

# CessCon Decom

*'We do decommissioning differently'*



# Introduction



**CessCon Decom** provide bespoke, cost effective, fit-for-purpose and environmentally responsible decommissioning services to our clients

We provide a vast range of services across the full decommissioning lifecycle including initial studies and surveys, offshore preparation of assets for removal, Engineering Down and Cleaning, and onshore dismantlement, reuse and recycling.

From our bases at The Energy Park Fife and The Port of Aberdeen Decommissioning Facilities on the east coast of the UK, and Pulau Muara Besar in Brunei, we provide decommissioning services to the onshore and offshore oil and gas industries.



# Subsea Structures Recycling



Full dismantlement, reuse, repurposing and recycling of all subsea structures and equipment

- Umbilicals
- Risers & Conductors
- Pipelines
- Flowlines
- Well Heads
- Concrete Mattresses
- Anchors & Chain
- Subsea Modules
- Manifolds
- Subsea Protection Structures



# Reuse and Recycling



**Grout, Cement and  
Stone for Filling**



**Reuse & Recycling  
of WEEE**



**Equipment for Reuse  
or Remanufacture**



**Marine Growth Reuse**



**Metals Recycling**

# Over 99% Reuse and Recycling



**Topsides**  
Platform topside structure including module, process plant, helideck, flare/vent booms, drilling derrick etc.

