Sustaining the Exploration Industry

February 20, 2018

IAGC Conference Keynote Address
Exploration Capital Expenditure

$ Billion*


NOCs Majors Large-caps Mid-caps Others

*excludes bonus payments

Source: Wood Mackenzie
Exploration Industry Performance

Volumes discovered (GOEB)

313

Discovery year


Source: Wood Mackenzie. Volumes by year of discovery well

Unconventional Oil & Gas
Gas
Oil
Global hydrocarbon endowment

Unconventional resources driving growth

**Crude & condensate technically recoverable resources**
Trillion Barrels

- Cumulative production
- Remaining resource
- Unconventional growth

**Natural gas technically recoverable resources**
Thousand TCF

- Cumulative production
- Remaining resource
- Unconventional growth

Sources: USGS, IEA, & IHS
Demand and Supply

**Liquids estimate***

![Diagram showing estimated liquid demand and supply](chart1)

**Gas estimate**

![Diagram showing gas demand and supply](chart2)

*Excludes biofuels

Source: ExxonMobil 2018 Energy Outlook
Exploration Sustainability - Enablers
Capital

> $450 billion annual upstream oil investments is required to meet demand

Historical crude prices ($ / barrel)

Capital expenditure and EBIT ($B)

Source: EIA, Wood Mackenzie, and S&P
Access

2017 Global Exploration Activity

- Deal
- Well
- Seismic
- Changes to regulations, fiscals,...
Sound regulatory and fiscal environment
Healthy service, drilling and seismic industries
Talent and new ideas