Catalyzing Decarbonization: Ternium’s strategic Roadmap for Sustainable Steel Production in Latin America.

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Stefano MAGGIOLINO (Tenova)
Techint Group | +75K employees

<table>
<thead>
<tr>
<th>Company</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ternium</td>
<td>Leading flat steel company in Latin America, manufacturing and processing a wide range of flat and long steel products.</td>
</tr>
<tr>
<td>Tenaris</td>
<td>World’s leading producer and supplier of steel tubes and services for the energy sector, as well as industrial applications.</td>
</tr>
<tr>
<td>Tecpetrol</td>
<td>An exploration, production, transport, and distribution company for hydrocarbons and electricity generation.</td>
</tr>
<tr>
<td>Exiros</td>
<td>Handles purchases for Tenaris and Ternium.</td>
</tr>
<tr>
<td>Tenova</td>
<td>One of the world’s largest suppliers of high-tech products and services for the metallurgical and mining industry.</td>
</tr>
</tbody>
</table>
### TERNIUM

**Strong presence in the Americas**

<table>
<thead>
<tr>
<th>Category</th>
<th>2022 Value</th>
<th>2022 Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Billion of sales revenue</td>
<td>US$ 16,4</td>
<td>2022</td>
</tr>
<tr>
<td>Million-ton shipments</td>
<td>12 M</td>
<td>2022</td>
</tr>
<tr>
<td>Direct jobs</td>
<td>20.5 K</td>
<td>2022</td>
</tr>
<tr>
<td>Participation in Usiminas' control group</td>
<td>51.5%</td>
<td>2022</td>
</tr>
</tbody>
</table>

### STEEL SHIPMENTS THIRD QUARTER 2023

- **Brazil**: 23.2%
- **Mexico**: 51.7%
- **Southern Region**: 14.6%
- **USA**: 6%
- **Colombia**: 3%
- **Other Markets**: 10.6%
- **Other**: 2%
Steel industry CO₂ impact:

**Ternium**

Decarbonization Target:

**20%** carbon dioxide emissions reduction by 2030.

2018: 1.69 tCO₂/CS

2030: 1.35 tCO₂/CS

(S1+S2)
**Crude Steel Production**

(2022 | S1+S2)

- **Blast Furnace**: 63% PRODUCTION
- **Direct Reduction**: 29% PRODUCTION
- **Electric Arc Furnace**: 8% PRODUCTION
- **Ternium**: 1.69 tCO2/tCS EMISSION

**Locations**:
- **Argentina**: Colima
- **Brazil**: Minas Gerais, Carajas
- **Colombia**: Urucum
- **Guatemala**: Ternium
- **Mexico**: Ternium
- **United States**: Ternium
- **United States**: Usiminas
TERNIUM

Crude Steel Production
(2030 | S1+S2)

- **Blast Furnace**: 52% PRODUCTION
- **Direct Reduction**: 42% PRODUCTION
- **Electric Arc Furnace**: 6% PRODUCTION
- **Ternium**: 1.35 tCO₂/tCS EMISSION

[Map showing production locations with labels for Usiminas and Ternium]
OUR DESCARBONIZATION JOURNEY

A broader vision | 2030

Tecpetrol’s Energy Transition Business Unit is collaborating in the development of renewable energy projects, carbon capture and storage facilities and green hydrogen infrastructure.

Tecpetrol has launched a venture capital initiative to foster the growth of startups with the aim at accelerating decarbonization opportunities.

In the long term Ternium has the ambition to achieve carbon neutrality.

This will depend on multiple technological breakthroughs:

Tenova, is assisting in the development of carbon capture equipment and hydrogen-based burners.

