



TUBACEX

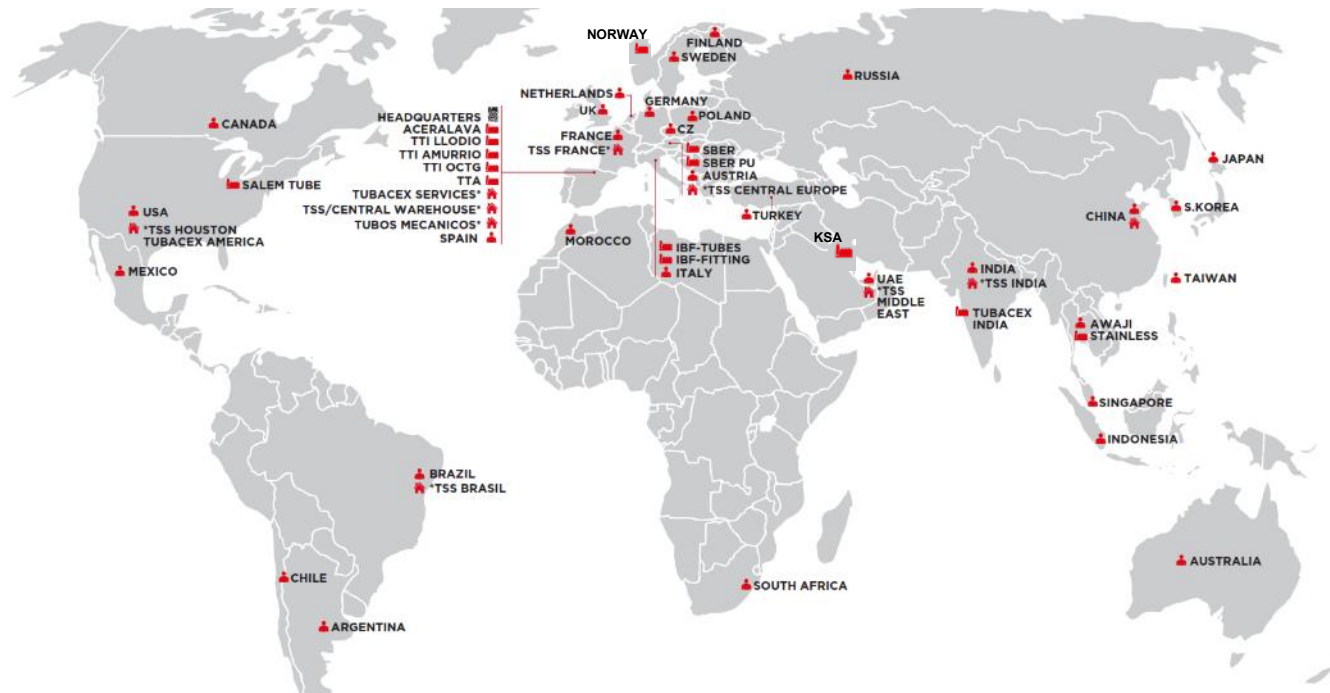
-FIFTH IEF KAPSARC THOUGHT LEADERS' ROUNDTABLE-

February 28, 2019



A black and white photograph of two male workers in a factory setting. They are both wearing hard hats and safety glasses. The worker on the left is also wearing a high-visibility vest and is looking at a tablet held by the worker on the right. The background shows industrial equipment, pipes, and a staircase.

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



KEY FACTS

- **Sales:** 770 M\$ (500M\$ from Oil & Gas sector)
 - **Upstream** is our main focus
 - **2500 professionals**
 - **Full Range** of Seamless Stainless tubular Products
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- **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

