

# zEroCor Tubulars Inc.

*Technology Development*

*&*

*Commercialization Division*

*“Bringing Innovation to the Oil-patch”*

**403-234-7473**

# Who is zEroCor Tubulars

- 5 year operation focused on coated tubing
- Managed by 60+ years of oil-field experience
- Multi-million revenue operation
- Network of major oil-field operators
- **Connected with >20 research institutes globally**
- Track record of commercializing four product lines
- Experience with federal and provincial grants

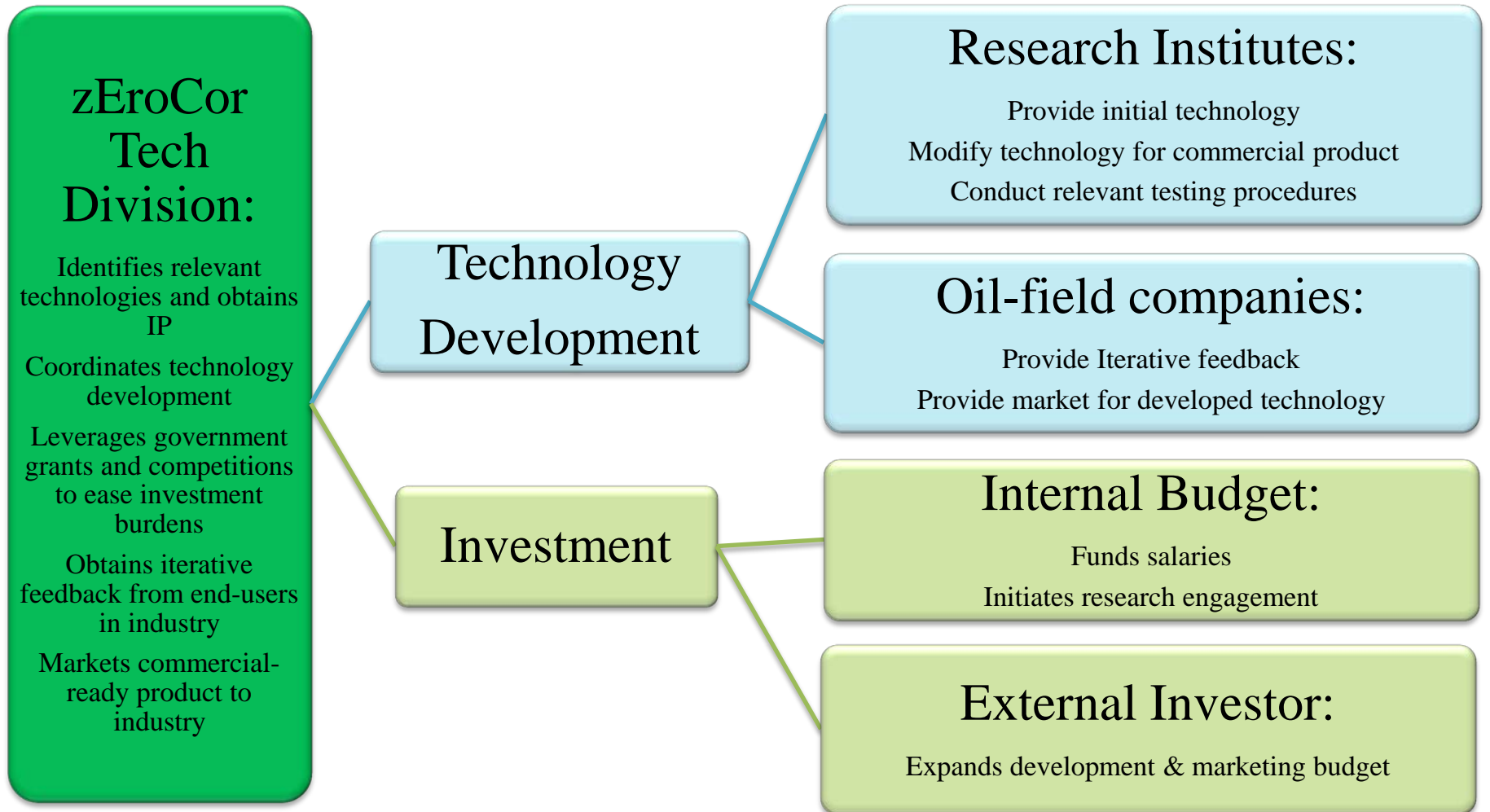
# Motive... \$\$\$

- Bridging the gap between research disciplines and the oil & gas industry



- Being the spark
  - Bring the oilfield to the research
  - *“I never knew you had that problem”*
  - Development plan
  - Marketing Plan

# Technology Development & Commercialization Division



# *Qualifying Technologies*

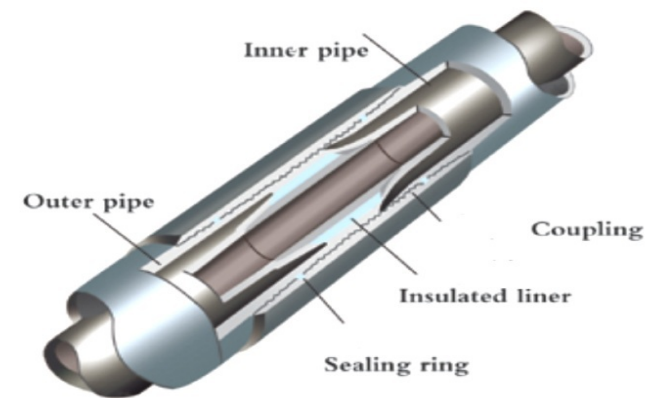
1. Reduce \$\$ cost to produce a barrel of oil
2. Time & Cost to Commercialize vs. Benefit
3. Qualify the Market
  - size of market
  - readiness of market

## Commercial Example



# Vacuum Insulated Tubing (VIT)

- Due to high Thermal Conductivity of conventional tubing (T/C 40 W/m deg.C), significant heat loss can occur from surface to bottom hole formation
- Vacuum Insulated Tubing (T/C 0.04W/m deg.C)
- can significantly reduce heat loss



## RESULTS

- Reduced S/O ratio = **reduced \$\$ to produce a barrel of oil**
- Reduced CO<sub>2</sub>/O ratio and natural gas consumption = **reduced \$\$ to produce a barrel of oil**
- Reduced temperature near wellbore protecting casing and cement
- Improved steam placement in formation = **reduced \$\$ to produce a barrel of oil**
- Improve steam quality = **reduced \$\$ to produce a barrel of oil**

# Current Technologies

- **High-temperature, low friction, Corrosion-resistant Coatings** for Steam Operations (SAGD, CSS): No coatings are currently available for rating of over 350 C. (Tier 7)
- **Non-invasive Leak Detection:** The technology uses transient wave analysis to determine air pockets, wall loss (internal and external), and leaks. (Tier 7)
- **Nano-fiber Sensors:** Small-scale, electro-spun, hyper-sensitive range of pressure, temperature, oxygen, H<sub>2</sub>S sensors. (Tier 7)
- **Down-hole RFID Transmission:** Wireless transmission of data from down-hole sensors to surface using radio-waves. (Tier 2)
- **CO<sub>2</sub> to Methane Conversion:** Converts CO<sub>2</sub> back into methane using an enzymatic reaction (Tier 2)

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***Questions ???***