident came to \$320 million which are broken down as follows: (i) loss of VCM plant assets of \$276 million (property damage), and (ii) costs related to the plant closure (third party/civil damage), civil liability, environmental, attorneys, consultants, partial dismantling and others, of \$44 million.

In 2016, PMV obtained enough information and elements to decide to recognize the accounts receivable related to the insurance policies and their coverage. During 2017 and 2016, a total revenue of \$283 million has been recognized, related to property damages, damages to third parties (civil liability) and to the insurance policy for directors and officers. The difference between the latter amount and the \$320 million mentioned in the previous paragraph depended on the assembly policy that was in the process of being claimed. In addition, PMV recognized \$48 million as accounts receivable related to business interruption coverage for the VCM and ethylene plants and \$23 million for the Chorine-Soda plant, while Mexichem Resinas Vinílicas, S.A. de C.V. recognized \$18 million related to its PVC plants.

On December 20, 2017, Orbia announced the decision of PMV shareholders not to rebuild its VCM production capacity. Consequently, the VCM business and the assets and liabilities associated with the production of ethylene and the ancillary services associated with VCM and ethylene were classified on that date as discontinued operations in its consolidated financial statements for income and other results. Thus, all impacts and recognized revenue related to the incident at the VCM plant are presented as discontinued operations. During 2018, \$22.8 million of revenue was recorded in the same item of discontinued operations as a complement to the estimates made by Orbia in the previous year. Likewise, PMV's decision not to rebuild the VCM plant, resulted in the additional write-off of the assets of the Ethylene plant and the ancillary services related to the VCM and Ethylene plants for \$196 million in 2017, which were also presented as discontinued operations.

In May 2018, \$267.5 million was collected from insurance companies covering the policy for property damage, assembly and business interruption. After the acquisition from Pemex of the percentage it owned in PMV, the latter continued to operate the Chlorine-Soda plant and is pending the resolution of a few legal issues arising from the explosion.

On July 6, 2018, Orbia announced that in line with its strategy of consolidating key businesses, it reached an agreement for the acquisition of 44.09% of the shares representing the capital stock held by Pemex in Petroquímica Mexicana de Vinilo, S.A. de C.V. (PMV), through its subsidiary PPQ Cadena Productiva S.L., after the approval of the Boards of Directors of both Pemex and Orbia. The amount of the transaction came to approximately \$159.3 million, which is within the valuation ranges of comparable companies and previous transactions in the petrochemical sector. Orbia completed the acquisition on November 16, 2018, so that, as of that date, PMV is exclusively a subsidiary of Orbia and its activity consists, as of that date, only of the operation of the chlorine-soda plant.

## (2) Establishment and acquisition of new business –

During the first few months of 2020, and the years 2019, 2018 and 2017, Orbia established and acquired the businesses outlined below:

## 2020

As of the date of this Annual Report and during the period referred to, there has been no relevant acquisition by the Company.

## 2019

During fiscal year 2019, the Company did not make any relevant acquisitions.

## 2018

i. Acquisition of Netafim - On February 7, 2018, Orbia completed the acquisition of 80% of the shares of Netafim LTD (Netafim), a leading Israeli company in precision irrigation solutions, after having obtained all governmental authorizations and fulfilled the conditions precedent required in the Share Purchase Agreement signed in August 2017. The price paid for the acquisition was \$1,424 million. Kibbutz Hatzerim will retain the remaining 20% of the capital stock of Netafim. In addition, Orbia signed a "Put/Call Rights" agreement in which, after the fifth anniversary of the closing date of the Netafim acquisition agreement, Kibbutz Hatzerim Put Option") and Orbia will have the obligation to acquire it at the price agreed in the respective agreement. In addition, after the eighth anniversary of the closing of the Netafim acquisition agreement, the Company will have the right to purchase its interest in Netafim from Kibbutz Hatzerim for a period of 10 years ("Purchaser Call Option") and Kibbutz Hatzerim will have the obligation to sell it on the terms mentioned in the respective agreement. This transaction represents a significant step forward in Orbia's long-term strategy to position itself as a world leader in specialty products and solutions, serving high-growth markets. Orbia consolidates the financial statements of Netafim in the Fluent business group.

The acquisition was mainly financed as follows: (i) cash of \$239 million, (ii) new short-term loan of \$200 million and, (iii) cash from the issuance of a long-term bond of \$985 million.

ii. Acquisition of Sylvin Technologies Ltd. - On January 22, 2018, Orbia announced the acquisition of 100% of the capital stock of Sylvin Technologies Inc., a specialized PVC compound manufacturer based in Denver, Pennsylvania, for \$39 million free of cash and debt. Sylvin recorded total sales of \$29 million in 2017. The company has a 30-year history of serving a wide range of industries including: cable, electrical, industrial, automotive, medical, and food products. Orbia will consolidate Sylvin into the Polymer Solutions business group, under the Composites business unit.

iii. Petroquímica Mexicana de Vinilo, S.A. de C.V. (PMV) - On July 6, 2018, Orbia announced that in line with its strategy of consolidation in key businesses, it reached an agreement for the acquisition of 44.09% of the shares representing the capital stock held by Pemex in Petroquímica Mexicana de Vinilo, S.A. de C.V. (PMV), through its subsidiary PPQ Cadena Productiva S.L., after the approval of the Boards of Directors of both Pemex and Orbia. The amount of the operation came to approximately \$159.3 million, which is within the valuation ranges of comparable companies and previous transactions in the petrochemical sector. Orbia completed the acquisition on November 16, 2018, so that, as of that date, PMV is exclusively a subsidiary of Orbia and its activity consists, as of that date, only of the operation of the chlorine-soda plant.

The financial figures included in this Annual Report have been rounded to the nearest million dollars (except for earnings per share and number of shares which are expressed in units or when otherwise indicated), while the figures presented in the Company's audited financial statements presented in the Annexes to this Annual Report have been rounded to the nearest thousand dollars (except when otherwise indicated), for convenience of presentation. The percentage figures in this Annual Report have not, in all cases, been calculated on the basis of such figures rounded to the nearest million Dollars, but on the basis of such amounts before rounding. Therefore, the percentage figures in this Annual Report may vary from those obtained by making the same calculations using the figures in the financial statements. Certain financial

figures shown as totals in some tables may not be the result of arithmetic addition of the preceding figures due to rounding.

The following tables present selected financial information from Orbia for each of the periods indicated. This information should be read together and is fully subject to the complete terms of Orbia's audited financial statements as of December 31, 2019, 2018 and 2017, including the related notes attached to this Report.

Consolidated income statements	For the years e	ending Decembe	r 31:
(Figures in Millions of U.S. dollars)	2019	2018	2017
Continuous operations:			
Net sales	6,987	7,198	5,828
Cost of sales	5,029	5,199	4,319
Gross profit	1,958	1,999	1,509
Selling and development expenses	625	588	438
Administrative expenses	468	449	336
Other income, net	43	27	26
Exchange gain	(49)	(84)	(9)
Exchange loss	68	132	56
Interest expense	272	251	195
Interest income	(14)	(20)	(18)
Change in fair value of redeemable non-controlling interest	18	19	-
Monetary position gain	-	(13)	(49)
Share of results of associates	(4)	(4)	(2)
Income before income taxes	533	655	535
Income taxes	206	195	178
Income from continuing operations Discontinued operations:	327	460	357
Income (loss) from discontinued operations, Net	-	23	(143)
Consolidated net income for the year	327	483	214
Controlling interest	207	355	194
Non-controlling interest	120	128	20
	\$327	\$483	\$214
Controlling interest earnings per share	\$0.10	\$0.17	\$0.09
Weighted average number of outstanding shares	2,100,000,000	2,100,000,000	2,100,000,000

**Consolidated Financial Position Statements** 

(Figures in Millions of U.S. dollars) 2019 2018 2017 Assets Current assets: \$586 \$700 Cash and cash equivalents \$1,900 Accounts Receivable, Net 1,352 1,318 1,330 5 Accounts receivable from related parties 5 2 834 866 675 Inventories, Net Advance payments 65 78 36 Derivative financial instruments 9 Assets held for sale 10 9 **Total current assets** 2,852 2,977 3,952 Non-current assets: Property, plant and equipment, Net 3,349 3,507 3,626 Right of use assets 337 Investment in shares of associated companies 36 31 34 Other assets, Net 89 101 86 Deferred taxes 126 96 153

As of December 31:

Employee benefit assets	14	14	17
Intangible Assets, Net	1,766	1,852	1,212
Goodwill	1,492	1,493	698
Total non-current assets	7,205	7,098	5,824
Total Assets	\$10,057	\$10,075	\$9,776
Liabilities and stockholders' equity			
Current liabilities:			
Bank loans and current portion of long-term debt	\$322	\$396	\$45
Suppliers	679	794	665
Letters of credit	585	619	697
Accounts payable to related parties	101	117	65
Other accounts payable and accrued liabilities	478	462	464
Dividends payable	134	156	84
Provisions	52	22	9
Employee Benefits	128	102	42
Short-term finance leases	78	18	37
Derivative financial instruments	13	16	15
Liabilities associated with assets held for sale	6	7	9
Total current liabilities	2,577	2,708	2,131
Non-current liabilities:			
Bank loans and long-term debt	3,129	3,175	3,210
Employee Benefits	229	196	203
Long-term provisions	23	18	33
Other long-term liabilities	36	44	33
Non-controlling redeemable interest	264	246	-
Derivative financial instruments	67	113	166
Deferred taxes	335	349	231
Long-term finance leases	267	15	39
Long-term income tax	35	41	49
Total non-current liabilities	4,385	4,197	3,965
Total liabilities	6,963	6,905	6,095

Consolidated Financial Position Statements As of
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(Figures in Millions of U.S. dollars)	2019		2018	2017
Stockholders' equity:				
Contributed capital				
Capital Stock	256		256	256
Additional paid-in capital	1,475		1,475	1,475
Update of capital stock	24		24	24
		1,755	1,755	1,75
Earned Capital				
Retained earnings	1,059		1,053	1,075
Non-controlling redeemable interest	(227)		(227)	-
Reserve for acquisition of own shares	296		329	380
Other comprehensive income	(508)		(501)	(480)
	620		653	1,047
Total controlling interest	2,375		2,408	2,803
Total non-controlling interest	719		761	878
Total stockholders' equity	3,094		3,170	3,681
Total liabilities and stockholders' equity	\$10,057		\$10,075	\$9,776

## Net Debt to EBITDA:

	As of December 31:			
(Millions of Dollars)	2019	2018	2017	
Liabilities with cost	3,451	3,572	3,256	
Current portion	322	396	45	
Long-term debt	3,129	3,176	3,211	
Cash and cash equivalents	586	700	1,900	
Net debt**	2,865	2,872	1,356	
EBITDA *	1,365	1,397	1,106	
Net debt to EBITDA ratio	2.10	2.06	1.23	

\* For purposes of this calculation, the actual EBITDA is considered, which only includes the EBITDA of businesses acquired as of its date of incorporation in the consolidation of Orbia.

\*\* The net debt with cost includes \$0.1 in 2019, \$0.4 in 2018 and \$0.0 in 2017 corresponding to the letters of credit and suppliers with more than 180 days.

Indicators	2019	2018	2017
Investments in property, plant and equipment	261	283	254
Depreciation and amortization for the fiscal year	542	462	398
EBITDA	1,365	1,397	1,106
Accounts Receivable Rotation (days)	53	50	50
Average term of payment suppliers (days)	117	118	145
Inventory rotation (days)	61	52	57

Given that the issuance of ORBIA 12 Stock Exchange Certificates has the endorsement of its subsidiaries Mexichem Resinas Vinílicas, S.A. de C.V., Mexichem Compuestos, S.A. de C.V., Mexichem Flúor, S.A. de C.V., Mexichem Derivados, S.A. de C.V., Mexichem Amanco Holding, S.A. de C.V., and Mexichem Brasil Industria de Transformação Plastica, Ltda., this Annual Report includes some of the main financial figures of these companies at the close of 2019:

	As of December 31, 2019						
Subsidiaries that guarantee Orbia Stock Exchange Certificates	Sales	Operating Income	Total assets	Total Liabilities	Total capital		
Mexichem Brasil Indústria de Transformación Plástica, Ltda.	332	15	281	106	176		
Mexichem Compuestos, S.A. de C.V.	177	22	345	167	178		
Mexichem Derivados, S.A. de C.V.	73	6	129	22	107		
Mexichem Amanco Holding, S.A. de C.V.	22	21	894	97	797		
Mexichem Flúor, S.A. de C.V.	329	52	1,153	373	780		
Mexichem Resinas Vinílicas, S.A. de C.V.	827	8	1,916	1,121	794		

Figures in millions

The information in the above table is based on the Audited Financial Statements.

## b) Financial Information by Business Group, Geographical Area and Export Sales

The main historical indicators of sales by Business Group are shown below:

Sales by business group: (1)	2019	%	2018	%	2017	%
Polymer Solutions	2,334	33	2,460	34	2,317	40
Fluent (Building & Infrastructure – Wavin and Amanco or Fluent Europe, Data Communications – Dura-Line or Fluent US/Canada and Fluent AMEA, Precision Agriculture - Netafim-)	3,999	57	4,077	57	3,023	52
Fluor	805	12	837	12	681	12
Controller	136	2	29	-	25	-
Eliminations	(287)	(4)	(206)	(3)	(217)	(4)
Total	6,987	100	7,198	100	5,828	100
Operating income (1)	2019	%	2018	%	2017	%
Polymer Solutions	243	29	357	38	325	46
Fluent (Building & Infrastructure – Wavin and Amanco or Fluent Europe, Data Communications – Dura- Line or Fluent US/Canada and Fluent AMEA, Precision Agriculture -Netafim-)	363	44	318	34	234	33
Fluor	285	35	312	33	206	29
Controller	53	6	(52)	(6)	(57)	(8)
Eliminations	(120)	(15)	) -	-	1	-
Total	823	100	935	100	708	100

(1) Information in millions of dollars.

Sales by geographical area of origin for 2019, 2018 and 2017 are as follows:

Net sales from external customers					
Country	As of December, 2019	As of December, 2018	As of December 2017		
Mexico	\$1,323	\$1,347	\$1,209		
Northwest Europe	1,237	1,260	1,171		
The United States	1,175	1,175	878		
Southwest Europe	894	798	655		
Colombia	542	523	494		
AMEA	473	474	210		
Brazil	368	362	348		
Central and Eastern Europe	237	281	242		
Southeast Europe	42	227	155		
Central America	197	180	182		
Others	100	177	83		
Israel	176	168	-		
Peru	128	117	70		
Ecuador	95	108	98		
Venezuela	-	3	31		
<b>Total</b> Figures in millions	\$6,987	\$7,198	\$5,828		

Figures in millions

#### c) Relevant Credit Report

The growth strategy through capital investments and, especially, through acquisitions of companies that offer vertical integration synergies and add value to the Issuer's basic raw materials, has been supported by long-term and short-term loans, which have been amortized using the cash flows generated by the subsidiaries' operations.

Orbia's credit requirements have been driven more by opportunities to acquire new companies than by seasonal factors.

It has been the Company's policy to reduce its leverage levels once it has used new loans to buy companies and comply with its obligation to maintain a leverage ratio of no more than three times.

Reasons for Leverage	2019	2018	2017	
Total Liabilities/Total Assets	69%	68%	62%	
Total Liabilities/Stockholders' Equity (times)	2.25	2.17	1.65	
Liabilities with Cost/ Stockholders' Equity (times)	1.12	1.13	0.88	

To date, Orbia has defined the application of its positive flows to the payment of debt up to a maximum rate of 2.0 times the net debt to EBITDA as a financial strategy, thus reducing the Group's vulnerability in future recessive or lower growth cycles. At the close of fiscal year 2019, this ratio was 2.10 times, with the deleveraging strategy after the acquisition of Netafim.

As of December 31, 2019, the Company's long-term debt payment obligations with cost net of related placement expenses were as follows with figures in millions:

To be paid during-	
2021	\$37
2022	921
2023	62
2025 onwards	2,108
	\$3,129

Orbia's treasury has maintained, the policy of maintaining healthy finances with enough liquidity to guarantee the necessary investments that allow it to have the most efficient and modern production technology at low costs and high quality.

Due to the nature of its operations, Orbia and its subsidiaries maintain bank and investment accounts in both local currencies, for the countries where it has operations, as well as U.S. dollars.

The Company and its subsidiaries have no material tax liabilities as of December 31, 2019.

Net debt from available resources at December 31, 2019 was \$2,865 million. The detail of net debt is presented below, based on figures presented in the Financial Statements included in section 8, "Exhibits", "Consolidated Financial Statements", in this Annual Report:

	As of Decemb	per 31:	
(Figures in Millions)	2019	2018	2017
Liabilities with cost	3,451	3,572	3,256
Current portion	322	396	45
Long-term debt	3,129	3,176	3,211
Cash and cash equivalents	586	700	1,900
Net debt*	2,865	2,872	1,356
EBITDA **	1,365	1,397	1,106
Net debt to EBITDA ratio	2.10	2.06	1.23

\* Net debt with cost includes \$0.1 in 2019; \$0.4 in 2018 and \$0.9 in 2017 corresponding to letters of credit and suppliers with more than 180 days, which for purposes of financial restrictions are considered financial debt, although they are not recorded in debt for accounting purposes.

\*\* For the purposes of this calculation, the actual EBITDA is considered, which only includes the EBITDA of businesses acquired as of the date of incorporation.

The Company's financing strategy has been to obtain loans for its expansion program through acquisitions, increase capital through new contributions from shareholders to strengthen its Financial Position, as well as to use the cash flows generated by the operation, including that of the acquired companies, to reduce the contracted debt. Over the past several years, the Company's financing policy has been to maintain adequate liquidity and a debt maturity profile compatible with cash flow generation and working capital investments.

#### Short-term indebtedness

As of December 31, 2019, Orbia had access to a revolving line of credit with an undrawn balance of \$1,000 million. with a maturity of five years (June 2024) at a rate of LIBOR plus an applicable margin depending on its use and credit rating, which may vary from 105 basis points to 115 basis points.

In addition, the Issuer has a Stock Market Certificate Program authorized by the CNBV in 2017 for \$10,000 million Mexican pesos, of which \$3,000 million Mexican pesos have been used and \$7,000 million Mexican pesos could be available at any time.

As of the date of this Annual Report, the Company has uncommitted short-term credit facilities with multiple banks, which are mainly used to improve its working capital. Credit facilities include short-term financing, letters of credit, among others. Most are letters of credit for payment from raw material suppliers.

