



Ternium











# CREATING VALUE FOR THE AMERICAS

Ternium is a leading American company that manufactures and processes a broad range of steel products using the most advanced technology.

The company provides customers that operate in such diverse and essential steel-consuming industries, such as construction, automotive and energy, as well as manufacturers of heavy and agricultural machinery, household appliances and packaging, among others.

Ternium and its subsidiaries have 17 production centers in Argentina, Brazil, Colombia, Guatemala, Mexico, and the United States. It is also part of the controlling group of Usiminas, a leading steelmaker of the Brazilian market.

Ternium supplies with high quality steel all the main regional markets and it also promotes the development of its customers from the metallurgical industry.

The company's distinctive position is a result of its highly integrated production procedure. Its facilities feature the whole manufacturing process of steelmaking, from the mining of iron ore to the production of high value added products.

With an yearly achievable production capacity of 12.3 million tons, Ternium's shares are listed and traded on the New York Stock Exchange.

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“OUR MISSION IS TO CREATE VALUE WITH OUR CUSTOMERS, IMPROVING COMPETITIVENESS AND PRODUCTIVITY TOGETHER, THROUGH A HIGHLY EFFICIENT INDUSTRIAL AND TECHNOLOGICAL BASE AND A GLOBAL COMMERCIAL NETWORK. TERNIUM IS COMMITTED TO ESTABLISHING A LONG-TERM PRESENCE, THROUGH LOCAL DEVELOPMENT AND EDUCATION.”

**DANIEL NOVEGIL**  
TERNIUM'S CEO



# A LEADING ROLE IN MODERN LIFE

Steel is a resistant, light, versatile and recyclable material, and it takes part in everyday life in the most diverse ways. Indeed, modern life development is intrinsically related to the use of this element. Buildings, bridges, cars, ships, planes, trains, cans and medical equipment, to mention just a few examples, are manufactured using this alloy of steel and carbon.

## INDUSTRIAL VOCATION

Ternium is aware of the decisive role it plays in the metallurgical chain and thus it is committed to achieving excellence in the fabrication of each and every steel product it delivers. The company's industrial vocation becomes manifest in all stages of the production process and in the firm's relationship with customers and suppliers.

## NUMBER ONE ALLY

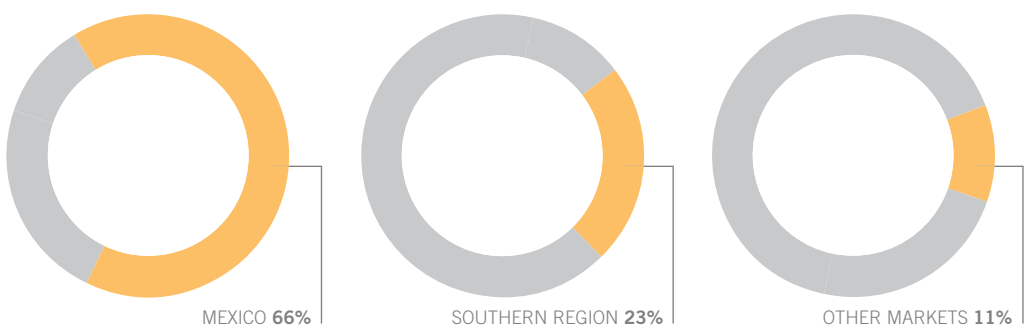
Tough and weightless, malleable and completely recyclable, steel serves a vast number of purposes according to how it is manufactured, contributing to the development of the most important industries of the global economy. Steel contributes to improve costs, safety and efficiency of people and goods transportation. Steel is also a strategic partner of the energy industry in all its facets, as well as of construction, from residential houses to huge infrastructure works. In other words, steel is a staunch ally that allows modern life to be safer, more comfortable and efficient.



INDUSTRIES

- AUTOMOTIVE
- CONSTRUCTION
- MANUFACTURING
- HOME APPLIANCES
- PACKAGING
- ENERGY
- TRANSPORT

STEEL SHIPMENTS\*



FIGURES\*

9.8

MILLION TONS  
STEEL PRODUCTS  
SHIPPED EVERY YEAR.

7.2

BILLION DOLLARS  
ANNUAL NET SALES.

\* 2016 information. Does not include Ternium in Brazil, acquired in September 2017.









# STRIVING FOR EXCELLENCE

Ternium works constantly to keep up its position as the America's leading steelmaker, committed to its customer development, at the forefront of industrial parameters and widely praised for its world class human resources.

The company's main goals are making value together with its customers, and to jointly improve competitiveness and productivity, through a highly efficient industrial and technological base and a broad commercial network.

## REGIONAL PRESENCE

Ternium has become a leading corporation featuring highly integrated procedures for the fabrication of steel and its derivatives. It has production plants in Argentina, Brazil, Colombia, Guatemala, Mexico, and the United States. Moreover, it takes part of the group controlling Usiminas, Brazil's leading at roll maker.

## QUALITY: TERNIUM'S TRADEMARK

The company's competitiveness is built upon its industrial vocation, commitment to its customers, and the differentiation of its products and services. Ternium has a flexible production system, with modern facilities and its own sources of raw materials. Its management model is integrated by productive units strategically located in free trade areas, such as NAFTA and Mercosur. With deep roots in the region where it is located, the company strives for excellence operating according to international first rate standards.

