



# DEVELOPMENT WITH PURPOSE

20  
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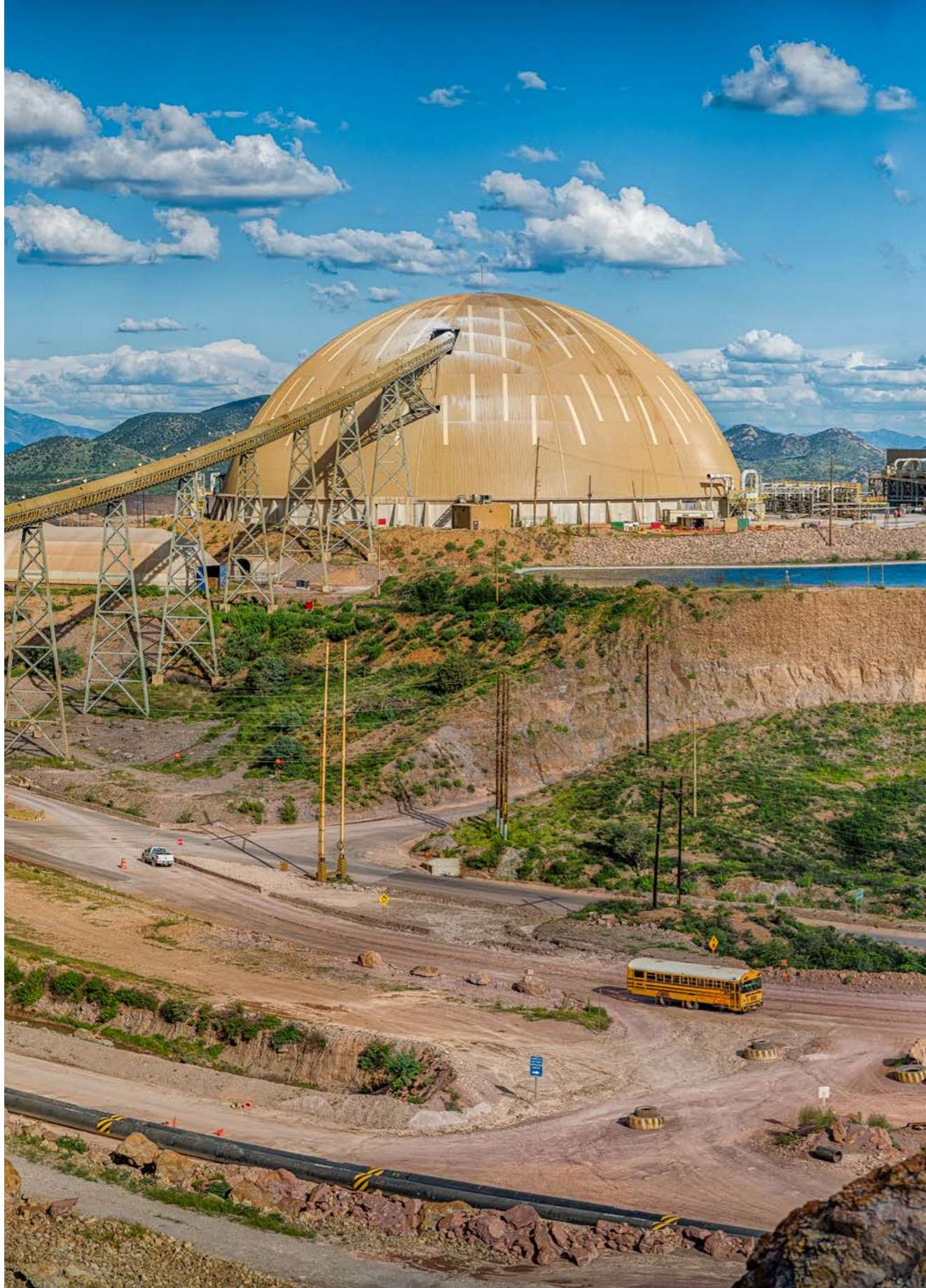
SUSTAINABLE  
DEVELOPMENT  
REPORT

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# ABOUT GRUPO MÉXICO

## ABOUT GRUPO MÉXICO

### INTRODUCTION TO GRUPO MÉXICO

G4-3, G4-4, G4-5, G4-7

We are a diverse group of companies, with mining operations in Mexico, Peru and the United States, positioning Grupo México as the fourth largest copper producer in the world. We operate the largest multimodal freight railroad service in Mexico, which connects to major industrial centers, ports, and border crossings. We also offer engineering and construction services, power generation, and ocean and land drilling, including the leasing and operation of oil platforms. To this we have added the operation of highways under concession.

This diversification of operations is achieved under the joint approach of cost efficiency and productivity, to guarantee financial balance so as to follow a sustainable path, in synergy with creating of value for our stakeholders. We are committed to Development with Purpose, with which we contribute to the health and safety of our collaborators, to the strengthening of the communities that embrace us, and to the respect for the environment that surrounds us.

Grupo México has been trading on the Mexican Stock Exchange since 1966, with 40% floating capital. Over 50% of the ownership is held by 4 major stockholders, people or entities. Also, our subsidiary Southern Copper Corporation (SCC) trades on the NYSE and the Lima Stock Exchange.

### OUR PRESENCE

G4-6, G4-8

Our portfolio of services is delivered by three divisions , with presence in Mexico, the United States, Peru and Spain, as shown in the following map of our locations.

## GEOGRAPHIC LOCATION

MINING DIVISION-GRUPO MÉXICO

### LOCATION

ASARCO	
1	AMARILLO
2	HAYDEN
3	MISSION
4	RAY
5	SILVER BELL
6	TUCSON

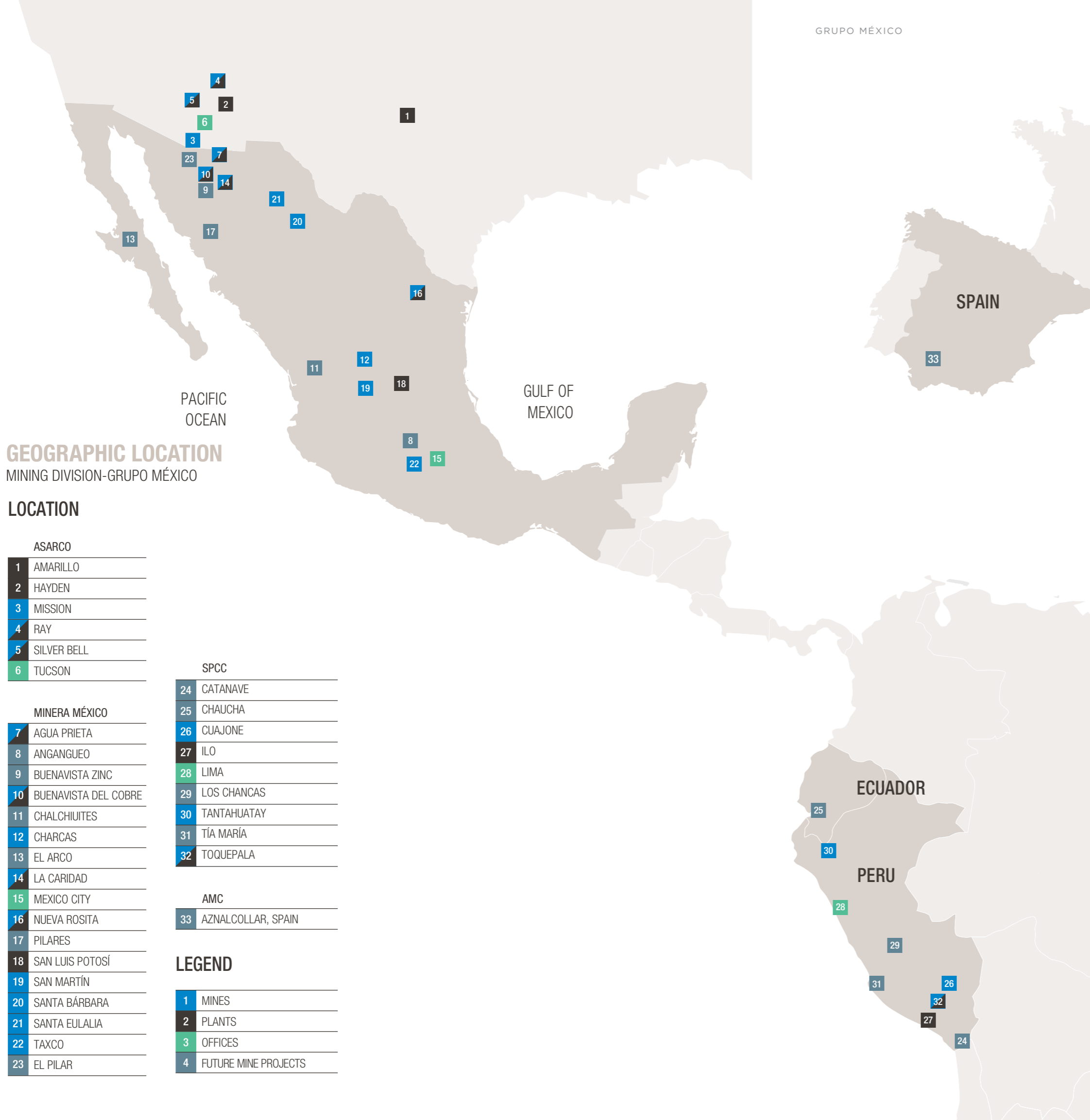
MINERA MÉXICO	
7	AGUA PRIETA
8	ANGANGUEO
9	BUENAVISTA ZINC
10	BUENAVISTA DEL COBRE
11	CHALCHUIITES
12	CHARCAS
13	EL ARCO
14	LA CARIDAD
15	MEXICO CITY
16	NUEVA ROSITA
17	PILARES
18	SAN LUIS POTOSÍ
19	SAN MARTÍN
20	SANTA BÁRBARA
21	SANTA EULALIA
22	TAXCO
23	EL PILAR

SPCC	
24	CATANAVE
25	CHAUCHA
26	CUAJONE
27	ILO
28	LIMA
29	LOS CHANCAS
30	TANTAHUATAY
31	TÍA MARÍA
32	TOQUEPALA

AMC	
33	AZNALCOLLAR, SPAIN

### LEGEND

1	MINES
2	PLANTS
3	OFFICES
4	FUTURE MINE PROJECTS



## MINERA MÉXICO

### MINES

- MEXICANA DE COBRE**  
La Caridad, Sonora  
Copper, Molybdenum, Gold & Silver
- BUENAVISTA DEL COBRE**  
Cananea, Sonora  
Copper, Gold, Molybdenum & Silver
- INDUSTRIAL MINERA MÉXICO**  
Charcas, San Luis Potosi  
Silver, Copper, Lead & Zinc  
San Martin, Zacatecas  
Silver, Lead, Zinc & Copper  
Santa Eulalia, Chihuahua  
Silver, Lead & Zinc  
Santa Barbara, Chihuahua  
Gold, Silver, Copper, Lead & Zinc  
Taxco, Guerrero  
Gold, Silver, Lead & Zinc  
Nueva Rosita, Coahuila  
Coal & Coke

### SPCC

- CUAJONE**  
Copper, Silver, Molybdenum & Gold
- TOQUEPALA**  
Copper, Silver, Molybdenum & Gold

### ASARCO

- MISSION, ARIZONA**  
Gold, Silver, Copper & Molybdenum
- SILVER BELL, ARIZONA**  
Copper
- RAY, ARIZONA**  
Gold, Silver & Copper

### AMC

- AZNALCOLLAR, SPAIN**  
Polymetallic project  
Zinc, Copper, Lead

### SMELTERS, REFINERIES & OTHER PLANTS

- MEXICANA DE COBRE**  
La Caridad, Sonora  
Copper Smelter  
Copper Electrolyte Refinery  
Copper SX/EW Plant  
Sulfuric Acid Plant  
Copper Rod Plant  
Precious Metals Plant, Selenium & Tellurium  
Agua Prieta, Sonora  
Coke Plant
- BUENAVISTA DEL COBRE**  
Cananea, Sonora  
Copper SX/EW Plants
- INDUSTRIAL MINERA MÉXICO**  
San Luis Potosi, San Luis Potosi  
Sulfuric Acid Plant  
Zinc Electrolyte Refinery, Cadmium  
Nueva Rosita, Coahuila  
Coal & Coke Plant

### SPCC

- ILO**  
Copper Smelter  
Sulfuric Acid Plant  
Copper Electrolyte Refinery  
Precious Metals Plant

### TOQUEPALA

- Copper SX/EW Plant

### ASARCO

- HAYDEN, ARIZONA**  
Sulfuric Acid & Copper Smelter
- RAY, ARIZONA**  
Copper SX/EW Plant
- SILVER BELL, ARIZONA**  
Copper SX/EW Plant
- AMARILLO, TEXAS**  
Copper Refinery  
Nickel, Selenium, Tellurium  
Copper Rod Plant  
Copper Sheet Plant



## GEOGRAPHIC LOCATION

TRANSPORTATION DIVISION-GRUPO MÉXICO

## LEGEND

### GRUPO MÉXICO LINES

1	MEXICALI
2	NOGALES
3	B. HILL
4	HERMOSILLO
5	GUAYMAS
6	TOPOLOBAMPO
7	MAZATLÁN
8	GUADALAJARA
9	COLIMA
10	MANZANILLO
11	CD. JUÁREZ
12	CHIHUAHUA
13	ESCALÓN
14	TORREÓN
15	FELIPE PESCADOR
16	AGUASCALIENTES
17	IRAPUATO
18	PIEDRAS NEGRAS
19	CD. FRONTERA
20	PAREDÓN
21	MONTERREY
22	ALTAMIRA
23	VIBORILLAS
24	HUEHUETOCA
25	VALLE DE MÉXICO
26	VERACRUZ
27	COATZACOALCOS
28	SALINA CRUZ
29	SALTILLO
30	PRESIDIO OJINAGA
31	ALPINE
32	FT. STOCKTON
33	SAN ANGELO
34	SAN ANGELO JCT

### TRACKAGE RIGHTS

28	SALINA CRUZ
29	SALTILLO

### RAIL FERRY

30	PRESIDIO OJINAGA
31	ALPINE
32	FT. STOCKTON
33	SAN ANGELO
34	SAN ANGELO JCT

RAIL FERRY



GULF OF MEXICO

CENTRAL AMERICA

PACIFIC OCEAN

## GEOGRAPHIC LOCATION

INFRASTRUCTURE DIVISION-GRUPO MÉXICO

### ASSETS

1	CANANEA
2	500MW COMBINED CYCLE PLANTS
3	LEON-SALAMANCA HIGHWAY
4	MEXICO CITY CORPORATE OFFICES
5	LAND DRILLING POZA RICA, VERACRUZ
6	74 MW EL RETIRO WIND FARM
7	"ZACATECAS" PLATFORM
8	"CHIHUAHUA" PLATFORM
9	"VERACRUZ" PLATFORM
10	"SONORA" PLATFORM
11	"TABASCO" PLATFORM
12	OCEAN DRILLING CD. DEL CARMEN, CAMPECHE
13	"CAMPECHE" PLATFORM
14	GUADALAJARA
15	IRAPUATO
16	MONTERREY

PACIFIC OCEAN

GULF OF MEXICO

### LEGEND

1	PEMSA
2	MGE
3	MCC
4	HIGHWAY

CENTRAL AMERICA



## CORPORATE STRUCTURE

G4-17

Grupo México is the fourth largest Mexican company in terms of market capitalization and has a division-based organizational structure, according to the sectors in which we are leaders: our Mining Division has the largest copper reserves in the world and is a leading producer of copper, molybdenum, silver and zinc. The Railroad Transportation Division is also a leader in its sector in Mexico. Lastly, our Infrastructure Division is among the cutting-edge companies making inroads into strategic areas following the energy reform and taking on new infrastructure modernization projects in Mexico. See the Grupo México 2016 Annual Report for more information on the entities reported in the financial statements.

## LINES OF BUSINESS AND MARKETS

G4-13

The Grupo México Mining Division has world class assets in investment grade countries: 14 mines. Our expansion program was approved in 2010 and since then we have invested over US\$8.00 billion to more than double our copper production. These efforts are particularly reflected in the Buenavista del Cobre mine expansion, and growth continues in the Mining Division. We expect 1,145,000 tons of production by 2019, with the Toquepala expansion starting operations.

Looking to the future, we currently have direct control of 332,694 hectares for exploration in Mexico, Argentina, Chile and Ecuador.

In 2016, we were the number 1 railroad in international traffic, thanks to the strong increase in border crossings, holding 56% of the market share in interchange railroad traffic with the United States. The Mexican freight railroads continue to be the most competitive and productive in the Americas.

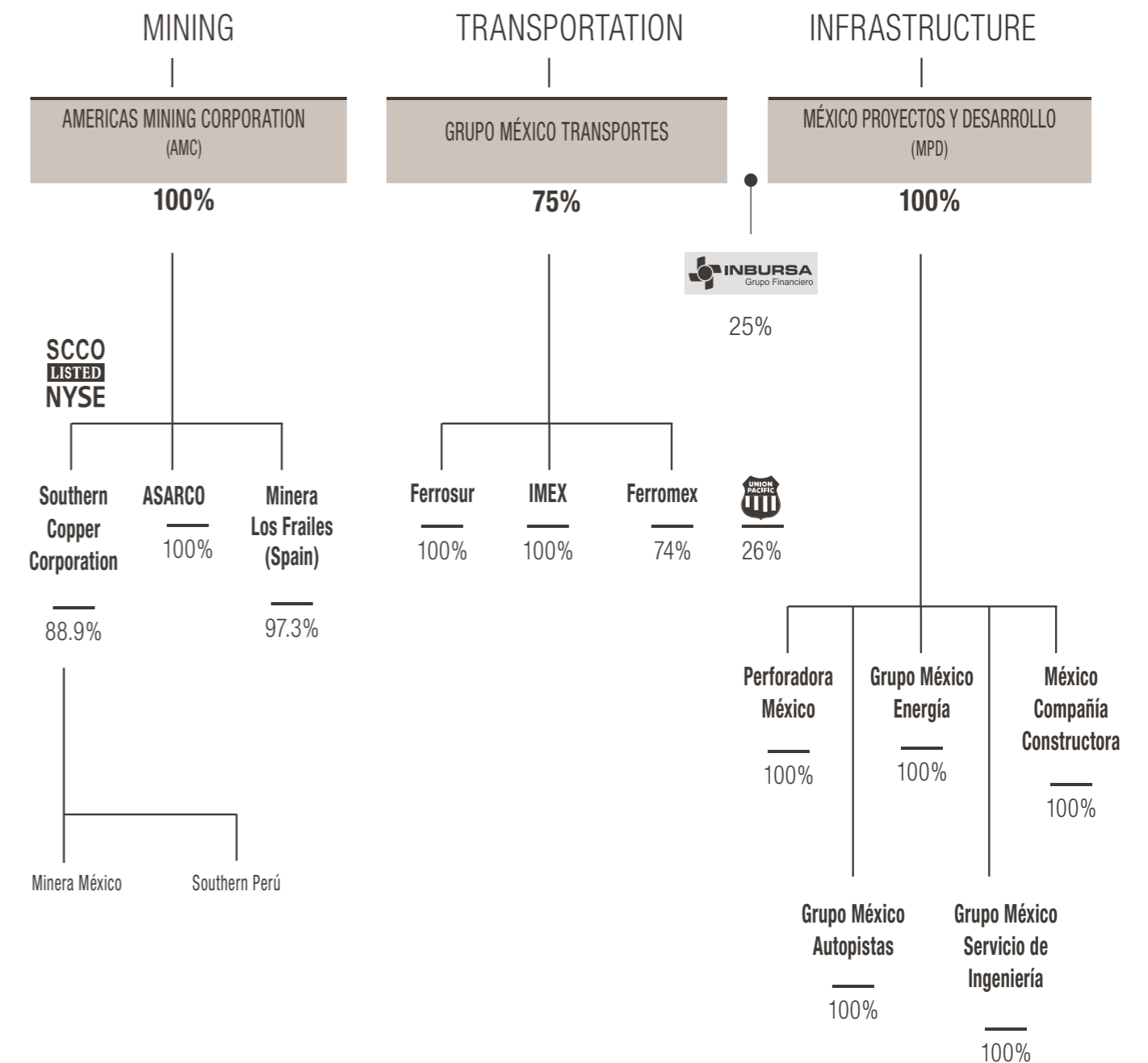
The Infrastructure Division operates exclusively in Mexico, offering ocean drilling services for production, exploration and drilling. We also produce energy, principally for self-supply within Grupo México.

In the same division, the companies MCC and GMSI offer engineering and procurement services, infrastructure construction project services, and also specialized engineering services for project development. Lastly, the Infrastructure Division recently started to operate highway concessions.

## CORPORATE STRUCTURE



GRUPO MÉXICO HAS BEEN TRADING SINCE 1966.





**MINING DIVISION:**

**AMERICAS MINING CORPORATION**

EXPLORATION, EXTRACTION AND PRODUCTION OF MINERALS, METALS AND BYPRODUCTS (COPPER, MOLYBDENUM, ZINC, GOLD AND SILVER, AMONG OTHERS)

15,613 employees under permanent contract and 270 non-permanent



**MEXICO**

- 8 mines and 3 exploration projects, 11 smelters, refineries and other plants  
- 8,809 employees

**PERU**

- 2 mines and 4 exploration projects, 5 smelters, refineries and other plants  
- 4,747 employees

**UNITED STATES**

- 3 mines, 6 smelters, refineries and other plants  
- 2,327 employees

**SPAIN**

- 1 exploration project

**TRANSPORTATION DIVISION:**

**FM RAIL HOLDING, S.A. DE C.V.**

GENERAL AND INTERMODAL FREIGHT RAIL SERVICES AND ALSO PASSENGER SERVICES. AUXILIARY TERMINAL MANAGEMENT SERVICES AND INTRA-TERMINAL MOVEMENTS

9,437 employees under permanent contract and 585 non-permanent



**MEXICO**

- 8,130 km network, 5 border crossings, access to 6 ports  
- 7,512 employees

**MEXICO**

- 1,822 km network (central and southeast Mexico), access to 2 ports  
- 1,881 employees

- 629 employees

**INFRASTRUCTURE DIVISION:**

**MÉXICO PROYECTOS Y DESARROLLOS, S.A. DE C.V. (MPD)**

ENGINEERING AND INFRASTRUCTURE CONSTRUCTION AND OPERATING SERVICES, DRILLING AND POWER GENERATION

1,432 employees under permanent contract and 1,860 non-permanent



**MEXICO**

- Infrastructure construction projects and industrial parks, commercial projects and services  
- 1,952 employees

**MEXICO & PERU**

- Comprehensive engineering services for infrastructure and industrial projects  
- 392 employees

**MEXICO**

- Operation and maintenance of combined cycle plants and wind farms  
- 65 employees

**MEXICO**

- Comprehensive ocean and land drilling services  
- 5 jack-up and 2 modular platforms  
- 627 employees

**MEXICO**

- Operation of the 80 km Salamanca-Leon highway  
- 206 employees

## MISSION, VISION AND VALUES

G4-42, G4-56

At Grupo México, we operate our business according to our Mission, Vision and Values, which establish the focus for our relationships with our stakeholders, to create value in the short, medium and long term, committed to corporate sustainability to guarantee our continuation.

Our activities are based on integrity and respect, contributing to the development of every member of the team and the communities where we operate, the satisfaction of our customers, safeguarding the interests of our stockholders, and strengthening our suppliers and contractors.

We strive to go further than simple strict adherence of law, adopting our own guidelines which convert risks into opportunities for improvement, based on prevention. Our Mission, Vision and Values are outlined in the Grupo México Corporate Policy, approved by the Board of Directors and applicable to all personnel.

### MISSION

“To meet the needs of our markets through large scale and long term projects, staying on the cutting-edge in technology, and always committed to our people, the environment, our values and our social responsibility, maximizing the creation of value for our stockholders.”

### VISION

“To be the world leader in efficiency and profitability in our areas of business, prioritizing people and their comprehensive development, guaranteeing the sustainability of our operations.”

### VALUES

- Honesty, acting with integrity, professional ethics and ongoing improvement.
- Respect, for all persons, laws and the environment.
- Responsibility, meeting our commitments with results.



## CORPORATE GOVERNANCE

## CORPORATE GOVERNANCE

### STRUCTURE AND OPERATION

G4-34, G4-35, G4-36, G4-37, G4-38, G4-39, G4-40, G4-42, G4-43, G4-44, G4-45, G4-46, G4-47, G4-49, G4-50, G4-51, G4-52, G4-53

At Grupo México, our corporate governance model seeks to ensure our decision-making processes contributes to the sustainability of the Company over time, respecting the trust placed in us by our investors and the shared value for our stakeholders.

The governing structure is laid out in the Grupo México Bylaws, approved by the Stockholders' Meeting.

The Stockholders' Meeting approves the management reports presented by the Board of Directors. It also names the members of the Board of Directors, the Executive Committee, and the Audit and Corporate Practices Committee, considering their experience and absence of conflicts of interest. The Stockholders' Meeting also sets the remunerations for board members.

The Board of Directors is the governing body of Grupo México and sets the corporate strategy. It also ensures the creation of value through an efficient use of resources and available assets, as well as compliance with the directives on ethics. The Board of Directors monitors the company's social and environmental performance, and also performs an annual self-assessment of its members and committees.

Board members serve for terms of one year and may be reelected by the Stockholders' Meeting. They are requi-

red to perform due diligence to prepare themselves for making decisions. In 2016, the Board was comprised of 14 members, 9 of which are independents, meeting 4 times this year. The non-independent board members are senior management, which contributes to coordinating decision making between the Board and the team responsible for the day-to-day operation of Grupo México.

The Board is regularly informed, including the results of the principal financial and operational indicators, such as production and sales, and also the Company's projects and investments, the organizational structure, and risk management, including economic, social and environmental aspects.

At Grupo México, corporate governance means best practices in transparency and good relationships with our stakeholders. Our Code of Ethics, corporate structure, and our mission and values form a solid foundation for our performance.

The Chairman of the Board is also the Executive President of Grupo México and 4 board members sit on the Executive Committee, which provides more frequent supervision and prepares the quarterly reports presented to the Board. Three of these committee members are independents.