## Financial indebtedness

The table below presents selected information regarding the indebtedness with unpaid cost, description of rates, currencies, amortizations and maturities incurred by the Company as of December 31 of the following years with figures in millions:

#### Bank loans and current portion of long-term debt (figures in millions)

At the end of the year, they are as follows:

	2019	2018	2017
Summary of loan agreements in U.S. dollars, euros, Mexican pesos and other currencies:			
Issuance of a \$500 million 10-year International Bond that accrues semi-annual interest at a fixed rate of 4.00%. The principal is repaid in a payment when due in October 2027.	\$500	\$500	\$500
Issuance of a 30-year International Bond for \$500 million that causes semi-annual interest at a fixed rate of 5.50%. The principal is amortized in a payment when due in January 2048.	500	500	500

Issue of a 30-year International Bond for \$750 million which causes semi-annual interest at a fixed rate of 5.875%. The principal is amortized in a payment when due in September 2044.	750	750	750
Issuance of a 10-year International Bond for \$750 million, bearing semi- annual interest at a fixed rate of 4.875%. The principal is repaid in a payment when due in September 2022.	750	750	750
Issuance of a 30-year International Bond for \$400 million that causes semi-annual interest at a fixed rate of 6.75%. Principal is amortized in a payment when due in September 2042.	400	400	400
Issuance of a 10-year International Bond for \$350 million, that causes semi-annual interest at a fixed rate of 8.75%. The principal was paid off in a payment when due in November 2019. \$267.1 million was prepaid in September 2012.	-	83	83
Scotiabank			
1-year bank loan of \$200 million that bore quarterly interest at a variable rate of LIBOR 1M + 0.496%. The principal was paid off in a payment upon maturity. In December 2019 49 million was prepaid and the loan was refinanced changing its maturity to June 2020 at a new rate of LIBOR 1M + .35%.	151	200	-
HSBC			
Line of credit for \$51 million bearing quarterly interest at Libor plus 1.50%. Principal was paid off in a payment when due in April 2020. The Principal was prepaid in the fourth quarter of 2019.	-	51	51
\$75 million Syndicated Loan bearing quarterly interest at a variable rate of LIBOR 3M + 3.96%. The loan had a grace period of 1.5 years and the principal repays 35% semi-annually after the grace period and a final payment at maturity of 65% in March 2020. In March 2017, \$20 million was prepaid. The loan was completely paid off in March 2019.	-	40	-
\$70.7 million euro Syndicated Ioan bearing quarterly interest at a variable rate of EURIBOR 3M + 3.84%. The Ioan had a grace period of 1.5 years and the principal repays 35% semi-annually after the grace period and a final payment of 65% at maturity in March 2020. In March 2018, \$18.6 million was prepaid. The Ioan was completely paid off in March 2019.	-	43	-
Rabobank 5-year bank loan for \$75 million bearing quarterly interest at a variable rate of LIBOR 3M + 1.75%. Principal is amortized quarterly and matures in March 2024.	70	-	-
MUFG 5-year bank loan for \$50 million bearing quarterly interest at a variable rate of LIBOR 3M + 2.00%. Principal is paid quarterly and matures on March 25, 2024.	46	-	-
Short-term revolving line of credit up to \$200 million. The loan rate is a variable LIBOR + 2.30%.	-	39	-
Other	42	40	15
	2019	<b>2018</b>	2017
· · · · · · ·			
Loans in Mexican pesos: A 10-year, 3,000 million stock exchange certificate that earns semi- annual interest at a fixed rate of 8.12%. The principal maturity is a single payment in March 2022	159	152	152
single payment in March 2022.			
Citibanamex 6-month bank loan of 1,566 million that earns monthly interest at a variable rate of TIIE28 + 0.15%. The principal is paid on maturity in May 2020.	83	-	-
Bancomext			

Bancomext

3,000 million and \$69,443 unsecured loans bearing quarterly interest at a rate of TIIE plus 0.825% and TIIE plus 0.71%, respectively. Principal is paid semi-annually beginning September, 2017, ending in March 2021.	49	78	108
	3,501	3,625	3,309
Minus - Bank loans and current portion of long-term debt	(322)	(396)	(45)
Minus - Debt placement expenses	(50)	(53)	(54)
	\$3,129	\$3,175	\$3,210

As of the date of this Report, Orbia and its subsidiaries are up to date in the payment of principal and interest on their respective loans.

## Subsequent event

On March 27, 2020, Orbia informed the investing public that the same day it drew down \$1,000 million from its Revolving Line of Credit. The decision was taken as a precautionary measure, to strengthen its liquidity and financial flexibility in the face of growing uncertainty in the world economy, as well as potential effects of the global COVID-19 pandemic on financial and capital markets. The funds will be used for general corporate purposes, including the payment of maturities during 2020, approximately \$230 million. It should be noted that the average life of the Company's debt, after the drawdown, is 12 years, and the only upcoming relevant maturity is in 2022.

Orbia may at any time, coinciding with monthly interest payments, prepay the entirety of said line of credit without penalty, which has a maturity date of June 2024.

As of December 31, 2019, certain financings establish certain do's and don'ts (financial covenants). A few of these obligations are shown in the following table. As of December 31, 2019, all the obligations assumed by the Issuer in its financing credit contracts have been complied with, and it is not in any type of default with respect thereto:

Obligations to Do	Obligations Not to Do	Causes of Early Expiration
Provide periodic financial information and information on relevant events	Do not change the prevailing business line	Failure to pay principal and/or interest
Issue a certificate by the Company signed by a financial officer simultaneously with each delivery of financial statements, certifying that no default has occurred in the contracts.	Not to merge or liquidate or sell "significant assets" unless, at the time of the merger and immediately thereafter, there is no Default and the Issuer subsists as a corporation.	Submitting relevant false or incorrect information
Issue a written statement by the Company signed by a financial officer when it becomes aware of the filing or commencement of any action, lawsuit or proceeding by or before any arbitrator or governmental authority against or affecting a company of the Issuer that is reasonably expected to result in a Material Effect.	Neither the Company nor any of its Subsidiaries may engage in sale and leaseback transactions, except for temporary term leases, including any renewal thereof, of not more than three years, and except for leases between the Company and a Subsidiary or between Subsidiaries) unless the net proceeds of the sale and leaseback are at least equal to the fair value of the property.	If the early maturity of any instrument or contract is declared, evidencing or deriving in a debt of the Issuer (or subsidiaries) that, individually or as a whole, amounts in any currency to at least US\$30 million for a period longer than 30 (thirty) Business Days.
Preserve, renew and maintain in full force and effect its legal existence and the necessary permits to carry out its operations	Do not constitute "encumbrances" except for "permitted encumbrances".	If the Company or any of its "major subsidiaries" initiates a bankruptcy proceeding that continues for more than 60 days
Use the funds for the agreed destination	No company will pay dividends when there is a Default Event, or when such payment generates one	Defaulting in an amount greater than \$50 million in the payment of principal or interest on a debt
Be up to date with their labor and tax obligations, including payment of taxes.	Do not enter into transactions with "affiliates" unless they are on	Failure to comply with any obligation to do or not to do in the relevant contract or instrument

Obligations to Do	Obligations Not to Do market terms or in certain exceptions.	Causes of Early Expiration
Maintain a pari passu payment priority over other debts contracted	Do not modify its shareholding structure	If the Company does not pay the fees of Mexican Social Security Institute, National Housing Fund Institute for Workers (in Mexico) or Retirement Savings System (in Mexico) in an amount greater than \$50 million.
Maintain log and account books with complete and correct entries of all transactions relating to their businesses and activities		If a change of control occurs
Compliance with applicable law		Acceleration of other debt by more than \$50 million
The Issuer shall maintain its assets in good condition for the performance of its operations, shall insure it and shall comply with the necessary payments to the different insurance companies.		If a judgment is issued against the Company imposing payment of an amount greater than \$50 million and remaining for more than 30 days
		If any of the obligated parties sue the banks for the invalidity of the credit
		If the Company or any material subsidiary is unable to pay its debts
		If the staff designated by the bank is not allowed to conduct inspections of their records to determine compliance with obligations.

All the above obligations have been met as of the date of this report.

In addition, the financing contracts have certain other financial restrictions (all calculated using Orbia's consolidated figures) that have also been complied with by the Company, which include market definitions of terms such as EBITDA and consolidated net debt, the most relevant of which are as follows:

- Certain restrictions on the existence of new encumbrances.
- Maintain a consolidated interest coverage ratio (consolidated interest expense with respect to the EBITDA) of not less than 3.0 to 1.0.
- Maintain a leverage ratio (consolidated net debt) with respect to EBITDA no greater than 3.0 to 1.0.
- Comply with all applicable laws, rules, regulations and provisions.

The Company has assumed the obligations of the companies acquired under the financing transactions as a result of the mergers between them and the Company.

In the last three fiscal years, the securities held by the Company registered in the Registry have not undergone significant changes to the rights they confer on their holders. The only change that has been made to any of the Issuer's securities was the modification of certain negative and affirmative covenants contained in the instruments representing the Stock Exchange Certificates, which was authorized by the holders of such securities at a shareholders' meeting held on October 24, 2016. This change refers to the precision of the definition of the term EBITDA in said instruments, in order to exclude from this concept (i) any "Non-Recurring" expense, reserve, charge or cost that does not represent a cash outflow, as well as the non-recurring ones that do represent a cash outflow that is related to revenue referred to in the following item (ii); and (ii) any cash payment or revenue received by the issuer and/or any of its subsidiaries under insurance policies such as civil liability, property or damage without considering income received for business continuity.

The Senior Notes issued in 2009, 2012, 2014 and 2017 establish restrictions on the encumbrance or mortgage of properties, assets or securities of the Issuer or its subsidiaries; they also establish restrictions on the sale and subsequent lease of assets relevant to the operation of the business (except temporarily); likewise, the terms of the Senior Notes stipulate limitations on the consolidation, merger or transfer of assets of the Issuer.

Hedging of foreign currency obligations

Orbia and its subsidiaries are companies with a diversification strategy with vision and participation in global markets. This definition is expressed in an important export activity around the world generating income in other currencies, especially in U.S. Dollars. This generation of income in other currencies gives a natural hedge to the payment of interest and foreign currency debt contracted.

Due to its national and international activities, the Entity is exposed to risks of fluctuation of prices and inputs of the industries in which it operates, as well as financial risks related to the financing of its projects. The Entity's policy is to use, in a timely manner, certain hedges that allow it to mitigate the volatility of the prices of certain raw materials, costs and rate and exchange rate risk in financial operations, all of them related to the business and previously approved by the Audit Committee, as well as by the Board of Directors.

The general objective of hedging interest rates, credit, liquidity and exchange risk is to reduce the exposure of the primary position to adverse market movements in interest rates and exchange rates that affect it; for which the Entity offers services to businesses through the Corporate Treasury function, coordinating access to domestic and international financial markets, supervising and managing financial risks related to the Company's operations using internal risk reports, which analyze exposures by degree and the magnitude of risks. These risks include market risk (including foreign exchange risk, interest rate risk at fair value and price and cost risk), credit risk, liquidity risk and cash flow interest rate risk.

The Issuer also seeks to minimize the effects of these risks by using derivative financial instruments to hedge risk exposures. The use of financial derivatives is governed by the Company's policies approved by the Board of Directors and the Audit Committee, which provide written principles on currency risk, interest rate risk, credit risk, the use of derivative and non-derivative financial instruments and the investment of excess liquidity. Compliance with policies and exposure limits is reviewed periodically. Orbia does not subscribe or trade financial instruments for speculative purposes, including derivative financial instruments. The Board of Directors establishes and monitors policies and procedures to measure and manage these risks, which are mentioned below:

Orbia establishes, as a fundamental requirement for a derivative financial instrument to be considered a hedging instrument, that the designation of the hedge is formally documented and the changes in the fair value or cash flows of the derivative financial instrument maintain a high effectiveness in offsetting the changes in the fair value or cash flows of the primary position, both at the inception and through the designated hedge.

Foreign exchange risk management - The Company engages in transactions in foreign currency; consequently, it is exposed to fluctuations in exchange rates, which are managed within the parameters of approved policies using, where appropriate, foreign exchange forward contracts, when considered effective.

The book values of the monetary assets and liabilities denominated in foreign currency to which Orbia is mainly exposed at the end of the reporting period are as follows (figures in foreign currencies, and millions):

	Assets			Liabilities		
	2019	2018	2017	2019	2018	2017
Euros	150	270	170	1,360	1,146	1,125
Brazilian reals	408	393	441	243	150	220
Mexican pesos	1,817	1,882	2,372	6,854	5,751	3,689
Colombian pesos	230,941	195,083	204,493	186,266	181,158	156,820
British pounds	108	114	141	157	156	204

Instruments used

The Issuer underwrites, on a case-by-case basis, a variety of derivative financial instruments to manage its exposure to currency and interest rate risk and ensures that no derivative instrument can be considered as speculative. Some of the instruments include:

Cross Currency Swap - In accordance with the cross-currency swap contracts, the Entity agrees to exchange Peso-Dollar flows calculated on the amounts of the notional amounts and interest rates established in such contracts, to cover the exposure of its bank debt and stock exchange certificates in pesos.

Principal Only Swap - In accordance with the cross currency swap contracts, the Entity agrees to exchange dollar-Euro cash flows of the principal and a fixed rate in dollars, established in such contracts, which allow the Entity to mitigate the risk of variations in exchange rates due to the exposure caused by its investment in euros from the acquisition of its subsidiaries in Europe, Wavin and Vestolit. The fair value of the Cross-currency swaps, at the end of the reporting period, is determined by discounting future cash flows using the curves and exchange rates in effect at the determination date.

Cross Currency Swap Contracts - Under the Cross Currency Swap contracts, the Company agrees to exchange Peso-Dollar flows calculated on the amounts of notional amounts and interest rates established in such contracts, to hedge the exposure of its bank debt and in stock exchange certificates in pesos.

Forward Contracts and Exchange Rate Options - The Entity enters into Forward Contracts and Exchange Rate Options in several currencies other than its functional currency in order to cover exchange rate exposure in balance sheet and income statement items. Hedged items other than the Entity's functional currency are mainly denominated in: Euro (EUR), Israeli Shekel (ILS), Indian Rupee (INR), South African Rand (ZAR) and Turkish Lira (TRY). These contracts are for periods of less than one year.

Orbia's is a company whose functional currency is the U.S. dollar. Orbia has issued:

Debt of 3,000 million Mexican pesos at a 10-year fixed rate of 8.12%,

Debt of 3,000 million Mexican pesos at an 8-year variable TIIE rate plus 0.825 percent,

Debt of 1,566 million Mexican pesos at a six-month variable TIIE rate plus .15 percent,

Debt through the issuance of a \$750 million international bond with a 30-year maturity, at fixed rates ranging from 4% to 8.75% and

Debt in euros for a notional amount of EUR 70.7 million maturing in March 2020, at a variable rate of Euribor 3M + 3.84%.

Therefore, the aforementioned swaps have been formally designated as hedges for accounting purposes as follows:

As of December 31, 2019, Orbia had contracted 5 Dollar-Euro Principal Only Swaps, designated as net investment hedging relationships of its subsidiaries in Europe.

In addition, the Company has contracted 5 Peso-Dollar Cross-Currency Swaps, which have been designated as cash flow hedging relationships to cover exchange rate fluctuations to which the Company is exposed due to the revaluation of debt in Mexican pesos.

Orbia has evaluated and measured its effectiveness concluding that the hedging strategy is highly effective as of December 31, 2019, 2018 and 2017.

The Issuer uses the ratio analysis method using the hypothetical derivative model to simulate the behavior of the hedged item, which consists of comparing the changes in the fair value of the hedging instruments with the changes in the fair value of the hypothetical derivative that would result in a perfect hedge of the hedged item.

Hedging or negotiation strategies implemented

These contracts allow the Company to mitigate the risk of variations in exchange rates due to the exposure generated by its debt in Mexican pesos and the investment in euros through the acquisition of its subsidiaries in Europe, Wavin and Vestolit. The fair value of currency swaps at the end of the reporting period is determined by discounting future cash flows using the curves and exchange rates prevailing at the date of determination.

The hedging strategies open at the date of this Annual Report are as follows:

Instrument	Bank	Notional Amount Millions of USD (Unpaid Balance)	Guarantors
Principal Only Swaps EUR/USD	BBVA	\$228.3	MEXICHEM FLUOR, S.A. DE C.V. MEXICHEM RESINAS VINILICAS, S.A. DE C.V. MEXICHEM DERIVADOS, S.A. DE C.V. MEXICHEM AMANCO HOLDING, S.A. DE C.V.

			MEXICHEM COMPUESTOS, S.A. DE C.V. MEXICHEM SOLUCIONES INTEGRALES, S.A. DE C.V.
Principal Only Swaps EUR/USD	Citibanamex	\$121	MEXICHEM DERIVADOS, S.A. DE C.V. MEXICHEM FLUOR, S.A. DE C.V. MEXICHEM SOLUCIONES INTEGRALES, S.A. DE C.V. MEXICHEM RESINAS VINILICAS, S.A. DE C.V. MEXICHEM COMPUESTOS, S.A. DE C.V. MEXICHEM AMANCO HOLDING, S.A. DE C.V.
Cross Currency Swaps USD/MXN	Citibanamex	\$83.9	MEXICHEM DERIVADOS, S.A. DE C.V. MEXICHEM FLUOR, S.A. DE C.V. MEXICHEM SOLUCIONES INTEGRALES, S.A. DE C.V. MEXICHEM RESINAS VINILICAS, S.A. DE C.V. MEXICHEM COMPUESTOS, S.A. DE C.V. MEXICHEM AMANCO HOLDING, S.A. DE C.V.
Cross Currency Swaps USD/MXN	Bank of America	\$11.3	MEXICHEM DERIVADOS, S.A. DE C.V. MEXICHEM FLUOR, S.A. DE C.V. MEXICHEM SOLUCIONES INTEGRALES, S.A. DE C.V. MEXICHEM RESINAS VINILICAS, S.A. DE C.V. MEXICHEM COMPUESTOS, S.A. DE C.V. MEXICHEM AMANCO HOLDING, S.A. DE C.V.
Cross Currency Swaps USD/MXN	HSBC	\$22.5	There is no guarantor
Cross Currency Swaps USD/MXN	J.P Morgan	\$11.3	There is no guarantor

Instrument	Bank	Notional Amount Millions of USD (Unpaid Balance)	Guarantors
Cross Currency Swaps USD/MXN	MUFG	\$82	There is no guarantor
Principal Only Swaps EUR/USD	Morgan Stanley	\$96.9	There is no guarantor
Principal Only Swaps EUR/USD	Santander	\$97.4	There is no guarantor
Principal Only Swaps EUR/USD	Barclays	\$121	There is no guarantor

## Financial lease liabilities

	Amount
Balance of lease liability as of January 1, 2019	285.2
New lease liabilities	137.8
Cash balance of lease payments	(76.6)
Effect on conversion	(1.0)
Balance of lease liability as of December 31, 2019	345.5
	0.0
Short-term lease liabilities	(78.1)
Long-term lease liabilities	267.4

	IFRS 16 Leases	IAS 17 Finance	leases
Maturity analysis	2019	2018	2017
One year	\$78.1	\$17.7	\$36.8
Two years	56.3	5.9	23.0
Three years	40.7	1.3	8.7
Four years	32.2	1.2	2.0

More than four years	138.3	7.0	5.7
	\$345.5	\$33.1	\$76.1

Amounts recognized in the results for the 12 months ending December 31, 2019 regarding lease liability:

	Amount
Lease liability Interest expenses	\$15.0
Short-term lease-related expenses	21.4
Low value asset lease-related expenses	1.1
	\$37.5

# Management's Comments and Analysis on the Issuer's Results of Operations and Financial Position.

The following discussion is based on our audited financial statements and notes thereto, which have been prepared in accordance with IFRS, and should be read in conjunction with them.

This management's analysis of the Company's results of operations and financial position should be read in conjunction with the audited consolidated financial statements for the years ended December 31, 2019, 2018 and 2017, and their respective explanatory notes included in this Annual Report, as well as with the information included in the sections "See Section 3, "Financial Information", item a, "Selected Financial Information" of this Annual Report.

This section contains statements regarding future or anticipated events, which are subject to various risks. Actual results could differ materially from the results discussed in this section in the context of future events for various reasons, including those factors indicated in "See Section 1, "General Information, item c, "Risk Factors" of this Annual Report.

The results contained in this document have been prepared in accordance with International Financial Reporting Standards ("IFRS"), with the U.S. dollar as the functional and reporting currency. Unless otherwise specified, figures are reported in millions.

Starting in the first quarter of 2019, we have reported the EBITDA of our business groups including corporate charges and intercompany royalties, the 2018 EBITDA has also been adjusted to make it comparable.

In our continuing effort to better inform the market, and as part of our transformation to become a more customer-focused organization, beginning the first quarter of 2019, Fluent's revenues have been presented on a geographic basis, as well as by global business division; Wavin (Building & Infrastructure in Europe and Amanco in Latin America-), Dura-Line (Fluent U.S. and Canada and Fluent AMEA - Dura-Line Data Communications) and Netafim (Precision Agriculture).

The Fluent business group includes Netafim in its results as of February 7, 2018, the closing day of the acquisition.

Figures and percentages have been rounded and therefore may not add up.

