



SUT – Evening Technical Meeting
Decommissioning – Planning for the end

Perth, 12 February 2020

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Introduction

Allseas' timeline by key vessels

Lorelay
150 m
First on DP



Solitaire
250 m
Redefined boundaries



Audacia
225 m
'Frontrunner'



Pioneering Spirit
382 m
Largest in the world



1986

1998

2007

2015

Largest vessel in the world

Titanic



Nimitz class
Aircraft carrier



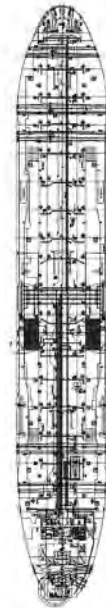
Allure
of the seas



Emma
Maersk



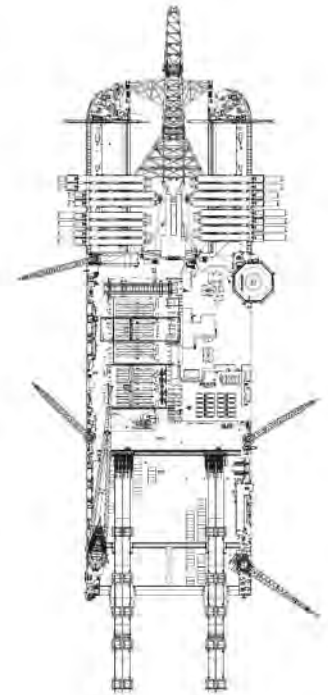
Seawise
Giant



Prelude
FLNG



Pioneering Spirit



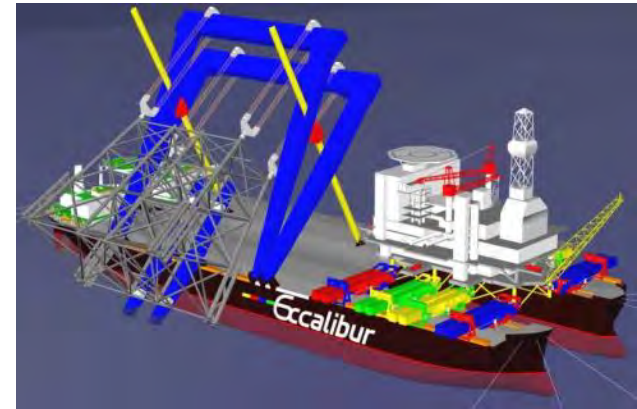
History of *Pioneering Spirit*



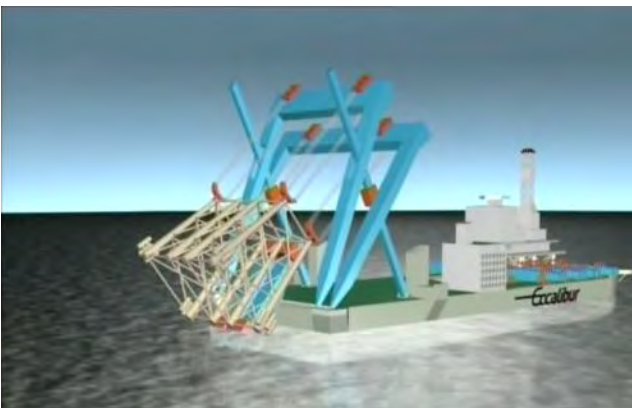
1987



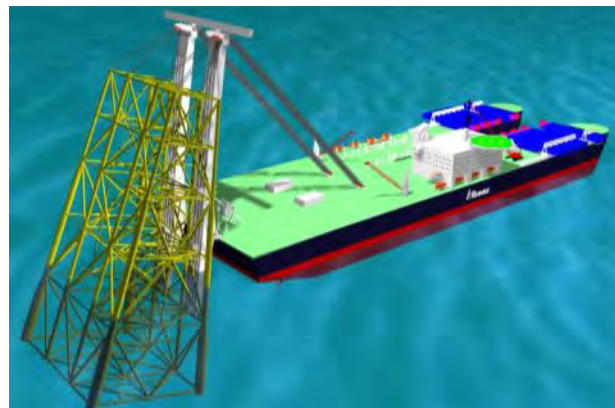
1987



1999



2004



2007



2008

Single lift reduces risks

1. Work in more controlled onshore environment
2. Lower likelihood of offshore spills
3. Short and predictable offshore operation