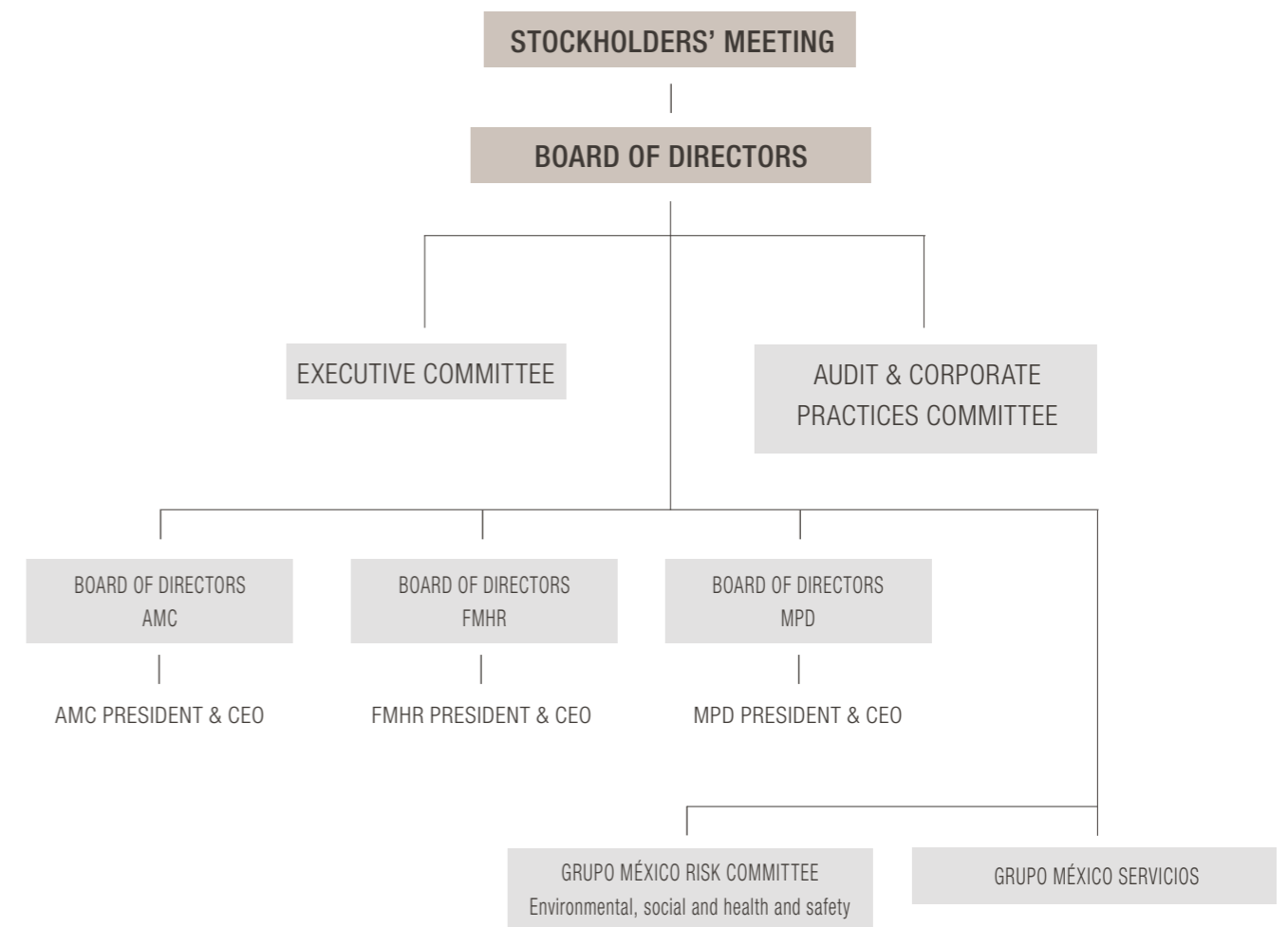
The principal subsidiaries also have Boards of Directors, which report to Grupo México. Their responsibilities include monitoring and assessing social and environmental performance, the management of which falls to

collaborators in the operating departments of each subsidiary, and also teams created for this purpose.

The Company also has an Audit and Corporate Practices Committee, comprised of independent board members. This Committee monitors the internal control and internal audit system, conducting periodical reviews, and also the due diligence for the implementation of and compliance with the ethics directives outlined in the Code of Ethics. This Committee also sets the remuneration policies for senior management.

The Risk Committee, unlike the Executive Committee and the Audit and Company Practices Committee, is comprised solely of people holding senior management positions in Grupo México, including members of the Board of Directors.

Each subsidiary also has management committees that address different assessment indicators and stakeholder concerns, raised by the management personnel responsible for these relations.



## ETHICS & INTEGRITY

G4-41, G4-56, G4-57, G4-58, G4-S03, G4-S05

### OUR VALUES

Creating the value we strive to generate for our different stakeholders requires a performance that adheres to demanding guidelines on respect and professionalism, included in our Code of Ethics. This constitutes an essential piece in building a culture of integrity and collective effort among everyone at Grupo México. Our collaborators receive the Code of Ethics when they join the Company, signing a certificate of agreement. In addition to having this code available to them for consultation, our collaborators receive refresher training on these topics from time to time. Additionally, the Code of Ethics is also a frame of reference for our board members, suppliers and contractors.

In this manner, we seek to conduct our activities in harmony with our stakeholders and according to our values. The Code of Ethics includes our requirements on topics such as preventing conflicts of interest, non-discrimination, open competition, protecting human rights, and respect for the communities where we are present and for the environment.

Violations of the Code of Ethics can be channeled directly to the immediate supervisor, manager or respective officer, and may also be reported to the Director of Human Resources, Internal Auditor, or the General Counsel, as corresponds depending on the subsidiary. At Grupo México, we promote an environment of trust that facilitates reporting, taking actions on conducts that are illegal and which violate our guidelines. We also have a reporting line managed by an independent third party, with a telephone number, email address, and website. The Ethics and Discipline Committee investigates reports and determines the measures to be taken.

To prevent conflicts of interest, Grupo México has a policy in place that aligns the efforts of the subsidiaries, approved by the Board of Directors, which is also responsible for overseeing its enforcement and ensuring its compliance.

New hires receive orientation on the Code of Ethics, and we have developed training initiatives specifically related to anti-corruption practices. These efforts are complemented by taking measures in response to potential violations, although no such incident was reported in Grupo México in 2016.

Any occurrence of corruption would be resolved according to Grupo México's policies and guidelines. In the few isolated cases of proven abuse of trust, the employees involved were dismissed. If vendors or contractors are suspected of engaging in corruption or bad practices, we assess the situation to determine whether to continue the business relationship. To prevent conflicts of interest, Grupo México has a company-wide policy, approved and enforced by each Board of Directors.

### RISK MANAGEMENT

G4-2, G4-14, G4-45, G4-S03, G4-S04, G4-S05, G4-S07<sup>1</sup>, G4-PR4<sup>1</sup>, G4-PR9<sup>1</sup>

Our central coordination and monitoring means solid risk management for our subsidiaries, the Grupo México Risk Committee. This body is responsible for managing risks associated with social, labor, environmental, and health and safety related issues, and approves the Risk Management Strategic Plan and Policy, overseeing its implementation.

The Committee is comprised of management from the different Divisions and technical areas of the Company involved in the operational aspects and sustainability. The Committee chairman is named by the Chairman of the Board of Directors.

The Risk Committee periodically reports to the Board of Directors on its performance and the effectiveness of the management system, being subject also to the decisions the Board makes based on the content reported and any additional requirements set by the Board. To ensure the continuity of our operations and the safety of our collaborators and the environment, Grupo México prioritizes programs, equipment, and training adapted to the particulars of each sector of activity in which we participate. We are

<sup>1</sup> We received no fines or sanctions this year other than those detailed in this report.

committed to comprehensive risk management offering certainty and confidence to our stakeholders, and consolidating among our collaborators a culture of risk prevention, leadership and proactivity.

## DILIGENCE IN HUMAN RIGHTS

G4-HR1, G4-HR2, G4-HR4, G4-HR5, G4-HR6, G4-HR7, G4-HR8, G4-HR9, MM6, MM7, MM8, MM9

At Grupo México, we are committed to respecting human rights, according to the United Nations Universal Declaration of Human Rights and also local regulations.

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We promote an inclusive workplace and reject child exploitation and forced labor, and also any form of discrimination. Equal opportunity is a commitment undertaken by Grupo México and we do not discriminate on the basis of ethnic origin or nationality, gender, age, disability, social condition, political affiliation, health condition, religious beliefs, immigration status, personal opinion, sexual preference, or marital status. All these topics are covered in our Code of Ethics and we monitor due diligence in their compliance within the Company.

Our collaborators receive semiannual training on the Code, including its content on human rights. Additionally, we have developed specific training initiatives that are partially or wholly related to human rights. We provided a total of 45,066 training hours on these topics this year.

Our Code of Ethics focuses on preventing incidents in areas of ethics and integrity; it's a fundamental tool for avoiding conflicts of interest, corrupt practices and is designed to protect the Human Rights of everyone associated with our Company.

To continue, our Company security personnel are trained on protecting and defending human rights. All private security and protection companies that provide their services

at our various companies and facilities are trained in this area and receive constant refresher training.

At Grupo México, we protect the freedom of association, the terms agreed to in the collective bargaining agreements, and we adhere to the principles of the International Labor Organization's Declaration on Fundamental Principles and Rights at Work. At Grupo México, we not only work to ensure that respect for human rights is present in our decision making and in how we operate, we also promote consideration of these topics throughout our value chain, among customers, suppliers and contractors. Our contracts with suppliers and contractors include relevant clauses according to the regulations in the countries where we operate. In Mexico, the requirements set by the Federal Labor Law, the Social Security Law, and the National Worker's Housing Fund Law are incorporated, among others, respecting and promoting the protection of human rights. In Peru, our contracts also contain clauses that define human rights acts and obligations for each of the parties involved, including non-discrimination and rejection of child exploitation and forced labor. Meanwhile, in the United States, we adhere to the Arizona state and other federal laws.

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It should be noted that our mining operations in Peru are situated near rural communities of the Aymara indigenous people, who we have involved in our community development programs. In the United States, part of our operations is located within the Tohono O'dham Native American Reserve, and as part of a lease agreement, preference is given to hiring people from this Reserve. We are committed to respecting our environment and the community, respecting their lifestyle, culture, and traditions. No incidents or disputes related to land use, customary rights of local communities and indigenous people were reported in our operations during 2016.

There is small scale coal mining near our Nueva Rosita Coke Plant (Mexico), where we are working to reinforce a culture of occupational health and safety through the dissemination of best practices by means of our collaborators, contributing to the wellbeing of local families.



# OUR SUSTAINABLE APPROACH

## OUR SUSTAINABLE APPROACH

### SUSTAINABILITY STRATEGY

At Grupo México, in addition to caring for the growth of our operations, we are constantly looking to translate this growth into benefits for our neighbor communities, while working to minimize our negative impacts through responsible social, environmental and economic actions.

To align our business goals with our objectives in sustainable development, we involve our stakeholders, listening to their expectations and reporting our performance, creating shared value together.

We are also conscious of the importance of being diligent in the area of sustainability, making efforts to contribute to international initiatives. This year, Grupo México participated for the first time in the **Carbon Disclosure Project**, gaining broader understanding of our role in climate change, marking another step towards sustainable development.

For the sixth year in a row, we were selected to be included in the Mexican Stock Exchange (BMV) IPC Sustainability Index, as one of the companies most committed to social responsibility, environmental performance and corporate governance. This continuity is reflected not only in the level of market capitalization and other economic performance indicators, but in improved non-financial performance, as audited each year by an independent firm to be part of IPC Sustainability Index.

Additionally, we have successfully contributed to the continuity of our 12 mines OHSAS 18001:2007 certified in Mexico and Peru, through our diligence in areas of health and safety. To these, we add the operations of MCC and the administrative offices of PEMSA in the Del Carmen sector, the cement plant and the Sonora jack-up platform.

We have developed a corporate strategy to centrally coordinate our initiatives at Grupo México, which permeates our Divisions and subsidiaries built on the following key pillars:

# GROW

We ensure our continuity, adapting to the needs of our surroundings

---

We involve the community, working with local suppliers as much as possible

---

We are transparent in our timely communication with investors

---

Our structure is process and result-oriented

---

# PROMOTE

We strive to build our teams with people who are skilled and enthusiastic, in keeping with our values

---

We are constantly developing a respectful, non-discriminatory workplace, where all opinions are heard

---

We are working to contribute to the common good of our neighbor communities, fostering collaboration and dialog

---

# PROTECT

We focus on mitigating our negative impacts to contribute to the national and international goals in environmental matters.

---

We have established an ongoing improvement process that ensures responsible usage of raw materials, energy and water

---

We manage our operations, focusing on reducing waste and controlling emissions

---

We also foster respect for the fauna and flora near our operations

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## RELATIONS WITH OUR STAKEHOLDERS

G4-24, G4-25, G4-26, G4-27

We are constantly striving to consolidate the trust placed in Grupo México by our stakeholders, who we involve in the management and communication of our performance, listening to their expectations so as to jointly contribute to creating shared value.

Our various departments map our stakeholders by type of activity and context, which we combine to establish categories at the corporate level, reflecting the diversity of our business. We seek to build relations of mutual growth, converting challenges into joint development opportunities.

We offer various communication channels to maintain close dialog with our stakeholders, which allows us to propose the best alternative for each case, from online tools and resources to in-person consults, always focusing on building and fostering relations. These mechanisms facilitate the reporting of complaints involving environmental and social impacts by our stakeholders.

Through our various channels and mechanisms, Grupo México is open and transparent in communicating with our different stakeholders, particularly those that are most vulnerable, so as to build a culture of collaboration and sustainability in benefit of everyone.

## COMMUNICATION WITH STAKEHOLDERS & FEEDBACK

G4-24, G4-25, G4-26, G4-27

COMMUNICATION CHANNELS AND MECHANISMS / STAKEHOLDERS	OUR SUSTAINABLE APPROACH									
	Customers	Collaborators	Unions	Investors	Suppliers	Contractors	Communities	Opinion leaders Charity organizations Media	Financial Institutions Government agencies Academic institutions Rating agencies	
Website	●	●	●	●	●	●	●	●	●	
E-Ferromex; E-Ferrosur	●									
Intranet		●								
Sustainable Development Report	●	●	●	●	●	●	●	●	●	●
Annual financial report				●				●	●	
Quarterly financial reports				●				●	●	
News bulletins							●	●	●	
Company newsletters		●	●							
Publication of relevant events				●					●	
Press releases								●		
Stockholders' meetings				●						
In-Person meetings			●				●		●	
Collective contract review			●							
Diagnostic studies							●			
Interviews							●			
Surveys	●						●			
Workplace climate survey		●								
Telephone consultations	●			●	●	●		●	●	
Ethics Reporting Line	●	●		●	●	●				
Guided visits							●	●	●	
Site visits							●			
Community committees							●			
Awareness days							●			
Community development centers							●			

●	Ongoing	●	Quarterly
●	Yearly	●	Bimonthly
●	Yearly or Semiannually	●	As necessary



**STAKEHOLDERS**

G4-24, G4-25, G4-26, G4-27

STAKEHOLDERS	Area of Interest
Customers	<ul style="list-style-type: none"> <li>• Quality products and services</li> <li>• Operational continuity</li> <li>• Market value of products</li> <li>• Ethics and integrity</li> </ul>
Collaborators	<ul style="list-style-type: none"> <li>• Remuneration and benefits</li> <li>• Occupational health and safety</li> <li>• Internal communication and workplace climate</li> <li>• Recognition</li> <li>• Training and career development</li> <li>• Ethics and integrity</li> </ul>
Unions	<ul style="list-style-type: none"> <li>• Labor relations</li> <li>• Ethics and integrity</li> </ul>
Investors	<ul style="list-style-type: none"> <li>• Business strategies and models</li> <li>• Financial results</li> <li>• Share value</li> <li>• Corporate governance practices</li> <li>• Risk management</li> <li>• Ethics and integrity</li> </ul>
Suppliers Contractors	<ul style="list-style-type: none"> <li>• Contract conditions (payment, termination, etc.)</li> <li>• Financial results</li> <li>• Occupational health and safety (contractors)</li> </ul>
Communities	<ul style="list-style-type: none"> <li>• Job creation</li> <li>• Quality of life</li> <li>• Operational risk management</li> <li>• Environmental impacts</li> <li>• Community development programs and initiatives</li> </ul>
Opinion leaders Charities Media	<ul style="list-style-type: none"> <li>• Ethics and integrity</li> <li>• Social and environmental impacts</li> <li>• Financial results</li> </ul>
Financial institutions	<ul style="list-style-type: none"> <li>• Financial results</li> <li>• Risk management</li> </ul>
Government agencies	<ul style="list-style-type: none"> <li>• Risk management</li> <li>• Legal compliance</li> </ul>
Academic institutions	<ul style="list-style-type: none"> <li>• Social and environmental impacts</li> <li>• Innovation</li> </ul>
Rating Agencies	<ul style="list-style-type: none"> <li>• Business strategies and models</li> <li>• Financial results</li> <li>• Share value</li> <li>• Corporate governance policies</li> <li>• Risk management</li> <li>• Ethics and integrity</li> <li>• Transparency</li> </ul>

**SUPPORT FOR OUTSIDE INITIATIVES AND ASSOCIATIONS**

G4-15, G4-16

As part of our involvement, Grupo México actively participates in organizations and initiatives to help bolster our efforts in environmental, social and economic areas, supporting balanced, long term development.

In this regard, in Mexico we participate in the local chapter of the **World Business Council for Sustainable Development**, represented by CESPEDES, which forms

part of the Business Coordination Council, addressing environmental and sustainable development issues impacting the business sector. This body provides a space for discussing and participating in legislative initiatives on environmental issues, and is a forum for more dynamic interaction with the federal authorities, contributing industry best practices and identifying and sharing successful experiences internationally.

**OUTSIDE INITIATIVES & ASSOCIATIONS**

G4-15, G4-16

Division	Association
Mining Division: Global	<ul style="list-style-type: none"> <li>• International Copper Association (ICA)</li> <li>• International Molybdenum Association (IMOA)</li> <li>• International Zinc Association (IZA)</li> </ul>
Mining Division: United States	<ul style="list-style-type: none"> <li>• Arizona Mining Association (AMA)</li> <li>• North American Metals Council (NAMC)</li> <li>• Society for Mining Metallurgy and Exploration (SME)</li> <li>• Tucson Metropolitan Chamber of Commerce</li> </ul>
Mining Division: Mexico	<ul style="list-style-type: none"> <li>• Cámara Minera de México (CAMIMEX)</li> <li>• Sociedad Minera de México</li> <li>• Asociación de Mineros de Sonora (AMSAC)</li> <li>• Comisión de Estudios del Sector Privado para el Desarrollo Sustentable (CESPEDES), Consejo Coordinador Empresarial (CCE)</li> </ul>
Mining Division: Peru	<ul style="list-style-type: none"> <li>• Sociedad Nacional de Minería, Petróleo y Energía de Perú (SNMPE)</li> <li>• Cámara de Comercio de Lima (CCL)</li> <li>• Asociación de Exportadores (ADEX)</li> <li>• Confederación Intersectorial de Empresas Privadas (CONFIEP)</li> <li>• Sociedad de Comercio Exterior del Perú (ComexPerú)</li> <li>• Instituto de Ingeniero de Minas de Perú (IIMP)</li> </ul>

Transportation Division	<ul style="list-style-type: none"> <li>• Asociación Mexicana de Ferrocarriles (AMF)</li> <li>• American Association of Railroads (AAR)</li> <li>• The Rail Transportation and Engineering Center (RailTEC)</li> <li>• Asociación de Proveedores de Productos Agropecuarios (APPAMEX)</li> <li>• Asociación mexicana de Transporte Intermodal (AMTI)</li> <li>• Consejo Nacional Agropecuario (CNA)</li> <li>• Asociación Nacional de la Industria Química (ANIQ)</li> <li>• Asociación Nacional del Plástico (ANIPAC)</li> <li>• Comisión Regional de Logística de Guanajuato (CORELOG)</li> </ul>
Infrastructure Division	<ul style="list-style-type: none"> <li>• Cámara Mexicana de la Industria de la Construcción (CMIC)</li> <li>• Asociación de Recursos Humanos de la Industria Petrolera (ARHIP)</li> <li>• Asociación Mexicana de Energía Eólica (AMDEE)</li> </ul>

**GENERATING SHARED VALUE**

G4-12 , G4-EC1, G4-EN33

Grupo México has a clear intention, Development with Purpose, under which we strive for our investments to transcend in value for our different stakeholders, both directly and indirectly.

Through our activities, we favor job creation and purchasing products and services from local companies, which drives the economy in the areas where we operate. We are working closely with the community to transform our presence in an opportunity for social development, combining social investment with corporate social responsibility programs.

**SUPPLY CHAIN**

At Grupo México, we contribute to the development of auxiliary industries in the different activity sectors whe-

re we participate: mining, transportation, energy, construction and engineering, and drilling. It should be noted that the business operating costs were US\$4.520 billion associated mainly with goods, materials and services. When a commercial relationship is established with suppliers and contractors, their legal compliance is assessed in terms of environmental and labor history, and that they have the permits required.

In addition, we require contractors to have the technical expertise necessary, which we reinforce with any knowledge that may be specific to our processes. The assessment of legal compliance during the provision of the service is strengthened with the requirement to act according to our health and safety policies and procedures, and also our Code of Ethics. Any breach may lead to our disassociation from the contractor.

We also strive to strengthen the local economies in the regions where we operate, selecting local vendors and contractors according to our criteria of quality, price, and environmental and labor compliance.

**ECONOMIC VALUE GENERATED & DISTRIBUTED (US\$ MILLIONS) - GRUPO MÉXICO**

	2014	2015	<b>2016</b>
<b>Economic Value Generated (EVG)</b>			
Sales	9,286	8,179	<b>8,173</b>
<b>Economic Value Distributed (EVD)</b>			
Operating cost	4,871	4,466	<b>4,520</b>
Salaries, wages and benefits	1,263	953	<b>1,004</b>
Financial institutions and stockholders	782	782	<b>610</b>
Government (taxes)	963	1,077	<b>983</b>
Investments in communities	74	86	<b>54</b>
Total Economic Value Distributed (EVD)	7,952	7,364	<b>7,171</b>
<b>Retained Economic Value (REV)</b>	1,334	815	<b>1,003</b>

Under the Distributed Economic Value (DEV), we made significant investments:

	Millions of dollars		
	2014	2015	<b>2016</b>
Environmental investments	186	236	<b>309</b>
Investments in health and safety	121	132	<b>138</b>

A restatement of the G4-EC1 indicator of previous years is done in order to improve adherence to the directives of the Global Reporting Initiative



## GRUPO MÉXICO FOUNDATION

### GRUPO MÉXICO FOUNDATION

At Grupo México Foundation, we focus our efforts on projects that not only impact society, but also address the problems Mexico faces.

This is why we are proud to announce the start of a new project with each annual report.

#### EDUCATION & THE ENVIRONMENT

##### EDUCATION FOR HEALTH AND LIFE

It's common knowledge that Mexico has experienced difficulties when it comes to education. The current administration has proposed a structural change and Grupo México Foundation has seized this time of transition to develop materials for its widely accepted educational platform *Educación para la Salud y la Vida* (Education for Health and Life).

These materials supplement the elementary and middle school curriculums in Mexico, and also help to solve various social problems present in our society. The contents cover topics of interest and conflict among children and youth, therefore we developed two versions, one for elementary school students and teachers and another for the middle school level.

##### Elementary:

1. Como, me nutro y me divierto (nutrition)
2. Aprendo a cuidarme de la violencia (self-defense)
3. ¿Qué son las adicciones? Cómo decido (addictions)
4. ¡Mi cuerpo se respeta! (sexuality)

##### Middle school:

1. Distingo la violencia y me protejo (non-violence)
2. ¿Adicciones? ¡Alerta máxima! (addictions)
3. Para comer mejor (nutrition)
4. En mi cuerpo, ¡yo decido! (sexuality)

##### General for parents and teachers

1. Como, disfruto y me nutro (nutrition)

Our educational platform [www.educacionsaludyvida.org](http://www.educacionsaludyvida.org) and [.com](http://www.educacionsaludyvida.com) was launched in January of this year. Just two weeks later, two thousand teachers had registered, a record number, particularly if we note that there are no other similar platforms or materials of this nature in the country. It is a great achievement for us to be the first to have a direct impact on the educational community in Mexico with topics outside the traditional curriculum. Visitors to the platform can download educational materials and also participate in the various forums, exchanging questions and experiences, asking for legal, psychological or other help. Additionally, we have experts on the various subjects we cover who prepare articles of interest and knowledge for all users of the platform.

Grupo México Foundation, in coordination with the Mexican Educators' Union, prepared a subject guide for each pamphlet to match it to the annual planning set by the Department of Education. This partnership offers all teachers the opportunity to use the materials in the teacher's guide gaining the tools needed to use the contents properly in their classrooms, to identify competencies in their students and in what areas the information can be used appropriately. We are pleased that after three months, the response has been overwhelming to close the year with **4,938 active users**.

#### TREE PLANTING:

The "6th Grupo México Foundation Tree Planting Day" was held in 2016 in Huixquilucan, Estado de México, planting 6,000 trees on 4 hectares. As has been the case for 6 years, Grupo México, Intermodal, Ferromex,

Ferrosur and Cinemex employees and their families came together to total 608 volunteers participating in this event. This year, we were joined by new partners, interested in building an environmentally conscious community: Animal Heroes, Sura, Fundación Posadas and Hogan Lovells. These actions impacted 192,000 local residents.

Our support of the program "Lo Hecho en México", through the "Mexico in 1 image, 1 Photo = 1 Tree" contest, resulted in 40,000 trees being planted in Metepec, Estado de Mexico. This project, where participants "exchange" photographs for a tree, has been well received since it was first launched. This year, the families of the participants and members of the local community joined in to double the number of trees planted.

The goal of the contest is to express why you are proud to be Mexican through a photograph, dividing participants into three categories: professionals, amateurs and a special eye, which is reserved for people with Down syndrome. Grupo México Foundation donates a tree for each photo submitted. The top 50 photos are currently on display at the Museo Soumaya and later they will be shown in Puebla, Monterrey and the Estado de México.

In parallel to the work with our volunteers and with the program Lo Hecho en México, we have created various alliances with municipal and state governments and also institutions committed to the environment to impact 3,427,725 people in 9 Mexican states, planting 400,990 trees on 403 hectares:

1. Estado de México
2. Nayarit
3. Puebla
4. Veracruz
5. Michoacan
6. San Luis Potosi
7. Chihuahua
8. Mexico City
9. Jalisco

A total of **410,990 trees** were planted on **411 hectares** in 9 Mexican states, which translates into reaching **3,619,725 people**.