## Orbia's business groups

We receive revenues from the production and sale of PVC and PE pipes and fittings, PVC resins and compounds, as well as fluorite and HF, through our subsidiaries, which are organized into business groups whose activities range from the extraction of basic raw materials to the production of intermediate and final consumer products. We are also increasingly providing engineering and installation services. The products that contribute most significantly to our sales are:

• PVC and PE pipes and fittings and complete solutions, which are produced by the Fluent business group in its following businesses: i) Building & Infrastructure in various regions, including Latin America through Amanco (Fluent LatAm) under the Amanco, Plastigama and Pavco brands and in Europe through Wavin (Fluent Europe) under the Wavin brand; ii) Data Communications in the United States, Asia, the Middle East and Africa through Duraline (Fluent US/Canada) under the Dura-Line brand; and iii) Irrigation mainly in Europe, Israel, the United States, Latin America and India, through Netafim under the brand of the same name. These products and solutions are used mainly in the construction, infrastructure, housing, water management, heating and cooling, irrigation and data communication industries, through more than 70,000 points of sale;

- The PVC resin, which is produced through the Polymer Solutions business group, is produced in Mexico, Germany and Colombia, and sold to various companies for the further production of PVC pipes, containers, medical equipment and other applications;
- Fluorite and HF are extracted from the former, and produce the latter, through the Fluor business
  group. Fluorite is extracted from our mines, in its metallurgical grade, sold to the cement and glass
  industries, among others, and in its acid grade it is used to produce hydrofluoric acid. HF, on the
  other hand, is used to produce refrigerant gases and other fluorinated products.

## Significant events affecting Orbia's results over the last three years:

On July 6, 2018, Orbia announced that, in line with its strategy of consolidation in key businesses, it reached an agreement for the acquisition of 44.09% of the shares representing the capital stock held by Pemex in (PMV), through its subsidiary PPQ Cadena Productiva S.L., after approval by the Boards of Directors of both Pemex and Orbia. The transaction amount is approximately \$159.3 million, which is within the valuation ranges of comparable companies and precedent transactions in the petrochemical sector. Orbia completed the acquisition on November 16, 2018, so that, as of that date, PMV is exclusively a subsidiary of Orbia and its activity consists, from that date and until the date of this Annual Report, only of the operation of the chlorine-soda plant. In May 2018, \$267.5 million was collected from the insurance companies covering the property damage, assembly and business interruption policy in connection with the accident that occurred at our PMV strategic partnership complex on April 20, 2016.

- On February 7, 2018, Orbia completed the acquisition of 80% of the shares of Netafim LTD (Netafim), an Israeli company leader in precision irrigation solutions, after obtaining all government authorizations and meeting the preceding conditions required in the Share Purchase Agreement signed in August 2017.
- On January 22, 2018, Orbia acquired Sylvin Technologies Inc. (Sylvin), a specialist PVC compounds manufacturer based in Denver, Pennsylvania, USA, for \$39 million cash and debt-free. Sylvin has a 30-year history of serving a wide range of industries including: cable, electrical, industrial, automotive, medical, and food products. Orbia consolidated Sylvin in the Polymer Solutions Business Segment under the Compounds business unit
- On December 20, 2017, Orbia announced the decision not to rebuild its VCM production capacity and discontinue this business, as well as all assets and liabilities associated with Ethylene and auxiliary services associated with VCM and Ethylene, treating these businesses as discontinued operations in its consolidated financial statements for the years 2017, 2016, and 2015. Thus, all recognized impacts and revenues related to the incident at the VCM plant are presented as discontinued operations and will continue to be classified as such. As a result, in 4Q17, we reclassified our 2017 results as discontinued operations with a net effect of \$3 million in sales and \$9 million in EBITDA: Accordingly, to have a comparable basis, 2016 figures were also reclassified as discontinued operations with a net effect of \$6 million in sales and an addition of \$11 million in EBITDA.
- In February 2017, operations began on time and on budget for the ethylene cracker at the OxyChem complex (OxyChem), located in Ingleside, Texas, a 50/50 joint venture formalized on October 31, 2013 between Orbia and OxyChem, called Ingleside Ethylene LLC,. During the second quarter of 2017, the cracker began commercial operation. The cracker has a production capacity of 1.2 pounds (550,000 cubic meters) of ethylene per year and provides OxyChem with a continuous source of ethylene for the production of vinyl chloride (VCM), which Orbia uses to produce polyvinyl chloride (PVC resins) as well as PVC pipes.

## a) Operating Results

Consolidated statements of income	For the years en	ding December 31	:
(Figures in Millions of U.S. Dollars)	2019	2018	2017
Continuing operations:			
Net Sales	6,987	7,198	5,828
Cost of sales	5,029	5,199	4,319
Gross profit	1,958	1,999	1,509
Sales and development expenses	625	588	438
Administrative expenses	468	449	336
Other expenses, net	43	27	26
Exchange gain	(49)	(84)	(9)
Exchange loss	68	132	56
Interest expenses	272	251	195

Interest income Change in fair value of redeemable non-controlling interest		(14) 18		(20) 19		(18) -
Monetary position gain		-		(13)		(49)
Share in associates' income		(4)		(4)		(2)
Income before income taxes		533		655		535
Income taxes		206		195		178
Profit on continuing operations		327		460		357
Discontinued operations						
Profit (loss) on discontinued operations, Net	-		23		(143)	
Consolidated net income for the year		327		483		214
Controlling interest		207		355		194
Non-controlling interest	120		128		20	

#### **Consolidated Results of Operations - 2019**

Daniel Martínez-Valle, Orbia's CEO described the year as follows: "2019 was an important year for our Company. It marked the culmination of a multi-year acquisition-based strategy that significantly increased our global footprint and market penetration. We unveiled a new name, purpose and strategy that reflects our ability to address the most pressing global challenges and our commitment to advance life around the world. We reorganized into five business groups focused on providing customer-driven solutions through our Data Communications (Dura-Line), Precision Agriculture (Netafim), Building & Infrastructure (Wavin), Fluor (Koura) and Polymer Solutions (Vestolit) businesses. In addition, we started to implement our "play-to-win" strategy to capitalize on organic growth opportunities and generate greater operational and financial performance.

Consolidated statements of income	For the years ending De		
(Figures in Millions of U.S. Dollars)	2019	2018	% Variation
Continuing operations:			
Net Sales	6,987	7,198	(2.9%)
Cost of sales	5,029	5,199	(3.3%)
Gross profit	1,958	1,999	(2.0%)
Sales and development expenses	625	588	6.2%
Administrative expenses	468	449	4.2%
Other expenses, net	43	27	60.8%
Exchange gain	(49)	(84)	(41.2%)
Exchange loss	68	132	(48.5%)
Interest expenses	272	251	8.5%
Interest income	(14)	(20)	(28.5%)
Change in fair value of redeemable non-controlling interest	18	19	(0.6%)
Monetary position gain	-	(13)	(98.8%)
Share in associates' income	(4)	(4)	(3.0%)
Income before income taxes	533	655	(18.7%)
Income taxes	206	195	5.6%
Profit on continuing operations	327	460	(28.9%)
Discontinued operations			, , , , , , , , , , , , , , , , , , ,
Profit (loss) on discontinued operations, Net	-	23	-
Consolidated net income for the year	327	483	(32.3%)
Controlling interest	207	355	(41.7%)
Non-controlling interest	120	128	(6.2%)

## Revenues

In 2019, consolidated sales fell 2.9% compared to revenues for fiscal year 2018, to \$6,987 million, mainly due to (1) our Polymer Solutions (Vestolit) business which faced challenging market conditions that resulted in lower prices for caustic soda and PVC; (2) our Fluent business due to lower Wavin Europe and Wavin Latin America sales, as well as Dura-Line; and (3) our Fluor business which was affected by illegal imports of refrigerant gases into Europe.

## Cost of sales

Orbia placed special emphasis on operating with excellence the management and control of its businesses. In addition, the prices of some raw materials used by the Company had gone down. Consequently, cost of

sales decreased 3.3% to \$5,029 million in 2019. The main components of our cost of sales are our raw materials, freight and the depreciation of our industrial plants and equipment. In 2019, our cost of sales, as a percentage of sales, decreased 20 basis points to 72.0% as compared to 72.2% in 2018.

## Gross Profit

Our gross profit decreased 2.0% from \$1,999 million in 2018 to \$1,958 million in 2019. Our gross margin, which we calculated by dividing gross profit by net sales, increased 20 basis points in 2019 compared with the margin in 2018. The margin growth was primarily generated in our Fluent business group by the Netafim and Dura-Line businesses.

## **Operating expenses**

This item increased by 13%, from \$1,064 million in 2018 to \$1,135 million in 2019. The increase was the result of (1) the creation of a reserve for a fine of Vestolit by the European competition authorities; (2) an additional full month (January) of Netafim, which was not consolidated in 2018; and (3) higher expenses related to our business groups. Operating expenses represented 16% of net sales in 2019, while in 2018 they were equivalent to 15% of sales in that period.

## **Operating profit**

In fiscal year 2019, operating profit was \$823 million, down from \$935 million in fiscal year 2018.

## EBITDA

EBITDA for 2019 was \$1,365 million, 2.2% lower than in 2018, which is explained by the marginal variation in sales, offset by a better product mix for both Dura-Line and Netafim in a context of lower raw material costs. The EBITDA margin was 19.5% in 2019, 10 basis points higher than 19.4% in 2018.

## Net financial expense and exchange rate variation

Our financial expenses and changes in the exchange rate increased 4% from \$284 million in 2018 to \$296 million in 2019. The increase was primarily due to: (1) the adoption the IFRS 16 standard which impacted our interest expenses; (2) higher bank fees related to the renewal of our \$1,000 million Revolving Line of Credit; and (3) the refinancing of our Netafim bank lines of credit. These increases in financial expenses were partially offset by a decrease in exchange losses for the fiscal year.

## Income Tax

The amount of income tax for 2019 was \$206 million in 2019 compared to \$195 million in 2018. The increase is explained by the factors outlined above.

## Majority net income

During 2019, the Company recorded majority net income of \$207 million, compared to \$355 million reported in 2018, mainly as a result of lower operating profit.

## **Consolidated Results of Operations 2018**

Consolidated statements of income	For the years ending D	ecember 31:	
(Figures in Millions of U.S. Dollars)	2018	2017	% Variation
Continuing operations:			
Net Sales	7,198	5,828	23.5%
Cost of sales	5,199	4,319	20.4%
Gross profit	1,999	1,509	32.4%
Sales and development expenses	588	438	34.2%
Administrative expenses	449	336	33.5%
Other expenses, net	27	26	0.5%
Exchange gain	(84)	(9)	856.8%
Exchange loss	132	56	133.4%
Interest expenses	251	195	28.6%
Interest income	(20)	(18)	8.8%
Change in fair value of redeemable non-controlling interest	19	-	
Monetary position gain	(13)	(49)	(74.0%)
Share in associates' income	(4)	(2)	<b>95.5</b> %
Income before income taxes	655	535	22.4%
Income taxes	195	178	9.6%
Profit on continuing operations	460	357	28.8%

Discontinued operations:			
Profit (loss) on discontinued operations, Net	23	(143)	(115.9%)
Consolidated net income for the year Consolidated net profit for the year:	483	214	125.7%
Controlling interest	355	194	82.6%
Non-controlling interest	128	20	552.1%
	\$483	\$214	125.7%

#### Revenues

In fiscal year 2018, Orbia's sales increased 24% compared to 2017 revenues of \$7,198 million. The increase was mainly the result of the inclusion of Netafim in the Group's consolidated results, higher refrigerant gas prices and solid sales growth in the Fluent business group in the USA and Canada.

## Cost of sales

The main components of our cost of sales are our raw materials and freight, and the depreciation of our industrial plants and equipment. In 2018 this item came to \$5,199 million, which was 20.4% higher than the \$4,319 million in 2017. The growth was primarily due to the consolidation of Netafim results, an increase in sales volume in the Fluor business unit, and the operations of the Fluent USA and Canada business units with Data Communications and Fluent Europe in the Building and Infrastructure (Wavin) business units.

However, the increase was proportionally smaller than the increase in sales. Therefore, our cost of sales, as a percentage of sales, decreased to 72.2% compared to 74.1% in 2017.

#### **Gross Profit**

Our gross profit increased by 33.3% from \$1,509 million in 2017 to \$1,999 million in 2018. Gross margin increased from 25.9% in 2017 to 27.8% in 2018. The expansion was primarily due to by our Fluor Downstream business unit.

#### **Operating Expenses**

Orbia's operating expenses increased by 33.8% from \$775 million in 2017 to \$1,037 million in 2018, due to the inclusion of Netafim in the Company's consolidated figures, the provision of our CADE impact and the expenses related to the acquisition of Netafim Ltd. Our operating expenses represented 14% of net sales in 2018, compared with 13% in 2017.

## **Operating Profit**

Orbia's operating profit grew 32.0%, from \$708 million in 2017 to \$935 million in 2018, due to increased sales and lower cost of sales growth.

#### EBITDA

Orbia's EBITDA grew 26% in 2018, for a total of \$1,397 million compared to \$1,106 million the previous year. With this result, the Company fully met its objective and commitment to grow from 25% to 30% during the year. The EBITDA margin went from 19.0% in 2017 to 19.4% in 2018.

#### Net financial expense and exchange rate variation

Net financial expense plus foreign exchange results increased 24% from \$224 million in 2017 to \$278 million in 2018. The increase is explained by an increase in financial expenses related, mainly, to the issuance of a \$1,000 million bond in September 2017 to finance the acquisition of Netafim, as well as consolidated interest in 2018, the inclusion of Netafim into Orbia's consolidated figures, a negative monetary position effect from the Company's operation in Venezuela and the impact related to the market price valuation of the instruments associated with the acquisition of Netafim.

## Income Tax

Income tax for fiscal year 2018 totaled \$195 million, compared to \$178 million in 2017. The increase was mainly due to the change in the mix of Orbia subsidiaries that generated profits and those that generated tax losses. This effect was neutralized by the deferred tax benefit resulting from the reduction of tax rates in our most relevant markets.

#### Majority net income

Majority net income increased 83% from \$194 million in 2017 to \$355 million in 2018. If this figure were adjusted for Orbia's share (55.91%) of discontinued PMV operations, this item would have increased 25% from \$274 million in 2017 to \$342 million in 2018.

## Results of operations by business group

Sales by Business group	2019	%	2018	%	2017	%
Polymer Solutions	2,334	33	2,460	34	2,317	40
Fluent (Building & Infrastructure – Wavin y Amanco or Fluent Europe, Data Communications – Dura-Line o Fluent US/Canada y Fluent AMEA, Precision Agriculture -Netafim-)	3,999	57	4,077	57	3,023	52
Fluor	805	12	837	12	681	12
Controller	136	2	29	-	25	-
Eliminations	(287)	(4)	(206)	(3)	(217)	(4)
Total	6,987	100	7,198	100	5,828	100

The following tables present the results of each of our Business Groups and a comparison thereof to our consolidated results of operations for the periods presented below.

	Year ended December 31, 2019				
	Net Sales	Cost of Sales	Gross Profit	Operating Expenses (1)	EBITDA
		(Figure	s in Millions of	Dollars)	
Polymer Solutions (Vinyl) Business group	2,334	1,900	434	191	414
Fluent business group (Building & Infrastructure – Wavin y Amanco-, Datacom – Dura-line-, Precision Agriculture -Netafim-)	3,999	2,841	1,158	795	590
Fluor business group	805	434	371	86	316
Controller	136	0	136	84	44
Eliminations (2)	(287)	(147)	(140)	(20)	1
Consolodated	6,987	5,029	1,958	1,135	1,365

	Year ended December 31, 2018				
	Net Sales	Cost of Sales	Gross Profit	Operating Expenses (1)	EBITDA
		(Figure	s in Millions	of Dollars)	
Polymer Solutions (Vinyl) Business group Fluent business group (Building &	2,460	1,941	519	162	501
Infrastructure – Wavin y Amanco-, Datacom – Dura-line-, Precision Agriculture -Netafim-)	4,077	2,989	1,088	771	503
Fluor business group	837	445	392	80	344
Controller	29	-	29	81	48
Eliminations (2)	(206)	(175)	(30)	(30)	1
Consolidated	7,198	5,199	1,999	1,064	1,397

Year ended December 31, 2017

	Net Sales	Cost of Sales	Gross Profit	Operating Expenses (1)	EBITDA
		(Figures in Milli	ions of Dollars)		
Polymer Solutions (Vinyl) Business group	2,317	1,853	464	139	507
Fluent business group (Building & Infrastructure – Wavin y Amanco-, Datacom – Dura-line-, Precision Agriculture -Netafim-)	3,023	2,244	778	545	385
Fluor business group	681	412	269	64	259
Controller	26	-	26	83	(47)
Eliminations (2)	(217)	(190)	(28)	(29)	2
Consolidated	5,828	4,319	1,509	801	1,106

## Operating results by division

#### Fiscal year ending December 31, 2019 compared to the fiscal year ending December 31, 2018

## Polymer Solutions business group

	Year ended December 31		
	2019	2018	
	(Figures in Millions of I	Dollars) (1)	
Net Sales	2,334	2,460	
Cost of Sales	1,900	1,941	
Gross profit	434	520	
Operating expenses (2)	191	162	

(1) The amounts shown have only been adjusted to eliminate the transactions within each business group (but not between the business groups).

(2) Operating expenses include selling and development expenses, administrative expenses, depreciation and amortization (not included in cost of sales) and other expenses (income).

## Net sales

During 2019, revenues decreased 5% to \$2,334 million in 2019, from \$2,460 million in 2018, under pressure from challenging market conditions that caused prices to drop for caustic soda and PVC.

#### Cost of sales

The cost of sales for our Polymer Solutions business group decreased to \$1,900 million in 2019 from \$1,941 million in 2018, a decrease of 2.1% per year.

#### Gross profit

The gross profit of this business group fell by 16%, from \$520 million in 2018 to \$434 million in 2019.

## **Operating expenses**

Operating expenses were \$191 million in 2019 which represents an 18% growth over the \$162 million amount in 2018.

## EBITDA

In 2019, reported EBITDA decreased 17% to \$414 million from \$501 million. The normalized EBITDA (without IFRS 16 and without non-recurring effects) decreased 19%, mainly as a result of lower PVC and caustic soda prices, which decreased in the same period by approximately 5% and 47%, respectively. In addition, EBITDA was affected by the temporary suspension of one of our key suppliers in Germany due to

force majeure, as well as by the scheduled shut down for maintenance activities at the plant of our largest supplier of VCM in the United States. The normalized EBITDA margin (without IFRS 16 and without non-recurring effects) decreased from 20% in 2018 to 18% in 2019.

## Fluent Business Group

	Year ended December 31		
	2019	2018	
	(Figures in Mill	ions of Dollars) (1)	
Net Sales	3,999	4,077	
Cost of Sales	2,841	2,989	
Gross profit	1,158	1,088	
Operating expenses (2)	795	771	

1) The amounts shown have only been adjusted to eliminate the transactions within each business group (but not between the business groups).

(2) Operating expenses include selling and development expenses, administrative expenses, depreciation and amortization (not included in cost of sales) and other expenses (income).

## Net sales

During 2019, our Fluent business' revenues decreased 2% to \$3,999 million compared to 2018, mainly as a result of lower sales at Wavin in both Europe and Latin America, as well as at Dura-Line; the latter affected by the continued change in the higher-margin product mix as mentioned in previous quarters, as well as lower sales in India. This drop in sales was partially offset by a 12% increase in Netafim sales.

## Cost of sales

The cost of sales of this business group decreased 5% from \$2,989 million in 2018 to \$2,841 million in 2019, due to the lower prices of some raw materials, such as PVC and polyethylene, as well as a better product mix.

## Gross profit

Despite, the reduction in revenues in 2019, the largest decrease in cost of sales appeared in a 6% increase in this business group's gross profit, which was \$1,158 million in 2019.

#### **Operating expenses**

This item for the Fluent business group increased to \$795 million in 2019 compared to \$771 million in 2018, which is a 3% increase.

## EBITDA

For 2019, Fluent's reported EBITDA was \$590 million, 17% higher than the \$503 million reported in 2018; while the reported EBITDA margin was 20%, compared to 12% reported the same period the previous year. Normalized EBITDA (excluding the impact of IFRS 16) grew 10% compared to last year, with an implied margin of 14%, an expansion of 150 basis points, driven by higher profitability in the Dura-Line and Netafim businesses, as explained above. The normalized EBITDA takes into consideration \$4 million of the cost restructuring related to the Operational Optimization Plan in the Mexican operations of Wavin LatAm.