Ternium stands out in the market due to its quality, to its customer service and to its extensive commercial network, which are boosted by the professionalism of its employees, by the solidity of its industrial foundation and by the effectiveness of its distribution channel.

## TERNIUM IN BRIEF

- VERTICAL INTEGRATION, FROM ORE IRON MINING OPERATIONS TO SERVICE AND DISTRIBUTION CENTERS.
- FOCUSED ON VALUE-ADDED PRODUCTS.
- TERNIUM IS LISTED ON THE NYSE.

## FIGURES

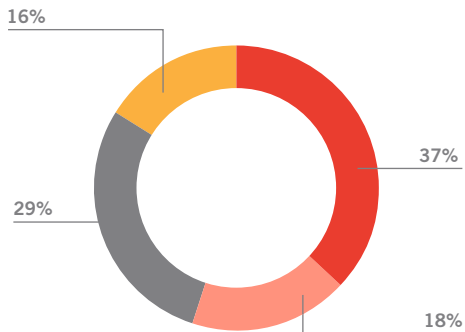
12.3

MILLION TONS  
ACHIEVABLE PRODUCTION  
CAPACITY.

17

PRODUCTIVE PLANTS  
ACROSS THE REGION.

## SALES



- HOT ROLLING
- COLD ROLLING
- COATED STEEL
- BARS AND WIRE RODS

2016 information. Does not include semi finished products.





# TERNIUM INDUSTRIAL SYSTEM

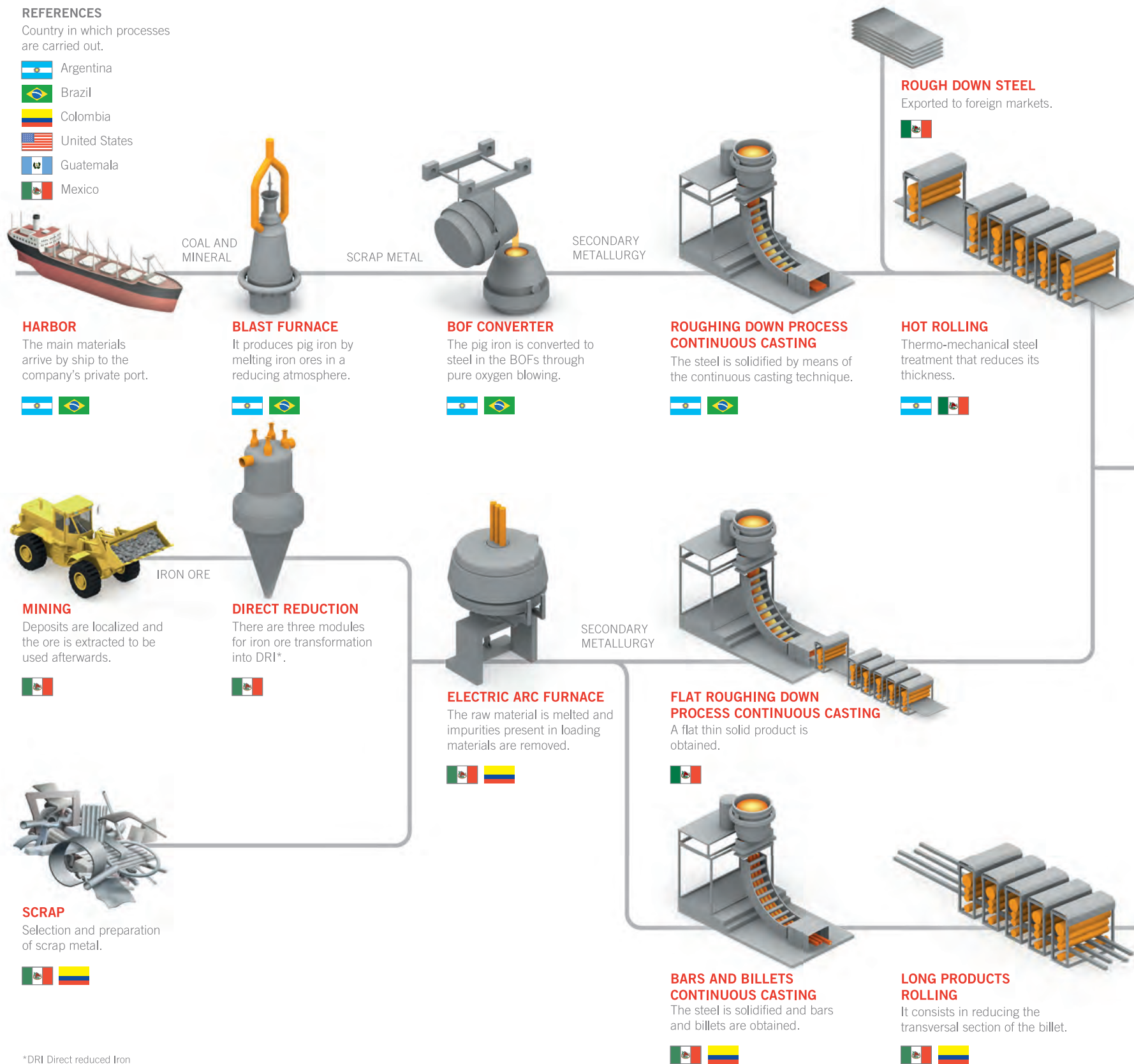
Ternium stands out as a highly integrated company throughout its productive system, with which it provides many essential industries of modern economy. By dint of a vertical industrial structure made up of plants located across America, the company makes value from the

extraction of iron ore to the fabrication of a broad range of steel products. Sticking to the industry's most strict standards in each and every production stage, Ternium strives for quality management to achieve first rate processes and results.