#### BÉCALOS PROGRAM:

Over our 6-year partnership with Fundación Televisa, 2,810 students in Sonora and Colima have received high school and university scholarships. In 2016, **613 students** graduated (413 high school students in Sonora, 100 university students in Sonora and 100 high school students in Colima).

#### WORKSHOPS:

In partnership with Fundación Nemi, **129 workshops** have been held at **61 middle and high schools** in Sonora, Baja California Sur, Zacatecas and Chihuahua, reaching **11,629 students**, who have gained a better sense of social impact in:

1. Violence
2. Sexuality
3. Nutrition
4. Addictions
5. Financial Understanding
6. Life Plan
7. Intelligent Communication

#### FREE TRANSPORTATION FOR THE TARAHUMARA COMMUNITIES:

With the support of Ferromex, **860 tons** of supplies were transported free of charge this year, impacting **17,230 people** in **3 Tarahumara communities**: Creel, Cuauhtémoc and Temoris, Chihuahua through our collaboration with Banco de Alimentos de Cuauhtémoc A.C., Comunidad Educativa Yermista, Fundación Educativa Marista Tarahumara A.C., Casa Misión Sta. María de Guadalupe, Clínica Santa Teresita and Tewecado Santa María de Guadalupe.

#### WORLD FOOD DAY:

Grupo México Foundation is involved in the "World Food Day" Project event through our longstanding partnership with Fundación CMR and HSBC. The goal of this project is to eliminate child malnutrition in children under 5 years of age. In 2016, **728 malnourished children** received assistance from this project.

**PLAZA MÓVIL PARRAL:**

This project has been truly satisfying. Education is the key that not only opens a lot of doors, it gives us access to the “world of knowledge and learning” and this “world” opens the opportunity to live a different reality giving us the tools to wellbeing.

In Chihuahua, 60,492 people are illiterate and 772,000 people have not completed their basic education. In coordination with the Instituto Chihuahuense de Educación para los Adultos (ICHEA), the Fundación del Empresario Chihuahuense (FECHAC) and Proeduca Chihuahua A.C., in April we launched the “Plaza Móvil Parral” project, a bus that travels to **40 communities** in Parral, Chihuahua to support people over 15 years of age to complete their elementary and/or middle school education. In 8 months of operation, **1,280 adults** have received literacy training and/or elementary or middle school education.

Thanks to this project, in just eight months **650 adults** have completed their elementary school education and **350** their middle school education.

The commitment of the institutions participating in this project is that 18,000 people will complete their elementary and middle school education in the next 15 years.

**HEALTH TRAIN**

Dr. Vagón, The Health Train, celebrated **two** years taking free comprehensive medical services to marginalized communities neighboring the Ferronex rail lines. During

2016, **The Health Train** provided **184,928** free medical consultations to **45,573** people, including children, women, men and the elderly.

Our train traveled **12,796 kilometers** in 2016, visiting **13 Mexican states**, serving **35 communities**.

Dr. Vagón traveled through the states of: Sinaloa, Nayarit, Jalisco, Colima, Guanajuato, Queretaro, Hidalgo, Puebla, Veracruz, Coahuila, Nuevo Leon, Zacatecas and Sonora, visiting the communities of: Sinaloa de Leyva, Guasave, Salvador Alvarado, Acajoneta, Ruiz, Compostela, Tequila, Sayula, Tuxpan, Colima, Coquimatlan, Tecoman, Celaya, Silao, Apaseo el Grande, Tequisquiapan, Huichapan, San Martin Texmelucan, San Jose Guerrero, Cañada Morelos, Jose Azueta, Cordoba, Acultzingo, Nava, Muzquiz, San Pedro, Hidalgo, Monte Morelos, Linares, Calera, Fresnillo, Felipe Pescador, Benjamín Hill, Carbo and Guaymas.

Thanks to our partnership with Fundación Farmacias de Ahorro, **64,741** free medications were given to patients who received medical treatment on the Health Train. Also, with the support of Fundación MVS Radio and the program “Ponte Oreja”, **200 hearing devices** were fitted for people identified as having some type of hearing “problem” during their consultation. In parallel, our optometry service conducted various visual assessments and diagnoses, delivering **7,249 pairs of glasses**.

The Health Train tries to cover all areas to improve the health of all who visit the train. Our *Educación*

*para la Salud y la Vida* (Education for Health and Life) workshops, which are offered to patients waiting for their consultation, have been well received. People participate, ask questions and they become interested in these topics. Many people approach our workshop presenters asking for psychological and emotional support. The workshops not only cover topics of self-care and prevention, but this year we included workshops on recent public health situations, such as the zika virus, dengue, chikungunya and rickettsia. During 2016, **22,975 people** attended the **803 workshops** offered.

At Grupo México Foundation, looking to support the knowledge, skills and aptitudes of the medical personnel on the Health Train to deliver efficient performance, **333** people participated in a program of **10** conferences on health-related topics, including: Myths and Realities of Alcohol, Palliative Care and End of Life Planning, Physical Activity and Health, Healthy Nutrition, Early Childhood Development, Dental Emergencies, Breastfeeding, Nutrition and infant growth, Intimate relationships and sexuality, HIV and AIDS prevention.

**SOCIAL LINKAGE**

For the fourth year in a row, employees of the Grupo México member companies and Cinemex, together with their families, volunteered their time and efforts in support of those most in need in the communities where we operate.

Following on the success and impact of our work, in 2016 we extended our social action to communities in

Peru and the United States, with the participation of Grupo México employees at Southern Copper Corporation and ASARCO.

This program involved **28,000 Grupo México volunteers** in Mexico, Peru and the United States, to impact schools, public spaces and local institutions through the following activities:

- Indoor and outdoor painting
- Improvements to infrastructure
- Improvements to recreational areas
- Indoor and outdoor cleaning
- Planting green spaces

The communities supported were:

**MEXICO**

- 1.- **Baja California Sur:** Guerrero Negro
- 2.- **Campeche:** Ciudad del Carmen
- 3.- **Coahuila:** Torreon, Nueva Rosita
- 4.- **Chihuahua:** Chihuahua, Santa Barbara, Santa Eulalia, Parral
- 5.- **Guanajuato:** Irapuato, Leon
- 6.- **Guerrero:** Taxco
- 7.- **Jalisco:** Guadalajara
- 8.- **Michoacan:** Angangueo
- 9.- **Oaxaca:** Juchitan de Zaragoza
- 10.- **San Luis Potosi:** Charcas, San Luis Potosi
- 11.- **Sonora:** Guaymas, Agua Prieta, Hermosillo, Cananea, Nacoziari, Esqueda
- 12.- **Zacatecas:** Sombrerete

13.- Veracruz: Veracruz

14.- Mexico City

## UNITED STATES

1.- Texas: Amarillo

2.- Arizona: Tucson, Sahuarita, Marana, Kearny, Hayden

## PERU

1.- Moquegua: Ilo

## 44 NETWORK OF CORPORATE FOUNDATIONS AND ASSOCIATIONS

The Network is an alliance between corporate foundations and businesses that engage in social activity who join together to align their community projects, unifying social action in Mexico. In parallel, participating charity organizations find in the Network a unique space to professionalize their work and receive training in the international criteria that govern social action. There is no cost to join the Network, which is made up of:

- Corporate Foundations
- Businesses with Social Activity
- Charity Organizations
- Nonprofits
- Publicly supported charities
- Privately supported charities
- Non-Governmental Organizations

Charity organizations use the network's digital platform: [www.RedAsociaciones.com](http://www.RedAsociaciones.com) to create synergies with other organizations, to professionalize their community work, to receive legal and tax advice, to receive ongoing online training, and to participate in the various in-person

workshops the Network offers. The Network operates to international standards and is free of charge for the 985 NGOs who have registered so far.

Also, one year after launching the Network platform, 51 Corporate Foundations and Socially Responsible Companies have become members:

1. Fundación Herdez
2. Anáhuac Querétaro
3. Fundación Farmacias del Ahorro
4. Fundacion CMR
5. Volaris
6. Fundación del Empresariado Chihuahuense (FECHAC)
7. Universidad la Salle México
8. Fundación Gigante
9. Fundación Helvex
10. KPMG
11. Centro Mexicano Pro bono (CEMPRO)
12. Danone/Bodafont
13. IBM
14. Pfizer
15. Fundación Social del Empresariado Jalisciense (FEJAL)
16. Dentalia
17. Fundación MVS
18. Banco HSBC
19. Nestlé
20. Restaurantes Toks
21. Fundación Chedraui
22. Fundación Kalúz
23. Fundación GIN
24. Instituto Tecnológico de Monterrey campus Monterrey ITESM

25. Fundación José Cuervo
26. Gas Natural Fenosa
27. Asociación de Bancos de México (ABM)
28. Ford Motors
29. Hogan Lovells BSTL, S.C.
30. Fundación ABC
31. Fundación Axa
32. Fundación Acir
33. Nacional Monte de Piedad
34. Teletón
35. Appleseed México
36. Fundación Grupo Posadas
37. Deloitte
38. Sura
39. Fundación Proempleo
40. Fundación del Empresariado Yucateco (FEYAC)
41. Fundación Televisa
42. Fundación Motorola México
43. Fomento Cultural Banamex
44. Red Probono México
45. Fundación Mapfre
46. Fundación Paloma
47. VINOMEX / FECHAC
48. Fundación Gentera
49. Samsung México
50. Conservation International Mexico A.C.
51. Corresponsables

The breakdown of the organizations participating in the network is that 31% are working on environmental issues, animal protection and community development; 27% are organizations involved in citizen engagement, research, human rights, indigenous rights and legal advice; 24% are working on issues of education, health

and nutrition, philanthropy and sports, leaving 18% of organizations working in a variety of areas, such as legal consulting, art and culture, and the differently abled.

The Network platform is enriched each day with valuable information for organizations and corporate foundations on topics of social responsibility, tax reforms, grant opportunities and news on relevant social topics.

The organizations receive an electronic newsletter monthly featuring upcoming workshops, grants, events, etc. The member corporate foundations and businesses with social activity shared more than 12 grant opportunities and social or sustainable projects of interest to the organizations.

Also, 41 national and international funding opportunities were advertised through the Network, including the embassies of Japan, New Zealand, Canada and Germany, and international institutions, such as USAID, UN Americas, Wingu Argentina and Ford Foundation, among others.

This year, the Network provided 48 free legal consultations to member organizations given by *AppleSeed México*, *Red Pro bono México*, *Centro Mexicano Pro bono (CEMPRO)* and major law firms including Hogan Lovell's BSTL and *Fundación Basham*, among others. These Institutions give free legal advice to the organizations on a variety of topics, such as: tax and labor issues, notary services, changing the corporate purpose, amending powers of attorney, the CLUNI process, process for becoming an authorized done, and advice on starting a foundation or charity organization, among others.

In parallel, 12 online trainings were held and 6 in-person workshops on topics of interest for the organizations, including: Grant-writing, Anti-Money Laundering Law and its implications for NGOs, Fundraising Planning, Strategies for researching Donor Foundations; In-person course: Introduction to legal topics of interest to NGOs, Social Responsibility at Work, NGOs and Corporations: Developing strategic partnerships to strengthen the impact of corporate volunteering, Reporting to Donors, Importance of pro bono legal work and its impact on NGOs, NGO Leadership, Project Management workshop, Social Media, Social Responsibility in Chile, Legal and fiscal obligations of charity organizations.

The topics of the in-person workshops donated by our partner IBM were: "Project Management Workshop / Gestión de Proyectos (1), Social Media Strategy & Planning / Planeación Estratégica de Redes Sociales (2) Leading Organization Innovation / Liderando la Innovación en las Organizaciones (3). More than 50 organizations received training in each subject area.

The Network held two meetings with our Corporate Foundations and Socially Responsible Company members to discuss the work plan and the guidelines for standardizing the support offered to organizations that approach these foundations and businesses asking for donations. In this manner, the requesting organization will be treated the same by all the members of the Network and they will be "obliged" to meet all the standards set to ensure their work is efficient and transparent.

## EDITORIAL FUNDACION GRUPO MEXICO

Chiles was the ingredient we chose to continue our collection of Mexican ingredients. This book, as with the previous ones, was created as a timeless tribute to the cultural and gastronomic wealth of this ingredient, which is found in many cuisines around the world. The profits from the sale of the book supported the charity Centro de Atención a Niños de la Calle Betesda I.A.P., which provides a warm and protected environment for boys aged 3 to 17 who have been abandoned or who are living in extreme poverty in the communities of Navojoa, Sonora.

In addition to offering a safe home, Betesda, I.A.P., provides clothing, meals, education, and medical and psychological attention. The book "Chiles", was nominated for the 2017 Gourmand World Cookbook Awards, to be held in Yantai, China in May 2017, in the category Food Heritage. Our books are available at various bookstores and sales go towards supporting the work of different institutions.

## CONCIENCIA CINEMEX

### Benefit Premieres

For several years, we have been offering through this program in partnership with various film distributors, a fundraising tool to support the work of participating NGOs. The organizations participating in the benefit premieres program sell tickets to their assigned premiere and Grupo México Foundation matches the amount

raised. In 2016, **29 premieres** were held and the **26 participating** institutions, through the program, directly impacted **10,053,498 people**.

Most of the distributors have been supporting the program since it began and a few new partners have joined recently, building on the efforts of Grupo México Foundation and Cinemex. We continue to work with other distributors to develop new alliances and expand the number of movie premieres.

### "Cineminuto" Social Messages

This program raises awareness around the work of different organizations. In 2016, we created **2,786 copies** for 13 organizations to show cineminutos to promote their causes over 4 weeks in **220 theaters**, reaching **26,189,152 moviegoers**. The *cineminutos* shown this year featured: John Landon Down, Children International, Hábitat para la Humanidad, Únete, Fundación Luis Pasteur, Olimpiadas Especiales, ORT México, Fundación Clínica Médica Sur, Expo Fundación y Congreso, Convivencia sin Violencia, Fundación CMR, TECHO México and FECHAC.

### Cinemex Run

The Cinemex run is an annual charity event that supports an organization that we carefully selected. This year, the runners supported the organization Olimpiadas Especiales de México A.C. and their project "Somos más que Deporte" (We are more than sport). This project will impact 28,309 people with mental challenges, providing

free training in Olympic events for one year, including gymnastics, swimming and figure skating, among others. Participants in this program have the opportunity to develop their physical conditioning, demonstrate courage, experience joy and to share gifts, skills and camaraderie with their families, other athletes and the community, also fostering their inclusion as productive members of society, in a setting of acceptance, equality and respect. In parallel, program participants compete in national and international competitions, including the 2017 Winter Games in Austria. This project uses sport to open minds and hearts for mentally challenged people, to create inclusive communities around the world.

### Living without Violence Forum

Through a partnership that started in 2013 with the organization Convivencia sin Violencia, FGM participated in the annual forum "México empiezo yo, me sigues tú, cambiamos todo" (Mexico, I'll start, you follow, we all change), which shows high school students "options" for success through renowned speakers highlighting leadership, self-esteem, the value of talent and determination to overcome adversities, so that they will value and recognize the opportunities life has to offer.

Held in October 2016, this forum was highly successful with an in-person participation of 2,209 youth, and a total impact via live streaming and social media of 646,632 people. Without doubt, the Convivencia sin Violencia Forum inspires youth to believe they achieve anything, that there are no obstacles to success when

you work hard, are engaged and disciplined, and make the effort to become better citizens.

**Social Marketing Campaigns**

In 2016, we impacted a total of 29,529 people through this program, supporting three institutions. As with our other programs, Grupo México Foundation assesses the projects submitted and chooses the organizations that most need our support to be able to continue their work.

In parallel, Cinemex, through the concession stands at all their theaters nationwide, invites guests to supersize their large popcorn to jumbo and the price difference is donated to the benefit organization. This program has been successful thanks to the generosity of the Cinemex guests. The organizations benefited this year were: Christel House impacting 211 children, Special Olympics impacting 28,309 special athletes, and Nutre a un Niño impacting 1,009 people.

**Expo Fundación y Congreso**

The third Expo Fundación y Congreso was held in June, creating a space for charity organizations to receive training, exchange information, and to raise awareness around their work. The presenters this year included keynote speaker Dr. Denise Dresser, with the theme “And me, what can I do?...10 suggestions for change in Mexico”, raising awareness with organizations on how to generate deeper change in society with a more direct

impact on the country. Annette Candanedo, Marco Antonio Regil, Pau Vidal and Norma Galafassi, among others, spoke about innovations and gave the attendees practical management tools. Representatives from 176 organizations attended the event, replicating the learning from the conference with their organizations and their social programs.

**Marquee Campaign**

This relatively new program has demonstrated its success and impact. Organizations work to promote and raise awareness of their programs, although there are many people who are unaware of what is available to them from these organizations. This year, 1,514 posters were shown on the marquees at 220 theaters for 4 consecutive weeks. The organizations benefited were: Mexican Red Cross, Special Olympics of Mexico, Mexico City Citizen Council, Fundación CMR, Taiyari and Museo Memoria y Tolerancia.

**CAI Monterrey**

The support given to the Monterrey CAI by outfitting the stylist shop in 2012 has led to 1,440 people being trained through various workshops: hair stylist, barbering, coloring, nail care and art, and professional make-up, offering training and business opportunities to people with limited options for formal employment.



# MINING DIVISION





## MINING DIVISION

### GROW

#### PRODUCTS AND SERVICES

G4-4, G4-8, G4-9

Grupo México is a leader in copper extraction and has the largest reserves in the world, the lowest extraction costs and the best portfolio for organic growth. The principal activities of our Mining Division are: exploration, exploitation (mining and ore extraction) and processing metals and minerals, and other byproducts; which are sold in different markets and industrial sectors around the world.

We have a portfolio of high value byproducts that are used in different industries, noting copper, molybdenum, zinc, silver and gold in particular.

#### Metallic Copper

Copper is the third most used metal in the world and is a basic component for infrastructure and global growth. It has exceptional chemical and physical properties, including high electrical conductivity and corrosion resistant. It also has excellent malleability and ductility and is therefore an optimal material for construction industries, electrical products and electronics, telecommunications, computers, mobile phones, industrial machinery and equipment, consumer products, and in the automotive and transportation industry, as well as by metals sellers, smelters, and metal recovery and recycling companies.

#### Molybdenum

Molybdenum is used primarily to manufacture stainless and special steels. It is used to strengthen steel alloys and to soften tungsten alloys. It is also used as a catalyst in the oil and gas industry, and in fertilizers, dyes, paints, reagents and lubricants. Its most notable property is that molybdenum strengthens alloys and it is corrosion resistant.

Our principal customers are in the transformation industry, treating and processing molybdenum, and its derivatives, such as molybdenum oxide.

#### Zinc

Zinc is used primarily to galvanize iron and steel to protect these from corrosion. It is also used in batteries and for architectonic purposes. Its high position in the galvanic series means zinc offers excellent resistance to atmospheric corrosion, therefore its primary use is galvanization. Because of its low fusion point, malleability and high resistance, zinc is often used to make pressure molds, and also in bronzes. It is also the base for zinc oxide, which is used in tires, paints and livestock feed, among other products.

Our customers are in the steel, electrical and cable industries, sellers of zinc alloy products, and pure metal supply companies.

#### Silver

Silver is used in photography, electrical and electronic products, and to a lesser degree, in traditional welding and welding alloys, jewelry, coins and catalysts.

Our principal customers are in the hazardous waste treatment and recovery industry, manufacturers of specialty pieces that use metal alloys and sellers of construction materials.

#### Gold

Gold is used in jewelry, cancer and other treatments, for industrial welding, coloring in photography, and also in the aerospace sector, among others. Our customers are active in many sectors, benefiting from the properties of this metal, such as its corrosion resistance, among others.

## INVESTMENTS AND PROJECTS

G4-13, G4-EC8, G4-EN27

At Grupo México, we have set as a goal to become one of the top copper producers in the world. We currently have the largest reserves in our sector and in the next 7 years, we anticipate a 53% increase in production to over 1.6 million tons of copper. This growth will be driven by the following projects:

As part of our commitment to the development of the industry, communities and countries where we operate, we are consolidating the Buenavista del Cobre “Gran Visión” project in Sonora, Mexico, which represents an important economic spillover in terms of promotion of productive chains, a significant contribution to the state and national gross domestic product, and over 11,000 direct and indirect jobs created during construction. It is of note that this is the largest project of its kind in Mexico, and represents a key piece in our Mining Division increasing copper production 16% over 2015, to report a record 1,054,414 tons produced in 2016.

Our efforts to achieve economic growth while developing our communities is reflected in the Toquepala expansion in Peru. This project will produce 235,000 tons of concentrate in 2018 and will bring jobs to the region, creating 2,200 jobs during construction, and another 300 for the operation of the expansion.

We are passionate about developing new business and we are constantly driving and expanding our operations in different locations in the countries where we operate. The following projects, with different degrees of maturity, are examples of this:

- **Tia Maria (Arequipa, Peru).** Open pit mine with an annual production capacity of 120,000 tons of copper (SX/EW).
- **Aznalcollar (Sevilla, Spain).** Polymetallic underground mine with a production capacity of 67,000 tons of zinc equivalent annually.
- **Pilares (Sonora, Mexico).** Open pit mine with an annual production capacity of 35,000 tons, which will be used for building infrastructure in La Caridad.
- **El Pilar (Sonora, Mexico).** Open pit mine with a production capacity of 35,000 tons annually (SX/EW).
- **El Arco (Baja California, Mexico).** Open pit mine with an annual production capacity of 200,000 tons of copper and 105,000 ounces of gold (SX/EW and Concentrator).
- **Los Chancas (Apurimac, Peru).** Open pit mine with an annual production of 100,000 tons of copper and 4,500 tons of molybdenum (SX/EW and Concentrator).

- **Buenavista Zinc (Sonora, Mexico – Buenavista del Cobre Complex).** Open pit mine with an annual production capacity of 60,000 tons of zinc.

### INNOVATION, CONTINUITY AND OPERATIONAL EFFICIENCY

Grupo México's operations develop specialized processes thanks to cutting-edge technology and the performance of our professionals. In addition to incorporating available solutions, we seek to contribute to innovation in the industry. In this regard, we support projects submitted by different universities to the Mexican Council of Science and Technology (Conacyt) to receive funding from the Regional Institutional Development Fund for Science, Technology and Innovation (Fordecyt), focusing on projects that highlight water usage, energy, human resources management and communications. In addition to providing financing, the combination of our experience and university research teams creates important synergies.

Additionally, we are innovating inside the company, by re-engineering processes and responding to opportunities for ongoing improvement. In 2016, we obtained formal test approval for the patent submitted in 2015 and submitted the application for a new patent at the end of 2016.

Also noteworthy are our longstanding collaborations with universities in the United States. We have completed various projects with the University of Arizona,

and our collaborations with various institutions include biodiversity protection programs and biosolid reuse. Also, in keeping with our collaborative projects, we have coordinated connections between different institutions such as the University of Arizona Center for Sustainable Mining and the University of Zacatecas.

Developing more environmentally friendly processes and alternatives is a major focus of innovation at Grupo México. This year, we continued to develop a bioleaching and copper extraction process to improve the recovery of this metal from the hydrometallurgical process.

This approach of optimizing our operations to make our processes more efficient has continued to improve the company's performance by increasing production and cost savings. During 2016, these improvements were reflected in 16% increase in copper production, a 20% increase in silver production and a 68% increase in gold production. We also saw 15% improvement in extraction costs.

We believe that with the current upward trend in the metals markets, our investment program will improve the return for our investors even further. This year, the cost of sales decreased 1%, even with the increased production, due to greater efficiencies and savings in our operations.

Some of the projects where we highlight the use of new technologies to achieve greater efficiencies are:

**Crusher and Conveyor Belt System (Quebalix IV).** The primary objective of this project is to reduce the processing time, and also the mining and haulage costs, with a 7-kilometer belt system. This project will also increase production, improving the SX/EW copper recovery.

**Toquepala High Pressure Grinding Roll (HPGR) System.** The primary purpose is to ensure the current concentrator will operate at its maximum milling capacity of 60,000 tons per day, even with an increase in the hardness of the ore. Additionally, recovery and production will improve with better crushed ore.

**Cuajone Heavy Ore Management Optimization.** This project consists of installing a primary crusher at the Cuajone pit, using a belt system to transport the ore to the concentrator. The project will optimize the haulage process and replace the current system of transporting the ore by rail, which will also reduce operating and maintenance costs, and the environmental impact of the mine. The processing times are expected to decrease,

and also the mining and haulage costs, while production will increase improving the SX/EW copper recovery.

**Cuajone Concentrator Tailings Thickeners.** This project will replace two of the three current thickeners with a new high capacity thickener, which will optimize the concentrator's flotation process and improve water recovery, increasing the solid tailings content from 54 to 61%. This process will reduce the consumption of fresh water and replace this with recovered water.

## CUSTOMER RELATIONS

G4-PR5

The satisfaction of our customers is essential to the current and future performance of Grupo México, and moves us to deliver quality products.

We conduct annual satisfaction surveys at our mining operations, the results of which are reviewed by senior management to identify and implement improvements.

These customer satisfaction surveys gave us a rating of 97%, reflecting that the majority of our products and services meet or exceed expectations. Monitoring the perception of our customers is part of our approach of efficiency and ongoing improvement, to continue to advance on our path as a solid and trusted company.

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At Grupo México, we operate in adherence of law, seeking close collaboration with the authorities and the communities where we operate.

## PROMOTE

### COMMITMENT AND WORKPLACE CLIMATE

G4-9, G4-10, G4-11, G4-LA1, G4-LA4, G4-LA13, G4-HR3, MM4

Our workforce is the base for all our activities, therefore we foster a workplace environment that is conducive to the wellbeing of our collaborators, so that they may achieve their professional goals working as a team, and also their personal goals. We are working to strengthen who we want to be in the present and in the future, building a flexible, dynamic and strong organization.

In 2016, the Mining Division team was comprised of 15,883 collaborators, 98% were under permanent contract and 100% working full time. This means we can design career development plans, and also create a solid culture that permeates all our operations, considering in particular that our mining operations will be consolidated as Americas Mining Corporation (AMC), so as to develop a global vision and mission in the years to come.

Another point where we have focused is in maintaining a diverse workforce that allows us to grow through the different perspectives of our collaborators. In 2016, women represented 6% of our workforce. This is the result of our gender equality policies, particularly in reference to salaries. We also enriched by having different generations working together with good

communication and respect for each other. This reflects an ongoing objective, which is also outlined in our Code of Ethics. However, there were 8 cases of alleged discrimination reported this year at our mine operations in the United States, pending resolution.