## Fluor Business Group

	Year ended December 31			
	2019	2018		
	(Figures in Millions of Dollars) (1)			
Net Sales	805	837		
Cost of Sales	434	445		
Gross profit	371	392		
Operating expenses (2)	86	80		
(1) The amounts shown have only been adjusted to eliminate the transactions within each business group (but not between the business groups).

(2) Operating expenses include selling and development expenses, administrative expenses, depreciation and amortization (not included in cost of sales) and other expenses (income).

#### Net sales

In 2019, revenues were \$805 million from \$837 million, down 4% or \$32 million compared to 2018. The impact of illegal imports of refrigerant gases into Europe has limited the performance of our downstream business (i.e. higher value-added fluorinated products); however, good performance in our upstream (i.e. fluorspar and HF) has partially offset the results.

## Cost of sales

The cost of sales for this business group decreased 2% in the fiscal year, from \$445 million in 2018 to \$434 million in 2019.

## Gross profit

The Fluor business group's gross profit was \$371 million in 2019, whereas in the previous fiscal year it was \$392 million, which is a decrease of 6% per year.

#### **Operating expenses**

Our Fluor business group's operating expenses increased 8% to \$86 million in 2019 from \$80 million in 2018.

## EBITDA

For 2019, reported EBITDA was \$316 million from \$344 million, reflecting a decrease of 8% compared to the same period the previous year; with an EBITDA margin of 39%, down from 41%, affected by illegal imports of refrigerant gas into the European Union.

#### Fiscal year ending December 31, 2018, compared to the fiscal year ending December 31, 2017

# Polymer Solutions business group

	Year ended December 31		
	2018	2017	
	(Figures in Millions	of Dollars) (1)	
Net Sales	2,460	2,317	
Cost of Sales	1,941	1,853	
Gross profit	519	464	
Operating expenses (2)	162	139	

1) The amounts shown have only been adjusted to eliminate the transactions within each business group (but not between the business groups).

(2) Operating expenses include selling and development expenses, administrative expenses, depreciation and amortization (not included in cost of sales) and other expenses (income).

## Net Sales

In 2018, the Polymer Solutions business group increased sales by 6% from \$2,317 million in 2017 to \$2,460 million in 2018, reflecting favorable market price conditions during the first nine months of the year in both PVC and caustic soda, primarily due to higher oil prices and market supply restrictions associated with environmental restrictions in Europe and Asia when comparing 2018 and 2017.

## Cost of sales

Cost of sales for our Polymer Solutions business group increased 5%, from \$1,853 million in 2017 to \$1,941 million in 2018. This increase was mainly the result of sales growth in the Resins and Compounds Business Groups and the impact of the force majeure declared on November 12, 2018 by our subsidiary Vestolit in Germany.

## Gross profit

As a result, our Polymer Solutions business group gross profit increased 12% to \$519 million in 2018 from \$464 million in 2017.

## **Operating expenses**

Operating expenses for our Polymer Solutions business group increased 17% from \$139 million in 2017 to \$162 million in 2018. This variation is mainly explained by the increase in selling expenses derived from an increase in selling expenses, such as commissions on sales, as well as the recognition in 2017 of part of the business interruption policy derived from the incident at PMV's Clorados III plant.

#### EBITDA

EBITDA for 2018 increased 9% to \$501 million compared to \$458 million in 2017, with a margin of 20.4% in 2018, an increase of 60 basis points from the margin of 19.8% in 2017.

# Fluent business group

	Year ended December 31 2018 2017		
	(Figures in Millions of Dollar	rs) (1)	
Net Sales	4,077	3,023	
Cost of Sales	2,989	2,244	
Gross profit	1,088	778	
Operating expenses (2)	771	544	

1) The amounts shown have only been adjusted to eliminate the transactions within each business group (but not between the business groups).

(2) Operating expenses include selling and development expenses, administrative expenses, depreciation and amortization (not included in cost of sales) and other expenses (income).

#### Net sales

In 2018, revenues increased 35% from \$3,023 million in 2017 to \$4,077 million in 2018. Key factors contributing to this growth included the consolidation of Netafim, double-digit growth in Fluent US/Canada and AMEA (Dura-line), while Europe grew to a medium digit.

#### Cost of sales

Our Fluent Business Group's cost of sales increased 33% to \$2,989 million in 2018 from \$2,244 million in 2017. This increase was mainly due to the inclusion of Netafim figures in Orbia's consolidated figures, as well as increased sales in our Fluent USA/Canada (Data Communications) and Fluent Europe (Wavin) business groups.

## Gross profit

As a result, our Fluent Business Group's gross profit increased 40% to \$1,088 million in 2018, while in 2017 it was \$778 million.

#### **Operating expenses**

Operating expenses for our Fluent Business Group increased 42% from \$544 million in 2017 to \$771 million in 2018. This increase was mainly due to the inclusion of Netafim figures in Orbia's consolidated figures, the recognition of expenses for the acquisition of Netafim, and the provision associated with CADE research.

## EBITDA

The 2018 EBITDA increased by 40% to \$503 million compared to \$360 million in 2017, with a margin of 12.3% in 2018, an increase of 40 basis points over the 11.9% margin in 2017.

Fluor business group

	Year ended December 31		
	2018 2017		
	(Figures in Millions of Dollars) (1)		
Net Sales	837	681	
Cost of Sales	445	412	
Gross profit	392	269	
Operating expenses (2)	80	64	

(1) The amounts shown have only been adjusted to eliminate transactions within each Business Group (but not between Business Groups).

(2) Operating expenses include selling and development expenses, administrative expenses, depreciation and amortization (not included in cost of sales) and other expenses (income).

## Net sales

Our Fluor business group's net sales increased 23% to \$837 million in 2018 compared to \$681 million in 2017. This increase was mainly the result of higher refrigerant gas prices in the United States and Europe.

## Cost of sales

Our Fluor business group's cost of sales increased 8%, from \$412 million in 2017 to \$445 million in 2018. This increase was primarily the result of higher sales volume in our upstream operation (fluorite and HF).

## Gross profit

As a result, our Fluor business group's gross profit increased 46% to \$392 million in 2018 from \$269 million in 2017.

## **Operating expenses**

Operating expenses for our Fluor business group increased 26% to \$80 million in 2018 from \$64 million in 2017. This increase was mainly the result of higher investment in research and development and higher selling expenses due to the increase in research and development, such as sales commissions.

# EBITDA

The 2018 EBITDA was \$344 million, an increase of 40% compared to \$244 million in 2017. The margin was 41% in 2018.

## ii) Company's Financial Position, Liquidity and Capital Resources

We were able to meet our liquidity needs by generating cash flows from ordinary business operations, financing through loans, and issuing debt securities listed on the BMV or in international markets.

Liquidity Reasons	2019	2018	2017
Current assets / short-term liabilities	1.11	1.10	1.85
Current assets - inventories / short-term liabilities	0.78	0.78	1.54
Current assets / total liabilities	0.41	0.43	0.65

We have financing needs related primarily to the following objectives:

- Working capital;
- Occasional payment of interest, related to current debt;
- Capital investments related to our operations, construction of new plants, maintenance of facilities and plant expansion;
- Funds required for the possible acquisition of companies that align with our strategy; and
- Payment of dividends.

As described above, the principal sources of our liquidity have historically been the following:

• Cash generated from the Company's operations.

- Cash from short-, medium- and long-term financing.
- Capital increases.
- Disposals of assets, property or business of the Company.

#### Planned sources and uses of cash

At the end of 2019, we had access to a Revolving Line of Credit committed to an available balance of \$1,000 million with a consortium of Mexican and international banks.

In addition, the Issuer has a Stock Exchange Certificate Program authorized by the CNBV in 2017 for \$10,000 million Mexican pesos, of which it has used \$3,000 million Mexican pesos and could use \$7,000 million Mexican pesos at any time.

In 2018 and 2017, our operating cash flows were primarily used for acquisitions, capital expenditures (CAPEX), working capital and our debt repayment requirements. As of December 31, 2018, we had \$700 million worth of cash, cash equivalents and other investments and \$602 million of net working capital.

## Cash Flows

## Cash flows generated by (used in) operating activities

In 2019, 2018 and 2017, cash flows derived from our operating activities amounted to \$1,210 million, \$1,293 million and \$1,013 million, respectively.

In 2019, cash flows generated by our operating activities were primarily derived from

- \$1,075 million of income before income taxes, depreciation and amortization;
- A decrease of \$(137) million due to net changes in working capital;
- \$272 million in interest paid; and
- A decrease of \$(127) million in other items.

In 2018, cash flows generated by our operating activities were primarily derived from:

- \$1,116 million of income before income taxes, depreciation and amortization;
- A decrease of \$(98) million due to net changes in working capital;
- \$251 million in interest paid; and
- A \$24 million increase in other items.

In 2017, cash flows generated by our operating activities were primarily derived from:

- \$933 million of income before income taxes, depreciation and amortization;
- A decrease of \$(115) million due to net changes in working capital;
- \$195 million in interest paid; and
- A \$11 million increase in other items.

## Cash flows generated by (used in) financing activities

In 2019, 2018 and 2017, cash flows generated by (used in) our financing activities were \$(894) million, \$(622) million and \$589 million for 2019, 2018 and 2017, respectively.

In 2019, our principal uses of cash flows generated by (used in) financing activities consisted of:

- (276) million in interest payments;
- (92) million in lease payments;
- (369) million in dividend payments;
- (40) million for share purchases; and
- (117) million paid in net loan amounts.

In 2018, our principal uses of cash flows generated by (used in) financing activities consisted of:

- \$(222) million in interest payments;
- \$(342) million in dividend payments
- \$(67) million for the purchase of shares
- \$168 million in net credit amounts; and
- \$(159) million in the purchase of minority interest.

In 2017, our principal uses of cash flows generated by (used in) financing activities were as follows:

- \$(168) million in interest payments;
- \$(194) million in dividend payments;
- \$(5) million for the purchase of shares; and

• \$956 million in net credit amounts.

# Cash flows generated by (used in) investing activities

In 2019, 2018 and 2017, cash flows used in our investing activities were \$(274) million, \$(1,777) million and \$(283) million, respectively.

In 2019, our cash flows generated by (used in) investing activities consisted of:

- The acquisition of machinery and equipment in the amount of \$(261) million;
- Investment in other assets and intangibles (36) million; and
- The sale of machinery and equipment in the amount of \$23 million.

In 2018, our cash flows generated by (used in) investing activities consisted of:

- Acquisition of subsidiaries, net of cash acquired for \$(1,427) million;
- The acquisition of machinery and equipment in the amount of \$(283) million;
- Investment in other assets and intangibles \$(71) million; and
- The sale of machinery and equipment in the amount of \$4 million.

In 2017, our cash flows generated by (used in) investing activities consisted of:

- The acquisition of machinery and equipment in the amount of \$(254) million; and
- The sale of machinery and equipment in the amount of \$6 million.

## Effect of gain (loss) on the exchange rate of our cash and cash equivalents.

In 2019, 2018 and 2017, the effect of the gain (loss) on the exchange rate of our cash and cash equivalents was (\$29) million, \$(94) million and (\$145) million, respectively.

## Contingent Asset

As of December 31, 2019, there were no relevant Contingent Assets.

## **Contingent liabilities**

On September 25, 2018 Orbia's subsidiary of Orbia Netafim Irrigation Inc. (Netafim), the U.S. subsidiary of Netafim LTD, learned that on September 22, 2018, Jain Irrigation Inc., Irrigation Design & Construction LLC. (IDC) and Agri Valley Irrigation LLC. (AVI) (collectively, "Jain Parties"), filed an antitrust complaint against Netafim in the U.S. District Court for the District of California, Fresno Division and the Eastern District of California Division. The complaint essentially alleges that Netafim, along with other manufacturers and distributors, participated in a group boycott of "Jain Parties" for alleged violations of state and federal antitrust laws. As of the date these financial statements were issued, the Company estimates that the impact on Orbia's results regarding this contingent liability will not be material.

Orbia has resorted to the generation of cash flows through its normal business operation, the sale of assets, property or businesses that, for strategic reasons, it has decided to stop holding or attending, the contracting of credits and issuance of debt securities that are placed and listed on the BMV or in international markets, and capital increases from its shareholders, either through the subscription of current shareholders or through a public offering of shares in the stock market.

Liquidity Reasons	2019	2018	2017
Current assets / short-term liabilities	1.11	1.10	1.85
Current assets - inventories / short-term liabilities	0.78	0.78	1.54
Current assets / total liabilities	0.41	0.43	0.65

The Company's principal cash requirements are:

- Working capital.
- Occasional payment of interest related to current debt.
- Capital expenditures related to the Company's operations, construction of new plants, facility maintenance and plant expansion.
- Funds required for potential acquisitions of companies that add value to the Company's strategy; and
- Payment of dividends.

The main sources of liquidity historically have been the following:

- Cash provided by the Company's operations.
- Cash from short-, medium- and long-term financing.
- Capital increases; and
- Disposals of Company assets, property or business.

## Projected sources and use of cash

As of the date of this Annual Report, the Company has uncommitted short-term credit facilities with multiple banks, which are mainly used to improve its working capital. Credit facilities include short-term financing, letters of credit, factoring, among others. As of the date of this report, most of them are letters of credit for payment to raw material suppliers. It also has access to a revolving credit facility with a balance of \$1,000 million available in 2020. Additionally, it has a \$10,000 million Mexican peso Certificate Program (renewed in November 2017 for 5 years), of which it has used \$3,000 million Mexican pesos, as of the date of this Annual Report, and could dispose of \$7,000 million Mexican pesos.

## **Treasury Policies**

Orbia's Treasury policy is to maintain healthy finances with enough liquidity to guarantee the necessary investments in its operations that allow it to have the most efficient and modern production technology at low costs and high quality.

Due to the nature of its operations, Orbia and its subsidiaries maintain bank and investment accounts both in local currency according to the countries it operates and in U.S. Dollars.

The Company maintains its cash positions - in the various currencies of the economies in which it operates - deposited or invested in short-term financial instruments (less than 1 month) and in financial institutions that meet the characteristics of high credit quality, level of liquidity and profitability. The selection of counterparties and investment instruments follows the principles of diversification, prudence, non-speculation, and the guidelines contained in the company's Code of Ethics and those established by the agreement of the Finance Committee and the Audit Committee.

#### Tax debts

The Company and its subsidiaries do not have any material tax liabilities in addition to those disclosed in its Financial Statements as of December 31, 2019.

## Investments in capital goods

Recently, Orbia has made and plans to continue making significant capital investments related to production capacities, environmental care, efficiency, and modernization. For example, during the years 2019, 2018 and 2017, the Company invested \$261 million, \$283 million and \$254 million, all of which included investments made through the Company's partnerships with Oxy in Ingleside, with Kibbutz Hatzerim in Netafim and the one it held until November 16, 2018, and with PEMEX in PMV. Expansion and improvement works are also planned for other existing facilities. Additionally, during the last three years, the Company has made capital investments through the acquisition of other companies. The investments made were:

# 2018

- <u>Acquisition of Sylvin Technologies Ltd.</u> On January 22, 2018, Orbia announced the acquisition of Sylvin Technologies Inc., a PVC compound manufacturer based in Denver, Pennsylvania, USA for \$39 million free cash flow and debt. The company had a 30-year history, at the time of the acquisition, of serving a wide range of industries including: cable, electrical, industrial, automotive, medical and food products. Orbia consolidates Sylvin into the Polymer Solutions business group.
- Completion of Netafim acquisition On February 7, 2018, Orbia announced that it completed the acquisition of an 80% interest in Netafim, Ltd. (Netafim), a company backed by the Permira Fund, after all governmental authorizations and prior conditions required by the Share Purchase Agreement had been obtained. Netafim is a privately owned Israeli company, leader in micro irrigation solutions. The total value of the company in the transaction was \$1,895 million. Kibbutz Hatzerim will retain the remaining 20% of Netafim's share capital. Orbia financed the acquisition with a combination of cash and debt. The completion of this transaction represented a significant step forward in Orbia's long-term strategy to position itself as a world leader in specialized products and solutions serving high-growth markets. As of this date, the financial statements of Netafim were consolidated in the financial statements of Orbia. The acquisition was primarily financed as follows: (i) cash for \$241 million, (ii) new short-term loan for \$200 million, and (iii) cash flows from the

issuance of a long-term bond for \$985 million. Orbia consolidates the financial statements of Netafim in the Fluent business group.

Petroquímica Mexicana de Vinilo, S.A. de C.V. (PMV) - On July 6, 2018, Orbia announced that in line with its key business consolidation strategy, it reached an agreement to acquire 44.09% of the shares representing Pemex's capital stock in PMV, through its subsidiary PPQ Cadena Productiva S.L., after approval by the Boards of Directors of both Pemex and Orbia. The transaction amount is approximately \$159.3 million, which is within the valuation ranges of comparable companies and precedent transactions in the petrochemical sector. Orbia completed the acquisition on November 16, 2018, which means that, as of that date, PMV is exclusively a subsidiary of Orbia and its activity consists only of the operation of the chlorine-soda plant.

## 2017

• <u>Acquisition of Netafim</u> - In August 2017, Mexichem Soluciones Integrales Holding, S.A. de C.V. (MSIH), a subsidiary of Orbia, reached an agreement to acquire: i) voting shares representing 80% of the subscribed and paid-in capital stock, ii) all non-voting shares representing approximately 0.4% of the subscribed and paid-in capital, both of Netafim, and iii) certain loans granted by some of the shareholders of Netafim, Bluedrip S.ar.I, and Netafim Hatzerim Holdings, Cooperative Association Limited, in favor of Netafim.

## **Acquisition Financing**

The acquisitions carried out during 2019, 2018 and 2017 were financed in the following manner:

- Sylvin Technologies (2018). The acquisition was financed with our own resources.
- Netafim (2018). The acquisition was primarily financed as follows: (i) cash for \$241 million, (ii) new short-term loan for \$200 million, and (iii) cash flows from the issuance of a long-term bond for \$985 million. On September 27, 2017, Orbia successfully completed the \$1,000 million 144A / Reg S bond offering. The offering consists of two tranches: \$500 million of 4.00% fixed rate bonds due October 2027 and \$500 million of 5.50% fixed rate bonds due January 2048. The proceeds of the offering were used primarily to finance the acquisition of Netafim, L.T.D. (Netafim). On December 20, 2017, Orbia announced that it signed a credit facility with BBVA Bancomer of up to \$200 million at a rate of Libor plus 80.5 bps at 12 months. The resources from this credit facility were used to complete the acquisition of Netafim.
- **PMV (2018).** The acquisition was financed with our own resources.

See Section 2, "The Issuer", item 4, "Historical Events", of this Annual Report. Public Offers for more information on other financing of the Issuer.

## Research and Development

The Company's ability to compete in the Mexican and foreign markets depends on its ability to integrate new production processes and new products acquired and developed by third parties prior to their acquisition in order to reduce costs and increase the profitability of business acquisitions. Orbia has 19 development and research centers, as well as 8 training centers for the development of these activities.

## Relevant Transactions not recorded in the Balance Sheet and Income Statement

As of the date of this Annual Report, the Company has no material transactions not recorded in the Balance Sheet or Income Statement. As has happened in the case of the purchase of companies whose final acquisition is subject to the approval of competition authorities, in the future it may be possible to verify whether the Company has signed and made payments by companies or groups of companies, some of which cannot be consolidated until the relevant approvals have been obtained.

For further information on the restriction agreed with the subsidiaries to transfer resources to the issuer, level of indebtedness, financial ratios, among other information on the profile of the debt contracted, see Section 3, "Financial Information", paragraph c, "Relevant Credit Report", as well as paragraph "d) Management's Comments and Analysis of the Issuer's Operating Results and Financial Position".

## iii) Internal control

Orbia's by-laws provide for the existence of the Audit and Corporate Practices Committees, intermediate corporate bodies constituted in accordance with Applicable Legislation in order to assist the Board of Directors in the performance of its duties. Through the aforementioned committees and the External Auditor,

reasonable assurance is given that the transactions and acts performed by the Company are executed and recorded in accordance with the terms and parameters established by the Board of Directors and the governing bodies of Orbia, by Applicable Legislation, and by the different general guidelines, criteria, and applicable financial reporting standards (IFRS).