## REFERENCES

Country in which processes are carried out.

-  Argentina
-  Brazil
-  Colombia
-  United States
-  Guatemala
-  Mexico



\*DRI Direct reduced Iron



## HIGH VALUE-ADDED PRODUCTS

### GALVANIZING PROCESS BY IMMERSION

The sheet is deflected by a roller and the zinc is swept with air by means of some blades. This process allows obtaining the desired coating.



Galvanized Coils

Panels

Galvalume coil

Materials designed for construction

### PRE-PAINTING PROCESS

A coat of paint is applied on the sheet.



### ELECTROZINC COATED STEEL PROCESS

A steel coil is coated with a layer of metallic zinc.



Electrozinc-coated steel coil

### ELECTROLYTIC TINNING



Tinplate



### TUBES AND PROFILES WELDING PROCESS

Tubes and profiles



Wire bars



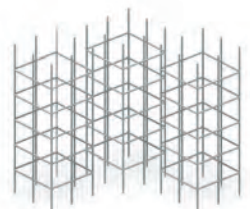
Springs



Roods



Bars



DECOILED STEEL

ANNEALING AND SKINPASS

ELECTROLYTIC CLEANING

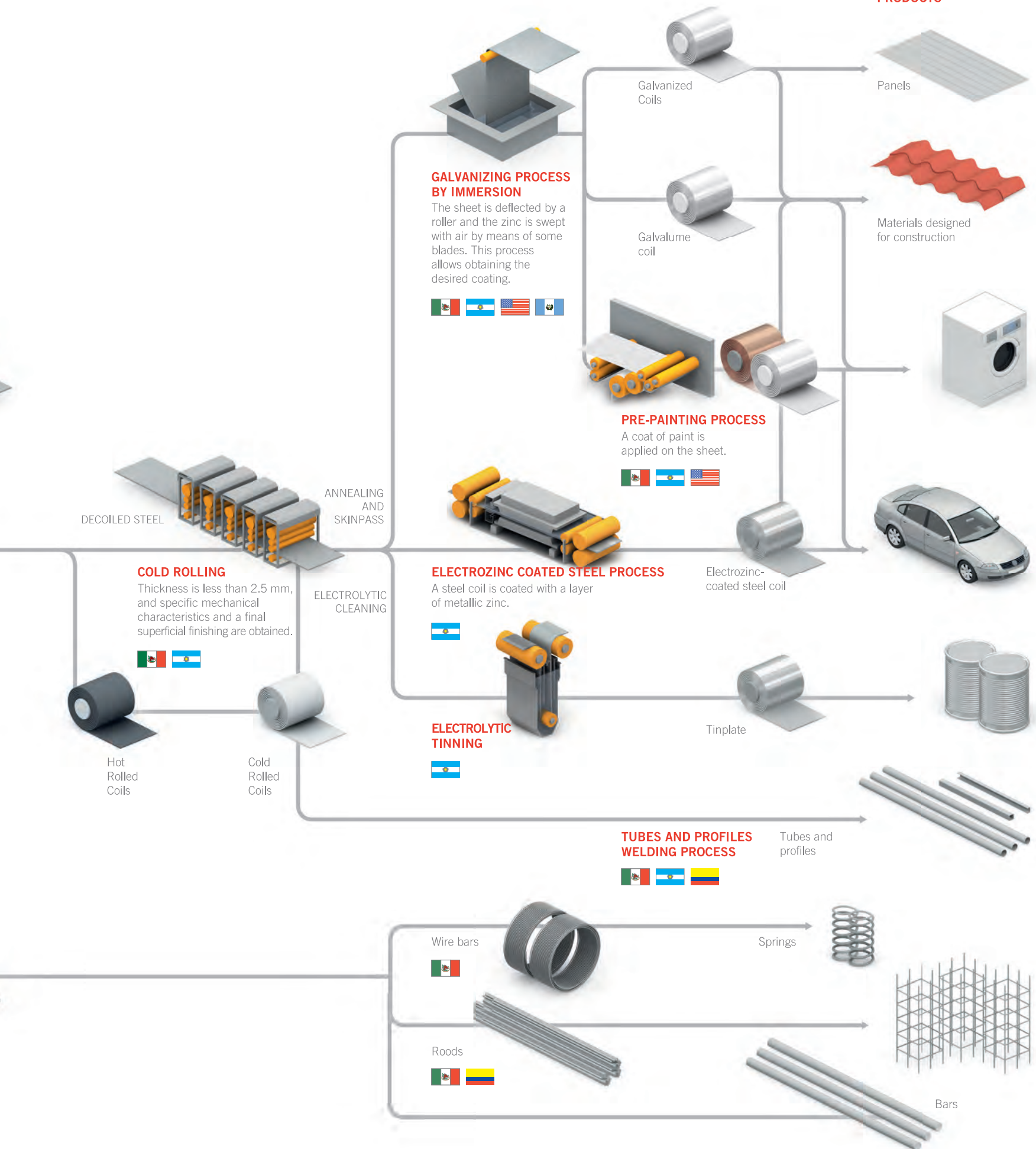
### COLD ROLLING

Thickness is less than 2.5 mm, and specific mechanical characteristics and a final superficial finishing are obtained.



