



# ***Data to Knowledge: Crossing the Chasm***

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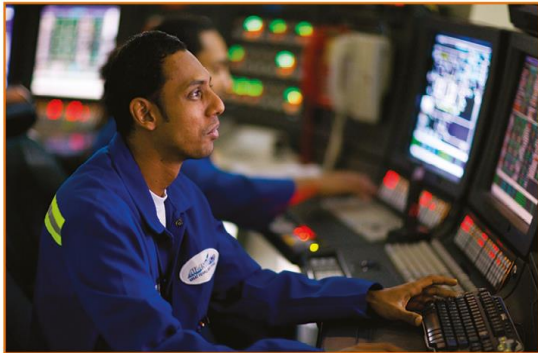
# Data Highways



# The Connected Upstream ®



01



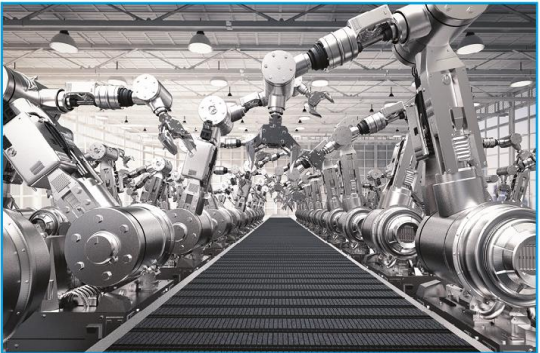
Connecting people and data

02



Connecting physical and digital assets

03



Connecting machine intelligence and business decisions

# Delivering impact from digital and technology



**11,300** trillion  
calculations per second

4x growth in supercomputer power since 2014.

Finding new barrels at Thunder Horse Gulf of Mexico.

**1000**mmboe

Identified using FWI imaging technologies and reservoir characterization.

Reliability monitoring with Plant Operations Adviser

**17.1** million

calculations per day on ~50000 pieces of equipment (GOM, T&T, Angola, NS & Oman)



Digital Models

Digital models reducing offshore visits-targeting 30%, saving Trinidad \$650k to date.



Optimizing production

**19**mboed

from APEX production system digital twin

Well Management

**2500**

Wells monitored in Argus

2019 Digital Factory

**11** million

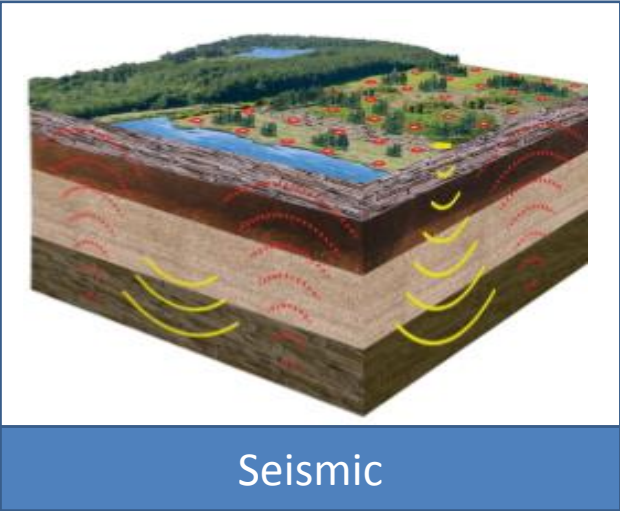
Dollars in cost savings delivered in digital factory

**8** petabytes

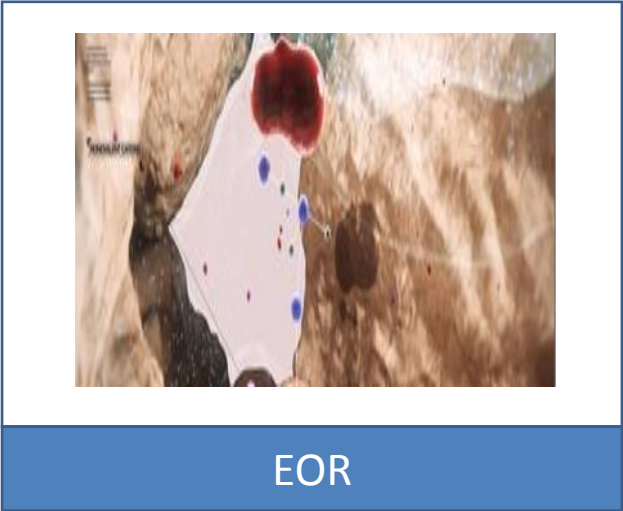
Seismic data moved from tape to cloud as an industry first



# Collaborations



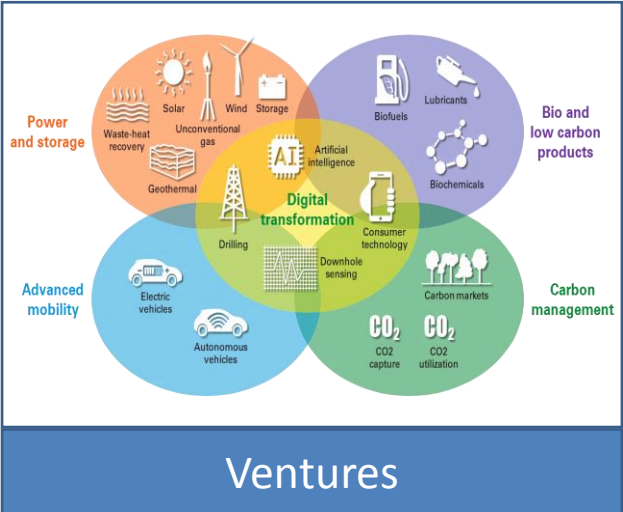
Seismic



EOR



Digital



Ventures