**Jacket**  
Steel substructure

**Reusable Equipment**  
e.g. Pumps, turbines, motors etc.

**Disposable Waste**  
Non-reusable, non-recyclable materials

**Hazardous Materials**  
e.g. hydrocarbons, Asbestos, heavy metals etc.

**Waste Electrical and Electronic Equipment (WEEE)**  
e.g. light fittings, smoke detectors

**Metals**  
e.g. steel, copper, aluminium, bronze

**Marine Growth**  
Remaining seaweed, kelp, algae, coral & mussels on jackets and structures.

**Equipment Reused or Repurposed** (contributing to the circular economy)

**Transported to a Licensed Facility for Disposal**  
Energy recovery

**Transported to a Licensed Facility for disposal**  
Energy recovery

**Transported to a Licensed Facility for Disposal**  
Recycling of materials

**Transported to Steel Receivers for Smelting**  
Recycling

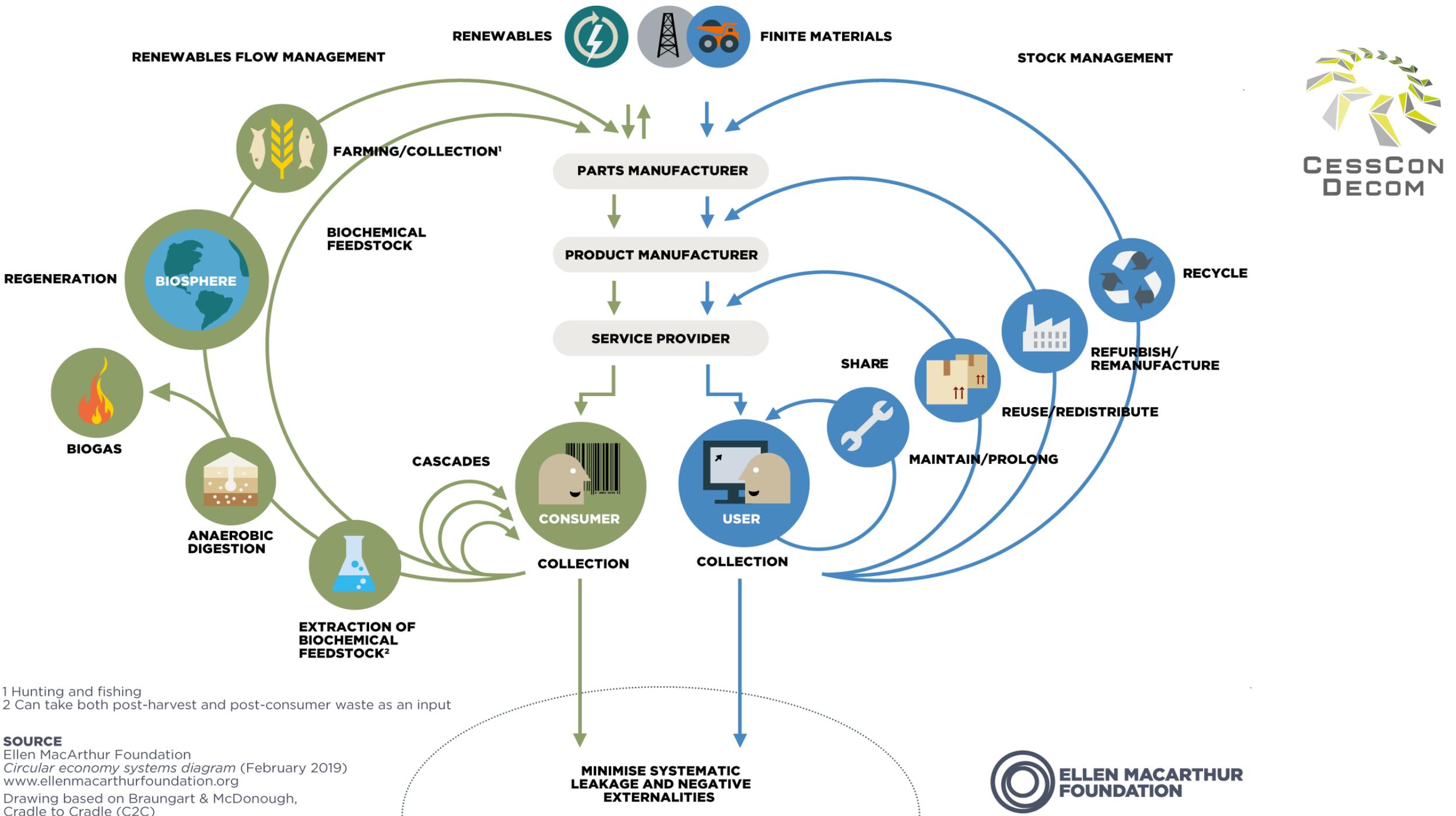
**Separation & Reuse**  
Composting, water purification, scientific research



# A Circular Economy



- A circular economy is an economic system aimed at eliminating waste and the continual use of resources
- Circular systems employ reuse, sharing, repair, refurbishment, remanufacturing and recycling to create a closed-loop system, minimising the use of resource inputs and the creation of waste, pollution and carbon emissions
- The circular economy aims to keep products, equipment and infrastructure in use for longer, thus improving the productivity of these resources
- All "waste" should become "food" for another process: either a by-product or recovered resource for another industrial process or regenerated as a resource for nature (e.g., compost). This regeneration approach is in contrast to the traditional linear economy, which has a "take, make, dispose" model of production



1 Hunting and fishing  
 2 Can take both post-harvest and post-consumer waste as an input

**SOURCE**  
 Ellen MacArthur Foundation  
*Circular economy systems diagram* (February 2019)  
[www.ellenmacarthurfoundation.org](http://www.ellenmacarthurfoundation.org)  
 Drawing based on Braungart & McDonough,  
 Cradle to Cradle (C2C)