## Corporate Governance

Orbia is governed by corporate governance principles that frame its operations and sustain its results. As a public company listed on the BMV, we adhere to Mexican law and, specifically, to the Securities Market Law (LMV-in Spanish). We also adhere to the principles set forth in the Code of Conduct and Best Corporate Governance Practices, endorsed by the Business Coordinating Council.

The Board of Directors relies on the Audit and Corporate Practices Committees, whose members, including its Chair, must be independent directors, for the first committee, and by majority of independent directors for the second committee to determine its corporate strategy, define and supervise the implementation of the values and vision that identify us, as well as to approve transactions between related parties and those carried out in the ordinary course of business, and in accordance with its by-laws.

For more information, see Sustainability Report at <u>www.orbia.com.</u>

## Audit Committee

The functions of the Audit Committee include the following: evaluate the company's internal control and internal audit systems to identify any material deficiencies; follow up on corrective or preventive actions taken in the event of non-compliance with operational and accounting guidelines and policies; evaluate the performance of external auditors; describe and evaluate the non-audit services of external auditors; review the company's financial statements; evaluate the effects of any changes in accounting policies approved during the fiscal year; follow up on actions taken in relation to observations by shareholders, directors, relevant executives, employees or third parties on accounting, internal control systems and internal and external auditing, as well as on any complaints related to irregularities in management, including anonymous and confidential methods for handling reports expressed by employees; monitor compliance with the resolutions of the general meetings of shareholders and the Board of Directors.

## **Corporate Practices Committee**

The Corporate Practices Committee is responsible for evaluating the performance of the relevant directors and reviewing the compensation granted to them; reviewing transactions between related parties; evaluating any dispensation granted to the directors or relevant directors to take advantage of business opportunities; and carrying out the activities provided for in the LMV. As of February 2020, the Board of Directors had also assigned this committee the task of monitoring sustainability.

## Information for investors

The fundamental objective is to ensure that shareholders and investors have sufficient information to be able to evaluate the performance and progress of the organization; to this end, there is an area in charge of maintaining open and transparent communication with them. That is why we have a defined contact; there is a section in Orbia's website with all the information that the investing public requires to make investment decisions. Likewise, the Company's shareholders have various mechanisms for communicating their opinions, doubts or concerns to the Board of Directors through:

- 1. Shareholders' Meeting
- 2. Investor Relations Area
- 3. Conferences in which the Company participates, the presentation of which can be found on Orbia's website.
- 4. Meetings with analysts, banks, shareholders, investors, rating agencies and financial market participants

The Company has several subsidiaries that are required to comply with all the provisions established for each of its different areas of operation. These guidelines pursue the following purposes:

- Protect and increase the wealth of investors.
- Issuing reliable, timely and reasonable information
- Delegate authority and assign responsibilities for the achievement of goals and objectives.
- Detail the business practices in the organization.
- Provide administrative control methods that help to supervise and monitor compliance with policies and procedures.

There are defined controls for the following areas:

Marketing: policies related to marketing.

Operation: guidelines for the human resources, treasury, accounting, legal, tax, and information technology departments, among others.

The following is a brief description of some of the most important Internal Control Policies and Procedures:

## Human Resources

The Company relies on the knowledge, experience, motivation, aptitudes, attitudes and skills of its human resources to achieve its objectives. In this regard, it has policies and procedures that regulate the recruitment, selection, hiring and induction of all personnel, as well as their training, promotion, compensation and assistance. It also includes aspects relating to the control of leave, benefits and payment of salaries. These guidelines comply with current legal provisions and seek to increase the Company's efficiency and productivity.

## Treasury

It includes the procedures and mechanisms to capture, protect and disburse the financial resources necessary for the optimal operation of the Company, including credits, loans, leases, debt issues, financial and market risk hedging, sales, payment and transfer collections, intercompany financing, etc. It also deals with the procedures and policies for the control of credit to our customers and accounts receivable generated by forward sales, i.e., the origin, management and recording of collection. These policies also include procedures for the administration and recording of accounts payable from suppliers of goods and services purchased by the Company. The procedures include regulations for the various means of payment and collection (checks, electronic transfers, etc.) defining the necessary internal authorization schemes and supporting documentation. Finally, the Treasury is also primarily responsible for relations with all credit institutions, banking institutions and financial creditors.

Orbia's Treasury policy is to maintain sound finances with sufficient liquidity to guarantee the continuity of day-to-day operations, as well as the necessary investments in the acquisition, improvement, or maintenance of assets that allow it to have the most efficient and modern production technology at low costs and high quality.

Due to the nature of its operations, Orbia and its subsidiaries maintain bank and investment accounts both in local currency -according to the countries it operates- and in U.S. Dollars.

#### Suppliers

The acquisition of raw materials related to operating processes is carried out on the basis of authorized budgets and programs. These policies allow the Company's purchases to be made at a competitive price and favorable conditions of quality, timeliness of delivery and service, quoting at least three different options. Authorization and responsibility levels are defined for each purchase transaction.

## Systems

Orbia has information systems in the different regions and countries in which it operates, mainly supported by Enterprise Resource Planning (ERP) systems that support the different operational processes of each business. Orbia's Systems area is responsible for operating these information platforms, with the principles of operational continuity and information security, which determines local and corporate policies and procedures in the different countries in which the organization operates.

Orbia has policies and procedures that promote the correct use and safeguarding of systems, computer programs, and information relevant to the organization. The organization has support staff and / or a help desk for the attention of reports on failures or service requirements to equipment and systems which allows the staff to perform their daily activities with minimum setbacks.

# e) Critical accounting estimates, provisions or reserves

In applying accounting policies, the Company's management must make judgments, estimates and assumptions about certain amounts of assets and liabilities in the consolidated financial statements. The estimates and associated assumptions are based on experience and other factors that are considered to be relevant. Actual results could differ from those estimates.

The estimates and underlying assumptions are reviewed on a regular basis. Revisions to accounting estimates are recognized in the revision period and future periods if the revision affects both the current period and subsequent periods.

The critical accounting judgments and key sources of uncertainty in applying the estimates made at the date of the consolidated financial statements, and which have a significant risk of resulting in an adjustment to the carrying amounts of assets and liabilities during the subsequent financial period are as follows:

- a. The Company reviews the estimated useful lives of property, machinery and equipment at the end of each annual period. Based on detailed analyses, Orbia's management makes modifications to the useful life of certain components of property, machinery, and equipment. The degree of uncertainty related to estimates of useful lives is related to changes in the market and the use of assets for production volumes and technological developments.
- b. In performing impairment tests on assets, the Company requires estimates of the value in use assigned to its property, machinery and equipment and, in the case of certain assets, to cash-generating units. The value in use calculations require the Company to determine the future cash flows that should arise from the cash-generating units and an appropriate discount rate to calculate the present value. Orbia uses projections of revenue cash flows using estimates of market conditions, pricing, and production and sales volumes.
- c. Orbia uses estimates to determine inventory and accounts receivable reserves. The factors considered in inventory reserves are production and sales volumes and movements in demand for certain products. The factors considered in the estimation of credit impairment for accounts receivable is mainly the estimation of expected losses of unsecured accounts, which consists of observing the growth of the client's total exposure within its credit facility.
- d. The Company periodically evaluates estimates of its ore reserves (fluorite and salt), which represent the estimate with respect to the unexploited amount remaining in the mines it owns, which can be produced and sold at a profit. These estimates are based on engineering evaluations derived from samples and combined with assumptions about market prices and production costs at each of the respective mines. The Company updates the ore reserve estimate at the beginning of each year.
- e. Discount rate used to determine the carrying value of Orbia's defined benefit obligation. The defined benefit obligation is discounted at an established rate in the market rates of high-quality government and corporate bonds at the end of the reporting period. Professional judgement is required when establishing the criteria for the bonds to be included over the population from which the yield curve is derived. The most important criteria they consider for bond selection include the size of the issue of government and corporate bonds, their rating, and the identification of the atypical bonds that are excluded.
- f. The Company is subject to contingent transactions or events upon which it uses professional judgment in the development of estimates of probability of occurrence. The factors considered in these estimates are the current legal situation at the date of the estimate and the opinion of the legal advisors.
- g. Control over Ingleside Ethylene LLC Note 4c of the audited financial statements annexed hereto states mentions that Ingleside Ethylene LLC is a 50%-owned subsidiary of Orbia. Based on the agreements with the other investor, Orbia makes decisions regarding control of its production and sale.
- h. The Issuer makes financial projections of each legal entity in which it has control in order to determine whether the tax assets may be used in the future, in particular the tax loss carryforwards. Based on these projections, tax losses are capitalized or reserved in each jurisdiction where the Company operates.

# Significant accounting policies

For a better understanding and particular detail of the estimates, provisions or critical accounting reserves applied by the Company, it is recommended that the investing public read and analyze carefully Note 4 of Orbia's audited consolidated financial statements included in the "Annexes" Section of this Annual Report.

## MANAGEMENT

#### a) External Auditors

The independent external auditors are Deloitte Touche Tohmatsu Limited; Galaz, Yamazaki, Ruiz Urquiza, S.C. ("Deloitte"), with offices in Mexico City, Mexico. Deloitte has provided audit services to Orbia for at least the last six fiscal years.

Deloitte has confirmed that it is an independent firm with respect to Orbia, within the meaning of the stock exchange regulations applicable to the latter (Article 343 of the LMV and Article 6 and others applicable of the "General Provisions Applicable to the Entities and Issuers Supervised by the National Banking and Securities Commission that contract services for the External Audit of Basic Financial Statements", known as the Single External Auditor Circular "CUAE").

As of the date of this Annual Report, the independent external auditors have not issued qualified opinions, negative opinions or refrained from issuing any opinion on the Company's financial statements.

The amount that the external auditors have charged related to the external audit of the financial statements as of December 31, 2019 amount to \$4.5 million Dollars, while other non-audit services amount to approximately \$1.5 million Dollars, the principal services in addition to the external audit of financial statements include transfer pricing studies, reviews of analyses performed by Orbia regarding legal services, tax services, as well as attestation, which represent 25% of the total fees paid.

Attestation services are similar to an audit service that requires maintaining independence, where the auditor issues an opinion based on standards to attest which are an extension of international auditing standards.

The appointment/ratification of the external auditors is submitted annually by management to the Company's Audit Committee, which in turn reports thereon to the Board of Directors.

## b) Related Party Transactions (as defined in the LMV) and Conflicts of Interest

In the past, the Company has entered into and intends to continue to enter into certain transactions with related persons or companies, including, but not limited to, the transactions described in this section. The terms of these transactions are consistent with the corresponding market price for the respective transaction, and are reported and verified by the Audit Committee and/or the Corporate Practices Committee, which render their opinion on the transactions and follow up on them, as well as the auditors at the end of each year. The Company believes that these transactions are entered into under conditions similar to those it could obtain from unrelated third parties, i.e. which are performed in market terms.

#### Relationships and transactions with related parties

Orbia has several securities investment, trust, and bank and investment contracts with Banco Ve por Más, S.A., and Casa de Bolsa Ve por Más, S.A. de C.V. (affiliated companies of Orbia), which generate interest at rates similar to market rates.

Orbia and Kaluz, the Company's main shareholder, maintain an advisory services contract, which establishes that Orbia will pay Kaluz monthly the amount equivalent to the total costs and expenses incurred by Kaluz as a result of providing such services, to which a market margin is added.

All transactions with related persons or parties are carried out under conditions similar to market conditions.

The companies Kaluz, Elementia, S.A.B. de C.V., Grupo Financiero Ve por Más, S.A. de C.V., Grupo Pochteca, S.A.B. de C.V., Banco Ve por Más, S.A., Casa de Bolsa Ve por Más S.A. de C.V. and Constructora y Perforadora Latina, S.A. de C.V., as well as subsidiaries of the foregoing, are considered persons or parties related to the Issuer for purposes of this Report.

Below is a comparative table for the years 2019, 2018 and 2017 that details the amounts receivable and payable, as well as transactions carried out with persons or related parties:

Figures in millions of Dollars

Balances with related parties are:

		2019	2018	2017
Receivable:				
Pochteca Materias Primas, S.A. de C.V.		\$3.6	\$2.6	\$1.2
Eternit Colombiana, S.A.		0.4	0.4	0.4
Mexalit Industrial S.A. de C.V.		-	-	-
Elementia Servicios Administrativos, S.A. de C.V.		0.7	1.8	0.1
Elementia, S.A. de C.V.				
Other		0.0	0.6	0.2
		\$4.8	\$5.4	\$2.2
Payable:				
Kaluz, S.A. de C.V.	99.7		116.1	63.8
Pochteca Materias Primas, S.A. de				
C.V.	0.5		0.3	0.3
Other	0.3		0.1	0.4
	\$100.5		\$116.6	\$64.5

## Figures in millions of Dollars

Transactions with related parties are:

	2019	2018	2017
Income from			
Sales	6.2	6.3	6.1
Administrative services	3.1	3.3	1.0
	\$9.2	\$9.6	\$7.1
Expenses for			
Administrative services	13.6	10.5	10.2
Shopping	1.7	2.8	2.0
Donations			
Other	0.3	0.7	0.7
	\$15.6	\$15.2	\$12.8

Figures in millions of Dollars

## c) Directors and Shareholders

In accordance with the Corporate Bylaws, the management of the Company is tasked to a Board of Directors and a Chief Executive Officer who will carry out the functions established in the LMV. The Board of Directors shall be made up of a maximum of 21 Proprietary Directors, as determined by the Ordinary General Shareholders' Meeting that appoints them and, if applicable, their respective alternates. Of these members, both proprietary and alternate, at least 25% must be independent. It should be noted that notwithstanding the foregoing, 53.85% of the Company's Board of Directors in fiscal year 2019 was made up of independent directors. As of the General Shareholders' Meeting on April 28, 2020, the percentage of Independent Directors is 64.28%.

Where appropriate, the Alternate Directors for the Independent Directors must have the same capacity. Currently, the Company's Board of Directors is made up exclusively of proprietary directors. The members of the Board of Directors may be shareholders or from outside the Company.

Furthermore, pursuant to Article 24 of the LMV, the Alternate Directors for the Independent Directors have the same capacity. Currently, the Issuer's Board of Directors is made up exclusively of proprietary directors. The members of the Board of Directors may be shareholders or from outside the Company.

The General Shareholders' Meeting at which the members of the Board of Directors are appointed decides on the independence of the Directors.

The Independent Directors and, where applicable, their respective alternates, are chosen for their experience, capacity and professional prestige, considering their business and/or professional career and

that as a result due to the above they can perform their functions free from conflicts of interest, with freedom of judgment and without being subject to personal, financial or economic interests.

During fiscal year 2019, the Board of Directors met six times:

- February 26. At that meeting, the attendance ("quorum") was 91.66%.
- April 23. That meeting was attended ("quorum") by 75.00 %.
- June 20. That meeting was attended ("quorum") by 76.92%.
- July 23. That meeting was attended ("quorum") by 92.31%.
- September 24. That meeting was attended ("quorum") by 84.61%.
- October 22. That meeting was attended ("quorum") by 84.61%.

In addition, the Board of Directors adopted unanimous resolutions for its members, outside of the face-toface meeting, dated June 25 and 28 and October 14, 2019.

In order for the members of the Board of Directors to fully understand the responsibility involved in the performance of their duties, the Secretary of the Board of Directors provides them with a yearly report containing the main obligations, responsibilities and recommendations applicable to the Company as an issuer of securities listed on the BMV derived from the LMV, the Sole Issuers Circular and other applicable regulations. This report also describes the main considerations (duties, responsibilities, and powers) applicable to the members of Orbia's Board of Directors.

The Board of Directors for fiscal year 2019 as designated by the Annual Ordinary and Extraordinary General Shareholders' Meeting held on April 23, 2019, is as follows:

Name	Position	Type of Director
Juan Pablo del Valle Perochena	Chairman	Related Assets
Antonio del Valle Perochena	Director	Assets
María de Guadalupe del Valle Perochena	Director	Assets
Adolfo del Valle Ruiz	Director	Assets
Ignacio del Valle Ruiz	Director	Assets
Jaime Ruiz Sacristán	Director	Assets
Divo Milan Haddad	Director	Independent
Fernando Ruiz Sahagún	Director	Independent
Guillermo Ortiz Martinez	Director	Independent
Eduardo Tricio Haro	Director	Independent
Eugenio Santiago Clariond Reyes	Director	Independent
Alma Rosa Moreno Razo	Director	Independent
María Teresa Altagracia Arnal Machado	Director	Independent

Antonio del Valle Ruiz \*Not a member of the Board Honorary Life Chairman\*

Related Assets

Secretary Juan Pablo del Río Benítez Vice Secretary Francisco Ramon Hernandez

Not a member of the Board

Not a member of the Board

The following are the names of the Company directors appointed at the Annual Ordinary and Extraordinary General Shareholders' Meeting held on April 23, 2019, their professional experience and the year in which they were first appointed.

## Name: Antonio del Valle Ruíz

**Position and type of director**: Honorary Life Chairman of the Board of Directors Honorary and for Life, Related Assets

#### Member of the Board of Directors since: 2000

**Professional Experience**: Private Accountant, a graduate of Escuela Bancaria y Comercial, he is a certified Executive Business Director by the Instituto Panamericano de Alta Dirección de Empresas. He is Honorary Life Chairman of Kaluz, S.A. de C.V., and Grupo Financiero Ve por Más, S.A. de C.V. and has been or is a member of several boards of directors, including Teléfonos de México, S.A. de C.V. Industrias Monterrey, S.A. de C.V. Grupo México, S.A.B. de C.V. Escuela Bancaria y Comercial and Fundación ProEmpleo.

Mr. Antonio del Valle Ruíz is the brother of Messrs. Adolfo and Ignacio del Valle Ruíz; cousin of Mr. Jaime Ruiz Sacristán (deceased) and the father of Messrs. María de Guadalupe, Antonio and Juan Pablo del Valle Perochena.

#### Name: Juan Pablo del Valle Perochena

Position and type of director: Chairman of the Board of Directors, Related Assets

# Member of the Board of Directors since: 2002

**Professional Experience**: An Industrial Engineer from the Universidad Anahuac, with a Master in Administration from Harvard Business School. Chairman of the Board since 2011. Member of the Board of Directors of JCI Inc. in the US and Elementia, S.A.B. de C.V. Participates in the following associations: Harvard's David Rockefeller Center for Latin American Studies, Kaluz Foundation, Chairman's International Advisory Board of the Americas Society, as well as the Latin American Conservation Board of The Nature Conservancy.

Juan Pablo del Valle Perochena is son of Mr. Antonio del Valle Ruíz, brother of Mr. María de Guadalupe, Antonio del Valle Perochena; and nephew of Mr. Jaime Ruiz Sacristán (deceased), Adolfo and Ignacio del Valle Ruíz.

# Name: Antonio del Valle Perochena Position and type of director: Assets

#### Member of the Board of Directors since: 2002

**Professional Experience**: a graduate of the Business Administration program at Universidad Anahuac where he also studied an MBA. In addition, he has a postgraduate degree in Senior Management from the Instituto Panamericano de Alta Dirección de Empresas (IPADE) and a specialization in literature from Universidad Iberoamericana.

He is Chairman of the Board of Directors of Grupo Financiero Ve por Más, S.A. de C.V. and de Kaluz, holding company of Orbia

He is Member of the Board of Directors of Banco Ve por Más, S.A., Elementia, S.A.B. de C.V., Controladora GEK, S.A.P.I. de C.V., Afianzadora Sofimex, S.A. and Byline Bank. In addition, he is part of the Patronages of the Salvador Zubirán National Institute of Medical Sciences and Nutrition, Fideicomiso Probosque de Chapultepec, Patronato Fundación Colmex, Instituto Mexicano para la Competitividad, A.C. and from February 2019 he has presided over the Consejo Mexicano de Negocios, a business organization that groups together the 60 most important companies with Mexican capital.

Antonio del Valle Perochena is the son of Mr. Antonio del Valle Ruiz; brother of Messrs. Juan Pablo, María de Guadalupe and Antonio del Valle Perochena and is also nephew of Messrs. Jaime Ruiz Sacristán, Adolfo and Ignacio del Valle Ruíz.

Antonio del Valle Perochena is the son of Mr. Antonio del Valle Ruiz; brother of Mr. Juan Pablo and Ms.María de Guadalupe del Valle Perochena and also nephew of Mr. Jaime Ruiz Sacristán (deceased), Mr. Adolfo and Mr. Ignacio del Valle Ruíz.