At Grupo México, we guarantee freedom of association, with 11,977 union employees in the Mining Division, representing 75% of the workforce. We strive to strengthen trust within the Company and our collaborators, including their union representatives, for which we maintain ongoing dialog through the Human Resources Department. We communicate operational changes with the advance notice required under the collective bargaining agreements and we act according to legal requirements, as applicable, as occurs in the United States with the Worker Adjustment and Retraining Notification Act (WARN), which requires 60 days notice for mass layoffs and/or closures.

There were no strikes or other work stoppages in 2016, as has been the case for 9 years thanks to the efforts of all in fostering labor peace and the organizational change of culture.

**COLLABORATORS**

Mining Division, 2014-2016

Year	Collaborators
2014	15,577
2015	16,062
<b>2016</b>	<b>15,883</b>

**COLLABORATORS BY REGION**

Mining Division, 2016

Region	Collaborators
Mexico	55%
Peru	30%
USA	15%

**COLLABORATORS BY COUNTRY**

Mining Division, 2016

Country	Collaborators
Mexico	8,809
Peru	4,747
USA	2,327

**COLLABORATORS BY AGE GROUP**

Mining Division, 2016

18-24 years	5%
25-34 years	29%
35-44 years	26%
45+ years	40%

**SEPARATIONS BY REGION**

Mining Division, 2016

	Percentage
Mexico	65%
Peru	13%
USA	22%

**TURNOVER RATE**

Mining Division, 2014-2016

Year	Percentage
2014	6.61%
2015	6.72%
2016	10.31%

**WOMEN BY EMPLOYEE CATEGORY**

Mining Division, 2016

Category	Number of collaborators	% Women
Senior Management & Department Heads	159	11%
Technicians	3,335	17%
Specialists	3,494	15%
Assistants	8,895	4%

This year, our turnover rate rose to 10.31%, due particularly to the strategic restructuring that consolidated the operation of our subsidiaries under AMC. It's important to mention that despite the immediate impacts of the restructuring, the goal is to

ensure the competitiveness and growth of the Company, which will bring labor stability in the long term. There were 1,259 new hires this year, between our mining operations in Mexico, Peru and the United States.

(G4-EC5, G4-LA2)

The commitment of our team is one of Grupo México's key assets, which we recognize by offering salaries that allow the well-being of our collaborators and their families. We also offer benefits above those required by local law, and those established in the collective bargaining agreements at our operations. Our efforts particularly focus on education, for our collaborators and their families, and health through medical and life insurance, and also additional accident coverage, for both union and non-union employees, independent of the type of contract and whether the employee works full time.

During 2016, the average Base Salary in the Mining Division was equal to 10.97 times the local minimum wage. The Base Salary includes the starting salary, productivity bonuses, cash benefits and profit sharing, where applicable.

Every two years we conduct a workplace climate survey to gauge the opinion of our collaborators. The most

recent of these surveys was conducted in 2015, in which 74% of our collaborators participated and more than half of those surveyed said they were highly satisfied and committed. This is a sign that we are working in the right direction and we'll continue to listen to our colleagues to continually improve.

**TRAINING AND CAREER DEVELOPMENT**

G4-LA9, G4-LA10, G4-LA11

We are committed to the professional goals of our collaborators, therefore we have focused on creating training programs that cover both technical competencies and behavioral skills, and which are also key due to the high specialization of our operations. In 2016, we delivered 548,118 training hours in the Mining Division, with an average 35 hours per collaborator.

The skills management and training programs we offer at the Mining Division vary according to the type of work activity and the country of operation.

<sup>2</sup> Considering the Base Salary (BS) and the Minimum Wage (MW), the calculation of the BS/MW average is determined weighting the BS and MW for each country where we operate, based on the number of collaborators in the Mining Division in each territory.

**TRAINING PROGRAMS**

Mining Division, 2016

<b>Mexico</b>
Programs based on the Minera México Corporate, Administrative and Technical Competencies Model, where each position has a specific description of the competencies required, which are assessed to identify training needs and define the annual training programs. The detection of training opportunities is the result of dialog between supervisor and collaborator, planning their training and professional development together.
<b>Peru</b>
The competencies required are defined based on the position, considering the type of activities performed, the technology available, and possible special projects. These competencies then provide essential input into the Annual Training Plan. The principal programs are: (i) occupational health and safety; (ii) technical competencies, and (iii) behavioral skills (coaching, supervisor responsibilities and management skills).
<b>United States</b>
Programs based on the development of leadership skills, such as conflict resolution, mechanisms for employee feedback, and adaptive leadership, among others. Management courses are offered on diversity, understanding policies and procedures, gender equity and discrimination. Additionally, courses are held at a creative leadership center, outside the ASARCO facilities, where we strive to maximize the management skills of our collaborators.

The operations of Grupo México require highly specialized technical skills. With this in mind, we have sought to develop talent in the communities where we operate, through education programs in collaboration with different organizations. In Mexico, we have collaborated with the INEA, Conalep, Instituto Sonorense de Educación and the Universidad Autónoma de San Luis Potosí, to develop industry-related educational programs. Thanks to this, various collaborators and residents of the communities where we work have received training.

Similarly, our mine operations in Peru have focused on the professional development of residents of our neighbor communities. The emblematic program in the region, “Forjando Futuro” (Forging Futures), prepares youth in the Candarave and Jorge Basadre departments for mining-related professions. Approximately 500 youth have been trained under this program to date.

In addition to training and also relevant for professional development, we conducted a performance review for non-union employees, in which all employees participated in 2016.

**PERFORMANCE REVIEW PROCESSES**

<b>Mexico</b>
Goals for employees are defined based on the strategic goals of the business. Employee competencies and goals achieved are assessed annually. In the process, dialog is strengthened between the employee and their supervisor, and also alignment between projects and teamwork.
<b>Peru</b>
A Performance Review Tool is applied to employees that have been with the company for more than 6 months, and includes general criteria, such as: applying skills and knowledge, work planning and organization, interpersonal relationships, results, initiative, work attitude and creativity. Additionally, management with employees under their charge are assessed in: management skills, cost control and resource management, safety, problem analysis and decision making, and the development of their team.
<b>United States</b>
Each employee and their supervisor set goals, which forms the basis for the annual review at the end of the year, using an online tool. Career planning sessions are held, where the employee and the supervisor set new goals, skills and areas for improvement for the next performance review.

**OCCUPATIONAL HEALTH AND SAFETY**

**SAFETY IN THE WORKPLACE**

G4-LA5, G4-LA6, G4-LA8

At our mine operations, guaranteeing that our collaborators arrive home safe and sound at the end of the workday is our top priority. To achieve this, we are committed to a vision of ZERO ACCIDENTS, by operating safe workplaces, according to the highest international health and safety standards.

We have worked hard to adhere to international standards, specifically OHSAS 18001, in Mexico and Peru, maintaining certifications at 12 mines. Also, we are committed to the Department of Health, with 6 mines certified as healthy work environments. We have also been working with the Department of Labor and Social Welfare, participating in the voluntary Workplace Health and Safety Self-Management Program (PASST) with 18 mines certified.

This has been possible thanks to our internal management system, known as the Comprehensive Workplace Health and Safety Management System, which describes monitoring risks and developing improvement plans as results are obtained, and also the responsibilities of our collaborators and contract employees.

Our efforts bore fruits in 2016 with the following achievements:

- The Mexican Mining Chamber (CAMIMEX) once again awarded the Casco de Plata “Jorge Rangel Zamorano” prize to the Mexicana de Cobre SX/EW Plant, and also to the Coke Plant and the Santa Eulalia Mine, for reporting the lowest incident rates in the industry.
- Over the last 5 years, the Mining Division has reduced the incident rate by 40%, and the severity rate by 60%.

- In the United States, our mining operations again reported low accident and severity rates, with an incident rate 57% below the regional average.
- In Peru, we are consolidating our Behavior Based Safety process, the purpose of which is to reinforce safe behaviors through observation and feedback during the day-to-day work, creating a positive environment that stimulates participation and pride in the efforts aimed at building a safe work environment.

Besides our efforts in terms of certifications, we have set up different bodies to manage occupational health and safety issues at our mines. Our operations in Mexico have a Central Safety Committee, comprised of managers, directors and superintendents, which is responsible for ensuring compliance with regulations and the corrective measures defined from monitoring the operations. Also, the Departmental Safety Committee reviews the work conditions within the Company and is comprised of supervisors, and there is a Health and Safety Commission (or Joint Commission), which is comprised of management and employees, where 100% of the workforce is represented.

Also, safety cells have been set up comprised of employees and supervisors, whose responsibilities include detecting unsafe behaviors among the workforce and unsafe conditions in the workplace, raising awareness with coworkers, and recommending improvements. The

sixth Forum on Safety Cells was held in 2016, where our collaborators presented projects to make their day-to-day duties safer.

In Peru, we have a Joint Workplace Health and Safety Committee at all our operations, comprised of management and employees from the different areas, representing 100% of the workforce. This Committee regularly inspects the operating conditions, analyzes potential risks, and develops and follows up on health and safety plans and programs.

Our mining operations in the United States also have Health and Safety Committees, made up of management and collaborators, representing all employees. In addition to participating in the design of the health and safety programs, the committee regularly inspects the working conditions, participates in accident investigations, and hears concerns from employees on health and safety issues.

Similarly, we have made efforts to train our employees in occupational health and safety. In Mexico, we have developed a mandatory safety course for our collaborators, and we also offer a pre-hiring workshop program to verify the employee’s knowledge of health and safety issues and to raise this to the levels necessary to work at Grupo México. In Peru, we continue to implement a Behavior Based Safety Program, which encourages observation and feedback between our collaborators on high risk behaviors.

It is also important to note that our operations in the United States reported very low incident rates, due primarily to the implementation of a behavior-based model and a comprehensive workplace safety program. Meanwhile, we launched the BROWZ program to extend these conditions to our contract employees, creating a database of contractors to ensure they are properly covered in terms of occupational health and safety.

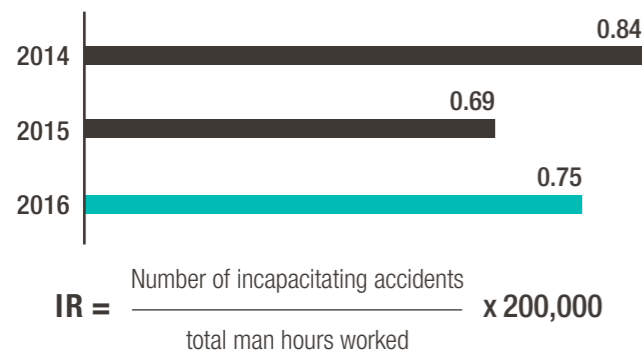
At Grupo México, we ensure our contractors comply with the safety policies and procedures in place at our sites, encouraging them also to participate in our culture of prevention and integrating these contractors into our Comprehensive Workplace Health and Safety Management System.

Over the last year, incident rates rose slightly compared with the previous year, however they remained low in terms of the industry and stable over the last three years. In terms of our contract employees, we again saw an increase over the previous year.

We deeply lament the loss of 4 of our collaborators and one contractor this year. These incidents occurred at our operations in Mexico and Peru, which reinforces the need to continue with our efforts towards ensuring a safe workplace environment. We have investigated the cause of these regrettable events to ensure they do not repeat. We will not rest in our optimization of preventive measures to eliminate unsafe conditions and actions, until we have achieved our goal of “ZERO ACCIDENTS”.

**INCIDENT RATE**

Mining Division, 2014-2016



**OCCUPATIONAL HEALTH**

G4-LA7

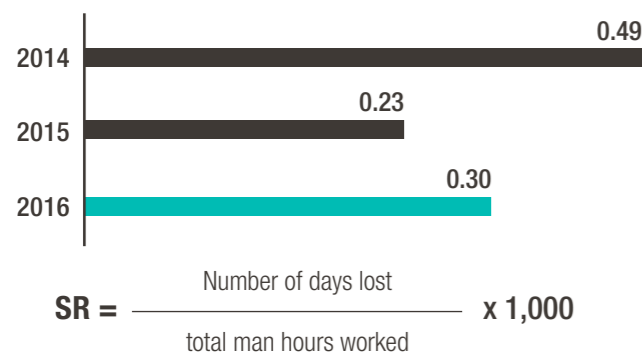
Healthy environments are part of our organizational culture and management system, as a responsibility of the company establishing a culture of involvement, participation and commitment, to generate improved health conditions that will raise the quality of life of our collaborators, their families and the communities where we operate. Over the past 5 years, we are lowered our occupational diseases rate by 56%, as a result of various education programs, risk control and prevention, and also treatment of diseases.

These programs are provided to our collaborators and, in some cases, to family members, contractors, suppliers, institutions and the general public. The wellbeing of our collaborators is a priority for Grupo México and we guarantee the health of our team members, making medical services available to them and their families.

In Mexico, we have implemented the program “Bienestar” (Wellbeing) focusing on preventing chronic degenerative diseases, such as diabetes, high blood pressure, dyslipidemias or obesity, through the detection of potential risk factors and recommending courses of action, with the support of nutritionists. Additionally, we continue working on the Healthy Environments program, maintaining recognition for 3 schools and 5 Company neighborhoods as healthy and safe environments by the Department of health.

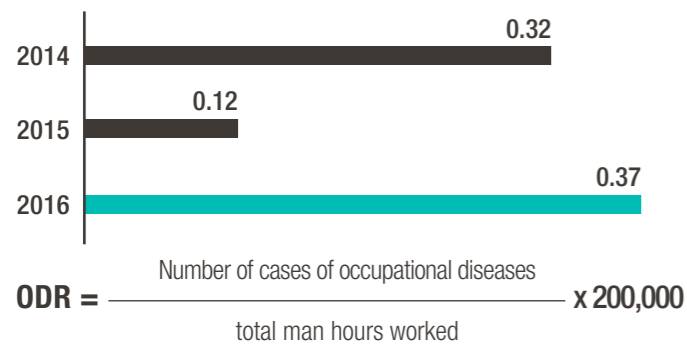
**SEVERITY RATE**

Mining Division, 2014-2016



**OCCUPATIONAL DISEASE RATE**

Mining Division, 2014-2016



In Peru, our collaborators and their families have 3 Company hospitals available to them, in Cuajone, Ilo and Toquepala. Collaborators who perform higher risk activities receive regular medical examinations so as to assess their health and take any measures needed. Additionally, we have developed engineering measures that contribute to reducing risk, such as installing geodesic domes for ore storage areas at our Buenavista del Cobre (Mexico), Toquepala and Cuajone (Peru) mines, and we monitor potential contaminants as part of our industrial hygiene efforts.

Additionally, we are working on raising awareness in terms of behaviors that help to lead a healthy lifestyle. For this, we have created workshops based on prevention and self-care for our collaborators, their families and the community.

**ACTIVITIES DIRECTED AT:**

Personnel	Employee Families & the Community
1. Forums on safety cells	1. “Know my company” guided tours
2. Safety expo	2. Family social events & parades
3. Health fair	3. Health fair
4. Health run	4. Health run
5. Safety courses and conferences	5. Fire safety course
6. Rewards for employees or departments with ZERO ACCIDENTS	6. Family contests to promote values

**INVESTMENT IN HEALTH & SAFETY**

During 2016, we invested nearly US\$133 million in occupational health and safety, representing a 14% increase over 2015. These investments were made primarily in engineering works, purchasing personal protective gear, training and industrial hygiene studies. In occupational health, we invested in raising awareness, promotion and health protection, and early detection, treatment and rehabilitation.

**INVESTMENT IN WORKPLACE SAFETY**

(US\$ millions)

	Mining Division
Administrative costs	\$ 5.43
Training	\$ 5.01
Personal protective gear	\$ 10.28
Industrial hygiene studies	\$ 18.56
Engineering works	\$ 86.81
<b>Total</b>	<b>\$ 126.10</b>

more promising future, with a long term commitment, strengthening one of our most precious assets: the trust placed in us by our neighbor communities.

Through solid social linkage programs, we encourage local transformation processes in the community, instilling entrepreneurship to ensure that efforts transcend and become engines of change. This approach is reflected at our mining operations in Mexico and Peru, where through close dialog with the community, we kick-start initiatives that respond to the needs of each region. In the United States, due to the high degree of development in the areas where we operate, our efforts are focused on other aspects where we can contribute to balanced development.

Our involvement and contributions to the community are carried out through a process of social linkage, which starts with an assessment conducted together with local residents of the potential impacts the operation may have and the current needs and expectations of our neighbors. Proposals are developed from the results to maximize the social value with initiatives that are integrated into a work plan.

Our social linkage process follows the Grupo México Development with Purpose model, which is the basis for our commitment to sustainability and creating value. This process also seeks to involve the different sectors

and institutions present in the community (schools, governments, etc.), under an approach of co-responsibility and shared work, which contributes to strengthening the initiatives and helps to ensure their continuity.

**MEXICO**

G4-S01, G4-EC7, G4-EC8

The work plans for the operations of the Mining Division in Mexico are executed applying the Casa Grande community development model. With the efforts of our team of community volunteers and experts, the model helps us to develop projects that are designed together with our neighbors. In 2016, we conducted 853 activities and 108 active projects with the collaboration of 13,397 community and company volunteers, which shows how through our involvement and ongoing dialog, we are increasing the social capital in the areas where we operate.

Through the Casa Grande model, we have invited the community to submit project proposals to receive financing, allocating resources independent from the mining tax in Mexico. We have identified our primary areas of focus as education and the environment, to which we add health and safety, and productive development as complementary areas of interest. Children and youth are a priority for us, knowing that by giving special attention to these age groups, we are influencing the generations that will mark the path in the future. The projects submitted are reviewed by the community committees, joint bodies that involve members of both Grupo México and the community, strengthening dialog and citizen involvement.

We are currently operating in the communities situated nearby 16 Operations, Plants and Projects of the Mining and Infrastructure Divisions, covering 11 Mexican states and a population of over 100,000 people. In 2016, the Casa Grande model invested US\$1,408,165 principally in emblematic projects, projects by invitation, and also in the operation of our community development centers.

In 2016, the emblematic projects in Mexico are, for example, the annual Volunteer Day event held in coordination with different areas of the Plants, Mines and Projects where the company operates. The Human Resources and Community Development departments worked together to coordinate more than 5,500 volunteers in 11 Mexican states to renovate 20 community spaces and institutions, with an investment close to US\$31,000, surpassing the figure from previous years and reaching over 20,000 people.

**INVESTMENT IN WORKPLACE HEALTH**

(US\$ millions)

	Mining Division
Health awareness, promotion and protection	\$ 0.99
Detection and prevention	\$ 2.30
Treatment	\$ 3.31
Rehabilitation	\$ 0.03
<b>Total</b>	<b>\$ 6.64</b>

**COMMUNITY DEVELOPMENT****COMMUNITY DEVELOPMENT MODEL**

G4-S01, G4-S02

We strive to contribute to the development of the areas where we operate, creating opportunities for the community. As corporate citizens, we want to build a legacy for a



Another noteworthy event in 2016 was the participation of 3,180 children in the Summer Camps, supported by 269 volunteers, with which Grupo México seeks to encourage from a young age, the formation of new generators of development and proactive leaders to strengthen the common wellbeing of their local communities, integrating these young leaders into a dynamic of shared responsibility between the company, society and the environment.

Vision		
To be the leader in Community Development in the country, recognized for performance and impact.		
Mission		
To strengthen the Company's operations, improving the quality of life in the communities where we operate, building community linkage structures and promoting collective involvement to improve the common good, recognizing people as the core generators of development.		
Principles		
<ul style="list-style-type: none"> <li>• Co-responsibility</li> <li>• Respect for the rhythms and needs of the community</li> <li>• Horizons, not limits</li> <li>• Transparency</li> </ul>	<ul style="list-style-type: none"> <li>• Accompaniment in social change that strengthens structures</li> <li>• Feedback from the community</li> <li>• Empathy, acceptance and consistency</li> <li>• Proactive leadership</li> </ul>	<ul style="list-style-type: none"> <li>• From the community to our ears</li> <li>• Communication</li> <li>• Inclusion</li> </ul>
Principles		
Honesty	Respect	Responsibility
Community model Casa Grande		
Tools	Methodology	
<ul style="list-style-type: none"> <li>• Open calls to submit projects</li> <li>• Community Committees</li> <li>• Social Investment Fund</li> <li>• Multidisciplinary linkage</li> <li>• Corporate Volunteering</li> </ul>	<ul style="list-style-type: none"> <li>• Formation of leaders and transfer of knowledge</li> <li>• Identity modeling</li> <li>• Experiential learning</li> <li>• Community immersion to promote local processes</li> <li>• Measuring social impact</li> </ul>	

At Grupo México, we are also striving to create value through social investments for communities to have access to facilities and spaces that contribute to their quality of life. An example of this is the Cananea Regional Specializations Hospital, opened in 2015 and built through a three-level investment partnership between the federal government, the Sonora state government and Grupo México. This is the first medical center with universal access in Mexico, receiving cardholders from any medical service and also people without coverage, with a potential to benefit the 35,000 residents in the area.

The hospital is situated in Tamosura Park, which on 56 hectares includes a combination of public spaces and recreational, sports and commercial areas and facilities. The park was built for the residents of Cananea and the region as a meeting point and place for leisure activities; this is a space that balances nature and infrastructure.

**PERU**

G4-S01, G4-EC7, G4-EC8

In Peru, our mining operations are situated in the south of the country, in a farming area, and we seek to contribute to their development in close cooperation with the authorities and representative organizations in the region.

Our commitment to the community is reflected in three areas of work: education and skills strengthening, health and nutrition, and infrastructure and support for

the agricultural sector. Some emblematic examples of our work are detailed following:

We continue our "Forjando Futuros" (Forging Futures) program of training and labor inclusion for residents of our neighbor communities, to improve the employability of the local youth. Since its inception in 2013, the program has trained 395 youth in different technical trades.

Supporting entrepreneurship among women is also one of our goals, creating opportunities for their professional development and contributing to strengthening the family economy. In the Peruvian province of Mariscal Nieto, our "Torateñas Emprendedoras" program has resulted in the creation of the company Frutylac SAC. The women entrepreneurs in this program produce preserves, regional breads and other local products. To expand their horizons, the women of the successful "Torateñas Emprendedoras" program participated in the 2016 Tacna FERITAC International Fair, showing their achievements and promoting their local products.

We are also working on the implementation of public infrastructure for the community, being the first contributor from the Business Consortium with Greater Commitment to Investment in the country. Additionally, we are developing, in collaboration with the different levels of government in Peru, projects that have a high social impact and, therefore, contribute notably to the development of the country.

Our operations are situated in a region where farming and livestock are the basis of the local economy, and naturally water is a key resource here. At Grupo México, we are working to deepen the development capacities and self-management of the communities, contributing to the expansion of the water supply and irrigation technification infrastructure in our neighbor communities in Moquegua and Tacna. An example of this is the US\$8.22 million investment made to improve the water infrastructure in the provinces of Tacna and Moquegua. These works included improving the water reservoirs, installing pipelines, building support walls, and other water infrastructure maintenance.

Another example of infrastructure and support for the farming sector is the 466-hectare Drip Pressure Irrigation project in Ite impacting 231 residents, receiving funding from the Jorge Basadre Development Fund.

The “El Niño” phenomenon is creating challenges in the Moquegua and Tacna regions, where the rainy season runs from December to March. In 2016, the rains were nearly six weeks late, which affected the local crops. Grupo México contributed US\$26.67 million to set up the ‘Tacna Fund’ in collaboration with the Tacna regional government. Of this amount, US\$8.82 million has been used to address the water problem, both in the city and in the High Andes. Also, in Moquegua, the late start to the rainy season meant strains on crops and roadways, and Grupo México collaborated with the authorities to respond to emergencies.

In another type of project, a Works for Taxes mechanism was developed in Moquegua. An example of this type of public-private collaboration is the “Improvement and expansion of roadways and pathways, and containment walls in zone 3 of the town of San Francisco” project, improving safety in the area. The works, which impact approximately 3,480 families were executed under an agreement between the municipality of Mariscal Nieto and Grupo México, where Grupo México contributed approximately US\$5.3 million. This project guarantees safety and traffic conditions within this zone.

In 2016, work formally began on the Tacna-Collpa-La Paz highway, a historically important infrastructure project for the Tacna region that was possible through a technical study supported by Grupo México in partnership with the Tacna regional government. With an investment close to US\$3.26 million, the 143-kilometer Bolivia-Peru highway will reduce the travel time between Tacna and La Paz to only four hours, which opens a series of opportunities for progress in the region, such as trading with Bolivia.

## UNITED STATES

G4-S01

The ASARCO Government and Community Affairs Plan is in place at our operations in the United States and sets the guidelines for our community relations. In a different context to our mines in Mexico and Peru, we focus our efforts on educational, sports and

cultural activities, involving different organizations. We strive to be a good neighbor, contributing to the quality of life in the area.

In the United States, we disbursed US\$155,710 in donations, scholarships, sponsorship and community linkage in 2016. We participated in initiatives such as United Way with direct contributions from the company and also from our collaborators. United Way is a national organization, involving volunteers, donors and non-profits, which fundraises for community projects, promoting sustainable solutions through education, financial stability and healthy lifestyles.

## EDUCATION AND ENTREPRENEURSHIP

G4-EC8

At Grupo México, we believe that supporting education and entrepreneurship is synonymous with building the bases for a more prosperous future, and we are dedicated to this work. We contribute to the education of children and youth from our neighbor communities throughout their different stages, from basic education through to university.

Our mining operations in Mexico and Peru contribute to education for our communities through 13 schools sustained or sponsored by the Company, which we complement by awarding scholarships for different levels of study, extending this to our employees and their families.

In 2016 alone, Grupo México invested US\$5.97 million in the Moquegua TIC Program in partnership with the regional government. This program installs IT and communication improvements in schools to position Moquegua at the top of the educational rankings. As part of this project, all teachers in the region received laptops and were trained at Technology Training Centers. In addition to this, 378 teachers were added to the “Beca 600” Program, giving them free access to a Master’s Degree in Education, specializing in Virtual Learning Environments.

In the United States, we also operate a scholarship program and participate in joint initiatives with charity organizations and the government. It should be noted that the Arizona education system has strongly benefited from mine royalties.

## INVESTMENT IN COMMUNITIES

The Mining Division invested US\$54.40 million in community projects in 2016 as part of our efforts to contribute to community development and create local opportunities.