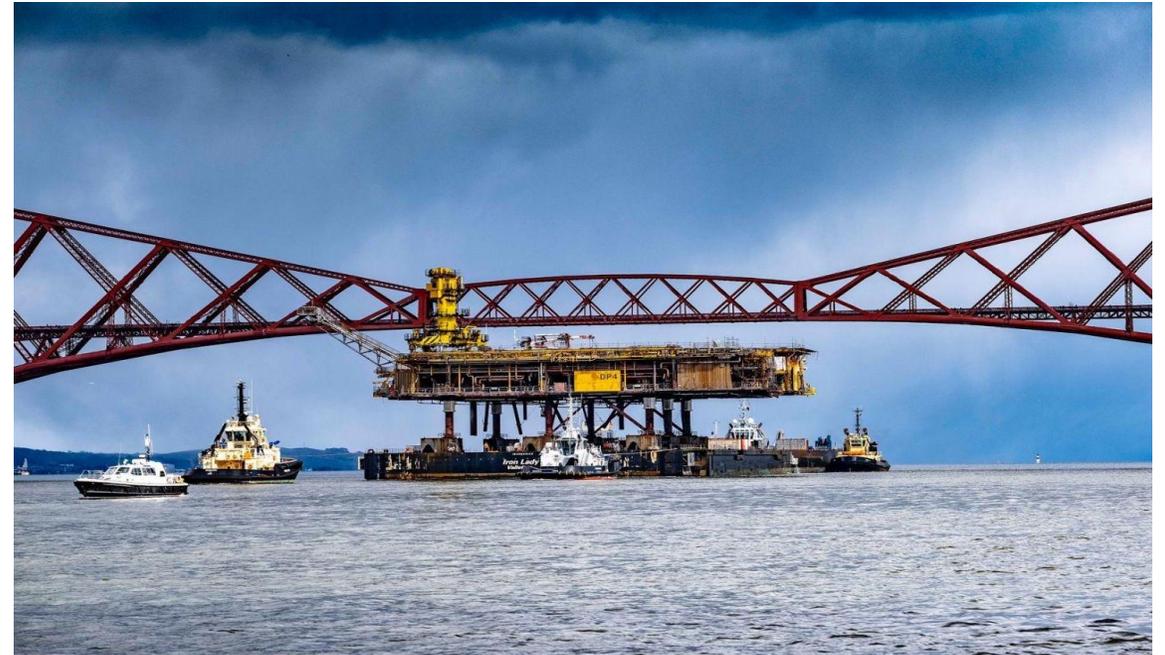
# Real World CE Challenges



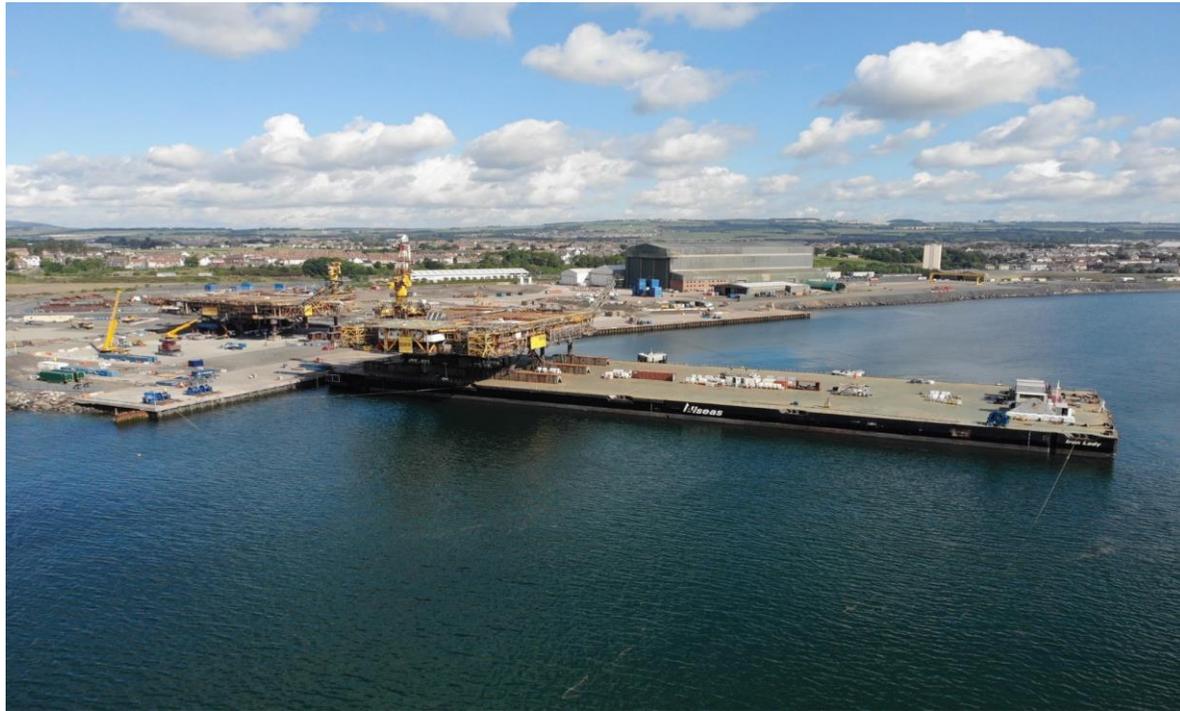