Name: María de Guadalupe del Valle Perochena

## Position and type of director: Assets

# Member of the Board of Directors since: 2005

**Professional Experience**: She holds a Bachelor's Degree in Economics from Universidad Anahuac. She also holds a postgraduate degree in Senior Management from the Instituto Panamericano de Alta Dirección de Empresas (IPADE). She is a member of the Board of Directors of Kaluz, Banco Ve por Más S.A., and Controladora GEK S.A.P.I. de C.V. She worked in the area of finance and marketing in Banco de Santander and Bital, today she oversees the investments of the family office of del Valle Perochena.

Mrs. María de Guadalupe del Valle Perochena is daughter of Mr. Antonio del Valle Ruíz; sister of Mr. Antonio and Mr. Juan Pablo del Valle Perochena; and she is also niece of Mr. Jaime Ruiz Sacristán (deceased), Adolfo and Ignacio del Valle Ruíz.

## Name: Adolfo del Valle Ruíz

#### Position and type of director: Assets

Member of the Board of Directors since: 1993

**Professional Experience**: A Private Accountant from the Escuela Bancaria y Comercial, he is a certified Executive Business Director by the Instituto Panamericano de Alta Dirección de Empresas (IPADE). Chairman of the Board of Directors of Grupo Creática, S.A. de C.V. since 2002.

Mr. Adolfo del Valle Ruíz is the brother of Messrs. Antonio and Ignacio del Valle Ruíz; cousin of Mr. Jaime Ruiz Sacristán (deceased) and uncle of Messrs. María de Guadalupe, Antonio and Juan Pablo del Valle Perochena.

# Name: Ignacio del Valle Ruíz Position and type of director: Assets

Member of the Board of Directors since: 2000

**Professional Experience**: A Certified Public Accountant, he graduated from the Escuela Bancaria y Comercial. In addition, he is a certified Executive Business Director by the Instituto Panamericano de Alta Dirección de Empresas (IPADE). He is Chairman of the Board of Directors of Vialcoma, S.A. de C.V. and director of several companies, including Fincomún Servicios Financieros, S.A. de C.V., Grupo Institución, S.A. de C.V., Grupo Bepana, S.A. de C.V. and Inmobiliaria Pabellón Altavista, S.A. de C.V.

Mr. Ignacio del Valle Ruíz is brother of Mr. Antonio and Adolfo del Valle Ruíz; and uncle of Mr. María de Guadalupe, Antonio and Juan Pablo del Valle Perochena.

Mr. Ignacio del Valle Ruíz is the brother of Antonio and Adolfo del Valle Ruíz, and cousin of Jaime Ruiz Sacristán (deceased) and uncle of María de Guadalupe, Antonio and Juan Pablo del Valle Perochena.

#### Name: Jaime Ruíz Sacristán (deceased) Position and type of director: Assets

Member of the Board of Directors since: 2000

**Professional Experience:** He holds a Bachelor's Degree in Business Administration from Anahuac University, an MBA from Northwestern University, Evanston, Illinois.

He is Founder and Chairman of the Board of Directors of Banco Ve por Más, S.A. a position he has held since July 2003. Mr. Ruíz Sacristán served as President of the Mexican Bankers Association from March 2011 to March 2013 where he stood out for his efficient dialogue with all sectors involved in the banking business and actively promoted the unity of the sector. He also was Chairman of the Board of Directors of Bolsa Mexicana de Valores, S.A.B. de C.V. from January 1, 2015 to April 2020.

In addition, he was a member of several boards of directors of financial, industrial and commercial companies, including, among others, Orbia, Elementia, S.A.B. de C.V., Grupo Financiero Ve por Más, S.A. de C.V., Byline Bank, Controladora Comercial e Industrial, S.A. de C.V., and its subsidiaries.

Jaime Ruiz Sacristán was cousin of Antonio, Adolfo and Ignacio del Valle Ruíz and uncle of María de Guadalupe, Antonio and Juan Pablo del Valle Perochena.

Name: Divo Milán Haddad

Position and type of director: Independent

Member of the Board of Directors since: 2002

**Professional Experience:** Director General of Strategic Research, Pro-Invest, and Dimmag Invest (Panama Real Estate).

Chairman of the Board of Directors of: Inmobiliaria del Norte, Pro-Invest, (Commercial Real Estate), Dimmag Invest, Círculo de Crédito (Risk Rating Agency), Círculo Laboral (Labor Database), Grupo Aradam (Food Franchise) and Quonia (Spanish Real Estate Society).

Member of the Board of Directors of: NetCapital (Escuela Tecnológica), Orbia, Banco Ve por Más, S.A., Grupo Financiero Ve por Más, S.A. de C.V., Elementia, S.A.B. de C.V.

Name: Fernando Ruiz Sahagún

Position and type of director: Independent

Member of the Board of Directors since: 2002

Professional Experience: Certified Public Accountant from Universidad Autónoma de México.

Founding partner of Chevez, Ruiz, Zamarripa y Cía., S.C. Asesores y Consultores Fiscales, of which he was its Managing Partner since its foundation. He is currently an advisor to the firm.

Member of the Colegio de Contadores Públicos de México, of the Instituto Mexicano de Contadores Públicos, A.C., of the Instituto Mexicano de Ejecutivos de Finanzas, of the International Fiscal Association (IFA).

He was professor of taxation at the Universidad Anahuac, he also taught postgraduate courses at the Instituto Panamericano de Alta Dirección de Empresas (IPADE) and at the Universidad Panamericana.

He participates as a member of the Boards of Directors and Audit and/or Corporate Practices Committees of the following companies: Bolsa Mexicana de Valores, S.A.B. de C.V., Fresnillo PLC, Grupo Financiero Santander, S.A.B. de C.V., Grupo Mexico, S.A.B. de C.V. and Rassini, S.A.B. de C.V.

#### Name: Guillermo Ortiz Martínez Position and type of director: Independent

Member of the Board of Directors since: 2010

**Professional experience:** He graduated from the National School of Economics of the National Autonomous University of Mexico. He later obtained a master's and Doctorate in Economics from Stanford University in the United States.

Currently, Dr. Ortiz is a partner and board member of BTG Pactual, and is also a member of the Group of Thirty, the Board of the Center for Financial Stability, Institute for Globalization and Monetary Policy at the Federal Reserve Bank of Dallas and the CDPQ Global Economic and Financial Advisory Board, as well as Chairman of the Per Jacobsson Foundation.

He is the founder of GO & Asociados, an economic consulting firm created in 2009. Dr. Ortiz was Chairman of BTG Pactual Latin America ex-Brazil from 2016 to 2018 and Chairman of the Board of Directors of Grupo Financiero Banorte-Ixe from 2011 to 2014.

In addition, he is a member of the Board of Mexican companies Aeropuertos del Sureste, Orbia and Vitro.

Dr. Ortiz was Governor of Banco de México from January 1998 to December 2009 and Ministry of Finance and Public Credit from December 1994 to December 1997.

Name: Eduardo Tricio Haro Position and type of director: Independent Member of the Board of Directors since: 2008 Professional Experience: Zootechnical Agricultural Engineer from Instituto Tecnológico y de Estudios Superiores de Monterrey.

He is Chairman of Grupo Lala and Grupo Nuplen. He presides over the executive committee of Aeromexico.

He is Member of the Board of Directors of Orbia, Aeroméxico, Televisa, Grupo Financiero Banamex, and Aura Solar; and of the Mexican Business Board.

In addition, he is Member of the Board of several foundations and philanthropic organizations such as the Federico Gomez Children's Hospital of Mexico, Salvador Zubirán National Institute of Medical Sciences and Nutrition, Mexicanos Primero, The Latin America Conservation Board of the Nature Conservancy, among others.

Name: Eugenio Santiago Clariond Reyes Position and type of director: Independent Member of the Board of Directors since: 2007 Professional Experience: He has a bachelor's and master's degree in Business Administration from ITESM.

He is Chairman of several Boards of Directors such as: Grupo Cuprum, Grupo Cleber, Grupo Fultra. Director of several public and private companies: Orbia, Grupo Financiero Ve por Más, Grupo Industrial Saltillo, FIBRA Monterrey, Grupo Energex, and Excel del Norte. Advisor to institutions such as TEC Salud, Fondo del Agua Metropolitano de Monterrey, Instituto Mexicano para la Competitividad (IMCO). He is a member of the Advisory Board of the College of Business Administration of the University of Texas at Austin. He is Honorary Consul of Brazil.

Name: Alma Rosa Moreno Razo

Position and type of director: Independent Member of the Board of Directors since: 2018

**Professional experience:** A graduate in Economics from ITAM. She also holds a master's degree in economics from the Colegio de México and doctoral studies from New York University.

After a long career at SHCP she was President of the Tax Administration System from 1999 to 2000. She was Mexico's Ambassador to Great Britain and Northern Ireland from 2001 to 2004, Director of Administration at Grupo Financiero Banorte from 2004 to 2009 and from 2009 to mid-2018 she worked at Pemex.

Name: María Teresa Altagracia Arnal Machado Position and type of director: Independent Member of the Board of Directors since: 2019 Professional experience: Industrial Engineer from Universide

**Professional experience:** Industrial Engineer from Universidad Católica Andrés Bello in Venezuela, Master of Business Administration (MBA) from Columbia University and member of the International Women Forum.

She oversaw Google's operations in Mexico, now she is in transition to lead Stripe, a fintech company, where she will be in charge of opening and building its business in Latin America. Before joining Google, she was General Manager of Twitter in Mexico, Colombia and Argentina. Also, her experience in Digital Marketing, Technology and Telecommunications includes managing J. Walter Thompson Mexico, Mirum and Clarus, a company she founded. Likewise, she founded IAB in Mexico (Interactive Advertising Bureau) and was president of the local Council of the World Internet Project. Previously she directed the JV of Microsoft and Telmex, ProdigyMSN, from where she contributed to build the commercial internet in Mexico. Early in her career she was a consultant at The Boston Consulting Group and Booz Allen & Hamilton.

#### Name: Juan Pablo del Río Benítez

**Position and type of director:** Secretary without being a member of the Board of Directors **Member of the Board of Directors since:** 2008

**Professional Experience:** He graduated in Law from Universidad Anahuac in 1992. He specialized in commercial law (postgraduate) at the Escuela Libre de Derecho, 1993-1994. Founding partner of the law firm DRB Consultores Legales.

He has concentrated his practice in the areas of corporate law, commercial law, finance, foreign investment, mergers and acquisitions, securities and corporate finance.

He is Secretary (non-member) of the Board of Directors and external legal advisor to several companies, among them: Orbia, Elementia, Compañía Minera Autlán, Grupo Pochteca, Grupo Hotelero Santa Fe, Banco Ve por Más, Grupo Financiero Ve por Más, Aeropuertos Mexicanos del Pacífico, Grupo Finaccess, Sabormex, Cía. Cerillera La Central.

He is a member of the Regulatory Committee of the Mexican Stock Exchange, the Mexican Bar Association and the Center for International Legal Studies.

Directors are elected by the Annual Shareholders' Meeting, and will hold office for one year, with the Meeting having the power to re-elect them or, as the case may be, appoint new members.

	BOARD OF DIRECTORS		
Member	Gender	Date of Designation	
Antonio del Valle Ruíz Honorary Life President	Male	Ordinary General Shareholders' Meeting dated April 28, 2000	
Juan Pablo del Valle Perochena	Male	Extraordinary and Ordinary General Shareholders' Meeting held on April 30, 2002	
Antonio del Valle Perochena	Male	Extraordinary and Ordinary General Shareholders' Meeting held on April 30, 2002	
María de Guadalupe del Valle Perochena	Female	Ordinary General Shareholders' Meeting held on April 27, 2005	
Adolfo del Valle Ruíz	Male	Extraordinary General Shareholders' Meeting dated November 24, 1993	
Ignacio del Valle Ruíz	Male	Ordinary General Shareholders' Meeting dated April 28, 2000	
Jaime Ruíz Sacristán	Male	Ordinary General Shareholders' Meeting dated April 28, 2000	
Divo Milan Haddad*	Male	Extraordinary and Ordinary General Shareholders' Meeting held on April 30, 2002	
Fernando Ruíz Sahagún*.	Male	Extraordinary and Ordinary General Shareholders' Meeting held on April 30, 2002	
Guillermo Ortiz Martínez*	Male	Annual General Ordinary Shareholders' Meeting dated April 30, 2010	

		BOARD OF DIRECTORS
Member	Gender	Date of Designation
Eduardo Tricio Haro*	Male	Ordinary General Shareholders' Meeting held on April 29, 2008
Eugenio Santiago Clariond Reyes*	Male	Ordinary General Shareholders' Meeting dated April 18, 2007
Alma Rosa Moreno Razo*	Female	Ordinary General Shareholders' Meeting held on April 23, 2018
María Teresa Altagracia Arnal Machado*	Female	Extraordinary and Ordinary General Shareholders' Meeting held on April 23, 2019

\* Independent directors.

+Not a member of the Board

During 2019, 23.07% of the Directors were women. As of the Annual General Shareholders' Meeting held on April 28, 2020, the percentage of women on the Board of Directors has been 21.42%.

The aforementioned Annual Ordinary Annual General Shareholders' Meeting held on April 28, 2020 appointed the following two new independent members to the Board of Directors. In addition, this Shareholders' Meeting gave special thanks and recognition to Mr. Jaime Ruíz Sacristán, who died on April 12, 2020 and who was until then a member of the Board of Directors and Chairman of the Company's Finance Committee. In addition, Mr. Sheldon Vincent Hirt was appointed as Vice Secretary (without being a member) of the Board of Directors, replacing Mr. Francisco Ramón Hernández.

Consequently, as of that Shareholders' Meeting, Company's the Board of Directors is comprised, in addition to the members already indicated, of the following individuals:

#### Name: Anil Menon

Position and type of director: Independent

Member of the Board of Directors since: 2020

**Professional experience:** He has a degree in Electronics and Communications from Cornell University in the United States, as well as a master's in business administration from the same university.

From 1994 to 2002, he held various consulting and academic positions in various locations. In 2002, he joined IBM, where he became Vice President. In 2009, he was recruited by Cisco. Over the next 9 years, he held various positions, including President and Deputy Director of Globalization.

He is currently Managing Director of Computers Limited in India.

In addition, he has been a business member of Sony Corporation, a member of the Advisory Board of the Carey School of Business at John Hopkins University, a member of the Board of the Client Information Center at Yale University and a member of the Advisory Board of Citigroup in India.

He has also been active in the World Economic Forum.

He has a strong background in the B2B technology industry, as well as exposure to the U.S. and South Asian markets. He has extensive experience in technology.

Name: Jack Goldstein
Position and type of director: Independent
Member of the Board of Directors since: 2020
Professional experience: Business Administrator from Universidad de Los Andes in Colombia and master's in business administration from Babson College.

He is the founder, managing partner and sole owner of Alfa International (Investment Manager).

Prior to founding Alfa International, he served as CEO and President of Sanford Management, a company that manages a portfolio of multi-sector companies based primarily in Latin America. During his tenure at Sanford, he successfully launched several new companies and led over a dozen multi-million-dollar M&A transactions in the region, some valued at over \$500 million dollars.

He also served as President of Filmtex, a major market participant in the plastics industry.

He has attended several continuing education courses at Oxford University and Harvard University.

He has been a board member of several companies and charitable foundations, including Bavaria (now SAB Miller), the Colombian American Chamber of Commerce, the Ministry of Foreign Trade and the Julio Mario

Santo Domingo Foundation. He also served as President of Fundación Génesis and member of the Advisory Committee of Bank of the Republic of Colombia.

The criteria used to identify whether a member is an independent, proprietary or related director, as indicated in the report, is based on the description set forth in the Code of Conduct and Best Corporate Governance Practices, issued by the Business Coordinating Council.

## Powers of the Board of Directors

The Board of Directors has the legal representation of the Company and enjoys the broadest powers and powers of attorney to carry out all the operations inherent to the corporate purpose, except those expressly entrusted to the General Shareholders' Meeting. The Board of Directors is vested with, but not limited to, the following powers or powers: (i) lawsuits and collections, (ii) administer property, (iii) exercise acts of ownership (iv) appoint and remove the General Director, directors, managers, officers and attorneys-in-fact, and to determine their attributions, working conditions, compensation and guarantees, and confer powers on directors, managers, officers, attorneys and other persons required to carry out the operations of the Company.

The Board of Directors is responsible for the strategic management of the Company and is empowered to resolve any matter not expressly reserved to the Shareholders' Meeting. Among others, the Board of Directors must deal with the obligations and responsibilities established in Article 28 of the LMV.

In accordance with the LMV, the Board of Directors will have the support of an Audit Committee and a Corporate Practices Committee to carry out its functions. In addition to these Committees, the Company has a Finance Committee.

On February 2020, the Corporate Practices Committee was renamed the Corporate Practices and Sustainability Committee, having also assumed the supervision of the Company's sustainability strategy.

In addition, the Board of Directors shall be responsible, among others, including but not limited to the following attributions: (i) monitor compliance with the resolutions of the Shareholders' Meetings, which may be carried out through the Audit Committee; (ii) establish compensation plans for executives and directors, as well as to make decisions regarding any other matter in which the aforementioned persons may have an interest. The Board of Directors reports annually to the Shareholders' Meeting on its activities and resolutions, and the Shareholders' Meeting has the power to evaluate, qualify and, if appropriate, approve said report on the functioning of the Board of Directors, and may even require additional or complementary reports.

## Audit Committee

This Committee will be made up exclusively of Independent Directors and a minimum of three members appointed by the Board of Directors itself, at the proposal of the Chairman of said corporate body, on the understanding that the chairmen of this Committee and the Corporate Practices and Sustainability Committee will be appointed and removed by the General Shareholders' Meeting.

The person on Orbia's Audit Committee who is considered a "financial expert" is Mr. Fernando Ruiz Sahagún who is the Committee Chairman.

The Audit Committee and its Chairman shall have the following powers and duties, within the scope of their competence:

- a) To provide the Board of Directors with their opinion on the matters indicated in Articles 28, 30, 44, 99, 100, 101, 102, 108 and other applicable articles of the LMV.
- b) Those established in Articles 27, 41, 42 and 43 and other applicable of the LMV.

Without prejudice to the foregoing:

The Audit Committee shall be responsible for carrying out the following activities:

(i) To give the Board of Directors an opinion on the matters that fall within its competence under the applicable legislation.

(ii) To evaluate the performance of the legal entity that provides the external audit services, as well as to analyze the opinion, opinions, reports or reports prepared and signed by the external auditor.

(iii) To discuss the Company's financial statements with the persons responsible for preparing and reviewing them, and on this basis to recommend or not to recommend their approval by the Board of Directors.

(iv) Inform the Board of Directors of the situation of the internal audit and control system of the Company or of the legal entities it controls, including any irregularities it detects.

(v) To prepare the opinion referred to in Article 28, section IV, paragraph c) of the LMV and submit it to the Board of Directors for its subsequent presentation to the Shareholders' Meeting, relying, among other elements, on the external auditor's report. That opinion should at least point out:

- a) Whether the accounting and reporting policies and criteria followed by the Company are adequate and enough, taking into consideration the particular circumstances of the Company.
- b) Whether such policies and criteria have been consistently applied in the information submitted by the Director-General.
- c) If, because of paragraphs a) and b) above, the information presented by the Director General reasonably reflects the financial situation and results of the Company.

(vi) To support the Board of Directors in the preparation of the reports referred to in Article 28, section IV, paragraphs d) and e) of the LMV.

(vii) Ensure that the transactions referred to in Articles 28, section III and 47 of the LMV are carried out in accordance with the provisions of said precepts, as well as the policies derived therefrom.

(viii) Seek the opinion of independent experts where it deems it appropriate, for the proper discharge of its functions or where required under applicable law or general provisions.

(ix) Require the Relevant Officers and other employees of the Company or of the legal entities controlled by it, reports related to the preparation of financial information and of any other type that it deems necessary for the exercise of its functions.