### INVESTMENTS IN COMMUNITIES

(US\$)

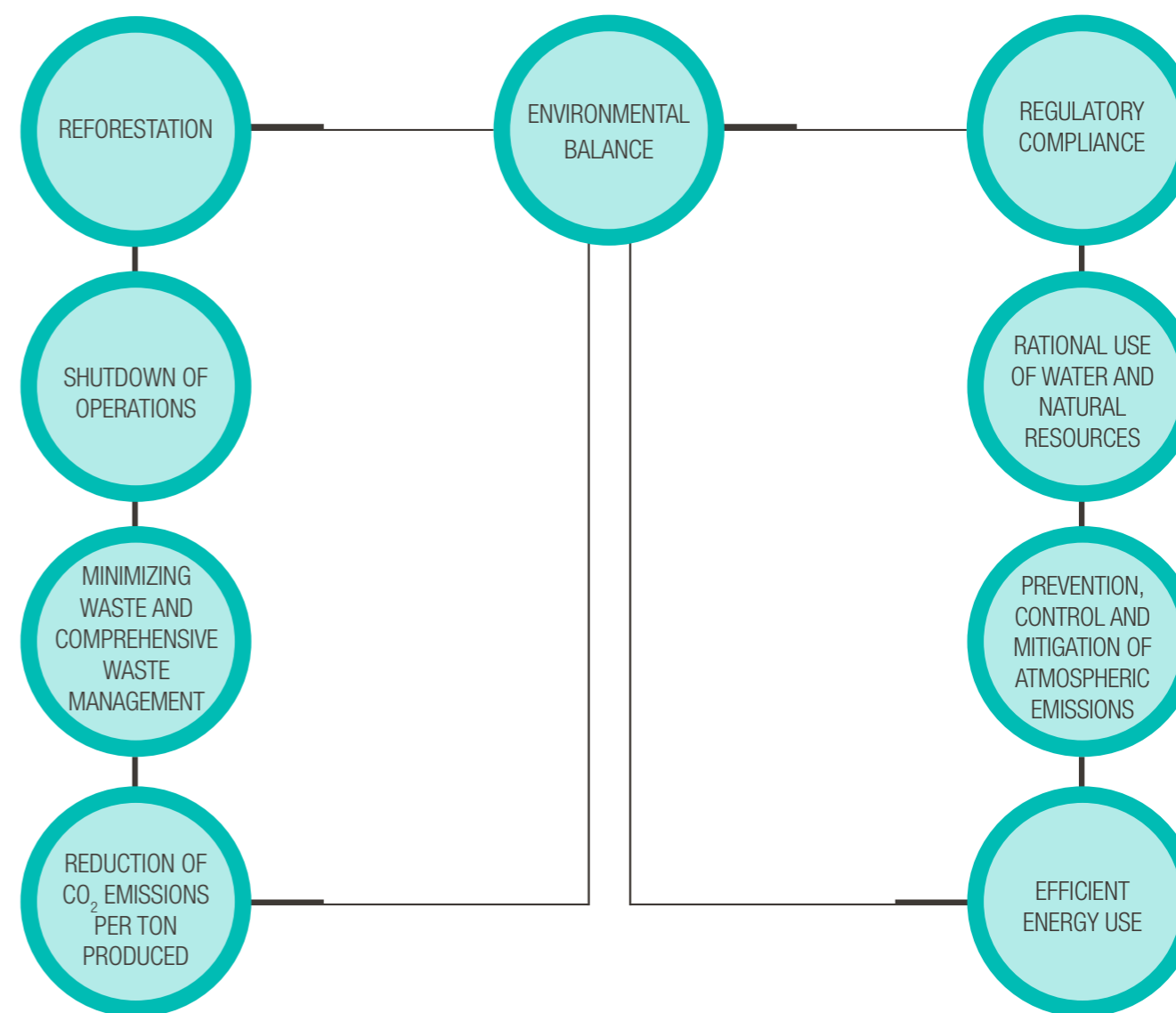
	Mining Division
<b>Community Development</b>	
Community Development Programs	\$ 9,659,918
Sponsorships and donations	\$ 5,947,873
Infrastructure and equipping local neighborhoods	\$ 22,190,200
<b>Employees and Communities</b>	
Investment in education	\$ 1,670,628
Sports and cultural activities	\$ 1,059,341
Investment in infrastructure in Grupo México neighborhoods	\$ 13,868,900
<b>Total</b>	<b>\$ 54,396,860</b>

## PROTECT

### ENVIRONMENTAL MANAGEMENT

G4-EN29, G4-S02

At Grupo México, our mining operations are aligned with industry best practices to ensure our environmental impacts are minimal and to preserve the environment in which we work. Our strategy of ongoing improvement means we are always striving to innovate to operate more efficiently in terms of our use of inputs and energy. Our environmental performance looks at different areas that cover the whole of the lifecycle of our activities, classified into eight principles:



Additionally, our mines operate to the highest standards of environmental management. An example of this is our 4 ISO 14001:2004 certified mines in Peru and our

12 Clean Industry and 4 Environmental Quality certifications in Mexico, given by the Mexican Environmental Protection Agency (PROFEPA).

Although Grupo México operates in adherence of law, in 2016 we received a US\$5,622 fine for environmental infractions at our Santa Barbara mine. Also, in the United States, we were put on notice for exceeding the pH limits in treated water for irrigation. In Peru, our operations received no environmental sanctions in 2016.

### ENVIRONMENTAL INVESTMENTS

G4-EN31

The Mining Division invested US\$307 million in environmental projects in 2016, a 32% increase over 2015.

### ENVIRONMENTAL INVESTMENTS

(US\$ millions)

	Mining Division
Water	\$ 22.87
Energy	\$ 2.03
Air	\$ 130.35
Soil	\$ 94.75
Waste	\$ 40.26
Biodiversity & reforestation	\$ 4.34
Management	\$ 12.66
<b>Total</b>	<b>\$ 307.26</b>

### CLIMATE CHANGE

G4-EC2

Our efforts in the fight against climate change are focused on minimizing the effects and risks on our operations, guaranteeing the safety of our collaborators and our neighbor communities. The risks associated with climate change include intense rains and droughts and in this area we are developing engineering projects to reinforce our water management systems and improve water reuse in our production chain.

Climate change represents a series of risks for our organization which we are prepared to face. The three principal types of risk that affect us are regulatory, physical and financial risks which, through our actions and projects, we have converted into challenges and business opportunities.

At Grupo México, we are proactive in adopting good practices in managing our GHG inventories. We participate in different national and international programs, such as the GEI Mexico Program and the Carbon Disclosure Project. Also, in compliance with the National Emissions Register under the 2012 Mexican Climate Change Law, our GHG inventories are verified independently, action that we have been taking since before this was mandatory, preparing us to face the regulatory risks associated with climate change.

This practice of measuring and reporting GHG emissions also involves the ongoing development of measures to reduce our emissions and face the physical risks associated with climate change. We have analyzed and implemented various types of mitigation projects on different scales, including hydroelectric power, solar power, energy efficiency and forest management, among others. We have invested in water infrastructure in order to face the changes in rainfall patterns and protect our operations from being affected by adverse climatic events.

We are preparing cost analyses to quantify the impact of the financial risks our organization faces as a result of climate change today and in the future. We are currently working on consolidating and reporting this information at the division level.

Additionally, we are working on a cohesive sustainability strategy, where our contribution to the fight against climate change will be representative and in keeping with the size of our Company. In this regard, we reported to the Carbon Disclosure Project for the first time in 2016, including the consolidated inventory of all the Grupo México divisions. In our efforts to improve our performance in terms. To address the financial risks facing our organization as a result of climate change, we are conducting cost analyzes to quantify the impact of economic risks on our current and future operations.

Currently, we are working to consolidate this information at the Division level and will be reporting later.

Energy is key to our performance and we endeavor to use this resource efficiently. With less energy consumed per ton produced, we are contributing to reducing our greenhouse gas emissions (GHG). We are also working to mitigate emissions, through our commitment to developing cleaner energy sources and diversifying our energy mix, as well as implementing reforestation projects to increase carbon absorption. We support our neighbor communities in adapting to the effects of climate change and manage the potential risks generated by our activity.

### ENERGY EFFICIENCY

G4-EN3, G4-EN6, G4-N27

One of the principles of our environmental strategy is developing energy efficiencies, to produce more with less. We are working on redesigning, converting and adapting equipment, improving and reorganizing processes and training our collaborators to optimize energy usage, making significant investments in these areas.

In 2016 alone, we invested US\$176 million in modernization projects for crusher, concentration and haulage systems, which will not only reduce operating costs, but also the amount of energy consumed per ton of product produced.

Our principal projects include transporting ore over a belt system in Cuajone, optimizing the haulage process by replacing the current rail system to reduce the energy required and minimize our use of fossil fuels. Also, the Buenavista del Cobre crusher and 7 kilometer conveyor belt system (Quebalix IV) will reduce processing times and the energy required to haul ore. Lastly, the high pressure grinding rolls (HPGR) system in Toquepala will significantly increase the energy efficiency of our milling processes.

The Mining Division's energy mix is comprised of 49% fuel, primarily diesel and natural gas, and the remainder is supplied power generated by third parties or other Company subsidiaries under the Grupo México self-supply program<sup>3</sup>.

#### ENERGY CONSUMPTION (FUEL)

Mining Division, 2014-2016

Year	Petajoules
2014	24.55
2015	25.68
2016	24.76

#### ENERGY CONSUMPTION (POWER)

Mining Division, 2014-2016

Year	Petajoules
2014	21.18
2015	22.31
2016	24.98

<sup>3</sup> Note: The figures for fossil fuels are restated after obtaining improved data for previous years.

#### ENERGY CONSUMPTION

Mining Division, 2014-2016

Fuel	49.78%
Power	50.22%

#### FUEL CONSUMPTION

Mining Division, 2014-2016

Diesel	64.23%
Natural Gas	26.26%
Fuel Oil	4.88%
Furnace Gas	1.66%
Gasoline	1.57%
Coal Coke	0.66%
LP Gas	0.64%
Others	0.1%

#### EMISSIONS

G4-EN15, G4-EN16, G4-EN21, G4-EN27

Our mining processes release emissions into the atmosphere, including blasting, smelter furnaces and moving ore, and also from burning fossil fuels.

At Grupo México, we strive to maintain our emissions below the maximum thresholds permitted by law, and we are investing in infrastructure and technology to guarantee respect for the environment.

We are taking great steps towards generating clean and renewable energy to supply our operations. Our mines

have mitigated their indirect greenhouse gas emissions by using clean energy supplied by our Infrastructure Division affiliates that generate electrical power through their high-efficiency combined cycle power plants and the "El Retiro" wind farm. By replacing traditional energy sources with more efficient and renewable sources, in 2016 we reduced our emissions by over 154,205 tons of CO<sub>2</sub>eq.

In keeping with our environmental policy, we continue to take actions to capitalize on the power generated from our own energy sources. In Mexico, we capture the smelter gases from the heat recovery boiler to generate energy. In Peru, we generate power from renewable sources with two hydroelectric plants with a joint capacity of 130 terajoules.

For the second year and because of our emissions levels, Grupo México is required to report to the environmental authorities in Mexico for the National Emissions Register (RENE). We were prepared to take on this new obligation as the Mining Division has been preparing this information for some time, thanks to our participation in the Business Coordination Council GEI Mexico Program. In the United States, our emissions are regulated by the Environmental Protection Agency (EPA), which requires us to report emissions from fixed combustion sources. In Peru, we are not required to report, although we have a consolidated inventory of greenhouse gas emissions, which we present annually in this Sustainable Development Report.

In 2016, our Scope 1 emissions were equivalent to 1.89 million tons of CO<sub>2</sub>eq, and for Scope 2, we report 3.5 million tons of CO<sub>2</sub>eq.

#### GREENHOUSE GAS EMISSIONS

(Millions of tons CO<sub>2</sub>eq) - Mining Division, 2016

Direct Emissions <sup>4</sup>	1.89
Indirect Emissions <sup>5</sup>	3.5

Other atmospheric emissions from our operations are constantly monitored to ensure they do not exceed the legal limits. This year, the "Gran Visión" project at Buenavista del Cobre saw the implementation of a 120 meter diameter dome, reducing particle emissions. A dome will also be installed at our operations in Cuajone, as part of our modernization project, to prevent particles from dispersing into the air. In the United States, we are working with the Environmental Protection Agency (EPA) to modernize the converter at our Hayden mine, which will achieve 99% efficiency in capturing

<sup>4</sup> Direct Emissions: Include emissions from direct power consumption, calculated according to the 2015 SEMARNAT emission factors and the 2016 CONUEE combustion factors.

<sup>5</sup> Indirect Emissions: Include emissions from power consumption, calculated according to the Mexican Power Board (CFE) 2015 power consumption emission factors (0.458 tons of CO<sub>2</sub>/MWh), published by the SEMARNAT. The emissions for 2016 have not yet been calculated as the emission factors for this year had not yet been published at the time of this report.

sulfur, setting a benchmark for the industry. Most of the investment for this project was made in 2016 and it is expected to be completed in the first quarter of 2018.

In 2016, our mine operations in the United States generated 325 tons of nitrous oxide (NOx), 14,630 tons of sulfur oxide (SOx) and 2,090 tons of particle matter; meanwhile the emissions in Mexico were 1,550 tons of NOx and 10,315 tons of SOx; in Peru we generated 28,778 tons of SOx.

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**WATER**

G4-EN8, G4-EN9, G4-EN10, G4-EN22, G4-EN26, G4-EN27

Our activities are heavily linked to our ability to continually improve our water management. Our focus is on maximizing the use of reused water and third party wastewater insofar as possible, for which we have implemented the following measures:

- Implementation of recovered water pumping systems.
- Continual recycling of process water at tailings dams and thickeners.
- Implementation and maintenance of closed circuits to use the total volume of process water.
- Compliance with the “Cero Descargas de Aguas Residuales” (Zero Wastewater Dumping) program.

The Mining Division has been working to install closed water circuits, adopting a strategy of zero wastewater dumping, to compensate for evaporation and increased demand on par with our growth. The water used in the concentrators is recovered in the thickeners and tailings dams. During 2016, 70.5% of the total consumed is reused water, requiring only 29.5% fresh water, which is equal to an annual consumption in 2016 of 150 million m<sup>3</sup> of first use water. Although the discharges at our operations were virtually non-existent, in 2016 we discharged a total of 1.2 million m<sup>3</sup>, after being properly treated, to protect the nearby water bodies.

**CONSUMPTION OF FIRST USE**

**WATER - UNDERGROUND**

(m<sup>3</sup> millions)

Year	m <sup>3</sup>
2014	83.23
2015	71.30
2016	99.58

**CONSUMPTION OF FIRST USE**

**WATER - SURFACE**

(m<sup>3</sup> millions)

Year	m <sup>3</sup>
2014	52.64
2015	56.24
2016	50.50

**CONSUMPTION OF FIRST USE**

**WATER - DESALINATED**

(m<sup>3</sup> millions)

Year	m <sup>3</sup>
2014	0.91
2015	0.86
2016	0.85

**CONSUMPTION OF FIRST USE**

**WATER - MEXICO**

(m<sup>3</sup> millions)

Year	m <sup>3</sup>
2014	47.40
2015	42.83
2016	62.17

**CONSUMPTION OF FIRST USE**

**WATER – PERU**

(m<sup>3</sup> millions)

Year	m <sup>3</sup>
2014	51.17
2015	51.35
2016	53.49

**CONSUMPTION OF FIRST USE**

**WATER – UNITED STATES**

(m<sup>3</sup> millions)

Year	m <sup>3</sup>
2014	38.21
2015	34.22
2016	34.42

**CONSUMPTION OF RECOVERED**

**WATER – MEXICO (m<sup>3</sup> millions)**

Year	m <sup>3</sup>
2014	114.44
2015	123.70
2016	174.17

**CONSUMPTION OF RECOVERED**

**WATER – PERU (m<sup>3</sup> millions)**

Year	m <sup>3</sup>
2014	103.24
2015	102.35
2016	104.08

**CONSUMPTION OF RECOVERED**

**WATER – UNITED STATES**

(m<sup>3</sup> millions)

Year	m <sup>3</sup>
2014	60.34
2015	65.09
2016	80.32

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**MATERIALS**

G4-EN1, G4-EN2

Our mines process ore extracted from deposits, and using pyrometallurgical and hydrometallurgical processes we extract, in general, copper, zinc, silver, gold and molybdenum for sale. In 2016, we processed a total 447.1 kilo tons.

**ORE PROCESSED**

Year	Thousands of tons
2014	397.231
2015	418.036
2016	447.100

Committed to the environment and efficiency, the Mining Division recovered and/or reused 529,618 tons of materials in 2016. We have also adopted best practices to improve efficiency in the handling and processing of ore and to reduce the waste per unit of product obtained. An example of these practices and technological innovation in the industry is the bioleaching process which improves copper recovery during the hydrometallurgical process.

In our efforts to optimize resources, we try to reincorporate into our production processes the waste we generate, through reuse and recycling. Such is the case of anodic muds from the electrowinning process, which we reincorporate as raw materials to recover lead and precious metals.

Also, we give value to other waste, such as byproducts that can be used by third parties. As part of our efficiency measures, we also use a portion of the byproducts we generate, such as sulfuric acid, which we incorporate into the hydrometallurgical process.

**WASTE MANAGEMENT AND SPILLS**

G4-EN23, G4-EN24, G4-EN25, G4-EN27, MM3

In keeping with our commitment to efficiency and respect for the environment, our processes place emphasis on minimizing the generation of waste and recovering that which can be reused, recycled or recovered for energy.

The majority of the total waste produced by the Mining Division is classified as high volume mine waste, which is characterized as inert or low toxicity and of minimum risk to the environment. A large portion of this waste, 59.31%, is overburden, the material generated when the deposit is opened, on removing the layers of soil to reach the ore we process. This waste is considered sterile material, therefore its impact on the environment is minimal.

Our smelting and refining processes include a comprehensive waste management system, by which we can recover a portion of our metallurgic waste. In this manner, we foster good practices for the mining industry and for sustainability in general.

**MINE WASTE**

(Tons)

Mining Division	
Overburden	395,833,738
Tailings	186,126,989
Slag	1,761,611

Mine waste is disposed of on site at our own facilities, in waste-rock heaps, tailings dams and slag heaps. These infrastructure and engineering works adhere to the design and operation set by environmental regulations. At the end of their operating life, the leaching systems will be converted into heaps which will be treated according to environmental regulations.

We produced 14,068 tons of non-mine hazardous waste, 50.72% of which was recycled reused and/or treated by third parties.

A total of 6,933 tons of non-mine hazardous waste were transported from our operations to treatment centers or for disposal by certified specialists, complying with local requirements. Additionally, no non-mine hazardous waste was exported this year out of the countries where we operate.

We also produce waste that is recycled and requires special handling, such as scrap metal and tires. Similarly, the degraded organic waste produced during the hydrometallurgical process is mixed with used oil and sold to a third party as an alternative fuel.

We have infrastructure and procedures in place at our operations to ensure the safe storage and handling of materials, products and byproducts. We have emergency response plans in place in the event of an accidental spill. In 2016, despite our best efforts, the Mining Division reported spills totaling 436 m3, which produced no significant environmental impact. The event was treated according to the Company's procedures, which guarantee quick response.

**SOIL MANAGEMENT AND BIODIVERSITY**

G4-EN11, G4-EN12, G4-EN13, G4-EN14, G4-EN27, MM1, MM2

Biological diversity is key to the balance of the ecosystems that surround us, the future of which we seek to contribute to as corporate citizens, in a shared effort with the rest of society. We are working to have less impact on the regions where we operate, and particularly areas with high biodiversity value. Our efforts are based on 5 key activities:

1. Prevent and identify potential environmental impacts, according to local regulations.
2. Proper handling of large volume waste, disposing of this in waste rock heaps, tailings dams and slag heaps.
3. Mitigate potential environmental impacts through compensation measures, such as the rescue and relocation of species, soil conservation, restoration and reforestation.

4. Develop closure plans to restore and recover the environmental conditions after our concessioned mining operations are exhausted.
5. Leave the areas where we had operations in the best conditions possible, monitoring water bodies and implementing ongoing improvement actions according to local regulations.

The protected land at our operations totaled 117 km<sup>2</sup> in 2016. Some of our operations are near or adjacent to ecosystems with high biodiversity value or conservation areas for some species. In Mexico, our efforts have been coordinated with the authorities and NGOs, as corresponds.

At Grupo México, we consider areas with high biodiversity value as collective heritage and we work to guarantee they are protected. Also, for regulatory reasons, our operations in Mexico and the United States have specific actions and/or biodiversity management programs.

Our Buenavista del Cobre mine is adjacent to the Sierra La Elenita, part of the West Sierra Madre range, which has high biodiversity value, and within the Bird Conservation Area. We have implemented plans to protect these areas and created the “El Mosco” Conservation Area and the Buenavista del Cobre Environmental Management Unit, which has an Eco-Path that offers educational and recreational activities along its 1.8 km trail, receiving approximately 5,000 visitors each year.

The 5.7 hectares of enclosures at our Environmental Management Unit have been conditioned to replicate the natural habitats of threatened species or in danger of extinction, including the Mexican Gray Wolf and the Gould Turkey, among others that are part of our important program.

The Environmental Management Unit has a definite strategy that focuses on reproduction and release, and also regenerating ecosystems. This project clearly reflects our efforts to involve the community in the common challenge of protecting our environment, and particularly the biodiversity of Sonora.

At our operations in Peru, we have taken great strides to recover ecosystems, continuing to make important investments and maintenance activities as part of our Ite Bay remediation program in Tacna. Over a 12 kilometer by 1,500 meter stretch of land, this successful contaminant removal project has created the largest wetland with the greatest diversity of water birds along the country's coastline, and has also become a tourist attraction, contributing to the local economy. To date, the zone has more than 120 species of water birds and is home to an average 76,000 migratory and local birds.

We also conduct restorations of certain areas at our inactive operations, so as to catalyze the recovery of their ecological value. In 2016, our Mining Division carried out these projects on 66 km<sup>2</sup>.

Our operations in the United States are also subject to biodiversity conservation programs. Silver Bell, for example, is adjacent to the Ironwood Forest National Monument, a protected area.

We have also been working to develop a wetland and mesquite forest, characteristic of arid and semi-arid climates. Certain species of flora and fauna have been identified at our operations and in the surrounding areas that we want to help protect, respecting the environmental conditions and/or relocating the flora and fauna that would be affected with the expansion of our work areas. Examples of this are our Mission mine (USA), where we relocated Pima Pineapple Cactus, and our Silver Bell mine (USA) with Sonoran Desert Tortoise.

#### PROTECTED SPECIES UNDER IUCN CLASSIFICATION

Category	No. Species
EN In danger of extinction	1
NT Nearly threatened	1
LC Low concern	31

#### NOM-059-SEMARNAT CLASSIFICATION

Category	No. Species
D In danger of extinction	4
Th Threatened	18
Pr Subject to special protection	17

Noteworthy to mention is that there are tree nurseries and greenhouses at our operations producing local species for reforestation and ecosystem remediation, including areas beyond our operations. On the one hand, these tree nurseries contribute to biodiversity and to enriching the flora and fauna, and on the other, they are natural carbon sinks, collecting CO<sub>2</sub>.

#### MINE CLOSURES

##### MM10

Mining activities include consideration for the end of the exploitation of deposits. Preparing closure plans for operations and setting aside monies to guarantee the conservation and restoration of sites are further ways in which we meet compliance with environmental regulations, and also fulfill our corporate responsibility. Closure plans are prepared taking into account both environmental and social goals and in this regard, Grupo México surpasses the existing standards, executing closure plans that are in keeping with our strategy in sustainability. In total we have 19 mine closure plans within our Mining division.

An example of the above is the efforts made at the old Copper Plant in San Luis Potosi, for which a remediation and urban reintegration plan was developed, following the highest standards of quality. This confinement, which has been carried out in partnership with the local authorities, will create a space for commercial zoning and for the urban development of the surrounding area.



## TRANSPORTATION DIVISION

### GROW

The Grupo México Transportation Division is represented by the subsidiary Grupo México Transportes, S.A. de C.V. (GMXT), whose principal subsidiaries are Grupo Ferroviario Mexicano, S.A. de C.V. (GFM), Ferrocarril Mexicano, S.A. de C.V. (Ferromex), Infraestructura y Transportes Ferroviarios, S.A. de C.V. (ITF), Ferrosur, S.A. de C.V. (Ferrosur), Intermodal México, S.A. de C.V. (IMEX) and Texas Pacifico LP, Inc. (TXP). GMXT is the largest railroad with the most extensive coverage in Mexico.

In 2016, we remained the most competitive railroad in international traffic, thanks to the strong increase in border crossings, holding a 56% share of the US railroad interchange traffic.