# Topside Removal



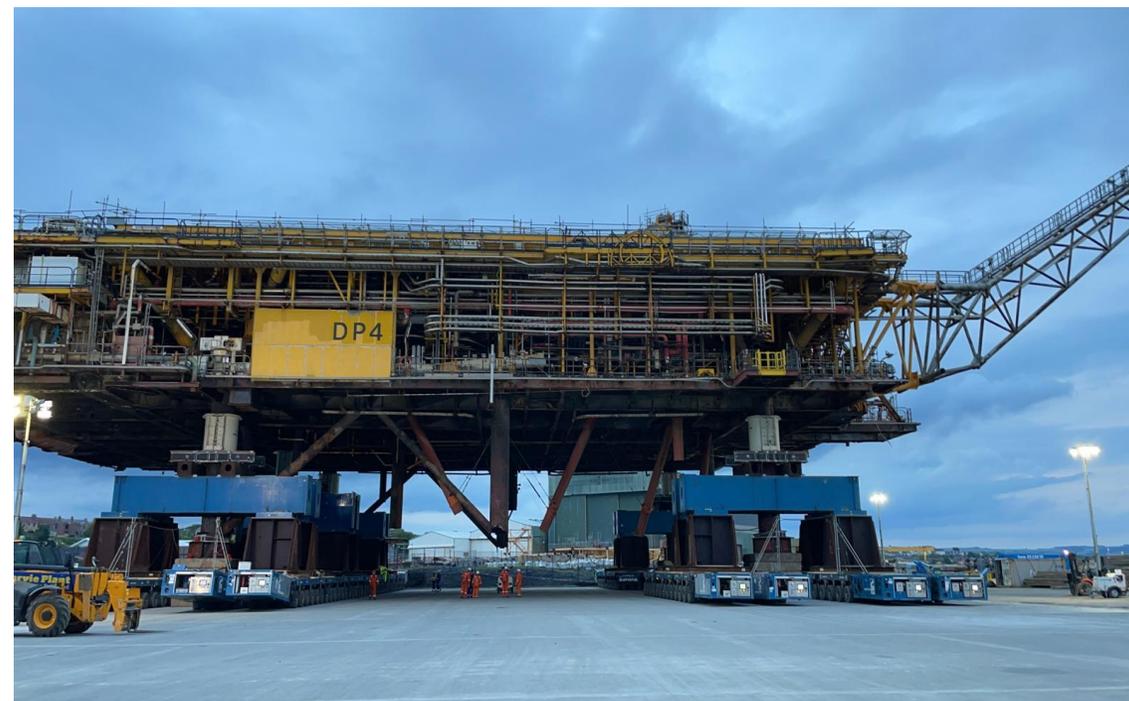
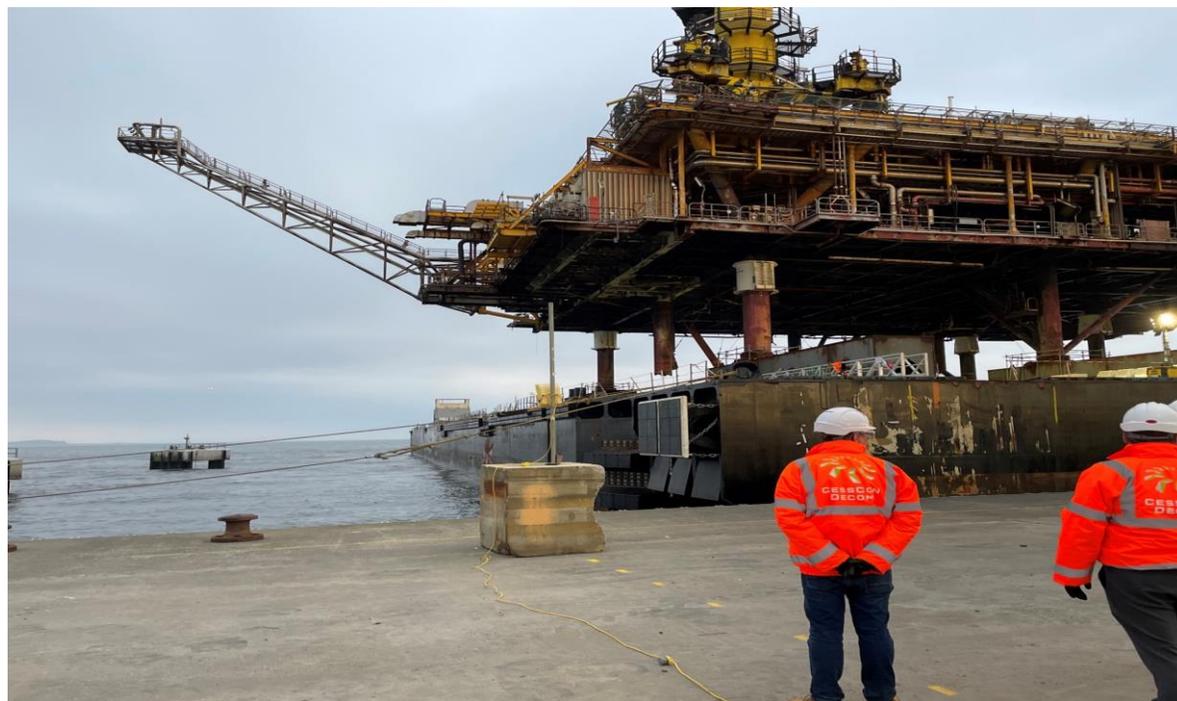
# Transport to Shore



