# Challenging the Oil & Gas Industry's Innovation Cycle

Calgary, Alberta 7 Feb 2017



# How fast can a technology "be adopted"?



## How fast can a technology "take over"?



# NPC Global O&G Study — "Facing the Hard Truths About Energy"

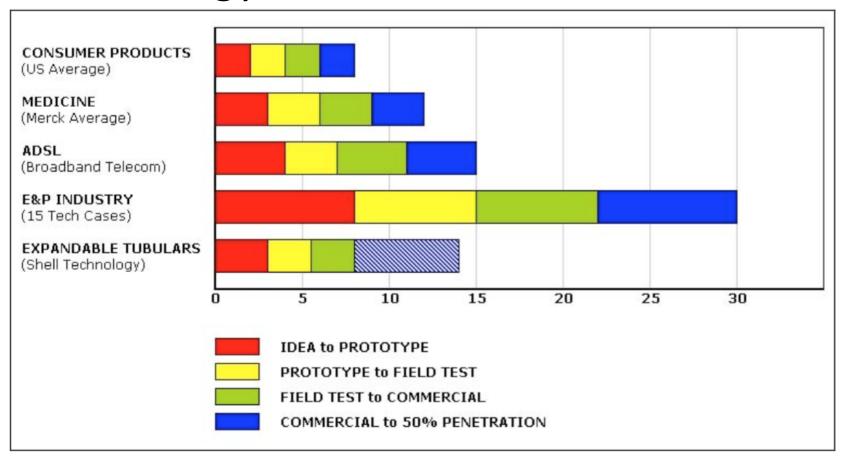
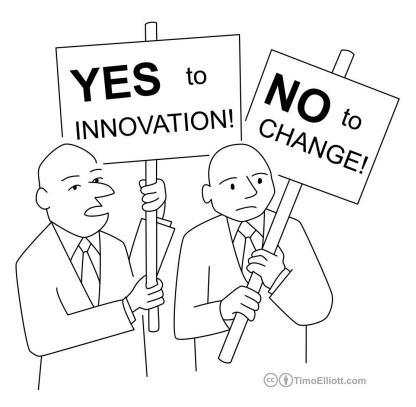


Figure IVF.1. Time to market in years for various industries

(Courtesy of Shell, originally prepared by McKinsey)

• Regardless as to whether your innovation is disruptive or sustaining ...

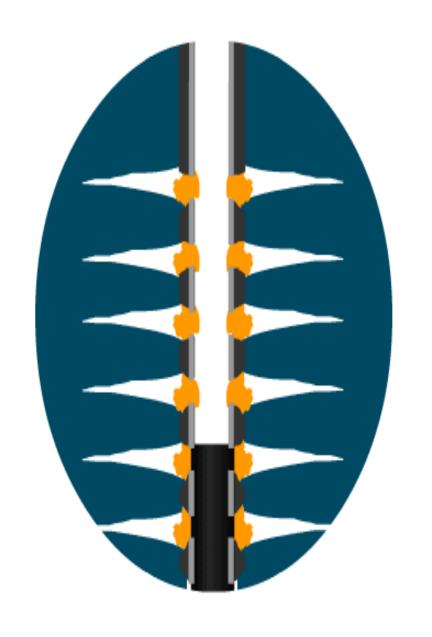
#### > Innovation = CHANGE

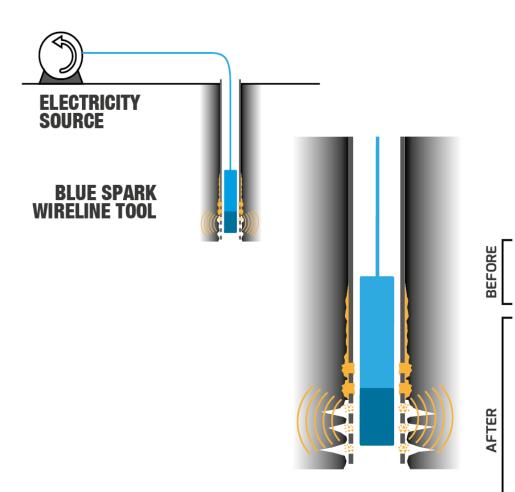


"We only have two demands!
Why don't people just give us what we want?"

# The Blue Spark Story ....







### Shifting the view forward

#### Imagine ...

- Remediating wellbores using the energy of a light bulb
- Not having explosives, chemicals, or a fleet of trucks driving through your city, town or field
- Not spending resources diagnosing specific problems
- Getting improved production results at a lower cost

AND the worst thing that could happen ...

NOTHING

.....well, you'd have to change ....



"What if we don't change at all ...
and something magical just happens?"