### Plans for 20% Emission Intensity Reduction by 2030

<table>
<thead>
<tr>
<th>Initiatives</th>
<th>Mexico</th>
<th>Brazil</th>
<th>Argentina</th>
<th>Progress during 2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy efficiency projects</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>Quemers facility in Mexico certified under ISO 50001</td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
<td>Blast furnace expert control system incorporated at Brazil’s facility (SA technology)</td>
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<tr>
<td></td>
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<td></td>
<td>Increase of pulverized coal injection (PCI) in Brazil</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Equipment changes aimed at enhancing the energy efficiency of the production system</td>
</tr>
<tr>
<td>Scrap in the metallic mix</td>
<td>●</td>
<td>●</td>
<td></td>
<td>Increase of the scrapyard capacity in Brazil</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>The company recycled an aggregate of 2.9 million tons of scrap in 2022</td>
</tr>
<tr>
<td>Alternative raw materials-biomass</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>Tests for mineral coal substitutes at an industrial scale with focus on biocarbon</td>
</tr>
<tr>
<td>Renewable energy</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>Recently announced wind farm project in Argentina and execution of smaller onshore projects</td>
</tr>
<tr>
<td>Carbon Capture and Usage (CCU)</td>
<td>●</td>
<td>●</td>
<td></td>
<td>First phase of CCU expansion in Mexico completed in 2021. Ongoing studies to increase CCU in Mexico and plans to build a pilot plant in Brazil</td>
</tr>
<tr>
<td>Low carbon technology</td>
<td>●</td>
<td>●</td>
<td></td>
<td>Announced EAF Project in Mexico based on DR-EAF Technology</td>
</tr>
</tbody>
</table>
Energy Production | (Wind Farm- Argentina)

With a total capacity of 99 megawatts, the wind farm located in the city of Olavarria is foreseen to become a prominent player in the region's energy landscape. The project will feature cutting-edge wind turbines, each boasting a power output of 4.5 megawatts.

The collective effort will replace a substantial 90% of Ternium Argentina's current electricity procurement from external suppliers within the national interconnected system. Anticipated to be operational in the latter half of 2024.
Smart Production, Scrap and Biomass | Brazil

**Blast Furnace:**
Smart Production using AI
- Implementation of AI in processes to increase energy efficiency.

**Steel scrap:**
Investment of 29 million dollars in stock yard.
- Reduction of emissions by 5.5%.

**Biomass**
Biomass injection and Biomethane as NG
HIGH PERFORMANCE SOLUTIONS

New Direct Reduction | Mexico

- 2.6 million tons of slabs destined primarily to automotive customers
- 2.1 million tons of DRI capacity
- Start-up in mid 2026
- Investment of $2.2 billion
- < 0.6 CO₂ tons emitted per ton of crude steel produced (expected by 2030)
Decades of Dedication: Our Decarbonization Journey in Mexico

Extensive knowledge in the application of low-carbon technologies
- Ternium uses DRI-EAF technology at its steelmaking sites in Mexico since 1957.
- DRI-EAF generates less than half of the emissions produced by traditional Blast Furnaces.

Development of an extensive scrap supply network
- The Guerrero, Puebla and Apodaca sites in Mexico use scrap as one of their main raw materials.
- Ternium Mexico recycled 1.8 million tons in 2022

Proven track record implementing CCU solutions
- We capture and sell over 260 thousand tons of CO₂ in our facilities in the country.
- Ternium increased by 40% its carbon capture and usage (CCU) capacity between 2017 and 2022

Strategic Partnerships
- We have a strong partnership with Tenova, a leading company in technology and green solutions.
- In our new Hot Rolling Mill in Pesquería, we installed two purposed designed walking beam furnaces (WBF) which contribute to substantial energy savings, thus reducing emissions.
New slab mill at Ternium’s Pesquería Industrial Center

DRIVING SUSTAINABILITY: NEW STEELMAKING FACILITY IN THE USMCA REGION
New connecting technologies

BEYOND 2030

- BIO-MASS
- BRIQUETTS
- BIO-FUEL
- NAT. GAS
- H2
- MEDIUM & LOW GRADE IRON ORES
- BIO-FUELS
- H2
- BRIQUETTS

Ternium Lab

TechEnergy
Ventures

CCSU

BRIQUETTS

PIG IRON-LIKE MELT

HIGH-END STEEL GRADES
Conclusion

• Ternium’s carbon reduction strategy is optimized according to the fundamentals for each country where it operates.

• The company has a long tradition in DRI operation for a wide range of flat and long products.

• Ternium has been investing in very low emission intensity technologies.

• Ternium’s decarbonization new initiatives includes optimization of existing processes and disruptive technologies.

• Ternium cooperates with technological leading partners for breakthrough developments along its value chain.
Thank you!

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www.ternium.com