

# Offshore wind and aquaculture

January 2020

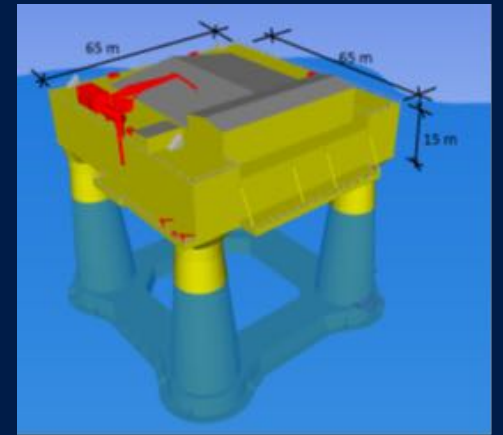
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# Key topics for today

- Entering offshore wind substation market - Our experiences
- How well positioned is the Norwegian industry?
- Technology development – how to reach commercial concepts



# Time changes - Pictures from Aibel's Haugesund yard



1900

1950

1975

70s ->

2012

2019

Vessel  
repairs

Vessel  
construction

Rig repair

Oil & Gas

Renewables

Dolwin 5

Offshore wind

Doggerbank

O&G topsides

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# WE DELIVER THE FULL SCOPE OF SERVICES

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# Expanding into renewables and aquaculture

Aibel is a leading EPC turnkey provider of offshore production platforms to the Oil & Gas industry as well as the Offshore Wind Industry

4,000 employees

Annual turnover of NOK 10 billion

**O&G**



**HVDC Substations**



**Floating Wind<sup>1)</sup>**



**Aquaculture**



1) Photo: Equinor

# Key learnings from entering offshore substation market

- Early participation
- Market closes by requiring previous experience
- Long standing collaboration partners
- Suppliers expected to provide “their own” concepts
- Execution method is market dependant



# Norwegian industry and aquaculture / floating wind

- Is the industry positioned well positioned?
- Our Oil & Gas experience is not a free pass into floating wind or aquaculture
- Importance of government incentives such as “Utviklingstillatelse” from ministry of fisheries.



# The way forward - Incremental vs disruptive



Incremental



Dead End



Disruptive

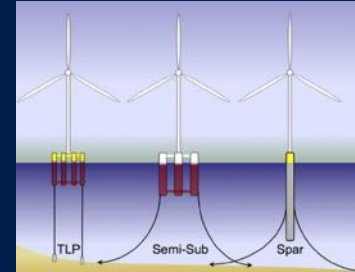
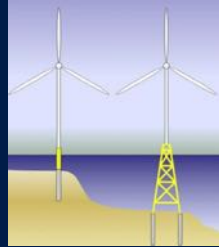




# The way forward - Incremental vs disruptive



Incremental



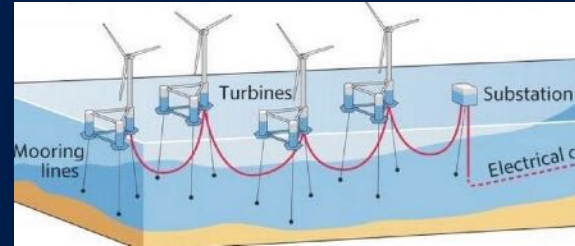
Dead End?



Onshore



Fixed offshore

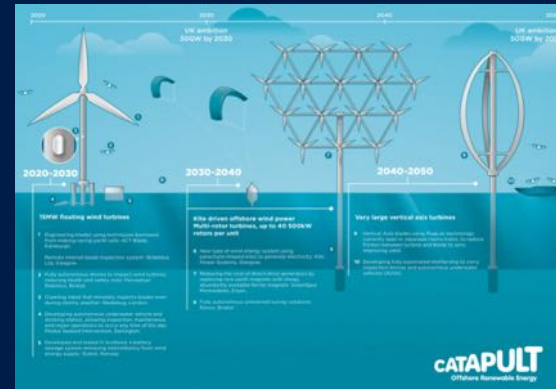
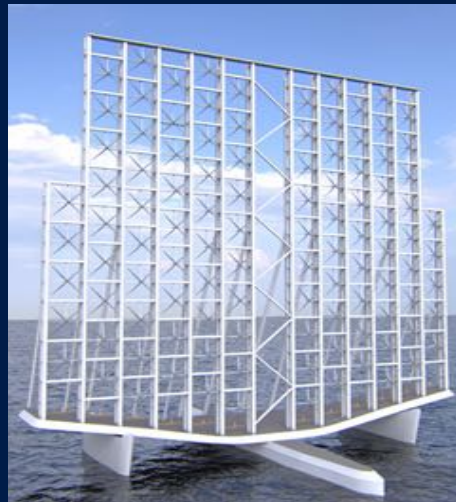


Floating

Disruptive



WCS



Other disruptive concepts ?



Client Study, lower LCOE than Single Tower Floater

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