FOCUSED ON CLIENTS: Transforming the most demanding needs into customized solutions of high technological value developed in co-creation with customers
Tubacex Group

A worldwide leading supplier of Seamless Stainless Tubular solutions

KEY FACTS

- **Sales**: 770 M$ (500M$ from Oil & Gas sector)
- **Upstream** is our main focus
- **2500 professionals**
- **Full Range** of Seamless Stainless tubular Products
- **15 mills** in Spain, Austria, Italy, Norway, USA, KSA, Dubai, India and Thailand.
- **Commercial presence** in over 30 countries
- An own **global master distributor** (TSS) with 12 service centers
OIL & GAS: EXPLORATION AND PRODUCTION AND MIDSTREAM
- CRA Oil Country Tubular Goods (OCTG)
- Umbilical tubes along with a wide range of seamless stainless and high nickel alloys for subsea applications (risers, flowlines, manifolds)
- Tubular solutions for FPSO, FLNG, platforms (piping systems, separation…)

REFINING, PETROCHEMICAL AND CHEMICAL
- Regas facilities, refineries, heat exchangers, reactors, furnaces, Heater and Reheaters, other process industries

FERTILIZER PRODUCTION
- Strippers
- Condensers
- Scrubbers
- Reactors
- Piping

POWER GENERATION
- Critical equipment
- Ultra Super Critical (USC) equipment
- Industrial power plants
- Nuclear power plants

STOCK FOR DISTRIBUTION AND OTHER INDUSTRIES
- Pipes and tubes according to all relevant standards
- Hollow bars for metal-mechanic industry through our master distributor COTUBES
- Instrumentation and hydraulic tubing for a wide range of high added value industries
Is Steel industry an agent to support transition energy supply?
### Industries with higher impact in CO2

<table>
<thead>
<tr>
<th>Industry</th>
<th>Gtons CO2</th>
<th>% share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cement</td>
<td>3</td>
<td>7%</td>
</tr>
<tr>
<td>Steel</td>
<td>2.9</td>
<td>7%</td>
</tr>
<tr>
<td>Ammonnia</td>
<td>0.5</td>
<td>1%</td>
</tr>
<tr>
<td>Ethylene</td>
<td>0.2</td>
<td>0.5%</td>
</tr>
</tbody>
</table>

Source: Decarbonization of industrial sectors. McKinsey. June 2018
Exponential trend

High density energy locations
- Coal fire plants
- Nuclear plants
- Combined gas plants
- ...

Low density energy dispersed locations
- Solar panels
- Wind
- ....

Radical improvements in High density energy locations

Use of material with better performance, more resistant to corrosion, high temperatures

Main challenge for the whole value chain: how to manage energy transition to more clean energy and at the same time bringing now energy to more 1,2 billion people do not have access to any energy
### Market Solutions
- Materials life
- Less weight
- Ceramic coating
- CCS
- Advanced Ultra Super Critical Boilers

### Internal Solutions
- Tubacex 4.0
- Scrap optimization (SO)
- Heat recovery processes (HRP)
- Sun panels on mill roofs (SPMR)

- More efficient
- More clean
- More innovative
- More opened
- More aware about use of limited resources
- More social responsible
Ceramic coating solution example

Opex Optimization

1. Lower maintenance
2. Higher lifetime
3. Improve efficiency

Advanced ceramic coatings to improve the functionality

- Hard
- Smooth
- Anti-adherent
- Passive
Open innovation

Several innovation concepts are being discussed with customers and validated:

- New materials
- Powder technology and Additive manufacturing
- Mechanical connections and welding technology
- Integrated sensors
- Digitalization

**Internal R&D capability** available to collaborate in research projects driven by customers and partners around the world.
THANK YOU!

WWW.TUBACEX.COM