# The Latin America Steel Market: an Overview - private and public-private iron and steel development initiatives

#### FRANCISCO LEAL

**Experts' Dialogue on Effecting the Sustainable Transition of Iron and Steel** – Paris march 2019



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#### Content

#### Experts' Dialogue on Effecting the Sustainable Transition of Iron and Steel - A Latin America overview

- ALACERO
- Routes of Latin America Steel Production (2018)
- Mainly Crude Steel production (2018)
- Best Practices (BR, MX, AR)
- Contacts



## About Alacero



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To be the Latin American of the steel industry

**Alacero** – is the organization that brings together the Steel Value Chain of Latin America to promote the values of regional integration, technological innovation, corporate responsability and social and environmental sustainability.



#### About ALACERO

#### 65 MM TONS

OF CRUDE STEEL PRODUCTION (2018)

#### **54 MM TONS**

OF FINISHED STEEL PRODUCTION (2018) **60** YEARS IN ACTIVITY

**53** MEMBERS

**19** COUNTRIES

~ **90** % OF THE LATIN AMERICA PRODUCTION





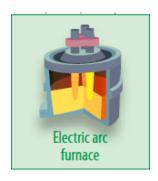
## Latin America Steel Production (2018)



87 Iron and Steel Plants



35,4 million tonnes of steel/year



29,7 million tonnes of steel/year

Production	Latin America	World
BOF	54,4%	71,5%
EAF	45,6%	28,0%
Source:	Alacero	Worldsteel



## Mainly crude steel production (2018)

Total of Crude Steel production = 65 millon of tons





## **Initiatives**



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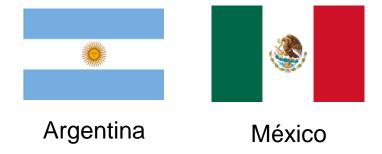




## Carbon footprint monitoring

- 1. ALACERO has started to map the carbon footprint in our countries.
  - Methodology is based using information plant by plant of the ones that reports their CO2 emissions to Worldsteel.

#### 2. We already have:



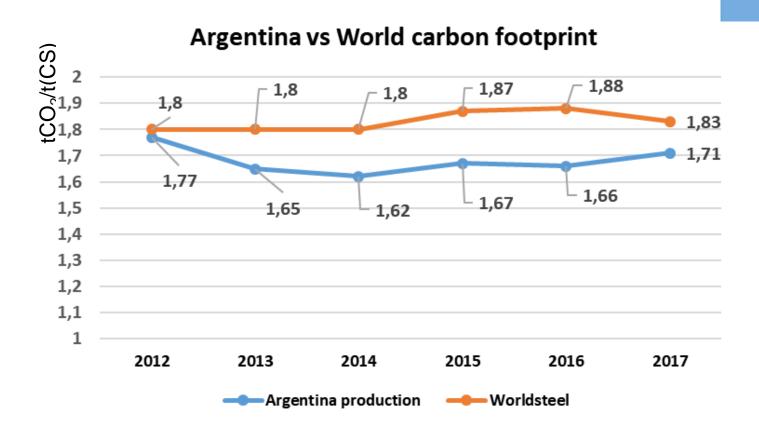
#### 3. Next steps:





## Argentina





#### Average 2012-2017: 1,68 ton de CO2/ton de CS.

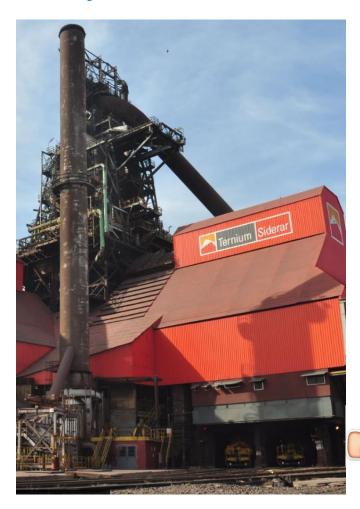
This data is based on BOF, EAF and RD calculating emissions by weight of steel produced in based on main routes (each one).