Hot Rolled Coils

Cold Rolled Coils





# ADDED VALUE FOR PRODUCTS AND SERVICES

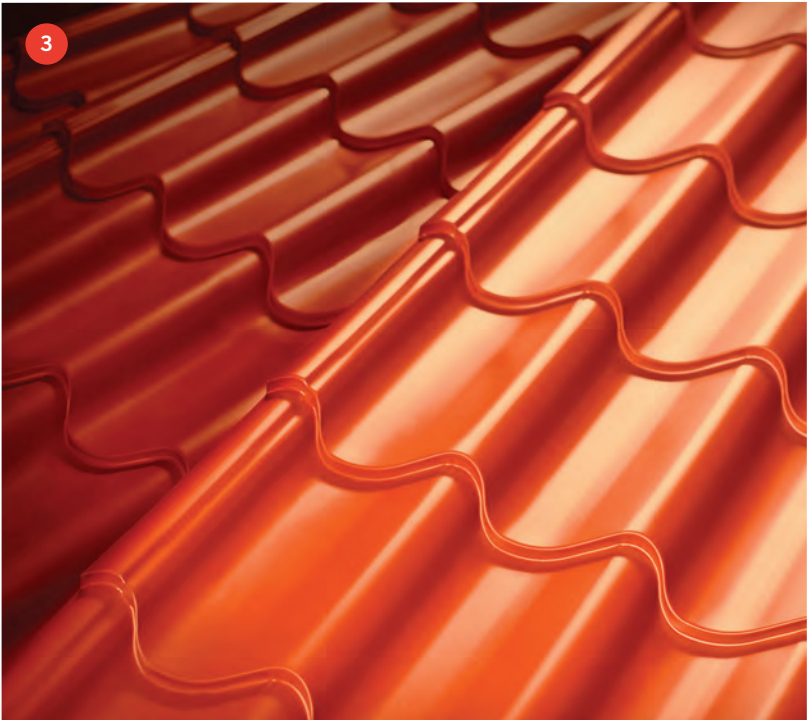
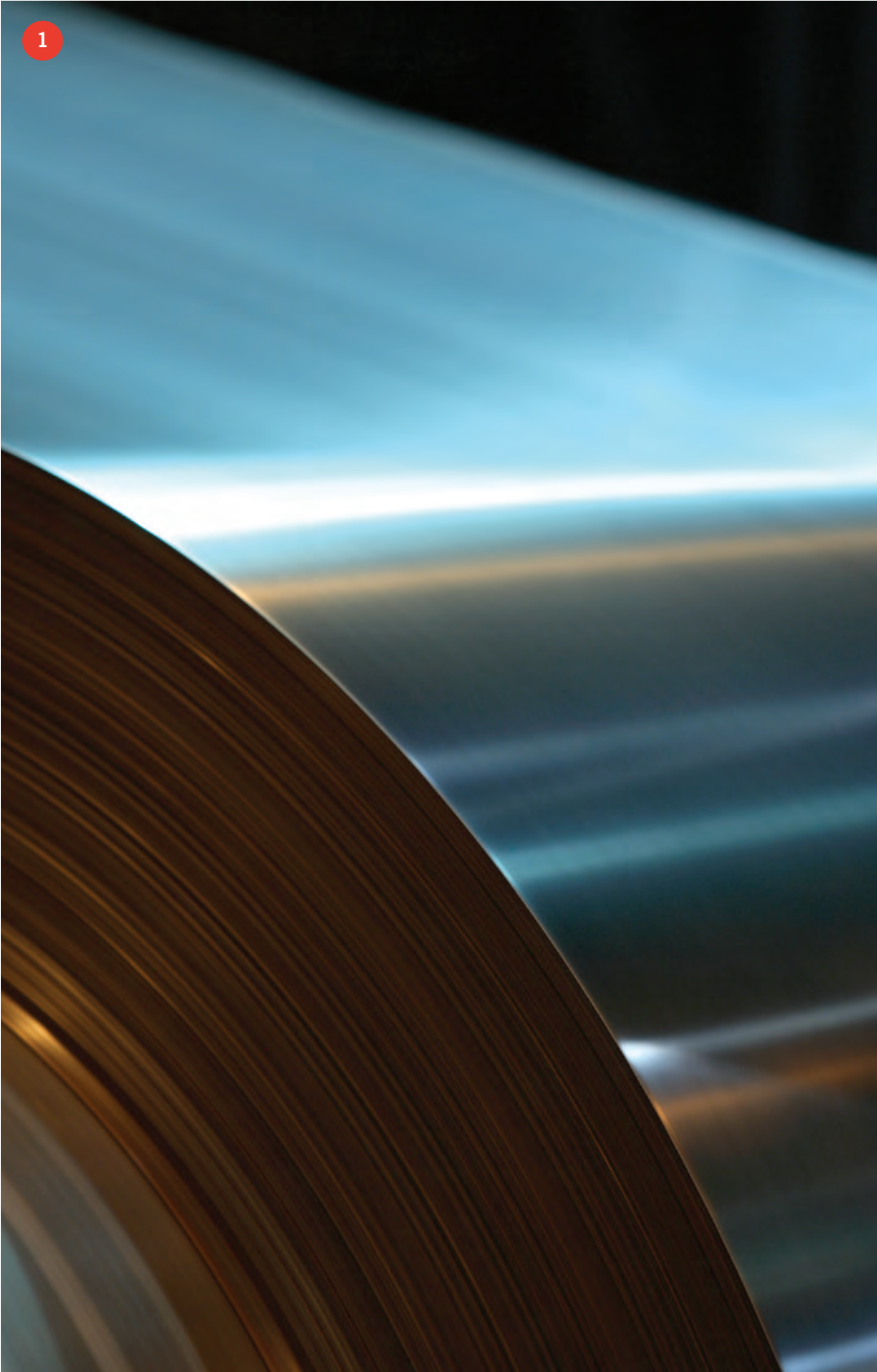
Ternium’s distinctive excellence materializes in a broad range of high-quality products and services, which are elaborated to meet the requirements of the main industries and production sectors of the region’s economies.