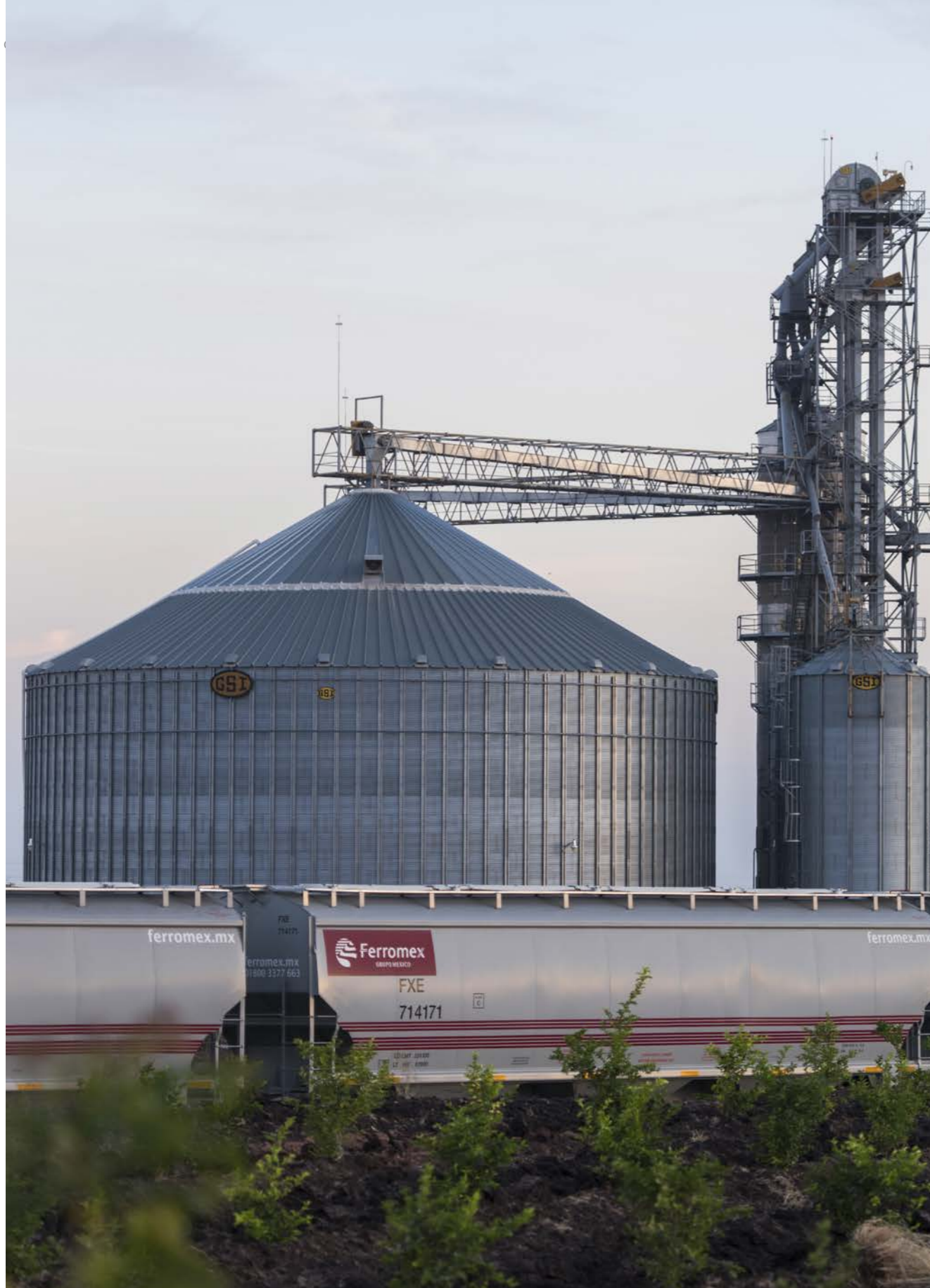
The Mexican freight railroads remain the most productive in the Americas. Since the start of its operation, the Transportation Division has implemented new operational practices and made significant capital expenditures to reduce costs in the long term and improve operating efficiency. This year, our efforts to maximize productivity were driven by the startup of two assembly plants in Mexico in 2016. Seven of every ten vehicles exported out of Mexico are transported on our lines.

However, we also face significant challenges. On the one hand, the growth of our Transportation Division is not consistent, primarily due to the seasonality of certain sectors or the particular characteristics of the different economic regions in the country. On the other, we have created strategies to minimize the insecurity on some of our routes, working, among other aspects, to preserve the right of way, build split-level crossings in collaboration with local authorities, and to promote stronger regulatory mechanisms to improve safety at crossings and in urban areas.

### PRODUCTS AND SERVICES

G4-4, G4-8, G4-9

The Transportation Division operates over 10,500 kilometers of rail lines, through 24 Mexican states and in Texas, USA. Our rail lines connect to five border points with the United States, and also five ports on the Pacific Ocean and four others on the Gulf of Mexico. We provide rail service to the agricultural, automotive, mining, energy, chemical, steel, cement and consumer goods industries.



# TRANSPORTATION DIVISION



## INVESTMENTS AND PROJECTS

G4-13, G4-EC7, G4-EC8

In 2016, we invested US\$360 million in the Transportation Division, allocated to the purchase of 50 locomotives, infrastructure and rail line improvements, siding and yard expansions and constructions, and also the purchase of track equipment, improving capacity, speed, service and efficiency. This investment has not only brought benefits to our customers, increasing our load capacity in transport across the country, creating value for our operations in the various sectors we serve, but also to our neighbor communities, which have benefited from our collaborations with local governments.

During 2016, we moved 54.445 billion net tons-kilometer, with which the railroad continues to gain market share in the total volumes transported in our country, increasing from 19 to 26%, compared with last year. For the same period, we reported 395,363 containers moved in the intermodal segment, representing an increase of 5.3%.

The volume of containers transported on our cross-border service increased 23% this year, primarily thanks to new traffics of auto parts and household appliances. To this we add our new inter-Pacific corridor service, which began July 2016 with a terminal in Culiacan. Another sector that reported significant figures was the agricultural sector, moving 25 million tons of product.

## INNOVATION, CONTINUITY AND OPERATIONAL EFFICIENCY

The Transportation Division is constantly innovating; looking for new ways to provide services more efficiently. In particular, we invested in the purchase of 50 locomotives this year, in addition to continuing with the installation of Automatic Engine Start Stop (AESS) technology, which will deliver important savings in diesel consumption. Incorporating this technology has resulted in greater operating efficiencies and has improved the load on the railways, guaranteeing their optimal capacities.

Also, we are working with local authorities to prevent accidents and incidents, which will help to improve our average speeds, building split-level crossings and installing signage.

These initiatives have contributed to improving the productivity of our trains, increasing the tons-kilometer transported 0.4% and with a better traffic mix. The cumulative revenue through December 2016, expressed in pesos, reports a 9.8% increase, in keeping with the increases in volume and rates. The segments with the greatest growth were: steel (12%), intermodal (7%), agricultural (3%) and automotive (2%).

## CUSTOMER RELATIONS

G4-PR5

At the Transportation Division, we are constantly in contact with our customers, striving to improve our services according to the highest standards of quality in terms of arrival and departure times, and also the efficiency of our processes. Our "Programmed Railroad" quality system was conceived as an operating and service model to meet the transportation logistics needs of our customers according to ISO 9001:2008 quality standards. This program helps us to strengthen coordination in planning, shipping, management and controlling the flow of freight.

Intermodal México conducts an annual survey to assess the customer satisfaction in our principal areas of sales, customer service, terminal services, and trucking, cross-dock and transfer services. This year, we received an overall average rating of 77 points, representing a 1% improvement over last year's rating, but below our goal of 80 points. It is important to note that most areas maintained or increased their score, which encourages us to continue improving in benefit of our internal and external customers.

During the first quarter of 2016, Ferromex and Ferrosur visited their top 100 customers to identify the key variables in assessing our services, including Transit Time, Car Delivery, Car Interchanges, Empty Car Requests and Placements, Car Cycles, Follow-Up on Complaints, among others. Once the principal variables have been set, the survey will be applied periodically. The results of these surveys returned a customer satisfaction level of 83% in December 2016, which reflects a constant improvement and incentive to perform even better in our sector.

## PROMOTE

### COMMITMENT AND WORKPLACE CLIMATE

G4-9, G4-10, G4-11, G4-EC5, G4-LA1, G4-LA2, G4-LA4, G4-LA8, G4-LA12, G4-LA13, G4-HR3

Our collaborators are fundamental to our performance. We are committed to providing a workplace environment with high levels of health and safety, and also professional stability for our 10,022 collaborators, which in 2016 were divided into three regions: North, Pacific, South-Central, plus Intermodal México. In this sense, year after year, we make every effort to provide our workforce with job security, which is reflected in 94% of our collaborators holding permanent contracts.

Although the transportation sector has traditionally attracted men, the Company strives to offer working conditions and equal pay so as to encourage women to join our workforce. As a result, this year 19% of our specialists were women and 4% of our collaborators overall.

In recent years, in Grupo México we have been striving to enrich our workforce with greater diversity, with contributions from each demographic segment of our staff. The richness of our diversity is also seen in bringing different generations together, which contributes to the work environment and performance. There were no reports of discrimination this year. Also, knowledge is transferred from the older generations with more experience to the younger generation just starting their working life.

This context is reflected in the contrast between our collaborators that are 45 years of age or older, representing 45% of our workforce, and who contribute their experience and expertise to 5% of our collaborators who have recently started their working life. This translates into a generational change in our workforce that has increased our turnover rate to 11%, which was compensated by 806 new hires, representing an increase of 34% over last year.

At Grupo México, we guarantee freedom of association and in the Transportation Division we have 7,603 union employees, representing 76% of the workforce. We strive to maintain ongoing dialog with our collaborators to communicate operational changes, and also with union representatives discussing issues of workplace conditions and occupational health and safety which are reviewed periodically. In Grupo México, communication with our stakeholders is equally important to build an environment of collaboration and progress.

### COLLABORATORS

Transportation Division, 2014-2016

Year	Collaborators
2014	9,928
2015	9,715
<b>2016</b>	<b>10,022</b>

### COLLABORATORS BY REGION

Transportation Division, 2016

Region	Collaborators
North	2,621
Pacific	2,930
South-Central	3,842
Intermodal	629

### COLLABORATORS BY AGE GROUP

Transportation Division, 2016

18-24	5%
25-34	28%
35-44	23%
Más de 45	44%

### TURNOVER RATE

Transportation Division, 2014-2016

Year	Percentage
2014	7.3%
2015	7.2%
2016	11.2%

### TURNOVER RATE BY AGE GROUP

Transportation Division, 2016

Age	Percentage
18 - 24	11.8%
25 - 34	9.2%
35 - 44	8.8%
45+	13.7%

### WOMEN BY COLLABORATOR CATEGORY

Transportation Division, 2016

Organizational Level	Total Employees	% Women
Senior Management & Department Heads	318	13%
Senior Technicians	207	19%
Junior Technicians	870	15%
Specialists	1,210	14%
Assistants	7,417	0.13%

We want to contribute to the wellbeing of our collaborators and their families, offering, in addition to economic remuneration, a series of benefits that focuses on health and financial sustainability. The Transportation Division offers all employees life insurance and also supplemental medical insurance, and additional contributions to the savings fund, among other benefits, and based on the type of contract. Our union employees receive benefits according to the collective bargaining agreements, which are reviewed annually.

During 2016, the average Base Salary in the Transportation Division was 5 times the local minimum daily wage<sup>6</sup>. The Base Salary includes the starting salary, productivity bonuses, cash benefits and profit sharing, where applicable.

### TRAINING AND CAREER DEVELOPMENT

G4-LA9, G4-LA10, G4-LA11

The personal and professional development of our collaborators is vitally important to us. We are currently focused on offering training for our personnel on both technical and behavioral skills. We are particularly working to provide our employees with the tools they need to perform their duties safely, fostering a culture of prevention.

In 2016, we provided 310,031 training hours, with an average of 31 hours per employee. One of the greatest concerns addressed this year in terms of training has been the development of the profiles we need for our operation, streamlining the training process from driver to engineer, to reduce this from 5 years to 3-4 years.

Besides training, professional development within the Company involves quality and efficiency in our work, for which we conduct an annual performance review for non-union employees, all of whom participated in 2016. This review includes an assessment of goals met and the development of skills and competencies, from which training needs are identified. The performance review process is comprised of three phases, which include defining goals, follow-up during the period, and the annual review.

### STAGES OF PERFORMANCE ASSESSMENT

Transportation Division, 2016

Definition of goals	Carried out at the beginning of the year, based on criteria known to the employee and their supervisor.
Follow-up on goals	Follow-up is offered to each employee during the year through the Comprehensive Performance and Development System (CPDS).
Annual performance review	The employee is rated on the CPDS. The system asks for written comments on weaknesses and areas for opportunity.

<sup>6</sup> Considering the Base Salary (BS) and the Minimum Wage (MW), the calculation of the BS/MW average is determined weighting the BS and MW for each region in Mexico where we operate, based on the number of collaborators in the Transportation Division in each region.

### TOTAL TRAINING HOURS

(Thousands of hours)

Transportation Division, 2014-2016

Year	Hours
2014	219
2015	309
2016	310

### OCCUPATIONAL HEALTH AND SAFETY

#### WORKPLACE SAFETY

G4-LA5, G4-LA6

At Grupo México, we promote a culture that helps all our collaborators to arrive safely home, striving to provide a culture of safety that goes beyond the workplace and also extends to our families. In addition to investments in equipment to improve working conditions, we promote a change of attitude and conduct among our collaborators, contributing to risk prevention. We also closely monitor indicators in these areas, through established controls and regular assessments.

To build a culture of workplace safety, we have implemented the “5S” program in some of the areas of our operating centers, aimed at improving conditions and work spaces to make them safer and more productive. Our efforts in safety also extend to our contractor companies, for which we have created a Safety Standards

Handbook, which we provide to personnel, assessing compliance through field visits.

Our workplace safety promotional activities are carried out in collaboration with the following committees:

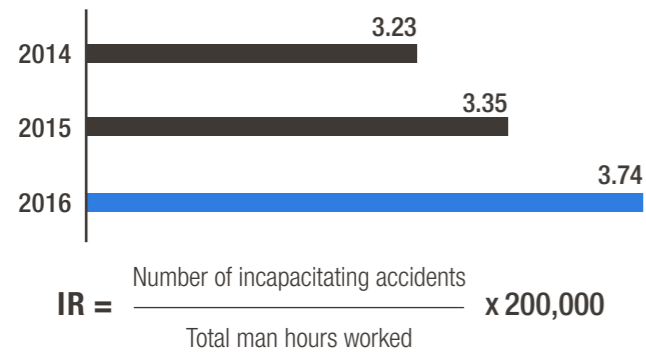
- Corporate operating safety, personnel and environmental protection committee
- Divisional operating safety, personnel and environmental protection committee
- Health and Safety Commission
- Medical leave committee

All our collaborators are represented by health and safety joint committees, and 4.9% of collaborators participate directly in the different committees and commissions. Each region has an Occupational Health and Safety (OHS) Steering Committee to implement and monitor programs. OHS subcommittees distribute our occupational health and safety documents.

Despite these efforts, accidents this year took the lives of 5 of our collaborators and 3 contractors. These unfortunate events make us work more fervently to ensure our team have safe conditions to do their work. Despite these events and thanks to the efforts of our collaborators to establish a culture of prevention, we continue working hard to protect the welfare of our collaborators.

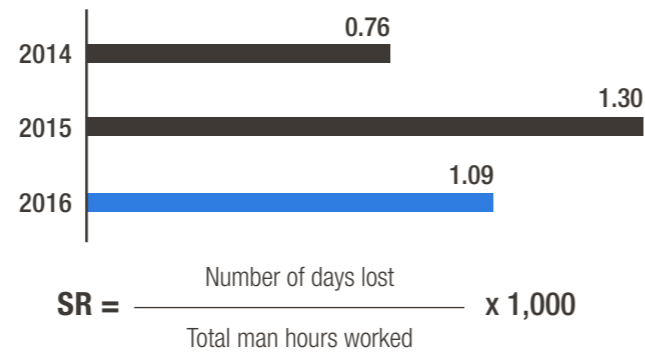
**INCIDENT RATE**

Transportation Division, 2014-2016



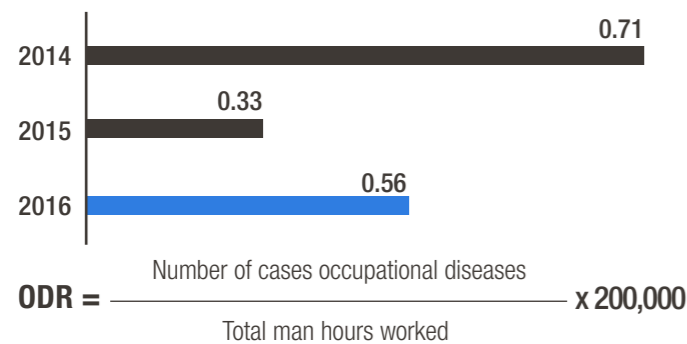
**SEVERITY RATE**

Transportation Division, 2014-2016



**OCCUPATIONAL DISEASE RATE**

Transportation Division, 2014-2016



**OCCUPATIONAL HEALTH**

G4-LA7

In addition to the initiatives mentioned above, we operate some programs in conjunction with the Mexican Social Security Institute. Through this collaboration we implemented a preventive medicine program, which has helped us to reduce the occupational disease rate to zero. These efforts have been possible thanks to our US\$4.1 million in 2016.

Regarding occupational diseases, we have also developed a program that changes risky behaviors and conducts observed in our collaborators, to foster a healthy work environment. We have achieved this through seminars and

informational documents to raise awareness. In addition to the training we provide to all employees performing operational and auxiliary tasks, we conduct regular medical exams.

**OCCUPATIONAL HEALTH PROGRAMS**

<b>Collaborators</b>	Comprehensive health monitoring programs. Periodical medical examinations.
	Monitoring and prevention programs for illnesses related to exposure to agents in the workplace (noise, vibration, welding smoke).
	Health promotion and education programs (high blood pressure, diabetes, nutrition, obesity, etc.).
	Vaccination campaigns (tetanus, hepatitis, influenza).
	Aptitude monitoring (physicals, alcohol and drug testing, fatigue).
<b>Family Members</b>	Detection programs for dental problems, high blood pressure, diabetes, glucose, cholesterol, nutrition, body mass, eye exams and general examinations.
	Education programs: injuries and trauma, diabetes, high blood pressure, nutritional information and dental hygiene.
	Vaccination campaigns.

**COMMUNITY DEVELOPMENT**

G4-S01, G4-S02

For Grupo México, the development of our neighbor communities and generating shared value are fundamental. Through the railroad, we strive to benefit the principal communities through which our lines run. In addition to supporting community and economic development through the railroad, we build relationships of trust with our neighbor communities, improving their safety and that of our operations.

**SOCIAL MANAGEMENT**

Our community development activities are based on our railroad operations and are organized around four pillars. These efforts of mutual benefit are a great responsibility, on being the railroad with the most extensive coverage in the country.

1. Infrastructure development
2. Community transportation and free transportation of goods
3. Strengthening tourism
4. Support for communities and family involvement

## 1. INFRASTRUCTURE DEVELOPMENT

At Grupo México, we have decidedly contributed to the modernization of railroad transportation in Mexico, which has led to the transformation of the railroad operation into an efficient system for the present and the future.

Our rail transportation and the auxiliary terminal and freight services we offer have contributed to strengthening the industrial development of Mexico, as well as domestic and international trade, with our role in exports and imports. By association, we have contributed to the proliferation and consolidation of auxiliary companies and industrial zones, through an indirect economic impact that has raised the quality of life of our neighbor communities.

An example of this is the role that Grupo México has adopted in recent years and which has been driven by the upsurge in the auto industry in the Bajío region, and also supporting domestic agriculture by providing efficient transportation.

## 2. COMMUNITY TRANSPORTATION AND FREE TRANSPORTATION OF GOODS

Continuing our goal of contributing to the socioeconomic development of the areas where we operate, the Transportation Division operates a rail line that joins Chihuahua and Sinaloa on which the train known as “El Chepe” runs, representing a strategic means of transportation for local residents.

To facilitate the service to the Tarahumara communities in the area, and also for low-income residents, we have implemented a reduced rate program through the Tarahumara State Coordination, the Chihuahua State Department of Social Development, and the municipalities along the Chihuahua and Sinaloa routes.

Socioeconomic studies conducted by the Tarahumara State Coordination and municipalities in the states of Chihuahua and Sinaloa in 2014 determined the local population would benefit from the program. Holders of the reduced rate cards pay only 20% of the ticket price. In 2016, there were 33,958 active cards and we provided a total of 54,655 trips at this reduced rate.

Through our rail services, we have also brought health and education services to the community, and improved access to commercial zones for trading goods, helping to improve the quality of life of our neighbors. During 2016, we delivered snake antivenoms in Acultzingo, Veracruz, classified as a high priority zone by the Department of Social Development. Veracruz has the second highest rate of snake bites and related fatalities.

Our free transportation of goods program facilitates delivering basic foodstuffs and supplies provided by government agencies and charity organizations to isolated communities. In 2016, the principal products transported under our support program were potatoes, flour, sugar, canned products, bottled water, blankets

and cement, primarily on our Los Mochis-Bahuichivo, Creel and Cuauhtemoc, Mexico City-Chihuahua, and Mexico City-Bahuichivo routes, transporting 430 tons of goods.

## 3. STRENGTHENING TOURISM

In addition to being an excellent means of transportation for goods and favoring productive activities, the train takes us into the most remote regions in Mexico, making these tourist stops. To support this, Grupo México currently operates El Chepe, in Chihuahua and Sinaloa, a tourist route that runs through the Copper Canyons, exploring the cultures of our country and carrying visitors interested in discovering the Tarahumara culture. El Chepe has also driven the rise in adventure tourism and the development of parks in the region. Equally, adventure tourism and the development of parks in the region have been strengthened. This has increased the economic spillover in the areas where we operate and has also supported the development of the local economy building the hotel and restaurant offerings to answer increased demand, and also local handicraft sales.

## 4. SUPPORT FOR COMMUNITIES AND FAMILY INVOLVEMENT

Through the Transportation Division, and with the strengthening of environmental awareness as a base, also with the support of Grupo México Foundation, we continue to operate the “Vagón Verde, el Tren de la Ecología” (Green Train, the Ecology Train), which promotes the value of the train as an alternative, environmentally friendly means of transportation, raising awareness on climate change by promoting recycling and reforestation.

In 2016, the “Ecology Train” traveled through the states of Nayarit, Veracruz and Puebla. Recyclable materials were received in each community to raise awareness, giving away a tree for every kilo of materials received, intended to be planted at sites previously selected together with the local authorities. In this manner, we establish a connection between the importance of reducing our waste and conserving vegetation.

In the last two years, we have delivered 351,450 trees to the communities that participated. Meanwhile, the recyclable materials were given to charity organizations to fundraise through their sale.

## COMMUNITY SAFETY

Just as the safety of our collaborators is fundamental, guaranteeing the safety of the people living along our rail lines is a high priority. In this regard, we are continually working to improve safety at railroad crossings, particularly at level crossings. We try to raise awareness with the community on the dangers of the railroad tracks. Working with the Department of Transport and Communications and the local authorities, we have improved signage at crossings. We are also installing crossing barriers, and audible and visual alerts at the most critical points to improve visibility and warn of trains approaching.

Our road safety program “Cuidado con el Tren” (Watch out for the Train) raises awareness in the local communities to involve residents in preventing accidents at railroad crossings, under the collaboration agreement between the Mexican Association of Railways and the Mexican Red Cross. The campaign seeks to educate the general public on preventing railroad accidents in areas identified as high risk.

This initiative is also linked to the “Doctor Vagón” campaign of Grupo México Foundation, taking advantage of the talks on the health train to talk about the risks of railroad crossings and trains. Additionally, we hold one-day events at the most dangerous crossings, handing out informational pamphlets to foster a culture of precaution and prevention.

## PROTECT

### ENVIRONMENTAL MANAGEMENT

G4-EN29, G4-EN31, G4-S02

Caring for the environment is one of our top priorities. We are constantly looking for new ways to be more efficient in our use of inputs and to incorporate new technologies. In 2016, we invested US\$771,454 in environmental projects putting us on the cutting edge and reducing our negative impacts.

Similarly, we strive to ensure our activities meet all legal requirements and that we hold environmental certifications insofar as possible, guaranteeing we adhere to best practices. In 2016, six of our operations maintained their Environmental Quality certifications given by the Mexican Environmental Protection Agency (PROFEPA):

- Shop and Fueling Zone in Tierra Blanca
- Shop and Fueling Zone in Veracruz
- Shop in Apizaco
- Railcar shop in Coatzacoalcos
- Shop and Fueling Zone in Orizaba
- Fueling Zone in Puebla

Despite our efforts and investments in environmental projects and activities, the Transportation Division, through Intermodal México, received one administrative sanction for US\$1,915.93 in 2016 for an infraction of the Comprehensive Waste Management and Prevention Law.

### ENERGY AND EMISSIONS

#### ENERGY EFFICIENCY

G4-EN3, G4-EN6, G4-EN27

Our Transportation Division strives to move more with less, with initiatives that contribute to improved energy efficiency, goal that we also share with our personnel, to consolidate our commitment to the fight against climate change.

Our energy supply is primarily fuels, particularly diesel, which we use to operate the locomotives. Diesel represents 99% of the total energy consumed by our transportation operations.

**FUEL CONSUMPTION**

Transportation Division, 2014-2016

Year	Terajoules
2014	17,821
2015	18,552
2016	16,794

**POWER CONSUMPTION**

Transportation Division, 2014-2016

Year	Terajoules
2014	91
2015	107
2016	107

One of our efforts to improve efficiency in fuel consumption is installing Automatic Engine Start Stop (AESS) technology, an engine start/stop system that reduces diesel consumption when trains are stopped or idling. This technology, together with the adoption of best practices in fuel savings for locomotives that do not have the AESS system, represented total savings of 12.25 million liters of diesel in 2016.

**DIESEL SAVINGS**

(AESS System & Manual Operation –

Millions of liters saved)

Transportation Division, 2014-2016

Year	Millions of liters
2014	14.20
2015	15.13
2016	12.25

These efforts have improved our fuel performance per kilometer of freight transported by 3% this year, also reducing our consumption of diesel despite the increased volume transported.

**FUEL PERFORMANCE (L/TTKG)<sup>7</sup>**

**FERROMEX**

Transportation Division, 2014-2016

Year	L/TTKG
2014	4.42
2015	4.35
2016	4.20

**FERROSUR**

Transportation Division, , 2014-2016

Year	L/TTKG
2014	6.29
2015	6.24
2016	6.25

<sup>7</sup> Note: The Transportation Division's fuel performance is expressed in liters of diesel consumed per thousand tons per kilometer of freight (L/TTKG).

**EMISSIONS**

G4-EN15, G4-EN16, G4-EN19, G4-EN27

In addition to our efforts to improve energy efficiency, we are also working to reduce our greenhouse gas emissions. We are always working to draw more of our electrical power from renewable sources. However, of the 1.27 million tons of CO<sub>2</sub>eq released during 2016, only 1% were associated with electrical power, while 99% were from our use of fossil fuels.

Although electrical power represents a relatively low percentage in our operations, we strive to draw this power from clean sources. In 2016, we received 15.7 million KWh from the Grupo México "El Retiro" wind farm, reducing our emissions by 7,216 tons of CO<sub>2</sub>eq. Also, solar panels at Ferromex operations powered the Hot Box Detectors (HBD), Dragging Object Detectors (DOD), Wheel Impact Detectors (WID) and Rolling Stock Card Readers (RSCR) with 65,000 KWh of energy.

The railroad is an environmentally friendly alternative for moving freight, being four times more efficient in fuel consumption and releasing 75% less greenhouse gas emissions than trucks. Also, we have incorporated technology that contributes to improved efficiency in fuel consumption, such as the AESS system installed on older locomotives so that these automatically shut off after a certain time without movement.

