Offshore Wind
Oil & Gas opportunities
BIEE / Edinburgh Business School

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The Catapult Network
A long-term vision for innovation & growth

- 11 Catapults
- Established by InnovateUK
- Designed to transform the UK's capability for innovation
- Core grant leveraged with industry and other public funding
- Catapults all highly connected to their sectors – and each other
Our Impact in 2015/16

50 Companies whose product development we’ve supported through our testing and validation services
151 SMEs we have supported
Operating £1/4bn of world-leading test and demonstration facilities in support of UK innovation
75% Year-on-year uplift in competitive R&D revenue

Global Reach
18 Countries we have worked with to develop opportunities for the UK supply chain

World Firsts
First benchmarking platform for offshore wind turbines
Operating largest indoor blade test facility
World’s largest open access offshore wind turbine dedicated to research
First accelerated testing of 66KV cable

Return on Investment
1:3:21 For every £1 of core grant invested we have leveraged £3 of additional research funding driving £21 of activity

126 projects with academia
204 industry collaborations

£4.9m invested in procuring capital equipment, competitively
23
£6.2m invested in building team of leading
£5.7m invested in collaborative projects and
Offshore Renewables - an essential industry

- Paris: net zero emissions by 2100
- 5th Carbon Budget to 2032*
  - 20GW offshore wind by 2030
  - No/slow nuclear 25GW offshore
  - No CCS: 25GW offshore wind
- By 2030
  - Wind 30-40% of UK power generation
  - Offshore wind up to 25%
- Denmark 42% electricity from wind in 2015

Costs falling:
And more rapidly than expected

*CCC Sector Scenarios for the 5th Carbon Budget
A UK success story

Aberdeen oil & gas has global expertise reputation

UK can be same in offshore renewables

Source: Offshore Wind Vision, 2015
ORE Catapult
Build UK Supply chain by closing technical gaps.

Dual axis blade testing, Bearing testing, Novel cables, Real data for simulations.....
Value Cascade

OEMs

Supporting innovation, assuring technology performance, O&M

Tier 1 supply chain

Partnering in RD&D, validating performance

SMEs & agile innovators

Steering innovation, validating performance

Deeper academic research partnering and relationships

The world’s largest portfolio of open access facilities: £250m capital investment in assets dedicated to research and product validation
Oil and gas opportunities

• Design, Fabrication, Installation, O&M of offshore power plant
• Scour protection of cables
• Paints / coatings
• Condition monitoring
  • Structural integrity, and NDT
  • ROVs and AUVs
• Cable integrity
• Spinning plant servicing
Making the transfer not always easy

- Renewables still an evolving market
- Different investment risk attitudes and return expectations
- Planning moves often at slower pace
- Technologies and contractual relationships are evolving (who does what, where does risk sit etc)
  - O&G standards not a straight read across
Disruptive innovation: Floating wind
Oil & Gas manufacturing synergies