# Mooring at EPF



# Offload to Quayside



# Set-Down & Make Safe



# Equipment Reuse Survey



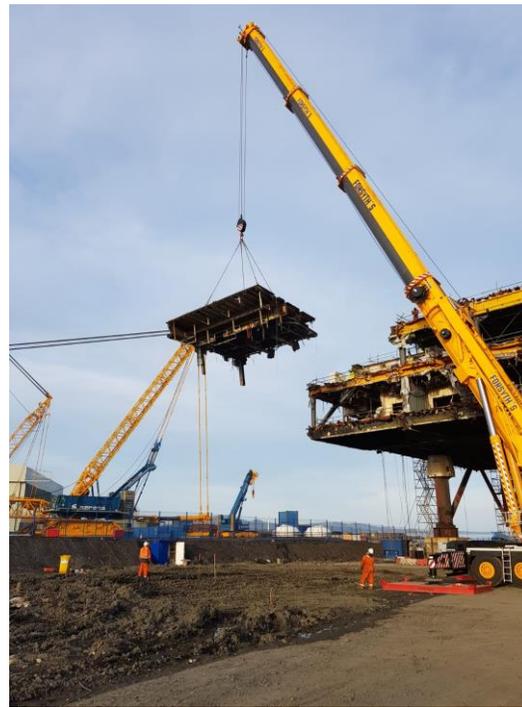