Between the diesel savings and the initiatives implemented on the rest of the locomotives, we were able to mitigate 32,606 tons of CO<sub>2</sub>eq in 2016. One of the goals of our investment program is to improve fuel performance, and to this end, we purchased 50 new locomotives this year. Additionally, maintenance and improvement works for the network contribute to more efficient traffic in terms of energy consumption.

**GREENHOUSE GAS EMISSIONS**

(millions of tons CO<sub>2</sub>eq)

Transportation Division, 2016

Direct emissions <sup>9</sup>	1.27
Indirect emissions <sup>10</sup>	0.01

<sup>8</sup> According to an independent study published by the Association of American Railroads (AAR) and determined by the Federal Railroad Administration.

<sup>9</sup> Direct Emissions: Include emissions from direct power consumption, calculated according to the 2015 SEMARNAT emission factors and the 2016 CONUEE combustion factors.

<sup>10</sup> Indirect Emissions: Include emissions from power consumption, calculated according to the Mexican Power Board (CFE) 2015 power consumption emission factors (0.458 tons of CO<sub>2</sub>/MWh), published by the SEMARNAT. The emissions for 2016 have not yet been calculated as the emission factors for this year had not yet been published at the time of this report.



## CLIMATE CHANGE

G4-EC2

Climate change is a growing risk, particularly for the operations of the Transportation Division, for which we have prepared action plans. We have a multi-year improvement program in place to protect our facilities against events such as damage to signaling systems and landslides affecting the network. This program includes reinforcing unpaved roads, bridges, track and drainage.

Climate change can also affect our customers, particularly in the agricultural sector, and indirectly the flows of freight we operate, representing a challenge that requires the efforts of everyone involved, working to benefit future generations. At Grupo México, we identify the risks, and monitor and implement initiatives to be better prepared.

We have specific action plans in place for the different scenarios, aimed at minimizing the impact:

- Multi-year program to reinforce bridges, unpaved and paved roads, and drainage and natural water channels.
- Adjustments to train scheduling.
- Right of way operating agreements with Kansas City Southern México (KCSM) and the Coahuila – Durango Railroad (LFCD).

- Dissemination of the measures to be taken in the event of any significant environmental phenomenon.

Our “Programmed Railroad” system, which focuses on continuity and operating efficiency, helps manage the risks associated with climate change. This includes operating codes that may help combat the consequences of an extreme climatological event. Such is the case of the Chemical Emergency Response and Remediation Plan (PAREQ), and others associated with operating safety and response in the event of accident.

## WATER

G4-EN8, G4-EN9, G4-EN10, G4-EN27

The water consumed by our railroad operations is substantially less in comparison to other Divisions of Grupo México. Even so, we ensure our water requirements are met as efficiently as possible. Water is primarily used at our operations for washing locomotives and other vehicles, and also for the cooling systems.

In 2016, our operations consumed 299,779 m<sup>3</sup> of water, 54.6% of which was drawn from underground sources, representing a 10.0% increase over last year.

Our water treatment plant in Guadalajara reused 285 m<sup>3</sup>, and we used this water for washing locomotives, cars, and for watering gardens. We also have an awareness program to promote the efficient use of water among our collaborators.

## WATER CONSUMPTION - UNDERGROUND (m<sup>3</sup>)

Transportation Division, 2014-2016

Year	m <sup>3</sup>
2014	18,151
2015	148,568
2016	163,661

## WATER CONSUMPTION - SURFACE (m<sup>3</sup>)

Transportation Division, 2014-2016

Year	m <sup>3</sup>
2014	106,681
2015	105,663
2016	136,118

## MATERIALS

G4-EN1, G4-EN2

Our railroad operations also require various essential materials, primarily track, sleepers and ballast. We also operate a smelter slag reuse project, as a substitute for ballast.

## MATERIALS USED

Transportation Division, 2014-2016

	2014	2015	2016
Ballast (m <sup>3</sup> )	499,352	451,414	337,016
Sleepers (pieces)	625,889	489,593	664,814
Track (tons)	16,773	29,947	33,788
Smelter slag used as ballast (m <sup>3</sup> )	200,385	147,024	110,878

## WASTE MANAGEMENT AND SPILLS

G4-EN23, G4-EN24, G4-EN27

We manage waste according to regulations, including waste handling, storage and sending for recycling and/or disposal.

The 1,008.35 tons of hazardous waste we generated in 2016 were handled according to strict controls. A large portion of this waste is reused by authorized third parties and the rest is sent for controlled confinement. Lubricant oil

is sold to produce alternative fuels, and lead batteries are sold to make new accumulators. We do not report waste requiring special handling in this report, as the amounts of this waste produced by the Transportation Division are insignificant.

**HAZARDOUS WASTE**

Transportation Division, 2016

Waste	Tons
Oil	557.87
Muds	204.8
Alkaline batteries	2.46
Lead acid batteries	0.45
Other solid hazardous waste	242.77

Our approach is the same with waste requiring special handling, some of which is reused and/or recycled,

such as scrap steel, obsolete vehicles or machinery, and wood sleepers.

We have mechanisms in place to prevent and take action in the event of spills resulting from railroad accidents, including incidents involving hazardous chemical substances. The Operating Safety Committee meets monthly to monitor risks, take preventive action, and to determine corrective measures on the occurrence of a railroad accident.

Our Chemical Emergency Response and Remediation Plan (PAREQ) includes guidelines for accident prevention, operating response to chemical emergencies, restoration of environmental impacts, and return to normal operations.

**ACTION PROTOCOL FOR CHEMICAL SPILLS**

Prevention	The PAREQ prevention activities are defined and also the Infrastructure, Documentation, Dispatch and Equipment, and Operations subcommittees, among others.
	The PAREQ committee performs an assessment, noting the achievements of the prevention committee, minuting the new agreements reached.
Response	On the occurrence of an incident, the train dispatch center issues an alert on the presence of chemical leaks or spills. In this situation, the PAREQ is activated.
	On the occurrence of an incident involving hazardous materials, the corresponding response brigades are dispatched and the plan is activated.
	A report on the event is prepared for the relevant government agencies once the emergency has been controlled.
Remediation	With the emergency under control, the track is reported as clear and the damages to the track and surrounding areas are surveyed.
	The damages to equipment and infrastructure are assessed and quantified, as well as the environmental restoration at the scene of the accident (as applicable).

Despite our efforts and investments in environmental projects and activities, there were two spills at our operations in 2016, totaling 141 m<sup>3</sup>. One spill occurred at Intermodal México, involving 139.9 m<sup>3</sup> of fuel oil. The spills response protocol was activated immediately, building a containment dam and using a pump to absorb the fuel. The second spill was 1.5 m<sup>3</sup> of diesel, occurring at Ferrosur. The spilled liquid was collected in drums. None of these events had a significant impact on the environment or the soil, therefore they are considered low severity.

**BIODIVERSITY AND THE ENVIRONMENT**

G4-EN11, G4-EN12, G4-EN13, G4-EN14, G4-EN27

Most of our Transportation Division operations are located in areas that are not protected, with the exception of 25 kilometers of track that cross areas that were subsequently declared protected<sup>11</sup>.

Infrastructure building and expansion projects are executed in full compliance with environmental impact requirements. We constantly monitor the execution and operation of this infrastructure to detect potential impacts and establish preventive and corrective measures. This is particularly relevant when we are clearing vegetation and compacting soil.

Our restoration plans include reforestation and subsequent maintenance to ensure the survival of species that are relocated or newly incorporated. We also rescue and relocate fauna that may be impacted by our operations.

Two protected species of vegetation and fauna have been identified at our operations, according to International Union on the Conservation of Nature (IUCN) classification<sup>12</sup>.

<sup>11</sup> The zones declared protected are located in the states of: Baja California, Sonora, Sinaloa, Colima, Coahuila and Veracruz.

<sup>12</sup> No species covered by NOM-059-SEMARNAT, which determines the protected species in Mexico, have been identified around our operations. One species on the IUCN list classified as "in danger of extinction" and another classified as "low concern" have been identified.

## INFRASTRUCTURE DIVISION

### GROW

#### PRODUCTS AND SERVICES

G4-4, G4-8, G4-9

The services the Infrastructure Division offers reflect how we listen to the needs of our customers, innovating and redeveloping our portfolio. In 2016, we celebrated 80 years in operation and throughout our history, we have been involved in a wide variety of projects that have marked the development of Mexico.

The five companies that comprise México Proyectos y Desarrollo (MDP) offer a broad range of services, seeking out new opportunities for growth.

In recent years we started to venture into the oil sector with ocean and land drilling services, and also engineering and infrastructure development. Additionally, we have expanded into new sectors, such as power generation and highway infrastructure.

As part of this ongoing improvement, in 2016, the Infrastructure Division began an internal restructuring process to become more integrated and achieve greater synergies to develop joint projects, increasing our ability to respond to business opportunities and challenges.

#### INVESTMENTS AND PROJECTS

G4-13, G4-EC7, G4-EC8, G4-EN27

The constant search for innovation and improvement has led us to venture into new sectors, and also to make significant investments in new technologies for our processes. Through the different subsidiaries, we have been able to offer cutting-edge services to benefit both our customers and the community.

Celebrating its 80th anniversary, our construction subsidiary reported 2016 as its best year in sales and earnings in the last ten years. Also, work was completed on the Leon and Silao spurs and in 2017, we expect to release 100% of the right of way with the Department of Transport and Communications.

# INFRASTRUCTURE DIVISION



Another of our major achievements this past year was the completion of the tailings dam number 7 project at the La Caridad mine, in the municipality of Nacozari. This project raised the height of the embankment, improving safety at our operations. We also executed maintenance works at Buenavista del Cobre, and continued stage 2 of construction on the new tailings dam. Additionally, works were completed at Quebalix IV on the dams, the containment dam and the recovered water dam.

Regarding energy, the generator plant increased production by 14% in 2016, to 3,160 GWh. Although demand has reached its maximum levels, the combined cycle plant is not yet operating at 100% of its capacity. The El Retiro wind farm produced 214,000 MWh and in 2017, we are planning to increase our productivity to add 45 additional points of sale for a total of 350. We are also looking to migrate the production from our combined cycle plant to join the wholesale power market.

In addition to the oil sector, our subsidiary worked on geothermal projects in Nayarit, Mexico, where we took the lead on well drilling.

### INNOVATION, CONTINUITY AND OPERATIONAL EFFICIENCY

Offering quality products and services is one of our principal commitments, adhering to the highest standards. To achieve this, the Infrastructure Division has strived to ensure its operations and processes are certified in ISO 9001, ISO 14001 and OHSAS 18001 standards. During 2016, the construction subsidiary received its tenth certification, and the drilling subsidiary has ISO 14001 comprehensive management system certification for its Carmen Sector administrative offices, the cement plant and the Sonora platform. Also, Concesionaria de Infraestructura del Bajío is ISO 9001 certified.

In addition to comprehensive management systems, the drilling subsidiary has 7 environmental quality certificates, issued by the PROFEPA, including 5 platforms. Meanwhile, México Generadora de Energía has adopted an innovative occupational health and safety model according to best practices, at the La Caridad combined cycle plant.

### QUALITY MANAGEMENT

G4-PR5<sup>13</sup>

In the Infrastructure Division, we are continually striving to improve customer satisfaction and deliver our services to the highest standards of quality. To achieve this, we maintain close contact with our customers, listening to their opinions through logs, notices, meeting minutes, complaints and suggestions boxes, website, e-mail and other media, which we monitor constantly throughout each project. The information we gather is analyzed and used to develop strategies to enhance our experience and to respond to the needs of our clients and users.

<sup>13</sup> \*Unlike the Mining Division and the Transportation Division, the Infrastructure Division has not conducted customer satisfaction surveys, as our customers are internal and/or temporary, resulting from tenders in the state and state-involved sectors.

Regarding the Transportation Division, gauge works were started on 15 tunnels on the T line, Guadalajara division, which runs between Jalisco and Tepic, to allow double-stack trains to run this line. This project is expected to be completed in the second quarter of 2017, to improve productivity in transporting goods and positively impact the economies of the sectors in which our customers operate.

Talking about the activities of the drilling subsidiary, the stability of the Company's activities was affected by the context of the international energy sector. Despite this, the Campeche, Tabasco and Chihuahua platforms were active during most of the year. The modular platforms, which give our clients greater versatility, started operations in the last two years. The Tamaulipas platform is waiting to be assigned a site and the Veracruz platform is waiting to restart activities.

The Bajío highway development has given thousands of car and truck drivers access to a more efficient route, contributing to the local economy and development. This new highway section shortens travel times in this region of the Bajío. An extraordinary traffic flow of 20,000 vehicles was reported in November, to produce a weighted traffic of 11,633 vehicles a day for the year, an increase of over 50%. Work on the second section continued in 2016 and is expected to be completed in the first quarter of 2017.

The subsidiary has been seeking out new projects in the oil sector since 2015, under the National Hydrocarbon Commission tenders. Three bids were submitted in 2016 and we bid for the PEMEX farm outs. In 2017, we are planning to participate in rounds 2.2 and 2.3 for onshore fields. Also, in the context of the energy reform, we are looking to expand our offshore drilling services, where we plan to diversify our client base to include new operators.

## PROMOTE

### COMMITMENT AND WORKPLACE CLIMATE

G4-9, G4-10, G4-11, G4-EC5, G4-LA1, G4-LA2, G4-LA4, G4-LA12, G4-LA13, G4-HR3

The Infrastructure Division, as is the case throughout Grupo México, is committed to its collaborators, ensuring a safe work environment in which our collaborators are supported in their development. To continue our progress in this direction, and as part of the restructuring of the Division, we have been unifying and centralizing our human rights processes into a new structure to optimize and improve the efficiency of our processes. The workforce of the Infrastructure Division was, on average, 3,000 collaborators in 2016, reaching a total 3,292 employees, representing a 29% increase over the previous year and a turnover rate of 15.4%. This is a significant achievement as, given the nature of the Division's products and services, there is a high propensity to hire based on the demand and seasonality of our projects. Also, we continue to offer job security for our collaborators. No incidents of discrimination were reported this year. Also of note is that 1,851 of our collaborators, or 56% of our total workforce, are represented by a union.

In 2016, the average Base Salary in the Infrastructure Division was 6.7 times the local minimum daily wage. Also, the labor benefits we offer, such as life insurance, additional medical insurance, higher coverage for incapacity, and additional contributions to the retirement fund, based on the type of contract.

Although the activities of the Division's subsidiaries have been primarily performed by men, at Grupo México, we strive to encourage gender equality, particularly through equal salaries. During 2016, 10.27% of our collaborators were women at the Division level.

Meanwhile, and as part of the restructuring and modernization of the Company, we made efforts to diversify the workforce in terms of generations to foster exchanges of skills and talents through an inclusive workforce. As a result, the age group that experienced the greatest growth this year was the 25-35 year olds.

### COLLABORATORS

Infrastructure Division, 2014-2016

Year	Collaborators
2014	2,751
2015	2,556
<b>2016</b>	<b>3,292</b>

<sup>14</sup> Considering the Base Salary (BS) and the Minimum Wage (MW), the calculation of the BS/MW average is determined weighting the BS and MW for each country where we operate, based on the number of collaborators in the Mining Division (sic) in each territory. The Base Compensation includes the starting salary, productivity bonuses, cash benefits and profit sharing, where applicable.

### COLLABORATORS BY SUBSIDIARY

Infrastructure Division, 2016

GMSI	392
MCC	2,002
MGE & El Retiro	65
PEMSA	627
OIBSA	206

### COLLABORATORS BY AGE GROUP

Infrastructure Division, 2016

18 - 24	20%
25 - 34	46%
35 - 44	20%
45+	14%

### WOMEN BY COLLABORATOR CATEGORY

Infrastructure Division, 2016

	No. Collaborators	% Women
Senior Management & Department Heads	35	11.4%
Technicians	1,098	17.3%
Specialists	200	19.0%
Assistants	1,959	3.3%

One of our highest priorities is maintaining transparent and inclusive dialog with our stakeholders,

which involves dynamic communication among and between our collaborators, addressing topics that include freedom of association, work environment, and workplace health and safety, among others. We ensure these and other relevant topics are communicated in a timely manner.

### TRAINING AND CAREER DEVELOPMENT

G4-LA9, G4-LA10, G4-LA11

Achieving a high level of quality through our broad range of services requires constant learning and training to develop a high degree of specialization. In 2016, the companies in the Division integrated and various training initiatives were offered, striving to have a greater impact on technical and operational questions around three principal topics: safety, technical training and human development.

We have also strived to unify the competencies that are relevant for all the industries served by the Infrastructure Division and to this effect, in 2016, we implemented a Success Factors competencies model, by type of position.

A new plan for seeking out talent was started this year to offer opportunities to our collaborators and to increase productivity, identify potential, detect training needs, and recognize talent. This plan is based on the following elements:

Element	Description
Strategic Map for the Infrastructure Division	We plan the goals for the Company, identifying the cause-effect relationship between the components of the strategy.
Competencies Model	Based on the structure used in the Mining Division, but adapted to the needs of the Infrastructure Division.
Talent Platform	SAP Success Factors and KHOR.

The following steps were implemented for the pilot phase, which will then be reviewed early in 2017:



Seeking to improve efficiency in the development processes for our collaborators, a digital training platform was launched in 2016. The first course offered on the platform featured the Company's Code of Ethics and in 2017, we plan to expand the program to add other topics.

The development of competencies among our collaborators according to their career plans helps to create a workplace climate that meets their needs for growth, and also ensures that our workforce has the basic competencies needed to continue to offer high quality service. A plan was prepared in 2016, to create the Infrastructure Division University, to build a bottom-up training platform, where the collaborators choose the trainings they want to take. Also, this platform will create a repository of knowledge drawn from our collaborators, focusing, in particular, on key processes.

### OCCUPATIONAL HEALTH AND SAFETY

G4-LA5, G4-LA6, G4-LA7, G4-LA8, CRE6

At Grupo México, we make every effort to guarantee that each and every one of our colleagues gets home safe and sound at the end of the workday. Our continual improvement management program addresses the risks associated with each work area and is reflected in our commitments to certification in this regard.

In 2016, México Compañía Constructora maintained its management systems certifications for the tenth consecutive year, and received the recertification according to the new standards published in 2015, including OHSAS 18001. Regarding drilling operations, we hold OHSAS 18001 certification for the Carmen Sector administrative offices, the cement plant and the Sonora platform. We also maintained International Ship and/or Port Facility Protection Certifications under the International Ship and Port Facility Protection Code (ISPS Code), and Safety Management Certificates under the International Safety of Life at Sea Convention, accrediting our safety management in compliance with the Guidelines on Implementation of International Safety Management (ISM). Additionally, we adhere to the Workplace Health and Safety Self-Management Program (PASST 1st level).

Our drilling subsidiary has continued to implement the Institutional Safety and Protection On Board Program, which fosters and strengthens a culture of safety on the oil platforms. The core areas the program covers are: fire evacuation and general platform evacuation procedures, handling spills, and also the procedure to follow in cases of man overboard.

Our power generating activities have strengthened in areas of health and safety with the implementation of strategies that follow best practices. This has resulted in zero reports of serious accident or injury at our combined cycle plant and our wind farm in 2016.

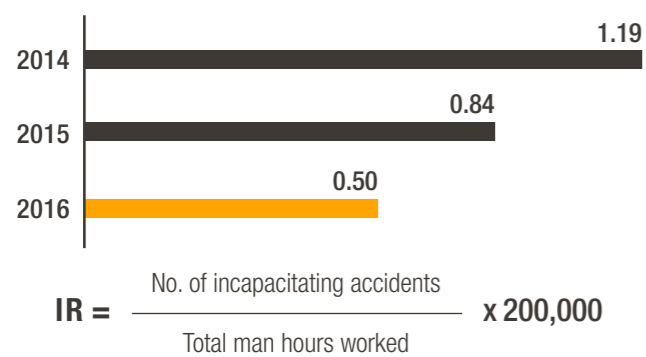
All our employees are represented by Joint Safety and Hygiene Commissions at our operations, despite the enormous challenge this represents due to the high turnover and seasonality of our activities.

Our approach and commitment to occupational health and safety has borne fruit, helping us to develop a culture of risk identification and prevention, reporting zero fatalities in 2016. This is also reflected in a low incident rate of 0.50, which we have reduced for four years in a row. Meanwhile, the severity rate for the accidents that unfortunately did occur, is also low, reporting a severity rate of 0.045.

Additionally, we are committed to extending our health and safety culture to the families of our collaborators and to the community, through education programs, guidance, prevention and control of risks, and also diseases and their treatment.

**INCIDENT RATE**

Infraestructure Division, 2014-2016



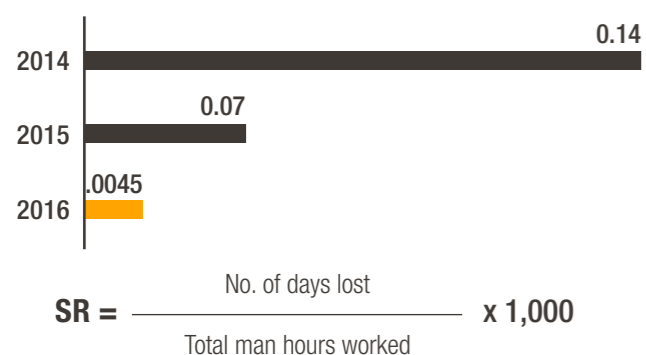
ration with the community, we identify needs and opportunities to improve the quality of life of everyone involved.

Given the nature of the services offered by the Infrastructure Division, the Casa Grande model is being adapted to the needs of our different companies. For example, our activities in the energy sector have experienced great success thanks to the close contact and agreements reached with the community. This is particularly relevant when talking about our wind farm operations where our neighbors are historically vulnerable communities in predominantly indigenous areas in Oaxaca. Our model has helped us to bring the community closer to the wind farm, generating a feeling of belonging. Since starting operations in 2015, our work at the wind farm has led to the implementation of 60 projects, impacting 3,255 people in 2016.

At Perforadora México, we have also started to implement the Casa Grande model, with the opening of a community development center in May 2016 and we are planning to launch the first round of invitations to submit projects in 2017. Similarly, with Grupo México venturing into highway operation, we have started to consolidate a Casa Grande model that will be compatible with sectors that have higher mobility. A community committee was set up with local community leaders as a result of the Company's activities on the Salamanca-Leon highway, impacting 5,389 people through local projects in 2016.

**SEVERITY RATE**

Infraestructure Division, 2014-2016



**COMMUNITY DEVELOPMENT**

G4-S01, G4-S02, CRE7

The community development model launched first by the Mining Division has started to be successfully implemented at our Infrastructure Division operations. The companies of the Infrastructure Division are strengthening ties with the community through dialog under the Casa Grande community development model. In collabo-

**PROTECT**

**ENVIRONMENTAL MANAGEMENT**

G4-EN29, G4-S02

One of our priorities in the Infrastructure Division is that our operations report outstanding performance while being respectful of the environment, for which we have implemented strategies to make us better at mitigating impacts.

We are working on ensuring our operations have environmental management systems according to ISO 14001, which serves as a route map for the highest management standards. This year, our drilling company maintained certification at 3 operations, including the Carmen Sector administrative offices, the cement plant and the Sonora Platform. Meanwhile, México Compañía Constructora was recertified in this standard. We also hold six PROFEPA Environmental Quality certificates for our Campeche, Zacatecas, Chihuahua and Sonora platforms, and our Carmen Sector offices and the cement plant.

During 2016, our efforts to operate in full adherence of regulations resulted in our affiliate companies ending the year with no sanctions.

**ENERGY**

G4-EN3, G4-EN6

We are aware that our fuel requirements impact our surroundings, and we are always striving to make our

processes more efficient, using cleaner energy. During 2016, we consumed 24,731 terajoules of fossil fuels and 303 terajoules of electrical power.

Regarding clean energy, we are looking to diversify our energy mix advocating for sources with a lower impact or which are renewable. This is reflected in increased energy production at our combined cycle power plant and our wind farm, with which we supplied other subsidiaries of Grupo México.

**FUEL CONSUMPTION**

Infraestructure Division 2014-2016

Year	Terajoules
2014	17,813
2015	21,681
2016	24,731

**POWER CONSUMPTION**

Infraestructure Division 2014-2016

Year	Terajoules
2014	194
2015	296
2016	303

**FUEL CONSUMPTION**

Infraestructure Division 2016

Company	Terajoules
MGE	23,622
PEMSA	681
MCC	414
CIBSA	11

**POWER CONSUMPTION**

Infrastructure Division (2016)

Company	Terajoules
EÓLICA EL RETIRO	2.1
MGE	299.29
PEMSA	1.4
MCC	2.4

**EMISSIONS AND CLIMATE CHANGE**

G4-EC2, G4-EN15, G4-EN16, G4-EN19, G4-EN21, G4-EN27

Climate change is a global challenge, accompanied by an intensification of climatological events such as hurricanes, droughts and flooding, which generate risks for our Infrastructure Division operations. The accumulation of greenhouse gases (GHG) is causing climate transformations and because of this, we are striving to reduce the emissions generated by our activity.

Therefore, we have developed different power generation projects that are less harmful to the environment. Also, mining is an optimal strategically in generating solar power, as is the case of the Avalon project with Tucson Electric Power. Having learned from this experience, we have started to develop proposals to take advantage of large expanses of land where we will install solar panels.

Similarly, considering the regulatory panorama in Mexico, we have been analyzing the need to obtain Clean Energy Certificates and to generate completely renewable energies so as to decarbonize our energy grid.

The Infrastructure Division's GHG emissions this year totaled 1.53 million tons of CO<sub>2</sub>eq, due to the increase in our activities at the "La Caridad" combined cycle plant, and also the operations of the Division's newest affiliate, Operadora de Infraestructura del Bajío (OIBSA).

The Infrastructure Division embodies the commitment of Grupo México to mitigate emissions by diversifying our energy mix towards cleaner energy sources. Our two combined cycle power plants ("La Caridad I" and "La Caridad II"), with a total installed capacity of 516 MW, produced 3,160 GWh of power in 2016, used by our mining operations in Sonora (Mexico).

By using natural gas and contributing to Grupo México's self-supply, "La Caridad I" and "La Caridad II" have prevented the release of 141,410 tons of CO<sub>2</sub>eq. This is equal to the greenhouse gas emissions that would be generated by 29,871 cars on the road in one year.