The high value-added steel products with which Ternium provides its customers contributes to increase the efficiency of the production chain, allowing noteworthy time

and cost savings in construction, as well as increasing safety for the automotive and petrochemical industries, to name only a few of its main advantages.

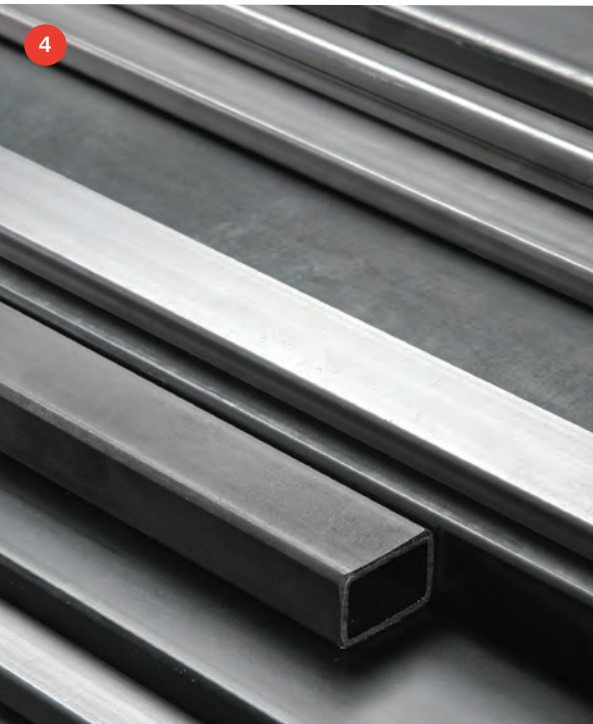
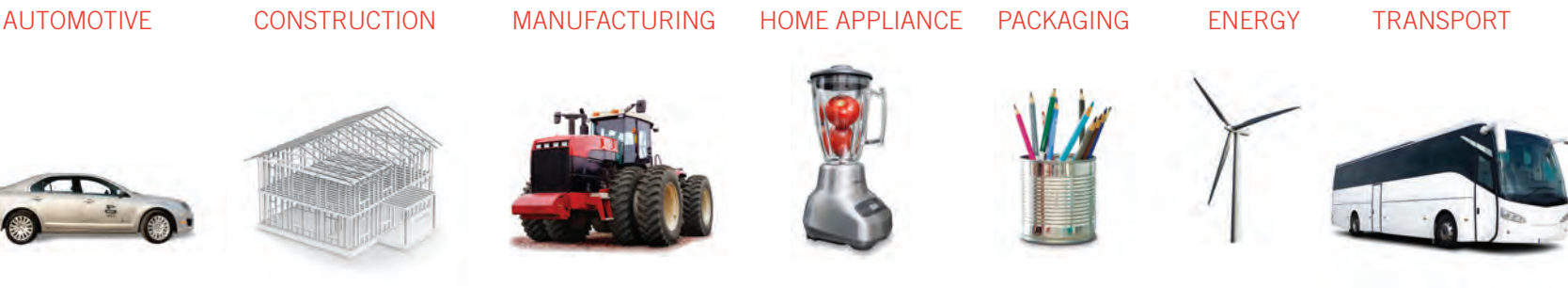
Flat rolled and long steel units, roll-formed and semi finished products, welded tubes and shapes integrate the universe of Ternium’s products, which are renowned for its quality guarantee.

## PRODUCTS





USES



1. FLAT ROLLED  
HOT ROLLED STRIP

Used for the manufacturing of agricultural machinery, cars, packages and for construction of buildings, bridges and trains.

COLD ROLLED STRIP

With reduced thickness, better drawability and improved surface, product meets high aesthetically and functionally demanding uses.

COATED STEELS

Steel products covered with another material (zinc, tin, chrome or organic coatings) primarily for increasing corrosion resistance. For automotive industry, construction and home appliances.  
Tin plate applied by an electroplating continuous process, for food canning and packing.

2. LONG PRODUCTS  
REBARS

Steel rods used to reinforce concrete in construction.

WIRE RODS

Commonly drawn into wires or used to make bolts and nails.