A worldwide leading supplier of Seamless Stainless Tubular solutions



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

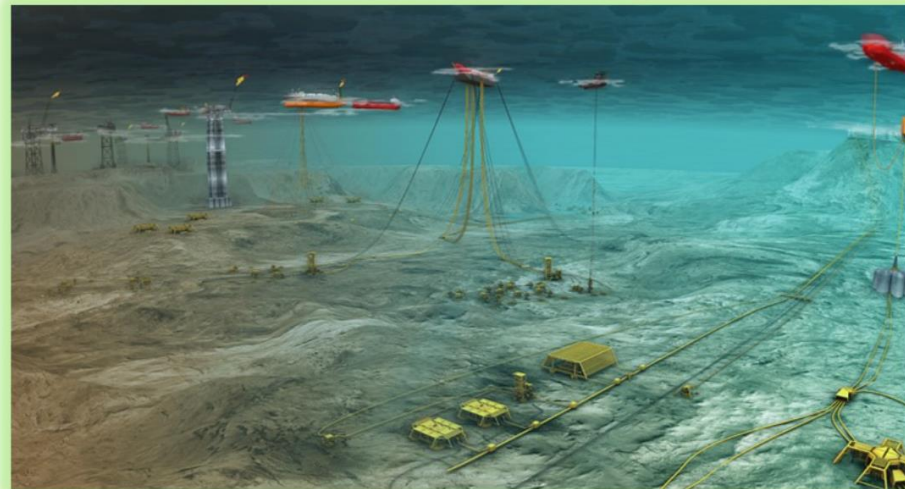
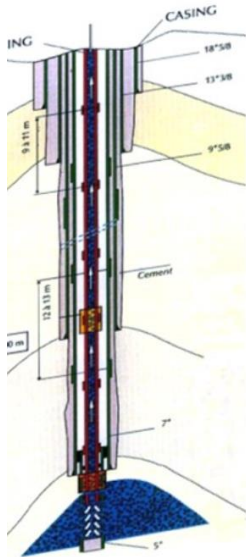
- Critical equipment
- Ultra Super Critical (USC) equipment
- Industrial power plants
- Nuclear power plants



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?



TechnipFMC



Industry	Gtons CO2	% share
Cement	3	7%
Steel	2,9	7%
Ammonnia	0,5	1%
Ethylene	0,2	0,5%

Source: Decarbonization of industrial sectors. McKinsey. June 2018

High density energy locations

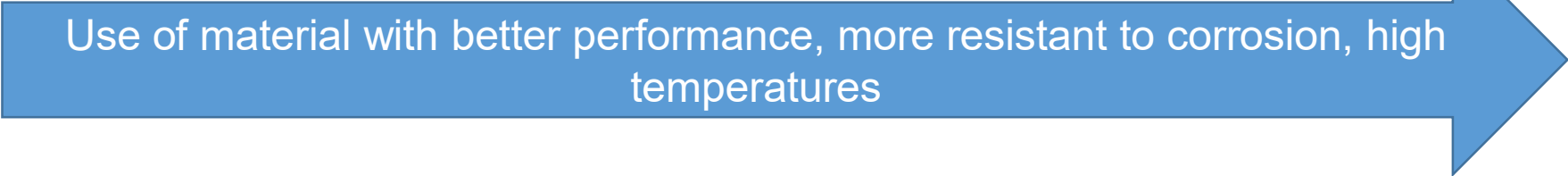
- Coal fire plants
- Nuclear plants
- Combined gas plants
- ...



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

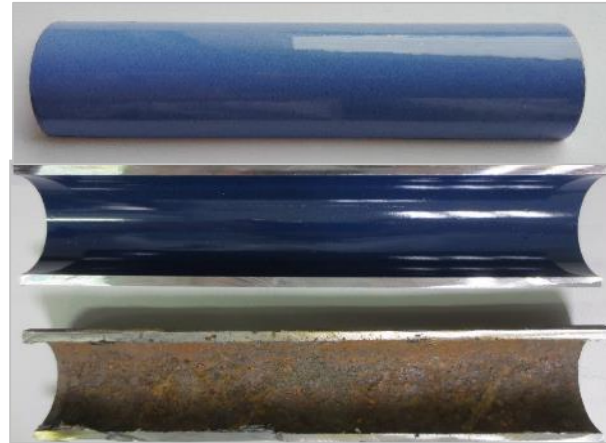
Opex Optimization



TUBACOAT

TUBACEX
GROUP

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



- *Hard*
- *Smooth*
- *Anti-adherent*
- *Passive*

Advanced ceramic coatings to improve the functionality

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!



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