(x) Investigate the possible non-compliance of which it is aware, with the operations, operation guidelines and policies, internal audit and control system and accounting records, whether of the Company itself or of the legal entities controlled by it, for which it shall carry out an examination of the documentation, records and other evidences, to the degree and to the extent necessary to carry out said monitoring.

(xi) Receive observations made by Shareholders, Directors, Relevant Executives, employees and, in general, any third party with respect to the matters referred to in the foregoing paragraph, as well as carrying out the actions it deems appropriate in relation to such observations.

(xii) Request periodic meetings with the Relevant Executives, as well as the delivery of any type of information related to the internal control and internal audit of the Company or legal persons that it controls.
 (xiii) Inform the Board of Directors of any significant irregularities detected in the performance of its duties and where appropriate of any corrections taken or taken or taken and where appropriate of any corrections.

duties and, where appropriate, of any corrective actions taken or propose those that should be applied. (xiv) To call a Shareholders' Meeting and request adding any items it deems relevant in the Agenda of said Meetings.

(xv) Ensure that the Chief Executive Officer complies with the resolutions of the Shareholders' Meetings and the Board of Directors of the Company, in accordance with the instructions, if any, issued by the Meeting itself or the Board.

(xvi) To supervise the establishment of internal mechanisms and controls to verify that the acts and operations of the Company and of the legal entities controlled by it comply with the applicable regulations, as well as to implement methodologies that make it possible to review compliance with the foregoing.

(xvii) Any others that the LMV establishes or are provided for in these corporate bylaws, in accordance with the functions legally assigned.

See Section 7, "Annexes", "Reports of the Audit Committee" of this Annual Report.

See Section 4, "Management", subsection d, "Bylaws and Other Agreements" of this Annual Report, for additional information on the Board of Directors.

# Corporate Practices and Sustainability Committee

The Board of Directors, for the performance of its functions, will also have the assistance of the Committee that carries out the activities related to Corporate Practices. This Committee will mostly comprise Independent Directors and a minimum of three members appointed by the Board of Directors itself, at the proposal of the Chairman of said corporate body, on the understanding that its Chair will be appointed and removed by the General Shareholders' Meeting, as the Chair of the Board of Directors cannot chair this Committee.

Pursuant to Article 25 of the LMV, since the control group holds a position equal to or greater than 50% of the Company's capital stock, the Corporate Practices and Sustainability Committee is comprised of a majority of independent directors.

The Corporate Practices Committee and its Chairman shall have the following powers and duties, within the scope of their competence:

- To provide the Board of Directors with its opinion on the matters indicated in Articles 28, 30, 44, 99, 100, 101, 102, 108 and other applicable articles of the LMV.
- Those established in Articles 27, 41, 42 and 43 and other applicable of the LMV.

Without prejudice to the foregoing:

The Committee shall be responsible for carrying out the following activities:

(i) To give an opinion to the Board of Directors on matters within its competence under applicable law.

(ii) Seek the opinion of independent experts when it deems it appropriate, for the proper performance of its functions or when required under applicable law or general provisions.

(iii) To call Shareholders' Meetings and have the items they deem relevant inserted in the Agenda of said Meetings.

(iv) To support the Board of Directors in the preparation of the reports referred to in article 28, section IV, paragraphs d) and e) of the LMV.

(v) Propose to the Company's Shareholders' Meeting a form with the names of the persons who, in its opinion, should form part of the Company's Board of Directors in the event that its members at the time of election are not ratified in their posts by the Shareholders' Meeting. In the selection of candidates for the Board of Directors, the Committee shall consider only persons of recognized experience and professional or business background, as well as persons who do not have a conflict of interest with the Board, its subsidiaries or relevant shareholders, and to the extent required, that candidates who propose qualify as independent Directors under the terms of the applicable legislation.

(vi) Such other duties as may be established by the LMV or as may be provided for in these Bylaws, in accordance with the functions legally assigned.

**Finance Committee** 

The Finance Committee was created by resolution of the Board of Directors adopted at its meeting held on June 9, 2016, based on Article Thirty-Eight of the Company's bylaws.

The Finance Committee is composed of 6 members of the Board of Directors, who were appointed by the Board of Directors.

This Committee shall support the Board of Directors in fulfilling its responsibilities to shareholders with respect to policies, practices and strategies related to the management of their financial affairs.

The Finance Committee shall have the following powers and duties, within the scope of its competence:

a) Formulate and recommend for the approval of the Board of Directors the financial policies of the Company, including the management of financial affairs.

- b) Review Management's plans for managing the Issuer's financial risk exposure.
- c) Review the Company's cash flow plan, balance sheet and capital structure.
- d) Review the Company's capital allocation strategy, including the cost of capital.

Without prejudice to the foregoing:

The Finance Committee shall be responsible for carrying out the following activities:

(i) Review and make recommendations to the Board of Directors regarding the capital structure, debt, and financing, including issues related to Company's debt and equity issues.

(ii) Review and make recommendations to the Board of Directors on major strategic investments, mergers, acquisitions, divestitures, capital expenditures and other transactions.

(iii) To review and recommend to the Board of Directors the annual budget. The Committee must monitor compliance with the budget, as well as the financial operations of the Company.

(iv) Recommend to the Board of Directors the Company's Dividend Policy.

(v) Recommend to the Board of Directors the strategy for repurchase of shares and bonds.

(vi) Review the Company's capital strategy, as well as the relevant financial indicators so that the Company can continue to strengthen its balance sheet.

(vii) Review and establish treasury investment policies.

(viii) Review the funding and liquidity strategies and relevant metrics used to ensure adequate diversification and achievement of annual funding targets, including cash flow, minimum cash requirements, as well as liquidity and working capital targets.

(ix) Review the priorities, policies and capital allocation guidelines of the Company, as well as the financial result of the investments made against the established objectives (periodic review of acquisitions and new investments).

(x) Supervise policies and procedures on hedges, swaps, other derivative transactions and risk management.

(xi) Review movements and liquidity of the Company's shares in the market.

(xii) Review and approve recommendations to the Board of Directors in all significant areas of the Company's treasury.

Officers and Executives

The following table sets forth the names of the Company's main officers:

Name	Gender	Date of birth	Official positions in English /translated into Spanish	Date of entry (mm/dd/yy)
Daniel Martinez-Valle	Male	06/05/1971	Chief Executive Officer/ Director General	01/31/2018
Carlos Manrique	Male	04/12/1955	Business Group President Vestolit/ Presidente Grupo de Negocio Vestolit	06/01/1978
Edgardo Carlos	Male	09/10/1966	Chief Financial Officer/ Director de Finanzas	08/05/2019
Jorge Luis Guzmán Mejía	Male	08/21/1970	Corporate Vice-President, Internal Audit/ Vicepresidente, Auditoría Interna	02/01/2008
Maarten Roef	Male	02/23/1964	Business Group President Wavin/ Presidente del Grupo de Negocio Wavin	01/09/1999
Peter Hajdu	Male	01/08/1978	Business Group President Duraline/ Presidente del Grupo de Negocio Duraline	08/01/2018
Sameer Bharadwaj	Male	04/04/1970	Business Group President Koura and Alphagary/ Presidente de Grupo de	08/15/2016
Sheldon Hirt	Male	07/10/1963	Negocio Koura y Alphagary General Counsel/ Vicepresidente Legal	05/17/2019

**Daniel Martinez-Valle** holds a master's degree in Business Administration from Stanford Business University and a bachelor's degree in Economics from the Instituto Tecnológico Autónomo de México. Beginning in February 2018, Daniel was appointed Chief Executive Officer (CEO) of the Company. He previously served as CEO of Kaluz, where he was an essential part in its global expansion by executing strategies with a focus on return on invested capital. In addition, he co-founded CoRe, a think tank focused on making cities more livable. Daniel also fostered customer-centric innovation in the companies that are part of Kaluz. Prior to Kaluz, Daniel was Director of Global Strategy and Planning at Cisco, where he was a key member of the leadership team that drove a \$5 billion Dollar investment from Cisco to Mexico. Previously, he was managing partner of Nebli Capital Advisors, a private investment and investment advisory firm based in Spain, and CEO and founder of Aquanima, a leading provider of global management services to large corporations in Europe and Latin America. Previously, Mr. Martínez-Valle was a founding partner of BBF Ventures.

He also worked as a consultant at McKinsey & Co., and served as Advisor to the Ministry of Communications and Transportation in Mexico and Coordinator of Advisors at the Ministry of Finance, where he actively participated in the negotiation of a USD 20,000 million Dollar loan during the 1994-95 financial crisis.

**Sameer S. Bharadwaj** joined the Issuer's team in August 2016 as President of the Compounds business unit. At the beginning of 2018, Sameer added the Fluor business group to its responsibility. Sameer has 22 years of work experience, 19 of which he has dedicated to the advanced materials and chemical industries.

Most recently, he served as Vice President and Chief Executive Officer of the Specialty Fluids segment at Cabot Corporation, a global specialty materials company. Previously, he served as Vice President of Marketing, Strategy and Growth for the \$1,000 million Dollars Performance Materials segment at the same company. Prior to this, Sameer was responsible for building the Elastomer Compounds business in Cabot, commercializing this new cutting-edge technology in collaboration with a major tire company. Sameer also worked as a consultant for The Boston Consulting Group for over 3 years in various industries. Sameer holds a degree in Chemical Engineering from the University of Bombay and a PhD in Chemical Engineering from the University of Minnesota, where he worked with alternative fuels, as well as new reactor and catalyst technologies. In 2001, he completed an MBA at Harvard Business School, where he was recognized as one of the top 5% of his class (out of 850). Prior to entering business school, while working as a Senior Researcher at The Dow Chemical Company, he worked on the commercialization of an innovative ethylene production process based on his doctoral research.

**Carlos Manrique Rocha** has an academic degree in Chemical Engineering from the Universidad Autónoma de Puebla and postgraduate studies in Business Administration from IPADE and Statistical Postgraduate from ITESM. He has worked at the Issuer for more than 30 years and has served as President of the Polymer Solutions business group since 2011. Mr. Manrique is Chairman of the Board of Directors of the TEPEAL Port Terminal.

**Maarten Roef** is President of the Building & Infrastructure business (Fluent Europe -Wavin- and Fluent LatAm -Amanco-). Mr. Roef has 28 years of professional experience in the plastics and packaging industry. He began his career in 1991 at DSM in the chemical industry, then moved to Van Leer Packaging in 1996, then joined Wavin at the end of 1999. Mr. Roef developed his career at the Company by leading the overseas business of Wavin, the Benelux and then the Northwest region, before being appointed CEO of Wavin by the Wavin Board of Directors in 2013. Subsequently, Mr. Roef was appointed head of the Fluent Europe (Wavin) business from 2016 and now, from the end of 2018, leads the Company's global Construction & Infrastructure business (Fluent Europe and Fluent LatAm - Wavin and Amanco-). In April 2016, he was appointed President of the European Association of Plastic Tubes and Fittings (TEPPFA). Mr. Roef holds a master's degree in Business Economics from Erasmus University in Rotterdam, the Netherlands. In addition, he has studied in the UK and France and at various institutions such as IMD (Switzerland), Insead (France), Kellogg (USA), Stanford (USA) and Harvard (USA).

**Ran Maidan** joined Netafim as CEO after 15 years of experience in areas such as finance, operations, mergers and acquisitions, marketing and sales. Prior to joining Netafim in 2014, Mr. Maidan was Executive Director of Asia-Pacific, Africa and Middle East at Makhteshim Agan Industries (now Adama Agricultural Solutions) of which he had been CFO for the period 2006-2010. Prior to joining Makhteshim Agan, he held several senior management positions at Koor Industries, including vice president and chief financial officer, vice president in charge of mergers, acquisitions and taxes, and corporate controller. He also served as CFO of Elisra Defense Group and as Audit Manager at KPMG Somekh Chaikin. Ran holds a bachelor's degree in Accounting and Economics and a master's degree in business administration with a specialization in Finance from Bar-Ilan University and is a CPA in Israel.

**Peter Hajdu** graduated from the University of California at Berkeley with an MBA and a degree in Technology Management. During his corporate career, he also attended numerous senior management programs at Harvard Business School and IMD in Switzerland. He began his career as a consultant working for McKinsey and Company. Before joining the Issuer, he worked at Cisco, the world's largest network company, where he held various management positions. Mr. Hajdu was Director of Strategy and Business Development and a member of the board of directors of Cisco Emerging Markets. In 2010, he became Managing Director of operations in several developing countries for the same company. His last position at Cisco was as Chief Executive Officer of Cisco Central and Eastern Europe. Since 2018 Mr. Hajdu serves as President of the Company's Data Communications business (Fluent US/Canada and AMEA). Within his capabilities, Mr. Hajdu has lectured at major conferences and advises heads of state and governments on issues of competitiveness, digitization, education, inclusion and social development.

**Edgardo Carlos** graduated as a public accountant from the La Plata National University (UNLP) in Argentina. He also holds an MBA from the Massachusetts Institute of Technology (MIT Sloan Fellows Program) and completed various executive programs at Wharton and Stanford University. Prior to his position at Orbia, Edgardo was the Global CFO of Tenaris, with responsibilities in administration, finance, IT; supervising more than 1,200 employees worldwide. He was a strategic partner for business development, with a strong focus on capital deployment and asset utilization. Previously, Edgardo worked at Sidor and participated in the privatization process of one of the largest steel companies in Latin America. He played an active role in debt restructuring after a crisis during which steel prices fell to the lowest point in years.

Sheldon Hirt graduated from Columbia University, USA, with a Law degree, where he also obtained a Master of Public and International Policy and a Juris Doctor degree. Prior to his graduate studies, he worked in the United States Marine Corps. In addition, he has extensive experience in international companies in multiple geographies. He previously served as General Counsel at Amneal Pharmaceuticals, a specialty

pharmaceutical company, and prior to that, was General Counsel at Progenics Pharmaceuticals, an oncology-focused biotechnology company. He has also held senior executive positions in the legal department of companies such as Allergan, Barr Pharmaceuticals and Johnson & Johnson. He began his legal career working in both New York and Germany.

Jorge Luis Guzmán Mejía has a degree in Business Administration and an MBA from the Universidad Iberoamericana. Mr. Guzman also holds CIA & CSA certifications accredited by the Florida Institute of Internal Auditors. Prior to joining the Issuer in 2008, he worked at AVON, Becton Dickinson, Dupont, and Dow Chemical. He has over 20 years of experience in the areas of finance, treasury, credit, auditing, risk, and internal control (Sarbanes Oxley).

#### Diversity

Our corporate culture respects professional, cultural and gender diversity and encourages professional development based on talent, character, education, knowledge, discipline and work, without distinction of sex, race, religion or other similar subjective factors. In addition, Orbia strictly rejects any kind of discriminatory behavior, including gender discrimination. To date, the Issuer is working to implement policies, to be approved by our Board of Directors, that actively promote corporate and labor inclusion, regardless of sex, diversity and the selection of the best candidates for the Company, both in our governing bodies and among our employees, without specific standards, but with the aim of expanding gender diversity, perspective and experience. This, with those directly responsible for monitoring compliance.

Compensation of members of the Board of Directors and of the Audit and Corporate Practices Committee

According to the resolutions of the Ordinary and Extraordinary General Shareholders' Meeting held on April 23, 2019, it was determined that during the 2019 fiscal year and until further resolution by the Shareholders' Meeting that the Chairmen of the Board of Directors and of the Company's Committees would receive the amount of \$160,000.00 Mexican pesos for each meeting they attend, and that the members of the Board of Directors and the Committees would receive the amount of \$80,000.00 Mexican pesos for their attendance at the meetings of said Board and/or Committees, respectively.

Overall, the benefits received from the Company during 2019 by the members of the Board of Directors and Relevant Directors was \$9.6 million.

Furthermore, the total liability foreseen by the Company and/or its subsidiaries for pension, retirement or similar plans is \$215.5 million.

The type of compensation that the Company's Relevant Directors receive is composed of a fixed and a variable part. The variable part is divided into three main items; a quarterly bonus associated to the operating result of the business having as its most important metrics the EBITDA and the operating flow, the annual bonus which is also related to the operating result of the business has the same metrics as the quarterly bonus, but also includes a percent for the Director's individual performance and finally the long term incentive which is composed of phantom shares, linked to the Return on Invested Capital target set by the Company as well as to the ownership in the Company.

#### Intermediate Management Bodies

The Committees that assist the Board of Directors are the Audit Committee, the Corporate Practices Committee and the Finance Committee. Orbia does not have intermediate bodies in addition to those referred to above.

## Code of Ethics

Orbia must always be a company recognized for its principles and values. In order to maintain and strengthen its ethical and professional performance, its Code of Ethics has been updated and strengthened, while a more effective reporting system has been established through which any conduct contrary to the Company's principles and values may be reported.

The Code of Ethics establishes Orbia's commitments to society, government and competition, as well as to its employees, suppliers, consumers, customers, partners and shareholders.

The Code of Ethics is the guideline of behavior in Orbia's daily operation.

Main Shareholders

As of the date of this Annual Report, the Company's main shareholder is Kaluz, which is controlled by the del Valle family, which owns approximately 42.91% of the voting capital stock and should therefore be considered as a shareholder exercising significant influence under the LMV. The Valle Perochena siblings individually own 0.52%, other shareholders related to the del Valle family are: (a) Ignacio del Valle Ruíz with 5.09%, and (b) several individuals and companies related to the del Valle family to a greater or lesser extent with 3.11%, own approximately 8.20% of the capital stock with voting rights, so that together with Kaluz should be considered as a group of people who exercise significant influence over the Issuer, according to the LMV.

To date, the Company's capital remains unchanged. The capital is represented by 2,100,000,000 shares.

#### Employee and executive shareholdings

To the best of the Company's knowledge, none of its employees and/or relevant managers have individual holdings of more than 1% of the capital stock.

#### Shareholding of Directors

The main shareholders of the Company are members of the del Valle Perochena Family (Antonio del Valle Perochena, María Blanca del Valle Perochena, María de Guadalupe del Valle Perochena, Francisco Javier del Valle Perochena and Juan Pablo del Valle Perochena), through the company Kaluz, of which 43% of the shares are held in equal shares, the remaining 57% of Kaluz, which belongs to Controladora Gek, S.A.P.I. de C.V., of which the del Valle Perochena siblings are 100% shareholders (20% each).

Maria de Guadalupe, Antonio and Juan Pablo del Valle Perochena, are also Company Directors.

Based on the lists of holders provided to the Company by various securities market intermediaries on the occasion of its Ordinary and Extraordinary General Shareholders' Meeting held on April 28, 2020, the following directors of the Company maintain a direct and individual shareholding of more than 1% and less than 10% of the Company's capital stock:

Shareholder	Position
Ignacio del Valle Ruíz	Assets Director

The person mentioned above holds in aggregate the equivalent of 5.09% of the Company's subscribed and paid-in capital stock.

Significant Changes in Last Three Years of Shareholder Holding

There have been no significant changes in shareholder ownership in the last three fiscal years.

#### Diversity

Our corporate culture respects professional, cultural and gender diversity and encourages professional development based on talent, character, education, expertise, discipline and work, regardless of sex, race, religion or other similar subjective factors. Furthermore, Orbia strictly rejects any kind of discriminatory conduct, including gender discrimination. To date, the Company is working on implementing policies, to be approved by our Board of Directors, that actively promote corporate and labor inclusion, regardless of sex, diversity and the selection of the best candidates for the Company, both in our governing bodies and among our employees, without specific standards, but with the aim of expanding gender diversity, perspective and experience. This, with those directly responsible for monitoring compliance.

During 2019, 23.07% of the board members were women. As of the Annual Ordinary General Shareholders' Meeting held on 28 April 2020, the percentage of women on the Board of Directors has been 21.42%.

#### d) Corporate Bylaws and Other Agreements

The following is a brief summary of the main provisions contained in the Company's corporate bylaws.

#### Right of Preference

In cash capital increases, shareholders will have preference to subscribe the new shares issued to represent the increase. This right must be exercised within the term established for such purpose by the Shareholders' Meeting that decrees the increase, which in no case may be less than 15 (fifteen) calendar days counted from the date of publication of the corresponding notice in the electronic system established by the Ministry

of Economy. In addition, the Company may publish the respective notice in a newspaper with widespread circulation at the registered office. However, if all the shares comprising the capital stock are represented at the Meeting that decreed the increase, said period of at least 15 (fifteen) days shall begin to run and be counted, if so resolved by said Meeting, as from the date the Meeting is held, and the shareholders shall be deemed to have been notified of the resolution at that time, and therefore its publication shall not be necessary.