3. ROLLFORMED  
INSULATED PANELS

Polyurethane foam layer between two steel painted sheets. Used as ceilings and external covers of agriculture facilities, warehouses, commercial and industrial refrigeration installations.

ROOFING

Products made by roll-forming of coated steel used for roofing and side walls for all kinds of constructions.

ROOF TILES

Lightweight, resistant and waterproof, allows a faster installation, while keeping a similar appearance, than traditional tiling.

STEEL DECK

Galvanized structural steel flooring system for modern, rapid installation buildings.

4. WELDED TUBES & SHAPES  
GENERAL USAGE TUBES

Mainly used in the automotive industry, bicycles, furniture, home accessories, hospital equipment, railway signage, gardening tools, etc.

STRUCTURAL TUBES

Recommended for structures that require to withstand specific mechanical pressures: scaffolding, handrails, fenders, guard-rails, etc.

MECHANICAL TUBES

Employed in assembled parts of agricultural machinery and industrial equipment.

CONDUCTION TUBES

Electrically-resistant welded round shaped tubes with coupling endings for either wall covered or uncovered internal building electrical installations.

LINE PIPES

Tubing of up to 6 mm in thickness, especially designed for petrol conduction applications or high-pressure liquids.

C, U, Z & TUBULAR SECTIONS

Steel profiles utilized as window frames, stilts, mainstays, crossbeams and other elements in structures.

5. STEEL BUILDINGS

Integral solution for construction of warehouses, storage installations, offices, etc. Provides complete insulation, minimum maintenance, durability and great structural capacity at low cost.



# THE AMERICAN NETWORK

Ternium is a leading company in the field of steelmaking and its derivatives. It stands out due to the strength of its service and distribution centers' network, which allow the company to be close to its customers all along the Americas.

The firm's industrial system is integrated by 17 production plants, including 6 steelworks, 8 hot rolling mills (4 for long steel and 4 for roll steel), 9 cold rolling mills, 13 galvanizing lines, 8 painting lines, 145 cut to length lines. Moreover, it has 39 service and/or distribution centers across the region.

Ternium also takes part at the group controlling a Brazilian company Usiminas, jointly with Nippon Steel & Sumitomo Metal Corporation (NSSMC) and the Usiminas employees' pension fund.

**MINING OPERATIONS**

Ternium's mining operations are located in the Mexican states of Colima, Jalisco and Michoacán. Las Encinas and Peña Colorada are both dedicated to the search for high quality minerals for steel production. Las Encinas is completely owned by Ternium, while the Peña Colorada's property is shared equally with Arcelor Mittal.

Considering 50% of the production of Peña Colorada, Ternium has an annual achievable production capacity of 4 million tons of pellet and estimated iron ore reserves, as of December 2016, of 143 million tons.

## PRODUCTION PLANTS

- ARGENTINA
- BRAZIL
- COLOMBIA
- GUATEMALA
- MEXICO
- UNITED STATES

## FIGURES

93%

OF SALES IN 2016  
CONCENTRATED IN MEXICO,  
ARGENTINA AND COLOMBIA.

Does not include Ternium in Brazil, acquired in September 2017.





REFERENCES

**TERNIUM**  
Production plant

**TERNIUM**  
**UNITED STATES**  
Production plant  
Shreveport\*

**MEXICO**  
Mining operations  
Peña Colorada (50% joint venture)  
Las Encinas  
Production plants  
Guerrero\*  
Norte  
Puebla  
Juventud\*  
Churubusco\*  
Monclova  
Universidad  
Pesquería  
Service and/or  
Distribution Centers  
Apodaca Industrial  
Apodaca Comercial  
Edificios Metálicos  
San Luis Potosí  
DC Chihuahua  
DC Tijuana  
DC Monterrey  
DC Puebla  
DC Guadalajara  
DC Cd. de México  
DC Culiacán  
DC Veracruz  
DC Mérida  
DC Tuxtla

**CENTRAL AMERICA**  
Production plants  
Guatemala: Villa Nueva\*  
Service and/or  
Distribution Centers  
Guatemala: DC Norte y  
DC Occidente  
El Salvador: San Salvador  
Nicaragua: Managua  
Costa Rica: San José

**COLOMBIA**  
Production plants  
Manizales Acasa  
Service and/or  
Distribution Centers  
Barranquilla  
Bogotá  
Cali Perfilamos  
Cali Ferrasa  
Itagüí  
Manizales Ferrasa  
Montería  
DC Bucaramanga  
DC Medellín

**ARGENTINA**  
Production plants  
San Nicolás  
Canning\*  
Haedo\*  
Florencio Varela\*  
Ensenada  
Service and/or  
Distribution Center

Rosario  
Serviadero III  
Sidercrom

**BRAZIL**  
Production plants  
Rio de Janeiro

In addition, Ternium has sales offices in:  
Argentina, Brazil, Colombia, Costa Rica, El Salvador, Spain, United States, Guatemala, Honduras, Mexico, Nicaragua and Uruguay.

TERNIUM IN FIGURES

 **17**  
Production plants

 **39**  
Service and/or  
Distribution Centers

 **2**  
Mining operations

In Brazil, Ternium is also the largest shareholder of Usiminas.