# Soft Strip & Recovery



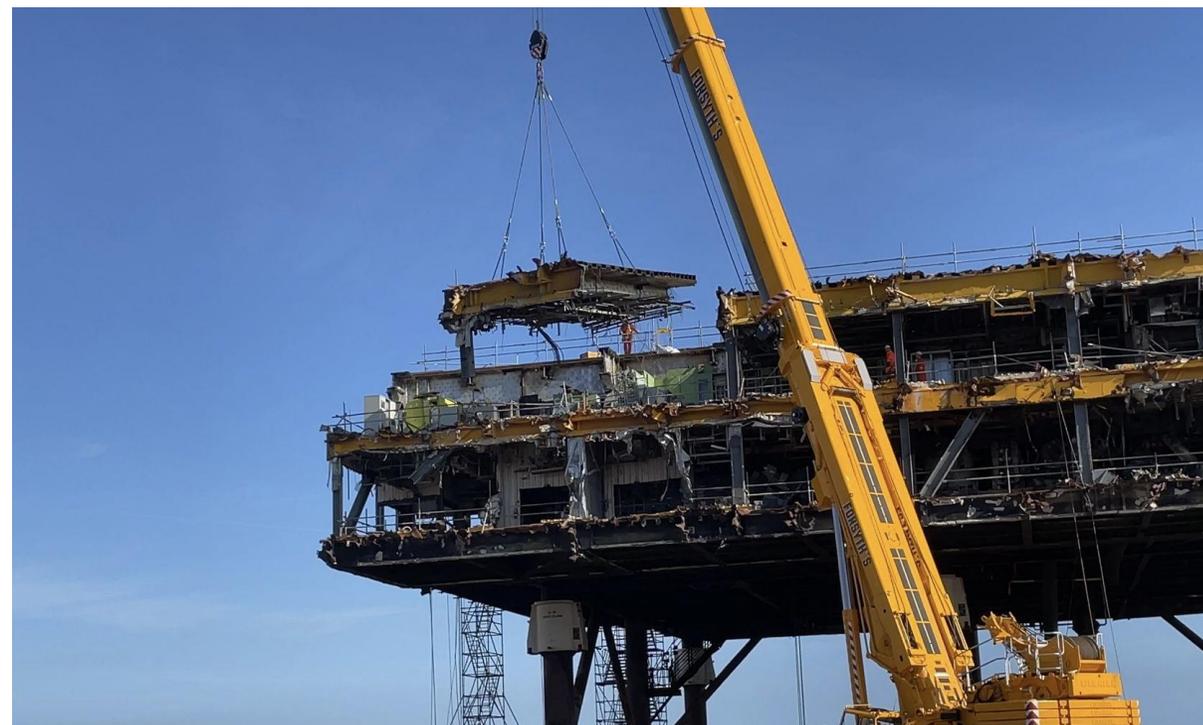
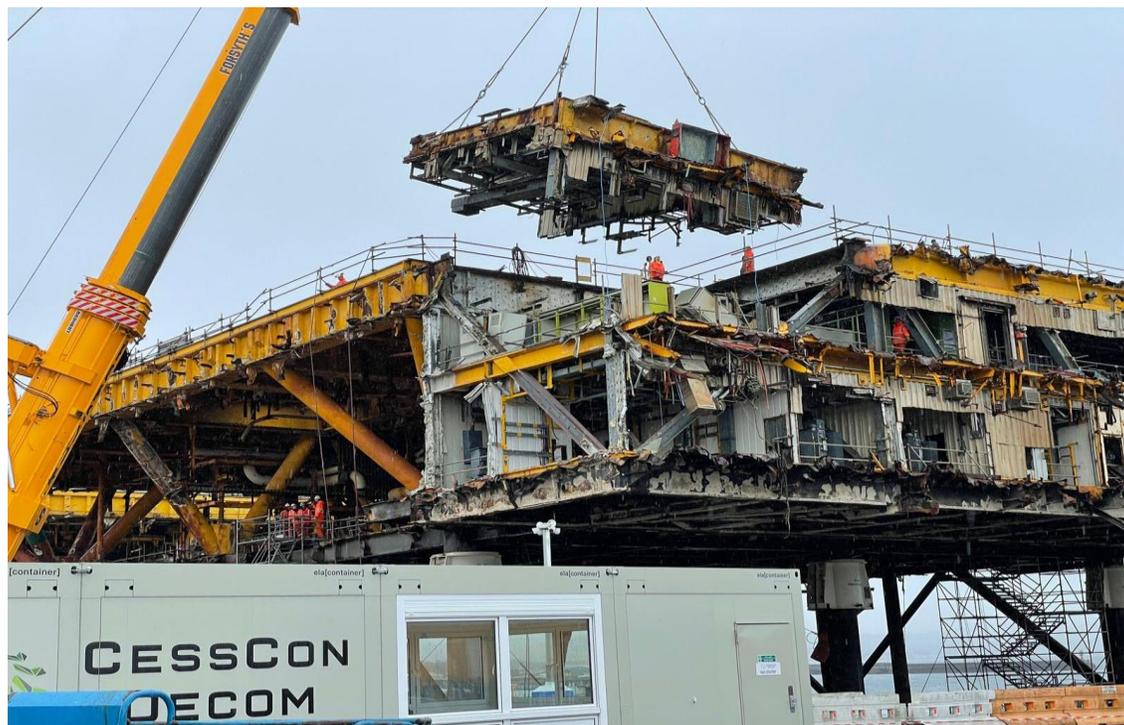
# Equipment Storage & Packaging