## Argentina



#### NG injection in BF Planta Savio Argentina



Natural gas

Blast Furnace
Tuyers

NG is a potent
reductant

High
availability

Economy



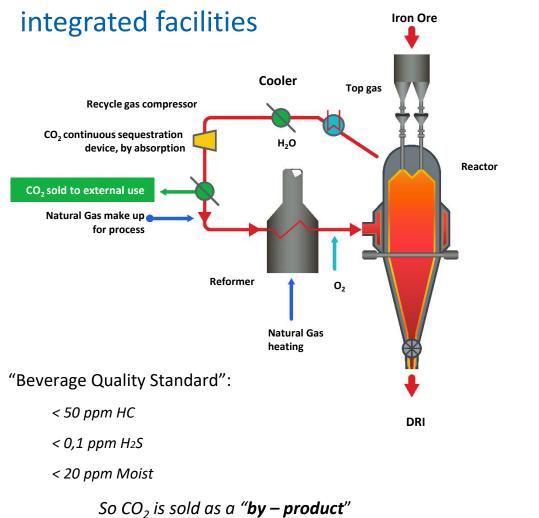
1 Mt CO2 were avoided in the past 10 years



#### México



CCU for the beverage industry - Puebla and Guerrero

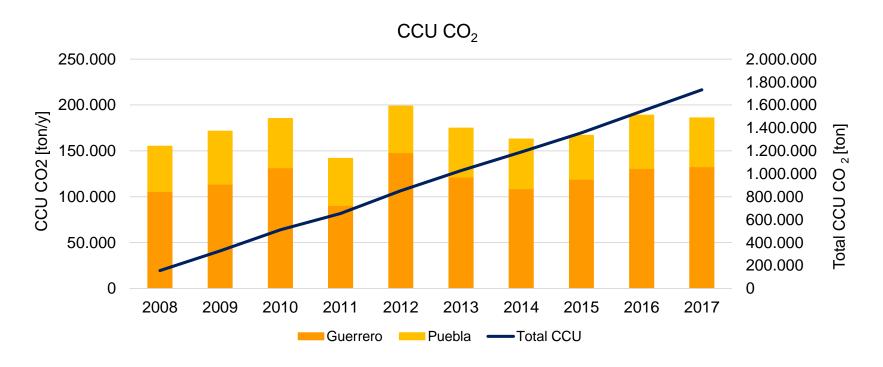








## ~ 1.7M tCO2 recovered in past 10 years Puebla and Guerrero integrated facilities - MEXICO



2017	Units	Puebla	Guerrero
CO2 Emissions	ton	1.116.020	2.863.812
CO2 Specific Emissions	kg CO2/ton cs	1.269	1.208
CO2 Sold to external use	ton	53.316	132.644
%CO2 Sold to external use	%	4,8%	4,6%

Total		
3.979.832		
1.224		
185.960		
4,7%		



#### Brasil

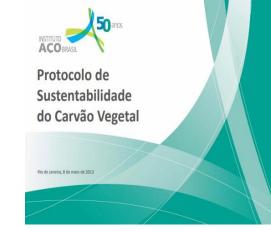




10 sites that use charcoal to produce steel

Steelmaking capacity: ~ 4,160 million tons / year

- 2012: Charcoal Sustainability Protocol:
  - Legislation about sustainability compliance
  - Make business only with responsible partners
  - 4 years of full supply of forest stocks to the respective production accordance with the legal requirements
  - Technology for capturing and burning the gases from the charcoal production



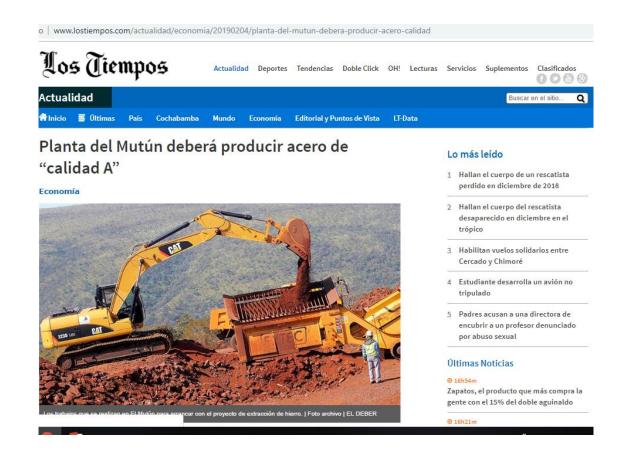
Available: http://www.acobrasil.org.br/site/portugues/sustentabilidade/downloads/resultados-protocolo.pdf



## Bolivia



#### 1. El Mutun – Bolivia





## Certified ISO 50.001 in Latin América



**Ternium** – Planta Rio de Janeiro –

Brasil

**CAP** – Planta Magnetita – Chile

Vallourec – Usina Barreiro – Brasil

**CAP Acero** - Chile





# THANK YOU FOR YOUR ATTENTION!

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