In the event that, after the expiry of the aforementioned period, certain shares still remain unsubscribed, the Board of Directors shall have the power to determine the person or persons to whom the unsubscribed shares must be offered for subscription and payment.

Shareholders shall not enjoy a pre-emptive right in the case of: (i) the merger of the Company, (ii) the conversion of debentures into shares, (iii) the public offering of shares under the terms of Article 53 of the LMV and Article Eight of the bylaws, (iv) the increase in the capital stock through the payment in kind of the shares issued, or through the cancellation or capitalization of liabilities payable by the Company, (v) the placement of shares acquired by the Company in accordance with Article 56 of the LMV and Article Thirteen of the bylaws (repurchase fund), (iv) the capitalization of share premiums, retained earnings and reserves or other items of the assets of the Company; and (vii) any other case where the Law permits the non-application of the pre-emptive subscription right.

## Provisions for Change of Control

The ninth article of the corporate Bylaws contains measures to limit shareholding "Poison Pill", such that any transfer of shares to any person or group of persons acting in a concerted manner, which accumulates in one or more transactions (without time limit) 10% or more of the total shares representing the outstanding capital stock, shall be subject to the authorization of the Board of Directors.

The above, including but not limited to: a) The purchase or acquisition by any title or means, of shares representing the capital stock of this Company, including Ordinary Participation Certificates (CPO's) or any other instrument whose underlying value are shares issued by the Company; b) The purchase or acquisition of any class of rights corresponding to the holders or owners of the Company's shares or shares issued in the future by the Company; c) Any contract, agreement or legal act that seeks to limit or results in the transfer of any of the rights and powers that correspond to shareholders or owners of shares in the Company, including derivative financial instruments or operations, as well as acts that imply the loss or limitation of voting rights granted by shares representing the capital stock of this Company; and d) Purchases or acquisitions intended to be made by one or more interested parties, who act in a concerted manner or are linked to each other, de jure or de facto, to take decisions as a group, association of persons or consortia.

The prior favorable written agreement of the Board of Directors shall be required regardless of whether the purchase or acquisition of the shares, securities and/or rights is intended to be made on or off the Stock Exchange, directly or indirectly, through a public offer, private offer, or through any other modality or legal act, in one or several transactions of any legal nature, simultaneous or successive, in Mexico or abroad.

The favorable prior written agreement of the Board of Directors shall also be required for the execution of agreements, contracts and any other legal acts of any nature, oral or written, by virtue of which voting mechanisms or association agreements are formed or adopted, to be exercised at one or more Shareholders' Meetings of the Company, each time the number of grouped votes results in a number equal to or greater than any percentage of the total shares representing the capital stock of the Company that are equal to or greater than 10% (ten percent) of the capital stock. An agreement of this nature shall not be understood to be an agreement entered into by shareholders for the appointment of minority Directors. Such agreements shall be subject to the provisions of the LMV and shall not be enforceable against the Company to the detriment of the other shareholders or the Company's financial or business interests.

If purchases or acquisitions of shares are made, or restricted agreements are entered into, without observing the requirement to obtain prior favorable written agreement of the Board of Directors of the Company and, if applicable, compliance with the aforementioned provisions, the shares, securities and rights pertaining to such purchases, acquisitions or agreements, shall not grant any right or faculty to vote at the Company's Shareholders' Meetings, nor shall any value be given to certificates of deposit of shares issued by any credit institution, financial intermediary or stock exchange, depositary or institution or for the deposit of securities, to accredit the right to attend a Shareholders' Meeting. Nor shall such shares, rights or securities be entered in the Register of Shares of the Company or, as the case may be, the Company shall cancel their entry in the Register of Shares kept by the Company.

Notwithstanding and regardless of any consequence arising from noncompliance with the foregoing, each person who acquires shares, securities, instruments or rights representing the Company's capital stock in violation of the provisions will be obliged to pay the Company a conventional penalty in an amount equal to the price of all the shares, securities or instruments representing the Company's capital stock that have been

the object of the forbidden transaction. In the event that the transactions that have given rise to the acquisition of a percentage of shares, securities, instruments or rights representing the Company's capital stock equal to or greater than 10% (ten percent) of the capital stock are made free of charge, the conventional penalty will be equivalent to the market value of said shares, securities or instruments, provided that the authorization of the Company's Board of Directors has not been obtained.

As long as the Company maintains the shares representing its capital stock registered in the National Securities Registry, the above requirement, in the event of transactions carried out through the stock exchange, will also be subject to the rules established by the Stock Market Act or those issued by the National Banking and Securities Commission in accordance therewith.

## Shares

All shares, both those representing the minimum fixed capital stock, with no right of withdrawal, and those representing variable capital, are ordinary, nominative, without nominal value and confer on their holders equal rights and obligations.

#### Shareholders' Meetings

The General Shareholders' Meeting is the supreme body of the Company. Meetings shall be Ordinary, Extraordinary or Special. The Extraordinary Meetings will be those that meet to deal with any of the matters referred to in Article 182 of the General Corporations Act, as well as Articles 53 and 108 of the LMV. Special Meetings will be those that meet to deal with matters that may affect a single category of shareholders. All other Meetings shall be Ordinary, the latter being held at least once a year within the four months following the end of the fiscal year, to address the matters indicated in Articles 181 of the General Corporations Act and 56 section IV of the LMV.

The Annual Ordinary General Shareholders' Meeting will appoint the members of the Board of Directors, based on the payroll proposed by the control group. In accordance with the LMV and the Bylaws, any shareholder or group of shareholders owning shares representing 10% of the capital stock may appoint and revoke a member of the Board of Directors at a general shareholders' meeting. Such appointment may only be revoked by the other shareholders when the appointment of all the other directors is revoked.

In terms of Article 47 of the LMV, the Ordinary General Shareholders' Meeting, in addition to the provisions of the General Corporations Act, will meet to approve the operations that the Company or the legal entities it controls intends to carry out, within the period of a fiscal year, when they represent 20% (twenty percent) or more of the consolidated assets of the Company based on figures corresponding to the close of the previous quarter, regardless of the way in which they are carried out, whether simultaneously or successively, but which due to their characteristics may be consolidated as a single operation.

In addition, the Annual Ordinary General Shareholders' Meeting shall be informed of the annual report prepared by the Committee or Committees that perform the Corporate Practices and Auditing functions referred to in Article 43 of the LMV, which must be presented to said Shareholders' Meeting by the Company's Board of Directors.

Shareholders' Meetings must be called at least 15 calendar days in advance, through the publication of the respective call through the electronic system of publications established for such purpose by the Ministry of Economy of the Mexican government. In addition, the Company publishes this announcement in a newspaper with widespread national circulation. The call for the Shareholders' Meetings invariably contains the agenda to be dealt with, which may not be varied unless 100% of the issued shares are represented at the Shareholders' Meeting.

The Ordinary Shareholders' Meeting will be considered legitimately installed by virtue of the first call if at least 50% plus one of all the shares with voting rights in such Meetings are present. In the case of a second or subsequent call, with the expression of this circumstance, it will be considered legitimately installed with any number of shares represented in the Meeting.

The Extraordinary Meeting shall be legally installed by virtue of the first call if at least 75% of all the shares entitled to vote in the Meeting are represented. In the case of a second or subsequent call, with the expression of this circumstance, it shall be considered legitimately installed if at least 50% plus one of all the shares with the right to vote in said Meeting is represented in it.

The Ordinary or Extraordinary General Meeting will be legitimately installed without the need to call a meeting if all the shares into which the capital stock is divided are represented and may resolve any matter if at the time of voting all the shares are still represented.

## Admission to Shareholders' Meetings

In order to attend the Meetings, shareholders must obtain from the Company's secretary the corresponding admission card for the Meeting, at least one day in advance, at the day and time set for the holding of the Meeting.

In order to obtain the admission card, shareholders must deposit their shares at the Secretary of the company's office in advance; in the case of shares deposited at the S.D. Indeval Institución para el Depósito de Valores, S.A. de C.V., This must be complemented with the list referred to in Article 290 of the LMV and delivered to the address of the Company's secretariat or to the address of the Company to obtain the admission card.

Shareholders may be represented at the Meetings by the person or persons they appoint by means of a power of attorney signed before two witnesses or by representatives with sufficient general or special power of attorney granted in terms of the applicable legislation or through the forms referred to in Article 49 of the LMV, which must be available to shareholders from the day of publication of the call.

#### Transactions in securities of the Company

On February 24, 2015, the Board of Directors approved the "Policies and Agreements on Securities Transactions and the Acquisition and Placement of the Company's Own Shares" and the "Policies and Agreements on Securities Transactions and the Acquisition and Placement of the Company's Own Shares". The purpose of this document is to disclose the limitations/prohibitions that certain persons related to the Company have considering that its shares are listed on the BMV, among them the members of the Board of Directors, the General Director, the Relevant Officers and others, to carry out operations with securities (shares or any class of securities issued by Orbia or credit securities that represent them; as well as optional securities or derivative financial instruments that have such securities or securities as underlying) issued by the Company itself.

Although it is the responsibility of the members of the Board of Directors, Relevant Executives, and other parties obligated under the aforementioned policy to comply with the same and with the regulations regarding transactions with securities issued by Orbia, including the use of insider information, the Company has tried to alert such persons about such provisions and regularly informs them of the periods of restriction for the purchase or sale by them of Orbia shares based on the existence of insider information that has not been communicated to the public.

#### Compensation and Performance Evaluation of Directors and Committee Members

The Directors shall receive as compensation for their services the one established in cash or in kind by the Ordinary General Shareholders' Meeting that has appointed them. This Meeting may delegate to the Board of Directors or any other competent administrative body the implementation of any remuneration in kind for Directors.

The Corporate Practices and Sustainability Committee is responsible for evaluating the performance of and compensation to the Issuer's relevant executives.

Power of the Board to make decisions regarding any other matter in which they may have a personal interest

Members and, where appropriate, the Secretary of the Board of Directors who have a conflict of interest in any matter must abstain from participating and be present at the deliberation and voting on that matter.

#### Amendments to the Bylaws

1. The Annual Ordinary and Extraordinary General Shareholders' Meeting held on April 23, 2019. Certain articles of the Company's bylaws were amended. A summary of these changes is presented below.

Article Two: Reflects the change by which the Federal District shall now be known as Mexico City.

Article Three: Clarifies of the purpose of the company.

Article Six: Sets forth that with the prior express authorization of the CNBV, the Company may issue shares with limited, restricted or no voting rights; and that the preferential subscription right referred to in Article 132 of the General Business organizations Act shall not be applicable in the case of capital increases through public offerings.

Article Seven: These are editorial adjustments only.

Article Nine: Regulates the acquisition of 10% or more of shares representing the capital stock; and in addition to the foregoing, that a majority of the members of the Board of Directors who have been elected to such position before any circumstance that could imply a change of Control is verified, must grant their written authorization so that a change of Control can take place in the Company.

It is important to note that the amendment to this Article may only be approved at an Extraordinary General Shareholders' Meeting of the Company in which 5% or more of the outstanding shares have not voted against on the date of the respective Shareholders' Meeting.

Article Ten: Specifies that the pre-emptive right is in terms of the provisions of Article 132 of the General Corporations Act.

Article Thirteen: Sets forth the power of the Board of Directors to appoint the person or persons responsible for the management of resources for the acquisition and placement of own shares, when such appointment has not been made by the Shareholders' Meeting.

Article Fifteen: These are editorial adjustments only.

Article Twenty-eight: Sets forth requirements for appointing and revoking a board member by shareholders owning shares representing 10% of the capital stock.

Article Thirty-Second: Incorporates to the requirements for Directors those persons who, in the opinion of the Company's Corporate Practices Committee, enjoy recognized professional or business experience and prestige, as well as moral solvency, and who do not find themselves in situations of conflict of interest with the Company or its subsidiaries.

Article Thirty-four: Sets forth the procedure for the election of Directors proposed by shareholders owning shares representing 10% of the capital stock, as well as including the power of the Company's Corporate Practices Committee to present to the Annual General Shareholders' Meeting a spreadsheet with the names of the candidates proposed to serve on the Company's Board of Directors, including those proposed by minority shareholders.

Article Forty-Four: Includes as a power of the Corporate Practices Committee to propose to the Shareholders' Meeting those candidates who, in its opinion, should be members of the Board of Directors of the Company, in the event that its members at the time of the election are not ratified in their positions by the Shareholders' Meeting.

2. At the Extraordinary General Shareholders' Meeting held on August 26, 2019, the change of corporate name to ORBIA ADVANCE CORPORATION was approved, and consequently, it was determined to amend Article One of the corporate bylaws.

## Process to be followed to change the rights associated with the actions

Both the shares representing the minimum fixed capital stock, with no right of withdrawal, and those representing variable capital, are ordinary, nominative, without nominal value expression and confer on their holders equal rights and obligations.

Subject to the express authorization of the CNBV, the Company may issue shares with limited, restricted or no voting rights.

The issuance of shares other than ordinary shares shall not exceed twenty-five percent of the paid-in capital placed among the investing public. When expressly authorized by the CNBV, such limit may be extended in certain exceptional cases.

# Bylaw clauses or agreements between shareholders that limit or restrict the management of the issuer or its shareholders

There is no restriction whatsoever for shareholders to participate in the management of the Company. In this respect, the Bylaws establish that shareholders owning shares with voting rights, even limited or restricted, which individually or collectively hold 10% of the Capital Stock, will have the right to appoint and revoke at the General Shareholders' Meeting a member of the Board of Directors and their respective alternate, on the understanding that it must always be respected that 25% of the Directors must be independent. Such appointment may only be revoked by the other shareholders when the appointment of all the other Directors is revoked, in which case the persons substituted may not be so appointed during the twelve months immediately following the date of revocation.

Minority shareholders who, in terms of the foregoing, intend to appoint a Director must notify the Company's Corporate Practices and Sustainability Committee at least five working days prior to the Annual General Shareholders' Meeting. This communication must contain at least: (i) the full name and experience of the person they propose to appoint, and (ii) whether or not, in their judgment, they satisfy the conditions of independence, recognized professional or business experience and repute, and moral solvency, as well as those defined in the laws and other applicable provisions.

# Shareholders' Agreement dated September 1, 2010, regarding the exercise of voting rights in shareholders' meetings.

Orbia has been notified of the existence of a Shareholders' Agreement entered into on September 1, 2010, between the Company's principal shareholder, Kaluz, and other shareholders, as well as various modifications thereto.

Due to this Agreement, Kaluz, may determine during the term of the Agreement (and in addition to its own shares) the direction of the vote with respect to the shares of the Company owned by the other referred shareholders, which together represent approximately 0.8% of the total shares representing the outstanding capital stock of the Company.

## 5. CAPITAL MARKET

# a) Shareholding Structure

The capital stock as of December 31, 2019, 2018 and 2017, is represented by 2,100,000,000 shares, ordinary, nominative with voting rights and without expression of nominal value, which are fully paid. The fixed portion of the capital is represented by Class I registered shares without withdrawal rights. The variable part of the capital is represented by Class II registered shares, without expression of nominal value. At December 31, 2019, 2018 and 2017 the number of shares and amount of capital is as follows

Subscribed capital	Number of shares	Amount (millions of dollars)		
Class I Class II	308,178,735 1,791,821,265	\$ 38 \$ 219		
TOTAL	2,100,000,000	\$257		

At the end of December 2019, the Company does not hold open positions in derivative instruments payable in kind whose underlying is ORBIA\* shares.

In the last three years, 2019, 2018 and 2017, Orbia has not modified the number or amount of outstanding shares representing its share capital.

As of December 31, 2019, the Company had acquired 47,891,427 of its own shares through the use of the resources authorized by the Ordinary General Shareholders' Meeting for the Repurchase Fund, which the Issuer purchases on the stock market, with a charge to its equity.

## b) Performance of the share in the Stock Market

The prices and amounts of the ORBIA\* share transactions are presented in Mexican pesos.

The level of marketability corresponding to shares is "High", according to the information available from the Stock Exchange Index carried out by the BMV in May 2020. As of 2008, shares are an integral part of the BMV Price Index.

In the last three fiscal years, the BMV listing of the "ORBIA\*" shares has not been suspended.

The following tables show the minimum and latest maximum share prices on the BMV during the periods indicated, starting with this Annual Report:

## Annual Performance

Date	Maximum	Minimum	Closing	Volume	Amount
2015	47.44	38.46	38.50	714,532,361	31,137,165,594
2016	50.44	35.18	47.1	788,479,023	33,157,684,406
2017	53.34	46.7	48.63	725,639,512	35,850,815,973
2018	67.56	43.18	49.94	832,190,990	47,256,913,965
2019	52.88	31.02	40.32	932,615,312	39,556,051,265

#### **Quarterly Performance**

Date	Maximum	Minimum	Closing	Volume	Amount
1Q2018	57.16	49.81	55.64	185,486,816	9,944,978,709
2Q2018	59.20	54.78	57.43	216,695,992	12,373,114,929
3Q2018	67.56	57.06	64.36	193,442,663	12,225,330,798
4Q2018	65.25	43.18	49.94	236,565,519	12,713,489,529
1Q2019 2Q2019	52.59 49.90	43.41 40.11	46.41 40.29	291,109,709 202,161,682	13,845,987,708 8,773,524,625
3Q2019	43.68	31.02	38.51	267,646,376	9,847,931,391

4Q2019	44.53	38.26	40.32	173,433,873	7,197,085,181
1Q2020	51.80	23.80	26.09	258,529,654	9,764,206,655

# **Monthly Performance**

Date	Maximum	Minimum	Closing	volume	amount
Oct-19	42.99	38.26	41.51	84,093,486	3,423,200,489
Nov-19	44.53	40.94	42.68	50,512,175	2,161,565,287
Dec-19	43.15	40.20	40.32	38,828,212	1,612,319,405
Jan-20	51.80	39.52	44.21	71,760,774	3,346,370,428
Feb-20	47.79	37.00	38.49	56,588,892	2,444,133,816
Mar-20	43.80	23.80	26.09	130,179,988	3,973,702,411
Apr-20	29.04	24.31	28.44	102,993,277	2,709,708,010
May-20	33.45	27.2	32.54	58,145,918	1,826,275,184

Source Infosel Financiero

c) Market Maker

As of the date of this Annual Report, the Company has not engaged a Market Maker to support the marketability of the ORBIA\* stock, as permitted by the LMV.

# 6. **RESPONSIBLE PERSONS**

We, the undersigned, declare under oath that, within the scope of our respective functions, we prepared the information relating to the Issuer contained in this annual report, which, to the best of our knowledge and belief, reasonably reflects its situation. We also state that we have no knowledge of relevant information that has been omitted or misrepresented in this annual report or that contains information that could mislead investors.

Daniel Martínez-Valle Chief Executive Officer

Edgardo Carlos Chief Financial Officer

Sheldon Hirt General Counsel

# EXTERNAL AUDITOR

We, the undersigned, declare under penalty of perjury that the consolidated financial statements of Orbia Advance Corporation, S.A.B. de C.V. and Subsidiaries (the "Issuer") as of December 31, 2019, 2018 and 2017 and for the years then ended, contained in this annual report, were audited as of February 24, 2020, pursuant to applicable International Auditing Standards.

Likewise, we declare that we have read this annual report and, based on its reading and within the scope of the audit work carried out, we are not aware of relevant errors or inconsistencies in the information included and whose source comes from the audited consolidated financial statements, indicated in the previous paragraph, nor of information that has been omitted or falsified in this annual report, or that it contains information that could lead investors to error.

However, we, the undersigned, were not engaged to perform, and did not perform, additional procedures for the purpose of expressing an opinion with respect to other information contained in the annual report that does not derive from the audited consolidated financial statements.

# ANNEXES

Reports of the Corporate Practices and Audit Committee of Orbia Advance Corporation, S.A.B. de C.V. for fiscal years 2019, 2018 and 2017.

Consolidated financial statements and audited financial statements of Orbia Advance Corporation, S.A.B. de C.V. for fiscal years 2019, 2018 and 2017.