

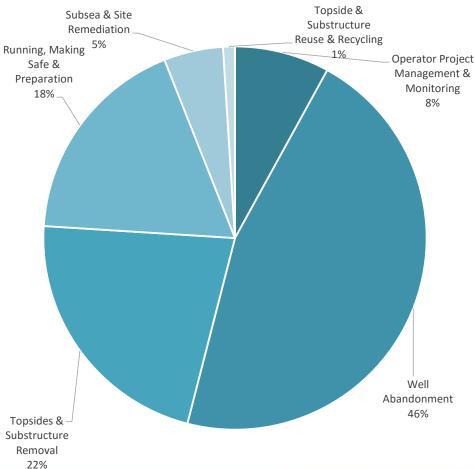
Decommissioning Campaigns Past, Present and Future

A Changing Market

Past, Present and Future

- UK Continental Shelf Decommissioning experience is relatively limited
- Total scope of work is vast: GBP 30-35bn until 2040
- Platforms are the largest part after P&A

Resouce Breakdown Structure Average UKCS Expenditure (2014-2022)



Looking Back: MCP-01 and the Frigg Project

Frigg History

- 1971 Discovery of the Frigg Field announced
- 1973 Failed installation of DP1 platform
- 1974-77 TP1, QP, CDP1, TCP2, DP2, DP1, MCP-01 installed
- 1977 Pipeline completed, MCP-01 operational
- 2003 Frigg decommissioning plan approved
- 2004 Frigg ceases production, MCP-01 isolated
- 2005-2007 DP1 steel jacket wreck, DP2, TCP1 and TP1 topsides removed
- 2006-8 MCP-01 topsides removed (piece-small)
- 2008 DP2 steel jacket removed by refloating
- 2008 QP topsides and part of CDP1 topsides removed
- 2009 CDP1 topsides, QP steel jacket, TP1 MSF removed
- 2010 All remaining debris removed and project completed.





Frigg Costs

	Cessation Plan '02	Cessation Plan '02	Cessation Budget '04	Final Cost
	MGBP in 2002 value	MGBP in 2010 value	MGBP in 2010 value	MGBP in 2010 value
Cost for Removal and Disposal of the Norwegian Facilities				
Platform TCP2	55.4	64.9	98.1	109.2
Platform DP2	53.3	62.5	68.6	84.4
DP1 Wreck	25.2	29.6	53.4	43.9
Pipelines & cables	4.9	5.7	11.5	9.1
Seabed clean up	2.8	3.2	3.7	4.7
Sum	141.6	165.9	235.5	251.3
Cost for Removal and Disposal of the UK Facilities				
Platform QP	42.1	49.4	58.3	77
Platform TP1	27.4	32	45	64.7
Platform CDP1	45.3	53.2	48.1	48.1
Pipelines & cables	7.4	8.7	17.2	13.6
Seabed clean up	2.5	2.8	3.1	3.8
Sum	124.7	146.1	171.7	207.2
TOTAL (MGBP)	266.3	312.0	407.2	458.5











Looking Forwards: Brent

Brent Field

1

Brent History

- 1972 Discovery of the Brent Field announced
- 1975 Brent B installed
- 1976 Brent D, Brent A jacket and Brent Spar installed
- 1978 Brent A topsides and Brent C installed
- 1993-6 Brent Redevelopment Project
- 1995 Brent Spar Decommissioned
- 2005 Brent Decommissioning Project starts
- 2010 Brent D Topsides prep contract awarded to PSN
- 2011 Brent D production ceases
- 2013 Brent D topsides heavy lift contract awarded to Allseas
- 2014 Brent D topsides onshore disposal awarded to Able UK
- 2014 Brent A and B cease production
- 2015 Brent Delta topsides removal plan approved by OGA

Game-Changing Superships







The Rise of Small Accommodation Providers

Rise of Small Accommodation Providers

- Limited number of large floatels
- Cumbersome to relocate
- Older builds/lower standards
- Limited suppliers

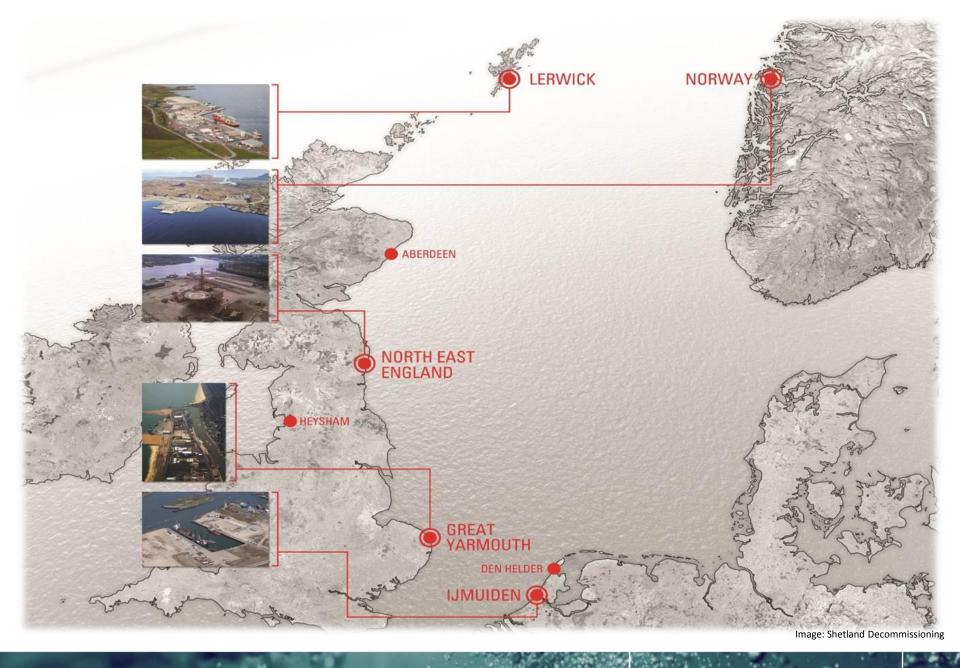
- Flooded market of offshore light construction / subsea IMR vessels
- Recent builds
- Flexible capabilities
- Many suppliers







Onshore Sites





Decommissioning Campaigns Past, Present and Future

- UKCS decommissioning scope is vast, but manageable in smaller pieces.
- Decommissioning progress is still slow, but in a much better position to increase.
- Much more information is now available for planning & estimating.
- Investments in new vessels made in 2013/14 are now arriving in the market.
- Increasing options on removal methodology.
- Increasing options on onshore disposal sites.
- Better prepared than ever before!

Thank you

Christopher Robert Lloyd

Christopher@cl-consultancy.com