\* It also offers a Service and/or Distribution Center















# HUMAN RESOURCES: THE HEART OF STEEL

Ternium's leadership and competitiveness are supported by its extraordinary human capital, teamwork dynamics and multicultural interaction. Ternium stands out for a working culture built upon excellence and a strategic view. In order to maintain and improve the world class level of technicians and professionals throughout the years, talents are recruited among the best educational centers and special attention is given to professional growth programs. For Ternium, the development of its employees is intrinsically related to the company's growth.

### SUPPORT TALENT

Ternium offers young, talented professionals tools to succeed in their careers through several initiatives, such as trainee and internship schemes, as well as the Young Professionals and the Roberto Rocca Education Program. Furthermore, and following global trends, the company offers Flexible Working Programs which allow employees to match needs and demands of both their professional and personal life.

### SAFETY FIRST

Ternium considera que la seguridad y la Safety and occupational health care are two of Ternium's core values, and thanks to the implementation of the Safety First program the company has achieved world class excellence standards on this issue. In 2014, the World Steel Association recognized the company for its plan Preventive Logistics Safety. Moreover, as part of the Safety Time program, three days a week, middle and senior managers of the operating areas make a systematic tour of the plants in order to talk with employees about work safety conditions, and thus to identify potential risks and anomalies and implement possible solutions.

### INTEGRITY AND TRANSPARENCY

Ternium stands out for building relationships based on transparent bonds and ethical behaviors. The Code of Conduct defines the guidelines and standards of integrity and transparency which rule relationships among the company, its employees, suppliers, customers and the community.

## VALUES

- SAFETY
- INTEGRITY
- TRANSPARENCY
- INDUSTRIAL VOCATION
- PROFESSIONALISM

## FIGURES

132

YOUNG PROFESSIONALS  
JOIN THE COMPANY  
ANNUALLY.

65%

OF THE DIRECTORS  
HOLDS AT LEAST ONE  
POSTGRADUATE DEGREE.





# CLOSE TO CUSTOMERS

As Ternium’s commercial network across the Americas is growing all the time, more markets are reached. This expansion implies working jointly with customers, sponsoring long-term investments along the value chain. Delivering to clients means delivering to all of them, delivering timely, anticipating their needs. This is how Ternium works with such diverse and varied industries, such as automotive, manufacturing of home appliances, agricultural machinery and construction. Each and every industry requires specific responses, which Ternium is able to provide due to the efficiency and synergy of its industrial system. Its business model is built upon the belief that the development of the Americas ought to have industry as one of its foundations.

## JOINT GROWTH

In order to make progress together with its clients, since 2002 Ternium has implemented, among other initiatives, the ProPymes program, which offers support to small and medium-sized companies in the industrial, financial, commercial, training and institutional areas. The aim of the initiative is to improve and boost small

and medium-sized businesses in order to promote industrial development in the countries in which Ternium operates.

## ONLINE MANAGEMENT SYSTEM

Ternium has launched an online purchase management system, called Webservice, which works as a business channel for its sales network. This virtual tool allows customers to execute several operations, from filling purchase orders to monitoring the progress of their orders, shipments and documents, making payments, as well as verifying administrative and logistics information. Weblink is a communication channel designed by Ternium which allows customer systems to operate online with Ternium’s data. This software provides a significant reduction of administrative costs and the automatization of monitoring standard procedures. Both Webservice and Weblink facilitate the direct integration of Ternium with the systems of its commercial partners, optimizing buying procedures and the tracking of products.

## CUSTOMIZED SOLUTIONS

THE EFFICIENCY AND SYNERGY OF ITS INDUSTRIAL SYSTEM AND A BROAD SALES NETWORK ACROSS THE REGION ALLOW TERNIUM TO PROVIDE SPECIFIC SOLUTIONS TO EACH AND EVERY CUSTOMER.

## FIGURES

40,364

PEOPLE TRAINED BY PROPYMES.\*

90.5

MILLION DOLLARS IN DIRECT FINANCIAL SUPPORT.\*

79,000

MONTHLY ACCESS TO WEBSERVICE.

84%

OF THE PAYMENTS MADE VIA WEBSERVICE.

\*Includes Argentina and Mexico.







# SOCIAL DEVELOPMENT FOCUSED ON EDUCATION

Ternium supports the development of the neighboring communities where the company operates, with the belief that the business' growth is linked to society's. To that purpose, the company sponsors initiatives that contribute to improve life standards of the communities and to strengthen its institutions. In each and every place where company's industrial plant are located, actions are governed by the principle "to help those who help themselves". According to this point of view, education is the fundamental issue, a criteria that is also implemented within the company, where permanent training and professional development are strongly encouraged.

## BOOSTING TRAINING

Ternium contributes to the development of its plant's neighboring communities and to that purpose carries out a series of educational, social and cultural initiatives. Among them, it is noteworthy mentioning

the Technical Gene program, which supports public technical schools. The project aims to reduce the gap between the training level with which young technicians graduate at high school and the pro le required by the industrial labor market, focusing on teacher training, as well as improving school's infrastructure and equipment. With the same aim, the company has implemented the Afterschool program which offers extra, optional hours of quality education, and the Merit Ternium Grants to high school students living near the industrial centers who achieved the best grades.

Meanwhile, the Roberto Rocca Education Program has so far granted 226 graduate and postgraduate scholarships for engineering and applied sciences students between 2016 and 2017.

Last but not least, the Latin Cinema gathered 5476 assistants in Argentina and Mexico during the last year. Fototeca carries 19,200 digitized images.