Our "El Retiro" wind farm started operations in 2014 and is located in the southwest of the state of Oaxaca, in Juchitán de Zaragoza (Mexico). El Retiro has 37 wind turbines and the power produced is used by the Mining Division and the Transportation Division, and also by Cinemex. In 2016, the wind farm produced 206,659 MWh, preventing the release of 94,649 tons of CO<sub>2</sub>eq, equal to taking 30,679 cars off the road for one year.

Following up on the success of our power generating operations, we are planning to enter the wholesale power market to continue contributing to reducing the emissions that cause climate change.

The Infrastructure Division has continual monitoring systems (CEMS) in place for other types of atmospheric emissions. This system ensures our emissions fall within the permitted limits. In 2016, the NO<sub>x</sub> emissions were 1,975 tons.

**GREENHOUSE GAS EMISSIONS**

(Millions of tons CO<sub>2</sub>eq)

Infrastructure Division 2016

Direct Emissions <sup>15</sup>	1.48
Indirect Emissions <sup>16</sup>	0.05

**WATER**

G4-EN8, G4-EN9, G4-EN22, G4-EN27

Water is vital to our operations. In 2016, our total water consumption was 4,197,082 m<sup>3</sup>, of which 3,607,371 m<sup>3</sup> was underground water. We are not reporting the water consumption of México Compañía Constructora separately this year, as on completion of the Salamanca – Leon highway project, water was no longer consumed directly and the customer provides this resource directly in our other projects.

The water discharged by our Infrastructure Division operations totaled 953,330 m<sup>3</sup>, meeting the regulatory requirements for dumping.

<sup>15</sup> Direct Emissions: Include emissions from direct power consumption, calculated according to the 2015 SEMARNAT emission factors and the 2016 CONUEE combustion factors.

<sup>16</sup> Indirect Emissions: Include emissions from power consumption, calculated according to the Mexican Power Board (CFE) 2015 power consumption emission factors (0.458 tons of CO<sub>2</sub>/MWh), published by the SEMARNAT. The emissions for 2016 have not yet been calculated as the emission factors for this year had not yet been published at the time of this report.

**WATER CONSUMPTION - (m<sup>3</sup>)**

Subsidiary	m <sup>3</sup>
MGE	3,773,857.57
PEMSA	418,424.69

**MATERIALS**

G4-EN1

In addition to the resources mentioned above, our operations require different types of resources. In particular, our drilling and construction subsidiaries require a broader range of materials for maintenance on our equipment or for the execution of our projects.

**MATERIALS**

Materials	Unit	Quantity
Rock	m <sup>3</sup>	56,376.27
Gravel	m <sup>3</sup>	161,722.30
Sand	m <sup>3</sup>	970.00
Concrete	m <sup>3</sup>	5,563.00

Meanwhile, the materials most used in our drilling operations are primarily chemical agents, such as emulsifiers, calcium chloride, organophilic clay and carboxymethyl cellulose. The principal use of these materials is for maintenance on our equipment, and for specific construction activities and project development.



**WASTE MANAGEMENT AND SPILLS**

G4-EN23, G4-EN24, G4-EN27

Our comprehensive waste management system addresses the disposal of waste generated at our operations. Third parties certified by the authorities are contracted to manage the reusage of this waste or its disposal by controlled confinement.

Our hazardous waste is disposed of according to the highest safety standards and this year totaled 419 tons of solids and 355 m<sup>3</sup> of liquids, all of which was properly treated by third parties, and 11 tons were transported out of the country by these certified providers. We produced 5,986 tons of non-hazardous solid waste.

Our construction subsidiary reported a spill in 2016 of 0.4 m<sup>3</sup> of diesel caused by an accident involving a contractor. There were no delays and no impacts on the environment.

**WASTE**

Infrastructure Division (2016)

Material	Unit	Quantity
Hazardous waste	Solids (Ton)	310
	Liquids (m <sup>3</sup> )	355
Non-hazardous waste	Solids (ton)	4,499

**BIODIVERSITY AND THE ENVIRONMENT**

G4-EN11, G4-EN12, G4-EN13, G4-EN14, G4-EN27

The operations of the Infrastructure Division are generally situated in areas with little biodiversity value. In addition to holding all permits required, we ensure our operations have no impact on the local flora and fauna. Only the administrative offices of our drilling subsidiary in Ciudad del Carmen are located in a protected area, without any significant effect due to the type of activity conducted there.

All Infrastructure Division projects are developed in adherence of environmental impact requirements. This means preparing a complete analysis of our planned worksites, and also acknowledging our impacts and identifying the species with which we share the space, and setting an action plan.

**PROTECTED SPECIES UNDER IUCN CLASSIFICATION**

Infrastructure Division (2016)

Category	No. Species
In danger of extinction <sup>17</sup>	1
VU Vulnerable	1
LC Low concern	2

**NOM-059-SEMARNAT CLASSIFICATION**

Infrastructure Division (2016)

Category	No. Species
D In danger of extinction	2
Th Threatened	7
Pr Subject to special protection	13

<sup>17</sup> Our impact on the species in the region changed with the change in the nature of our activities along the Salamanca-Leon Highway, and along with it, the list reported here.



## ABOUT THIS REPORT



### ABOUT THIS REPORT

G4-22, G4-28, G4-29, G4-30, G4-31, G4-32, G4-33

Continuing our annual commitment, we offer our eleventh Sustainable Development Report. This report was prepared according to the Global Reporting Initiative (GRI) G4 methodology, under the “core” compliance option, and the “Mining and Metals” and “Construction and Real Estate” sector supplements. The report also applies the Principles of Inclusivity, Materiality and Responsiveness defined by AccountAbility AA1000APS (2008).

The report covers the 2016 social, environmental and economic performance of our Mining Division, Transportation Division and Infrastructure Division in the four countries where we operate: Mexico, Peru, Spain and the United States<sup>18</sup>.

We also report the progress made on implementing the UN Global Compact’s 10 Principles.

Throughout the report, we have indicated the mechanisms to measure performance, calculation indicators, and also information restated from the previous report. Giving continuity to the practice from previous years, and following the mandate given by the Board of Directors, the report has been verified independently, according to the scope set in the independent assurance report. The report also satisfies the Global Reporting Initiative (GRI) materiality disclosures service.

For more information on this report, please contact: [desarrollo.sustentable@mm.gmexico.com](mailto:desarrollo.sustentable@mm.gmexico.com)

<sup>18</sup>Grupo Ferroviario Mexicano (GFM) and Infraestructura y Transportes Ferroviarios (ITF) are not included in the scope of this report as the holding companies Ferromex and Ferrosur are reported, though operating affiliates are included; Texas Pacífico, LP is also excluded as Grupo México does not hold operational or holding control. Also, the operations of Intermodal México and Operadora de Infraestructura del Bajío are reported for the first time. Consult the 2016 Grupo México Annual Report for more information on the entities reported in the financial statements.

## OUR MATERIAL ASPECTS

G4-17, G4-18, G4-19, G4-20, G4-21, G4-22, G4-23

In preparing the content for the 2016 Sustainable Development Report, we conducted a materiality analysis detailed by each of the principal sectors of activity where Grupo México operates: mining, transportation, engineering and construction, energy and drilling.

This year, we confirmed in-house that our materiality analysis remains current and the material aspects are reported on the same baseline.

MATERIAL ASPECT	INTERNAL LIMITS						EXTERNAL LIMITS
	Mining Sector	Transportation Sector	Construction Sector	Energy Sector	Drilling Sector	Engineering Sector	
Water							• Local communities
Biodiversity and the Environment							
Training and career development							
Commitment and workplace climate							
Human rights							• Local communities
Economic performance							• Local communities
Effluents and waste							
Emissions							
Ethics and integrity							• Authorities
Management of the supply chain							• Suppliers and contractors • Local communities
Risk management and legal compliance							• Authorities • Local communities
Corporate governance							
Innovation, continuity and operational efficiency							• Customers
Community relations							• Local communities
Customer relations							• Customers
Occupational health and safety							• Contractor employees

# INDEPENDENT ASSURANCE REPORT

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## Independent assurance report on the 2016 Sustainable Development Report to Grupo México, S.A.B. de C.V., to the Management of Grupo México

### Responsibilities of Grupo México and independent reviewer

The Management of Grupo México is responsible for the elaboration of the 2016 Sustainable Development Report (SDR) for the period from January 1st to December 31st, 2016, as well as its content ensuring to define, adapt and maintain the management systems and internal control from which the information is obtained, and which are also free of material misstatement due to fraud or error. Our responsibility is to issue an independent report based on the procedures applied during our review.

This report has been prepared exclusively in the interest of Grupo México in accordance with the terms of our letter of agreement dated October 9th, 2014, therefore we don't assume any responsibility to third parties and is not intended to be nor should it be used by someone other than the Management of Grupo México.

### Scope of our work

The scope of our assurance was limited, and is substantially lower than a reasonable assurance work, therefore the security provided is also lower. This report in no case can be understood as an audit report.

We conducted the 2016 SDR review under the following conditions and/or criteria:

- The adaptation of the 2016 SDR contents to the Sustainability Reporting Guidelines of the Global Reporting Initiative (GRI) version 4 (G4), to the Disclosure Sectors (GRI) version G4 of Mining and Metals and according to the materiality study provided by Grupo México.
- The review of the sustainability performance indicators reported in accordance with the Core option and specified in the GRI Content Index of the 2016 SDR.
- The data consistency between the information contained in the 2016 SDR with supporting evidence provided by management.

We have complied with the independence and ethics of the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants (IESBA Code) based on integrity, objectivity, professional competence and due care, confidentiality and professional behavior principles.

### Assurance standards and procedures

We have performed our work in accordance with the International Auditing Standard ISAE 3000 Revised Assurance Engagements other than Audits or Reviews of Historical Financial Information issued by the International Auditing and Assurance Standards Boards (IAASB) of IFAC.

Our review work included the formulation of questions to the management of Grupo México that have participated in the elaboration of the 2016 SDR and the application of certain analytical and sample screening tests procedures that are described below.

- Meetings with staff of Grupo México to learn the principles, systems and applied management approaches.
- Analysis of the process to collect, validate and consolidate the data presented in the 2016 SDR.
- Analysis of scope, relevance and integrity of the information included in the 2016 SDR in terms of the understanding of Grupo México and of the requirements that stakeholders have identified as material aspects.
- Selected sample review from the evidence that supports the information included on the 2016 SDR.
- Quality assurance by an independent partner of the project that verifies consistency between this report and the proposal, as well as work process quality and deliverables.

The following table details the revised indicators according with the GRI Guidelines version G4 and the performance indicators of the Mining and Metals Disclosure Sector:

G4-2	G4-26	G4-EN1	G4-EN29	G4-LA8	MM2
G4-10	G4-56	G4-EN11	G4-LA2	G4-SO1	MM3
G4-11	G4-58	G4-EN13	G4-LA4	G4-SO3	MM4
G4-14	G4-EC2	G4-EN23	G4-LA5	G4-HR6	MM6
G4-24	G4-EC7	G4-EN24	G4-LA6	G4-PR5	MM10

### Grupo México | Independent assurance report on the 2016 Sustainable Development Report

These indicators were selected for the independent review in accordance with the following criteria:

- Materiality of Grupo México referred in the 2016 SDR.
- Information included in the 2016 SDR.
- Information provided during the meetings with the interviewed staff.
- Review of the evidence provided by Grupo México staff of this project.

### Conclusions

Based on our work described in this report, the performed procedures and the evidence obtained, nothing comes to our attention that could make us believe that the indicators reviewed in the 2016 SDR contains significant errors or has not been prepared in accordance with the Core option established in the GRI Guidelines version G4. For those GRI version G4 indicators where Grupo México didn't report in quantitative terms (numeric) the independent reviewer reviewed the qualitative information, which includes procedures, policies, evidence of the activities performed, among others.

### Action alternatives

Additionally we present the most significant action alternatives for future development of SDR, which do not alter the conclusions expressed in this report:

- Develop and implement an intelligent control and management system of the material information of Grupo México for its compilation, analysis and assessment that contributes as a tool for the development of the SDR.
- Involve the data owners in the findings from the independent assurance process, in order to develop an on-going improvement program, a priority clarity and an active participation process,
- Strengthening the information included in the material indicators reported on the SDR based on the guidelines and Disclosure sector of Global Reporting Initiative (GRI) in order to exalt transparency, equilibrium and comparability towards stakeholders of Grupo México.
- Is important to do a detailed review of the GRI Standards methodology and establish concrete actions to adapt next SDR to it.

### Inclusivity y relevance

During 2016 Grupo México maintains its materiality for each one of their sectors considering all their stakeholders. It is recommended that, through the continuous communication with stakeholders, going deeper in the most important issues and transparency, materializing the risks and opportunities that allow strengthening the sustainability strategy of Grupo México and developing a continuous improvement process.

### Responsiveness

The 2016 Sustainable Development Report of Grupo México allows to communicate stakeholders the performance of the organization about non- financial aspects and also communicate the tools that constitute the internal policies system of the organization. It is suggested to continue working on the strengthening those tools, as well as the data owners role in the responsibility that involves management and report of information.

  
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Partner  
June 27<sup>th</sup>, 2017



## 11. GRI G4 CONTENT INDEX

G4-32



General Standard Disclosures	Description	Pages	Independent assurance
Strategy & Analysis			
G4-1	Letter from the President	5	
G4-2	Description of key elements, risks and opportunities	25	✓
Organizational Profile			
G4-3	Name of the Organization	19, back cover	
G4-4	Primary brands, products and services	9, 50, 51, 83, 84, 103	
G4-5	Location of the Organization's headquarters	Back cover	
G4-6	Number of countries where the Organization operates	9, 10, 11, 12, 13, 14, 15	
G4-7	Nature of the ownership and legal status	9	
G4-8	Markets served	9, 50, 83, 103	
G4-9	Size/Scale of the Organization	9, 50, 55, 83, 86, 103, 106	
G4-10	Details of the workforce	18, 19, 55, 86, 106	✓
G4-11	% of total employees covered by collective bargaining agreements	9, 55, 86, 106	✓
G4-12	Description of the supply chain	36	
G4-13	Significant changes in the Organization	16, 17, 51, 84, 103, 104, 105	
G4-14	Application of the precautionary principle	25	✓
G4-15	External economic, environmental and social initiatives the Organization subscribes or has adopted	35	
G4-16	Association memberships	35	

# GRI G4 CONTENT INDEX

General Standard Disclosures	Description	Pages	Independent assurance
Material Aspects & Boundaries			
G4-17	Entities included in the Organization's consolidated financial statements	16, 118	
G4-18	Procedure for defining the material aspects and boundaries in each case	118	
G4-19	List of material aspects	118	
G4-20	Limits on each material aspect within the Organization	118	
G4-21	Limits on each material aspect outside the Organization	118	
G4-22	Consequences of the restatement of information from previous reports	118	
G4-23	Significant changes in the scope and coverage of each material aspect in terms of previous reports	118	
Participation of Stakeholders			
G4-24	List of the Organization's stakeholders	32, 33, 34, 35, 36	✓
G4-25	Procedure for identifying stakeholders	32, 33, 34	
G4-26	Organization's approach to stakeholder engagement	32, 33, 34, 35, 36	✓
G4-27	Key questions and concerns that have been raised through the participation of stakeholders	32, 33, 34, 35, 36	
Report Profile			
G4-28	Reporting period	117	
G4-29	Date of the last report	117	
G4-30	Reporting cycle	117	
G4-31	Point of contact	117	
G4-32	In accordance option, GRI index and reference to external assurance	117, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132	
G4-33	Policy and practices with regard to external assurance	119, 120, 121, 122	
Corporate Governance			
G4-34	Governance structure of the Organization	22	

General Standard Disclosures	Description	Pages	Independent assurance
G4-35	Process by which the highest governance body delegates its authority to senior management and certain employees for economic, environmental and social issues	22, 23	
G4-36	Executive-level positions for economic, environmental and social matters, and whether position holders report directly to the highest governance body	22, 23	
G4-37	Consulting processes between stakeholders and the highest governance body on economic, environmental and social matters	22, 23	
G4-38	Composition of the highest governance body and its committees	22, 23	
G4-39	Reference whether the person that presides over the highest governance body is also an executive officer	22, 23	
G4-40	Processes and criteria for nominating and selecting the highest governance body and its committees	22	
G4-41	Processes by which the highest governance body avoids and manages conflicts of interest; reference to whether conflicts of interest are disclosed to stakeholders	22, 23	
G4-42	Roles of the highest governance body and senior executives in the development, approval and updating of the Organization's mission statements, values, strategies, policies and goals	22, 23	
G4-43	Measures to develop or improve the collective knowledge of highest governance body on economic, environmental or social matters	22, 23	
G4-44	Performance assessment process for the highest governance body with regard to the governance of economic, environmental and social issues, and measures adopted based on results	22, 23	
G4-45	Role of the highest governance body in the identification and management of economic, environmental and social risks and opportunities; reference whether stakeholders are consulted	22, 23, 25, 26	
G4-46	Role of the highest governance body in reviewing the effectiveness of the Organization's risk management processes for economic, environmental and social matters	22, 25	
G4-47	Frequency of the highest governance body's review of the economic, environmental and social impacts, risks and opportunities	22, 23	

General Standard Disclosures	Description	Pages	Independent assurance	
G4-49	Process for communicating critical concerns to the highest governance body and senior management	22, 23		
G4-50	Nature and number of critical concerns that were communicated to the highest governance body, and mechanisms used to address and resolve them	22, 23		
G4-51	Remuneration policies for the highest governance body and senior management	22, 23		
G4-52	Processes for determining remuneration	22, 23		
G4-53	Reference to the consideration of the opinion of stakeholders regarding remuneration	22, 23		
<b>Ethics &amp; Integrity</b>				
G4-56	Values, principles, standards and norms of the Organization	20, 24	✓	
G4-57	Internal and external mechanisms for seeking advice on ethical and lawful behavior, and matters related to organizational integrity	24, 25		
G4-58	Internal and external mechanisms for reporting concerns about unethical or unlawful behavior and matters related to organizational integrity	24, 25	✓	
<b>Specific Standard Disclosures</b>				
Material Aspect	DMA / Indicators	Description	Pages	Independent assurance
<b>Water</b>	DMA	Management approach	76, 98, 113	
	G4-EN8	Total water drawn by source	76, 77, 98, 99, 113	
	G4-EN9	Water sources significantly affected with drawing water	76, 98, 113	
	G4-EN10	Percentage and total volume of water recycled and reused	76, 98	
<b>Biodiversity &amp; the environment</b>	DMA	Management approach	79, 101, 115	
	G4-EN11	Operational sites owned, leased, managed in, or adjacent to, covering or located in or outside protected areas of high biodiversity	79, 80, 101, 114	✓
	G4-EN12	Description of the most significant impacts of activities, products and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas	79, 80, 81, 101, 114	

<b>Specific Standard Disclosures</b>				
Material Aspect	DMA / Indicators	Description	Pages	Independent assurance
<b>Biodiversity &amp; the environment</b>	G4-EN13	Habitats protected or restored	80, 81, 101, 114	✓
	G4-EN14	Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk	81, 101, 114	
	MM1	Size of land (owned or leased and managed for production or extraction activities) affected or restored	80, 81	
	MM2	Number of total sites identified as requiring biodiversity management plans	80, 81	✓
<b>Training &amp; career development</b>	DMA	Management approach	57, 88, 107	
	G4-LA9	Average hours of training per year per employee by gender and employee category	57, 88, 89	
	G4-LA10	Skills management and ongoing training programs that support the employability of employees and assist them in managing their career ending	58, 88, 107, 108	
	G4-LA11	Percentage of employees receiving regular performance and career development reviews, by gender and employee category	59, 88, 107, 108	
<b>Commitment &amp; workplace climate</b>	DMA	Management approach	55, 86, 106	
	G4-EC5	Ratio between the starting salary, by gender, and the local minimum wage where there are significant operations	57, 87, 88	
	G4-LA1	Total number of new hires and employee turnover by age group, gender and region	55, 56, 57, 86, 87, 106, 107	
	G4-LA2	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by significant locations of operation	57, 87, 107	✓
	G4-LA4	Minimum notice periods for operational changes and possible inclusion of these in collective bargaining agreements	57, 86, 107	✓
	G4-LA12	Composición de los órganos de gobierno y desglose de la plantilla por categoría profesional y sexo, edad, pertenencia a minorías y otros indicadores de diversidad	56, 87, 107	

Material Aspect	DMA / Indicators	Description	Pages	Independent assurance
Commitment & workplace climate	G4-LA13	Ratio of basic salary of women to men, by significant locations of operation	55, 86, 106	
	G4-HR3	Number of incidents of discrimination and corrective actions taken	55, 86, 106	
	G4-HR4	Operations and suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated, and measures taken to support these rights	26	
	MM4	Number of strikes and closures lasting over one week, by country	55	✓
Human rights	DMA	Management approach	26	
	G4-HR1	Number and percentage of significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	27	
	G4-HR2	Employee training hours on policies and procedures on aspects of human rights that are relevant to operations, including the percentage of employees trained	26	
	G4-HR5	Operations and suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of child labor	27	
	G4-HR6	Significant operations and suppliers as having significant risk for incidents of forced labor, and measures taken to contribute to the elimination of all forms of forced labor	27	✓
	G4-HR7	Percentage of security personnel trained in the Organization's human rights policies or procedures that are relevant to operations	26, 27	
	G4-HR8	Number of incidents of violations involving rights of indigenous peoples and actions taken	27	
	G4-HR9	Number and percentage of operations that have undergone human rights screening	26	
	MM5	Total operations located at or near indigenous communities	27	

Material Aspect	DMA / Indicators	Description	Pages	Independent assurance
Economic performance	DMA	Management approach	36	
	G4-EC1	Direct economic value generated and distributed	37	
	G4-EN31	Details of environmental expenditures and investments	37	
	DMA	Management approach	76, 114	
Effluents & waste	G4-EN22	Total water discharge by quality and destination	76, 113	
	G4-EN23	Total weight of waste by type and disposal method	78, 79, 99, 100, 114	✓
	G4-EN24	Total number and volume of significant spills	79, 101, 114	✓
	G4-EN25	Weight of transported, imported, exported or treated waste considered hazardous under the Basel Convention Annexes I, II, III and VIII, and percentage of transported waste shipped internationally	79	
	G4-EN26	Identity, size, protected status and biodiversity value of water bodies and related habitats significantly affected by the Organization's discharges of water and runoff	79	
	MM3	Total overburden, rocks, tailings and muds and their total associated risks	79	✓
	DMA	Management approach	74, 97, 112	
	G4-EN15	Direct greenhouse gas emissions (Scope 1)	75, 97, 113	
Emissions	G4-EN16	Indirect greenhouse gas emissions (Scope 2)	75, 97, 113	
	G4-EN19	Reduction of greenhouse gas emissions	75, 97, 112	
	G4-EN21	NOx, SOx and other significant air emissions	76, 113	
	DMA	Management approach	24, 25	
Ethics & integrity	G4-SO3	Number and percentage of operations assessed for risks related to corruption and the significant risks identified	24, 25	✓
	G4-SO4	Communication and training on anti-corruption policies and procedures	24, 25, 36	
	G4-SO5	Confirmed incidents of corruption and actions taken	25	



Material Aspect	DMA / Indicators	Description	Pages	Independent assurance
Management of the supply chain	DMA	Management approach	27, 36	
	G4-EN33	Significant actual and potential negative environmental impacts in the supply chain and actions taken	36	
Risk management & legal compliance	DMA	Management approach	72, 98, 112	
	G4-EC2	Financial implications and other risks and opportunities for the Organization's activities due to climate change	72, 98, 112	✓
	G4-EN29	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations	72, 95, 111	✓
	G4-S07	Number of legal actions for monopolistic practices and anti-competitive behavior, and their outcomes	25	
	G4-PR4	Number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcome	25	
	G4-PR9	Monetary value of significant fines for non-compliance with regulations concerning the provision and use of products and services	25	
	Corporate governance	DMA	Management approach	22
	G4-LA12	Composition of governing bodies and breakdown of employees by employee category, gender, age group, minority group and other indicators of diversity	22, 56, 87, 107	
Innovation, continuity and operational efficiency	DMA	Management approach	52, 53	
	G4-EN1	Materials used by weight or volume	78, 99, 113, 114	✓
	G4-EN2	Percentage of recycled materials used	78, 99	
	G4-EN3	Internal energy consumption	73, 74, 95, 96, 111, 112	
	G4-EN6	Reduction of energy consumption	95, 96, 111	
	G4-EN27	Mitigation of the environmental impact of products and services	51, 74, 76, 78, 79, 95, 97, 98, 99, 101, 103, 112, 113, 114, 115	

Material Aspect	DMA / Indicators	Description	Pages	Independent assurance
Community relations	DMA	Management approach	64, 91, 110	
	G4-EC7	Development and impact of infrastructure investments and services supported	65, 66, 67, 68, 69, 84, 103, 104	✓
	G4-EC8	Significant direct economic impacts and their scope	51, 65, 66, 67, 68, 69, 70, 84, 103, 104, 105	
	G4-S01	Percentage of operations with implemented development programs, impact assessments and community engagement	64, 65, 66, 67, 68, 69, 91, 92, 93, 94, 110	✓
	G4-S02	Operations with significant actual and potential negative impacts on local communities	64, 71, 72, 91, 92, 93, 94, 95, 110, 111	
	MM6	Number and description of significant disputes over the use of lands, and local community and indigenous community rights	26, 27	✓
	MM7	Use of grievance mechanisms to resolve disputes	26	
	MM8	Number (and percentage) of sites where the Organization operates artisanal and small-scale mining	26, 27, 81	
	MM10	Number and percentage of operations with mine closure plans	81	✓
	CRE7	Number of people voluntarily and involuntarily displaced and/or relocated due to the development and end result of works, by project	110	
Customer relations	DMA	Management approach	44	
	G4-PR5	Results of surveys measuring customer satisfaction	54, 85, 105	✓

Material Aspect	DMA / Indicators	Description	Pages	Independent assurance
Occupational health & safety	DMA	Management approach	59, 60, 61, 108	
	G4-LA5	Percentage of employees represented in formal joint management-worker health and safety committees, established to help monitor and advise on occupational health and safety programs	60, 108, 109	✓
	G4-LA6	Type and rates of injury, occupational diseases, lost days and absenteeism, and total number of work-related fatalities, by region and gender	62, 110	✓
	G4-LA7	Workers with high incidence or risk of occupational diseases	62	
	G4-LA8	Health and safety topics covered in formal agreements with unions	59, 86, 107, 109	✓
	CRE6	Percentage of the company that operates under certified health and safety management systems, developed according to internationally recognized standards	109	

G4-3, G4-5, G4-31

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