



Decommissioning Risk

Offshore Norge Seminar

12th November 2024 - Stavanger, Norway

Who we are

We are a global leader in the engineering and construction of major projects for the energy and infrastructure sectors, both offshore and onshore.

We are a “one company” with distinctive competences, technological innovation capabilities and high-tech assets, able of identifying and developing multiple solutions to meet our clients’ needs for a sustainable business.

> 50
COUNTRIES
WHERE
WE OPERATE

>30,000
EMPLOYEES
WORLDWIDE
FROM **120**
DIFFERENT
NATIONALITIES



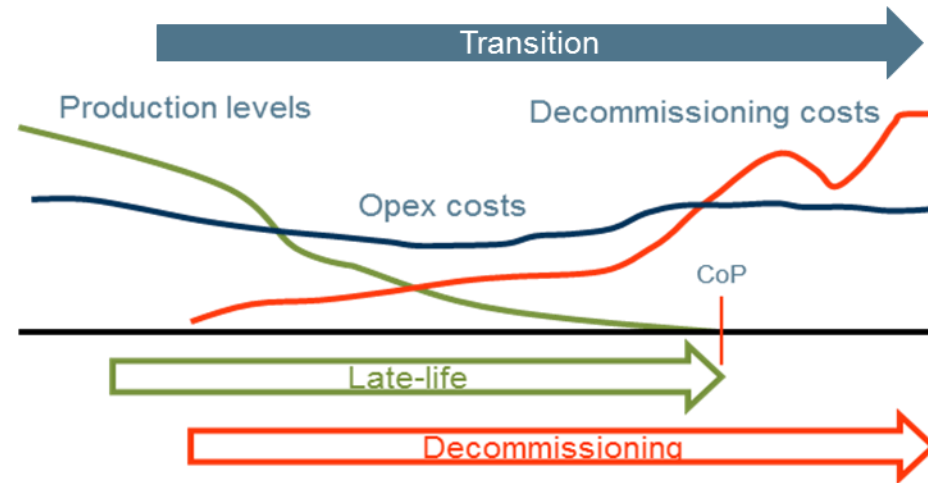
We are a “One Company” organized in six business lines:

- **ASSET BASED SERVICES**
Offshore E&C Solutions
- **DRILLING**
Offshore Drilling
- **ENERGY CARRIERS**
Plants Solutions
- **OFFSHORE WIND**
Renewable Energies
- **ROBOTICS AND INDUSTRIALIZED SOLUTIONS**
Industrialized Solutions
- **SUSTAINABLE INFRASTRUCTURES**
Complex Infrastructures



DECOMMISSIONING RISK SEMINAR

Current Situation Towards End of (field) Life and Decommissioning



All parties *'understand'* the complex interactions and risks between Production, Opex and Decommissioning and the need to optimise the CoP decision

Yet **many** decommissioning and late-life projects **run over budget**

Which suggests most approaches are sub-optimal and/or lessons learnt are not being applied


The Message : Better integration and co-operation **and alignment on the Risks** can **reduce the decommissioning schedule and cost**

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Offshore Decommissioning - The Perception and Context

Removal is NOT the reverse of installation



- The condition of platforms at end of life might be poor especially if left cold for long periods
 - Quality and Quantity of as-built and technical data not often complete or updated
 - Operatorship may have changed at some stage
 - Simultaneous presence onboard of several entities and contractors might create congestion on critical facilities, logistics and permits impairing efficiency
 - Heavy lift operability windows might be more challenging than during an installation operation
 - Some schedule flexibility is often available (usually for the removal campaign)
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Past removal experiences proved that EPRD is more difficult and challenging than Greenfield

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Offshore Decommissioning : Classic Risks to Successful Completion

- Risk: Deferment of activities and Consequential Degradation in condition
- Risk : Customer Drivers
 - No Prize at the End - no Oil / Gas
 - Personnel having a ‘Production Mindset’ even in the decomm ITT stages
- Risk apportionment and qualification balance
 - A propensity to ‘Offload Risk’ rather than accept the best placed party should resolve it
- Risk : Relied upon information : Including
 - Soil Ownership
 - Amount of information and ownership
 - Hazardous Material
 - Change in Condition
- Risk : Preparation activities and mindset under ‘Duty Holder / Platform Operator’ production environment

DECOMMISSIONING PROJECTS

Risk - Unnecessary Cost or Risk Offload Discussion

- In an ideal world, the work is performed around unforeseen risks being prevented / mitigated / not materialising
- However, in today's world if there is a risk, contracts are set up on a basis of assured cost at the project outset (as near as possible) and each contract will have a level of risk costed
- If the risk materialises, then it is assumed the CONTRACTOR has sufficient provision to cover the risk
- If the risk does not materialise / is avoided, then the CONTRACTOR gets the benefit
- WITH COST BEING A DECOMMISSIONING PROJECT DRIVER - AN ALTERNATIVE APPROACH MAY BE NEEDED?
 - Risk / reward mechanism to cover risk?
 - Alternative Project Strategy? - Openness and '*real integrated working*'
 - COMPANY does not pay for risk costs that do not materialise
 - CONTRACTORS do not embark on projects where unknown risks are possible that could affect their financial health
 - Fair profit share - maintain good supply chain relationships

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The Summary Lessons : How Do We All Ensure a Profit

- Lean contract execution
 - Appropriate Contract and Project Structure
 - Smart Risk Ownership (appropriate parties for risk)
 - Perform the work ‘Just once/Just in time’
 - Correct Decommissioning Mindset
- Value alignment with client and supply chain
- Working in advantageous weather periods
- Innovation (innovative thinking and equipment)
- New technology and digitalisation
- Exploit / utilise the Schedule Flexibility
- Effective Partnerships / Reduced Interfaces