## MAIN EDUCATIONAL INITIATIVES

- STRENGTHENING TECHNICAL EDUCATION.
- PROMOTING SOCIAL INCLUSION AT BASIC LEVELS.
- REWARDING ACADEMIC MERIT THROUGH GRANTS.
- SPONSORING GRADUATE AND POSTGRADUATE EDUCATION.

## FIGURES

649

MERIT TERNIUM GRANTS  
FOR OUTSTANDING STUDENTS.

Includes Argentina, Mexico and Guatemala,  
between 2016 and 2017.

1,658

STUDENTS ENJOYED THE  
TECHNICAL GENE PROGRAM.

Includes Argentina and Mexico, between 2016 and 2017.

## VOLUNTEERING



296 employees have participated in volunteer activities between 2016 and 2017.



# SUSTAINABILITY AND ENVIRONMENTAL CARE

Ternium manufactures high quality products that are 100% recyclable and that have minimal environmental impact. Recycling is a fundamental stage of the company's production procedure, as crucial as to guarantee a healthy long-term relationship with the neighboring communities of its industrial plants.

Ternium is deeply committed to sustainable development. Indeed, each and every action that the company undertakes is governed by an Environmental Policy that involves employees, shareholders, providers and communities. Ternium has a Management System that offers procedures, records and specific monitoring to ensure the observance of stipulated production, maintenance and control levels in its facilities, as well as the handling of elements that could damage the environment.

### ACTIVE PARTICIPATION

Since 2005, Ternium has reported its CO<sub>2</sub> emissions to the World Steel Association. This has merited the company's recognition by the Climate Action Member program. Additionally, Ternium has subscribed to the

sustainability indicators' report and also informs on energy consumption and personnel training. Furthermore, the company is member of different environmental-friendly organizations, such as the World Business Council for Sustainable Development (National Chapters), the Latin American Steel Association (Alacero), World Steel Association, among other working groups within several industrial and business associations.

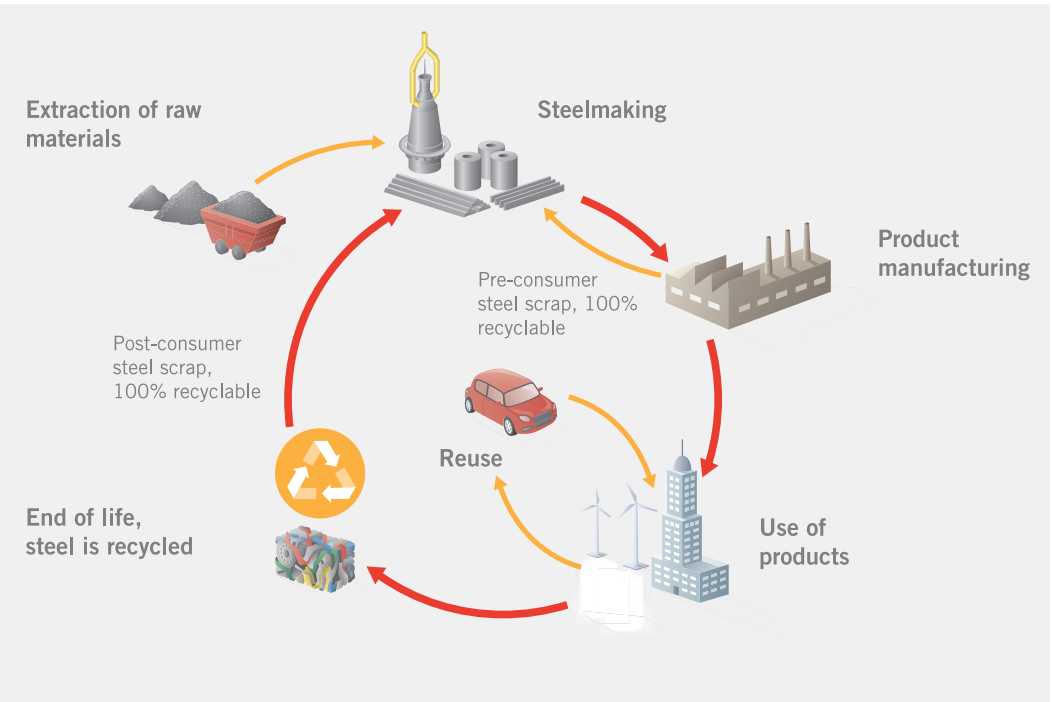
### CLEAN INDUSTRY

Ternium's industrial facilities in Mexico have revalidated the Clean Industry certificate. The distinction confirms that not only do the company's procedures and practices meet or exceed current environmental norms, but also that systematic inspection of its facilities with the aim of verifying its observance are allowed. In Argentina, Ternium has revalidated the certification of its Environmental Management System ISO 14001 in most of its plants, and it is close to achieving it in all of them.

## FEWER EMISSIONS

208 THOUSAND TONS OF CO<sub>2</sub> ARE ANNUALLY CAPTURED BY THE DIRECT REDUCTION PROCESS AND SOLD AS A SUB-PRODUCT, AVOIDING THE EQUIVALENT EMISSION OF 40.473 COMPACT CARS YEARLY.

## RECYCLING STEEL



















[www.ternium.com](http://www.ternium.com)