# Dismantlement



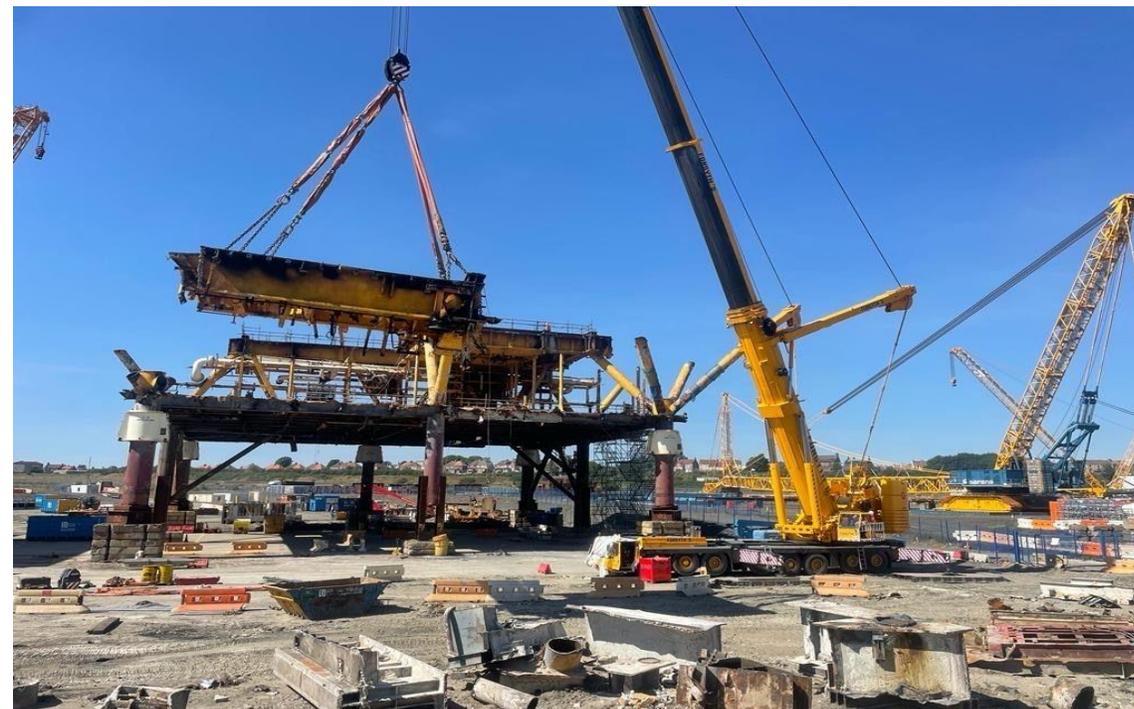
# Reverse Installation



# Reverse Installation



CESSCON  
DECOM



# Piece Small Dismantlement



# Preparation for Pulldown



# Controlled Pulldown



# Maximum Material Recovery



12,000t = 99.4%  
Reused & Recycled



# 1 Tonne Fire Pump Removal for Reuse



No.	Task
1.	Equipment Identification & cataloguing offshore, Cost / Benefit Analysis
2.	Potential resale route (purchaser) identification and marketing
3.	Host site visits / surveys to inspect equipment
4.	Planning of equipment removal
5.	Engineering for removal
6.	Removal preparation (permit to work, toolbox talk, risk assessment, lift plan, job cards, isolate, drain, flush, make-safe etc.)
7.	Removal execution (crane, rigging, hand tools, Lift Supervisor, Riggers, Banksman, Operators/Technicians, Deck Crew, forklift)
8.	Storage and maintenance
9.	Packaging / securing
10.	Transport to purchaser