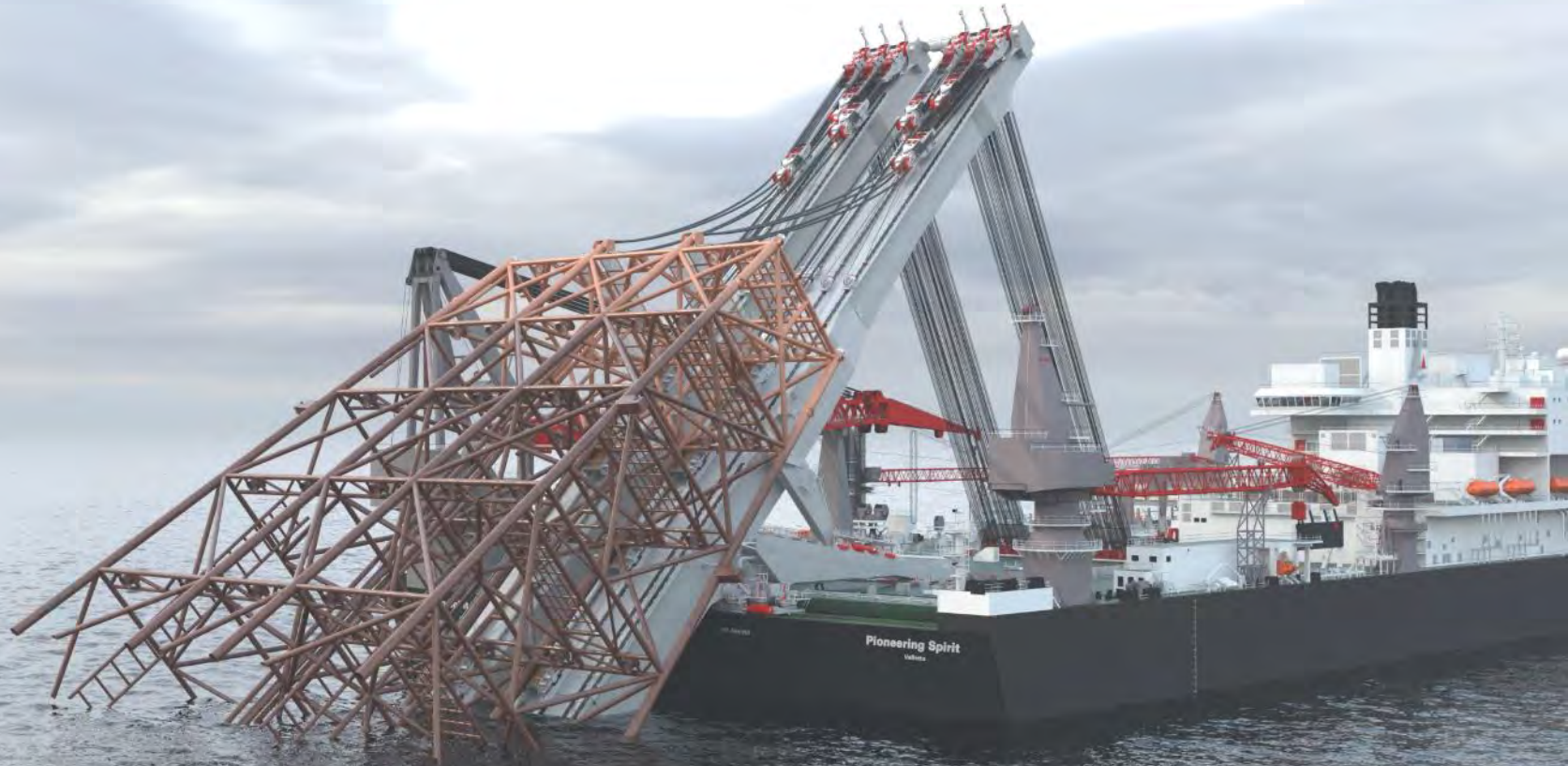


Pioneering Spirit in heavy lift mode



Example of jacket removal

Jacket removals



Impression of removing the CNR Ninian North jacket

Upcoming jacket removals

1. Tyra West D
2. Tyra East D
3. Ninian North
4. Tyra West A
5. Tyra East A
6. Gyda
7. Morecambe DP3
8. Morecambe DP4



Tyra A-platforms

Upcoming jacket removals

1. Tyra West D
2. Tyra East D
3. **Ninian North**
4. Tyra West A
5. Tyra East A
6. Gyda
7. Morecambe DP3
8. Morecambe DP4



Ninian derogation

Upcoming jacket removals

1. Tyra West D
2. Tyra East D
3. Ninian North
4. Tyra West A
5. Tyra East A
6. **Gyda**
7. Morecambe DP3
8. Morecambe DP4



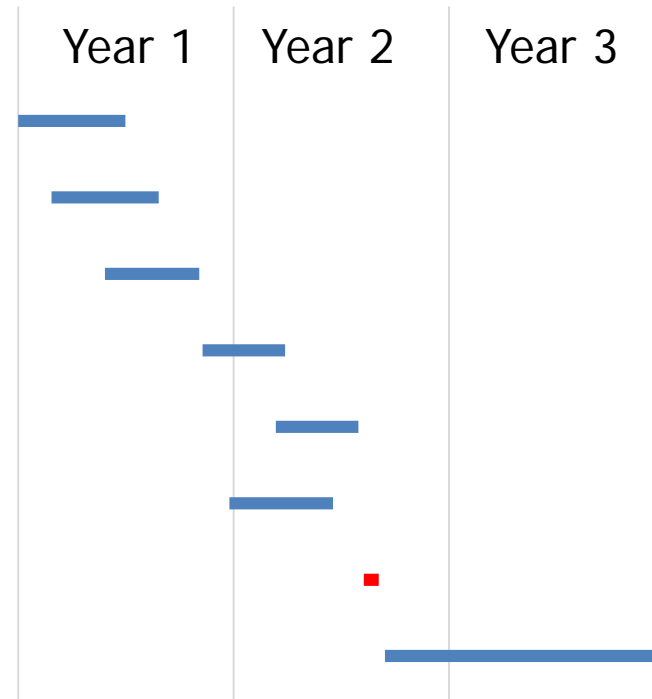
Gyda – re-use case



Example of topside removal

Steps of decommissioning and indicative timeline

1. Engineer lift plan
2. Check structurally (incl surveys)
3. Design platform modifications
4. Fabricate
5. Perform platform modifications
6. Develop procedures
7. Sail, lift, transfer
8. Load-in and decommission onshore



Example Brent field: Four unique platforms



Brent Alpha
Topside 15,500 t
Jacket



Brent Charlie
Topside 29,500 t
Concrete



Brent Bravo
Topside 24,000 t
Concrete



Brent Delta
Topside 24,000 t
Concrete

Offshore platform preparations can be time consuming

Construct

- Lift points
- Bumpers / guides
- Local re-enforcement
- Sea fastening
- ...



Destruct

- Piping
- Ladders
- Caissons
- Leg cutting
- ...



