Hywind
En Mulighet for Norge
Benefits of Offshore Wind Investments

65% of investments in offshore wind can benefit local suppliers

Manning for Installation and Operation can contribute significantly to employment
Operation is 60 FTE in 20 years

Can transform existing industries and increase sustainability
Increase utilisation of allocated areas

- Cover energy demand from other industries
- Contribute to decarbonisation
- Co-existence with other offshore activities

Use local suppliers

Employment

Transition
Oil and gas: Large opportunities at the NCS
Where are the next floating wind opportunities?

<table>
<thead>
<tr>
<th>Utilities</th>
<th>Big cities</th>
<th>Islands</th>
<th>Oil and gas (!)</th>
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<tbody>
<tr>
<td><strong>Why floating wind?</strong></td>
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<tr>
<td>• Security of supply</td>
<td>• Transmission</td>
<td>• Cost of alternatives</td>
<td>• Emission taxes</td>
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<td>• Electrification</td>
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<td>• Cost of fuels</td>
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Illustration photos from Flickr.com: Moyan Brenn, Darshan Simha and Nosha. Oil and gas photo by Statoil.
Floating Wind Road Map

Trends for bridging phase:
- Using Statoil oil and gas portfolio as an enabler
- Using the NCS as a technology lab for bridging hydrocarbons and renewables
- Step-wise focus on capturing learning and reducing LCOE
- Broadening the supply chain towards utility scale

Accumulated installed capacity

- The Birth
- The Bridge
- The Expansion

EUR/MWh

- LCOE
- Island and Metropolis market
- O&G market
- Utilities
Realising the Hywind Scotland project

- Investing GBP 180 mill
- 60-70% cost reduction from the Hywind Demo project in Norway
- Powering ~20,000 UK homes

- Installed capacity: 30 MW
- Water depth: 95-120 m
- Avg. wind speed: 10.1 m/s
- Area: ~4 km²

- Average wave height: 1.8 m
- Export cable length: Ca. 30 km
- Operational base: Peterhead
- Start power production: 2017
Who should build the first full scale floating wind farm?

An industrial scale floating windfarm will:
- Create activity in the local supply chain
- Create jobs – both short and long term
- Build on the O&G competence
- Reduce CO2 emission from current O&G activity
- Position Norwegian suppliers for global deployment of floating wind