# Cost?



Task	Cost
Equipment Identification & Cataloguing Offshore, Cost / Benefit Analysis	£350
Potential resale route (purchaser) identification and marketing	£840
Host site visits / surveys	£280
Planning of equipment removal (3 personnel x 1 day)	£480
Engineering for removal (2 personnel x 2 days)	£720
Removal preparation (PTW, toolbox talk, risk assessment, lift plan, job card, isolate, drain, flush, make-safe) 3 personnel x 3 days	£1,440
Removal execution (crane, rigging, hand tools, Lift Supervisor, Riggers, Banksman, Operators/Technicians, Deck Crew, forklift)	£1,950
Warehousing / storage and maintenance (1 month)	£330
Packaging / securing	£150
Lorry transport to purchaser	£1,200
<b>Cost to remove item</b>	<b>£7,740</b>

# Resale Revenue?



- 1 tonne fire water pump cost new £80,000
- Cost to remove for resale £7,740
- 1 tonne fire water pump used sale price with no maintenance history, no certification and no calibration records £8,000
- Net revenue for substantial planning, engineering, removal, storage, transportation, onward sale & **'RISK'** £260



# Cost Benefit Analysis



- 16 Days duration from initial planning to onward sale
- 15 Personnel directly involved throughout task lifecycle
- 11 Task Risk Assessments completed
- 9 Permits to Work compiled and issued
- 3 Engineering Job Cards compiled
- 1 Lift Plan completed
- Risk of injury to 15 personnel
- Risk to project timeline



**£260 Profit**

# Cost Benefit Analysis



**1 Tonne of Scrap Steel = £260**

**Challenge?**



**What's the point?...**

**The risk outweighs the benefit gained...**

**I can get the same for scrap!**

**Why take on the liability?**

**The client just wants it off the  
balance sheet...**

***Do Operators really care  
if we achieve 95% or 99%  
Reuse & Recycling?***

# CessCon Decom



“ Delivering successful decommissioning projects through collaboration and teamwork ”



# Disclaimer



This Presentation includes and is based, inter alia, on forward-looking information and statements that are subject to risks and uncertainties that could cause actual results to differ. These statements and this Presentation are based on current expectations, estimates and projections about global economic conditions, the economic conditions of the regions and industries that are major markets for CessCon Decom Ltd. and CessCon Decom's (including subsidiaries and affiliates) lines of business.

These expectations, estimates and projections are generally identifiable by statements containing words such as "expects", "believes", "estimates" or similar expressions. Important factors that could cause actual results to differ materially from those expectations include, among others, economic and market conditions in the geographic areas and industries that are or will be major markets for CessCon Decom's businesses, oil prices, market acceptance of new products and services, changes in governmental regulations, interest rates, fluctuations in currency exchange rates and such other factors as may be discussed from time to time in the Presentation.

Although CessCon Decom Ltd. believes that its expectations and the Presentation are based upon reasonable assumptions, it can give no assurance that those expectations will be achieved or that the actual results will be as set out in the Presentation. CessCon Decom Ltd. is making no representation or warranty, expressed or implied, as to the accuracy, reliability or completeness of the Presentation, and neither CessCon Decom Ltd. nor any of its directors, officers or employees will have any liability to you or any other persons resulting from your use. CessCon Decom Ltd. consists of several legally independent entities, constituting their own separate identities. CessCon Decom is used as the common brand or trademark for most of these entities. In this presentation we may sometimes use "CessCon", "we" or "us" when we refer to CessCon Decom Ltd. companies in general or where no useful purpose is served by identifying any particular CessCon Decom Ltd. company.