Shorten the cycle in a cost constrained context with new environmental regulations

Pascal DESEGAULX

TOTAL

ACCELERATING EXPLORATION

EXPANDING ENERGY POSSIBILITIES

2019 IAGC ANNUAL CONFERENCE
Production not anymore in a “produce as much as we can” mode but more driven by demand.

Massive investments to fulfil HC demand. All segments to contribute to lower the cost of developments.

Resources identified but, exploration needs to bring to market:
  - Low cost barrels
  - Environmentally friendly resources

Need to accelerate the G&G process in a context of increasing environmental regulation with HSE at the heart of our duty.

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International Energy Agency, Nov. 2018
ACCELERATION & GET THE RIGHT DATA EARLIER

A – Think global through integrated solution
   - Partnership: group shoot; mix MC-operated
   - Standardization: qualification; audits; HSE & technical specs
   - MC: Increase quality and adjust the cost
   - Good image early: real time adjustment
   - More OBN

B – Shorten duration & reduce cost
   - Fast data transfer to onshore
   - OBN data processing much too long
   - New technologies: HPC uplift, algorithms, AI

C – Processing the main leverage in the geophysical process:
   - Deep Learning
   - Automatic deterministic slight noise attenuation
   - Alti-statics

D – Give time for Multi-scenarii / Uncertainties
ACCESS TO SENSITIVE OR REMOTE AREAS

Environmentally sensitive areas

Modular seismic for close sea/lakes and cheaper solutions

Acceptability: MV, more efficient airguns, ...

METIS project dedicated to onshore operations

NEED TO CONTINUE R&D EFFORT ... DO MORE TOGETHER
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Pascal DESEGAULX
Global Upstream Geophysics Manager
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