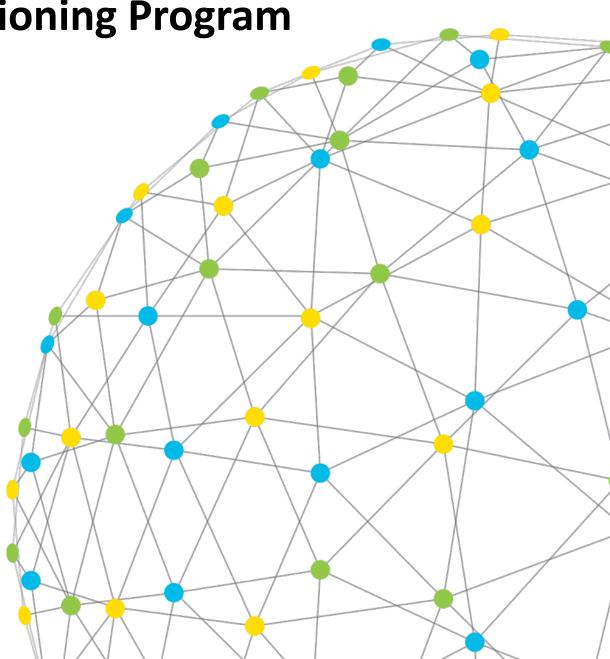
ITF Decommissioning Program

23rd August 2016





ITF Overview

((com))

altata al Azzzolta



- A not-for-profit organisation owned by our members
- Formed in 1999 more than 200 Joint Industry Projects (JIPs) launched
- 12 current Joint Industry Projects (JIPs) direct member investment of circa £7m
- Our Purpose:
 - Create value for our members by facilitating collaborative technology development and deployment within the global oil and gas industry

²itf

Current ITF Members





Well P&A Theme Drivers

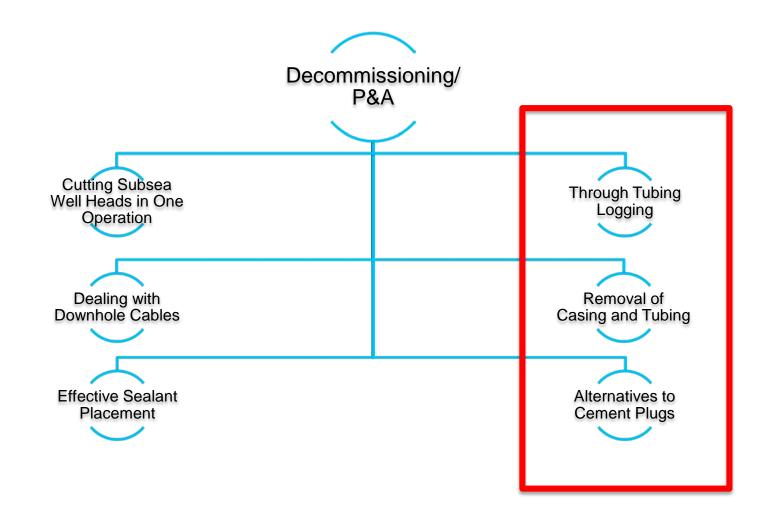


- £50 billion+ cumulative decommissioning costs
- ITF member & industry workgroup driven
 - BP, CNR, Conoco Phillips, ExxonMobil, Fairfield, Shell, Repsol Sinopec
- Technology Leadership Board (TLB) Themes backed by UK Oil & Gas Authority (OGA)
 - Well construction
 - Small pools
 - Asset Integrity
 - Decommissioning



Well P&A Theme Challenge Areas





Well P&A Theme Cement Plug Alternatives



• Call looking for technologies that can potentially improve on current available technologies, or offer alternative approaches

• Risks

- Mixing and hydration process
- Contamination and placement process
- Barriers to new technology uptake
 - "Cement mentality"
 - Regulator agreement
 - Verification

Well P&A Theme Cement Plug Alternatives



• Proposed Solutions

Name	Cost	Duration
Ceramic Plug	£1.9m	24 months
Bio-fibre plug	£64k	9 months
Polymer Resin System	£670k	24 months
Material selection Software (Nuclear Crossover)	£267k	12 months
Resin-grout plug (Nuclear Crossover)	£525k	12 months
Bag Deployment Tool	£420k	15 months
Metal Alloy plug and deployment tool	£2.8m	24 months

Topside and Pipeline Decommissioning Landscaping



- Initial work currently undertaken to understand key Topside Decom challenge areas
- Prioritise challenge area
- Initial areas identified include
 - Heavy Lift Topsides
 - Non-intrusive assessment
 - Pipeline Cleaning
 - Pipeline recovery
 - Seabed cleaning
 - Burial Monitoring Devices





Questions?