Innovations to optimise offshore scope



Brent D

- Steel lift points



Brent B

- Concrete lift points
- Increased lift point height

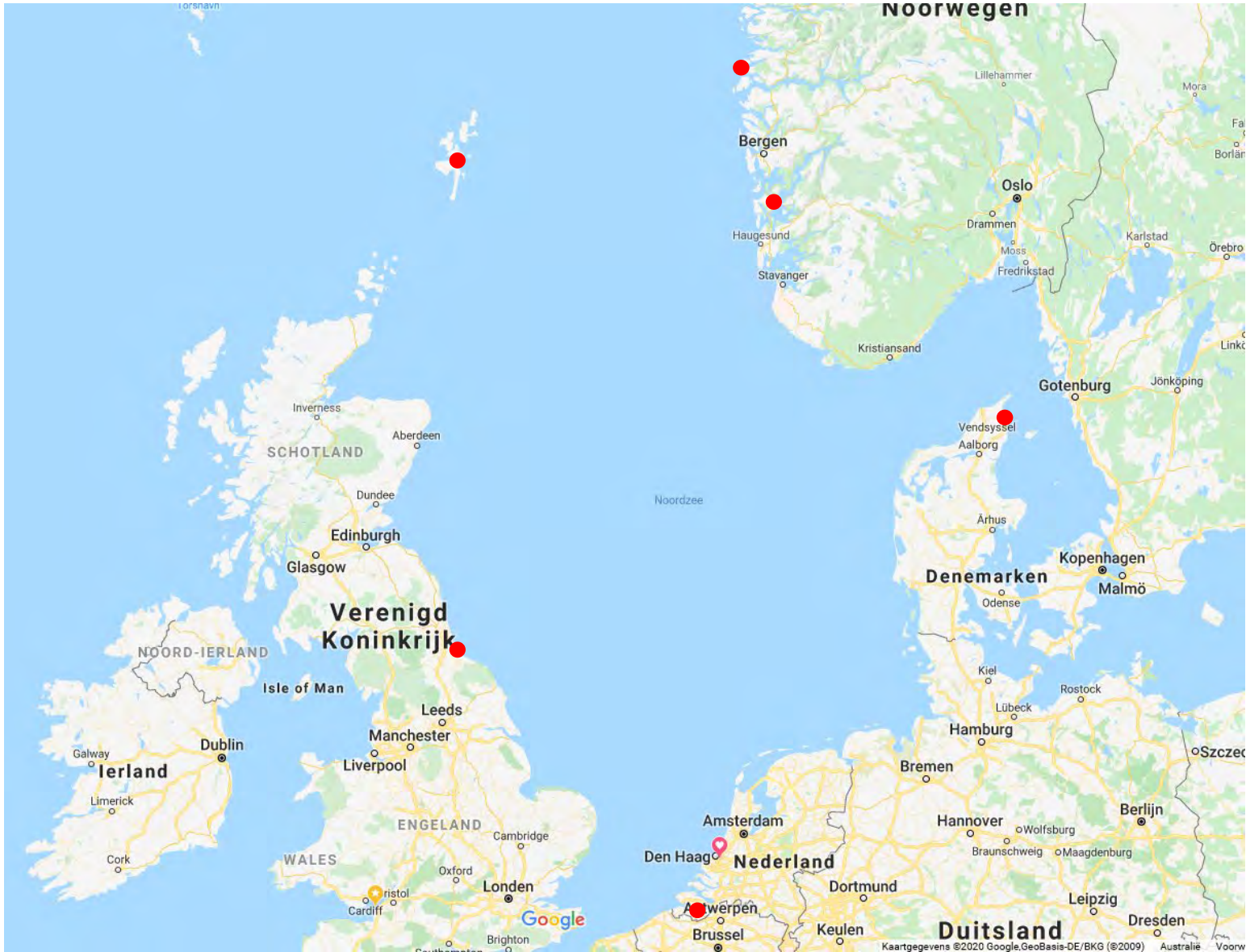


*Lift and transport, 18 June 2019
Brent field, northern North Sea*



*Topside transfer to Able UK yard, 20 June 2019
Hartlepool coastline, Teesside, England*

Sizeable decom yards in the North Sea area



98% of Brent D was recycled at Able UK

Before



After



Topside removals

Completed

1. Yme removal
2. Brent D removal
3. [Brent B removal](#)
4. Valhall QP removal

Currently being prepared

1. Ninian North
2. Brent Alpha
3. Tyra West A
4. Tyra East A
5. Morecambe B DP3
6. Morecambe B DP4
7. Gyda
8. Brent C



Questions?

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