



Whitby Supply Chain Introduction Round 3 Offshore Wind

25th May 2011

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Commissioners Representative
Zone 3 (Dogger Bank)

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1. Introductions
2. The Crown Estate
3. Offshore Wind – Where we are, and why
4. Dogger Bank
5. Business Opportunities
6. Q&A



The Crown Estate

Is a landowner

Is not a regulator

Is a public body – The Crown Estate Act 1961

Is not part of Government – but works closely with Government, statutory bodies *etc.*



**Urban
Estate**



**Rural
Estate**



**Windsor
Estate**



**Marine
Estate**

30million hectares

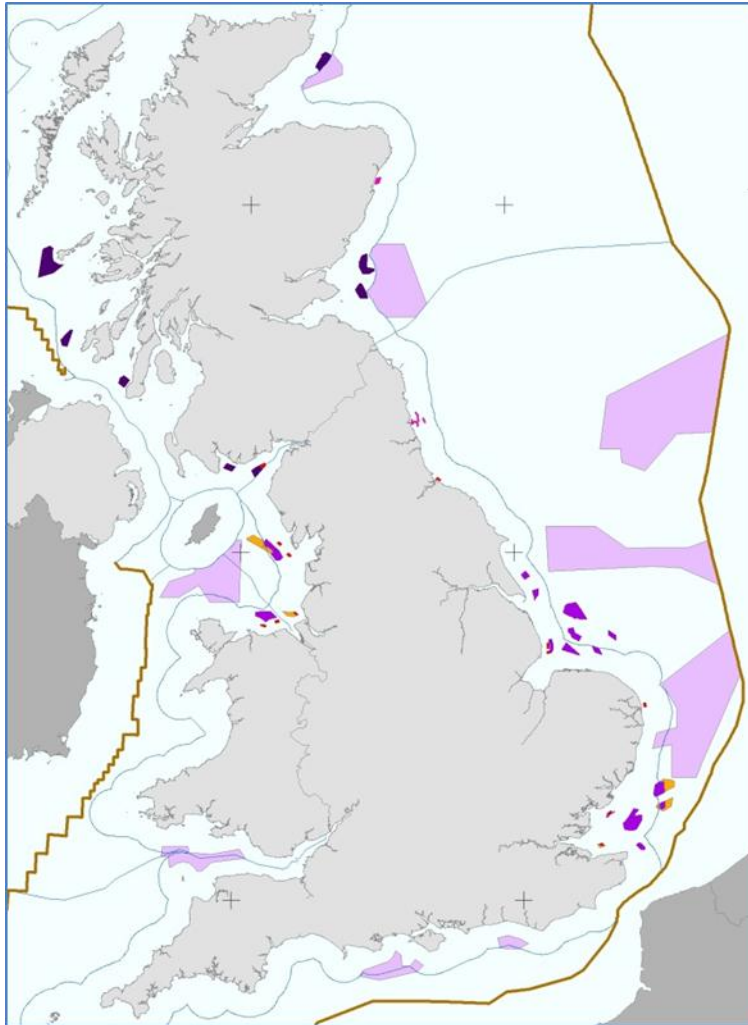
22000km of coast line

A responsibility to enhance the estate's value

Subject to good management and stewardship

A monopoly

UK Offshore Wind Programme



Rounds 1&2

- 1.3 GW operational
- 7.6 GW in development
- 1.5 GW extensions

Scottish Territorial Waters

- 5.3 GW in pre-development

Round 3

- 32 GW in development

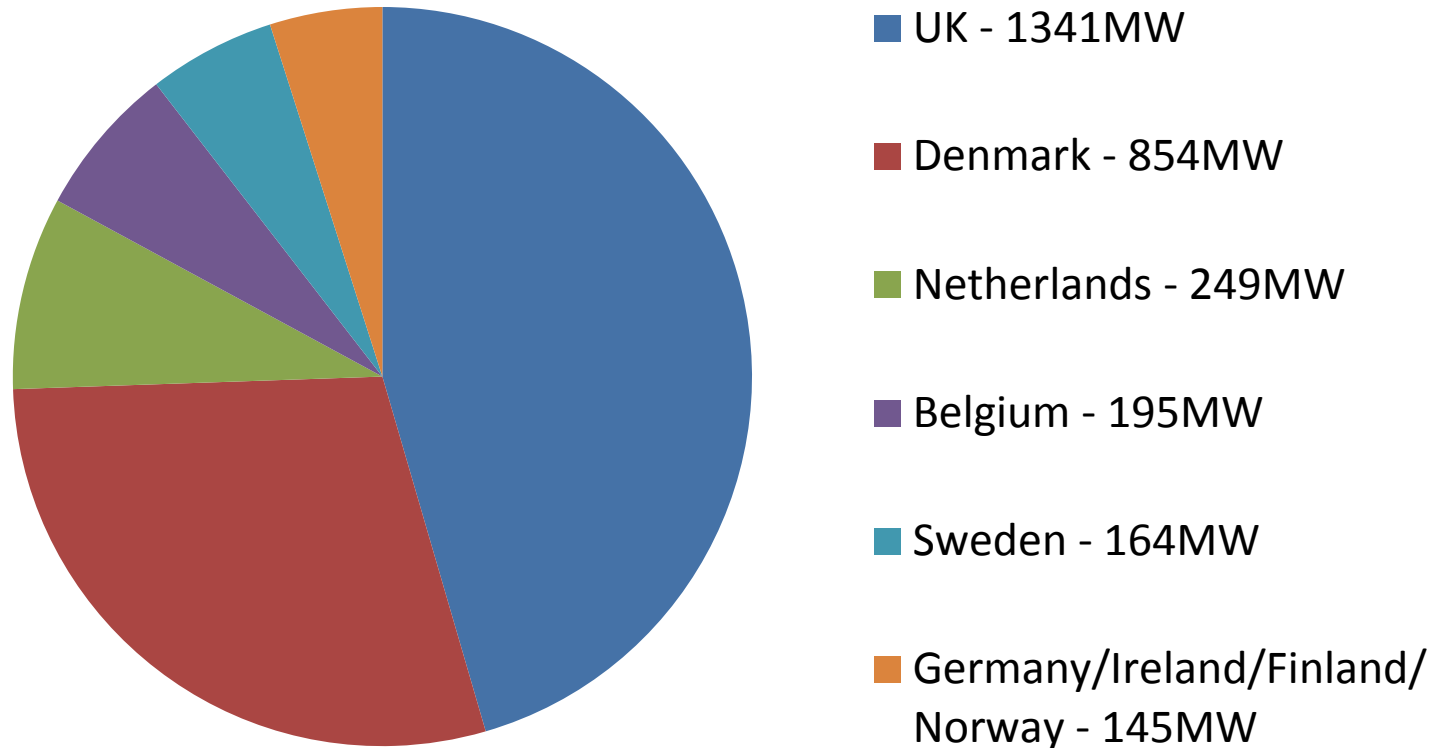
Total: 48 GW

R3 focus is

- Renewable energy targets
- Jobs
- Scale and programme

The UK is World Leading

MW of Installed Offshore Wind – EWEA Jan 2011

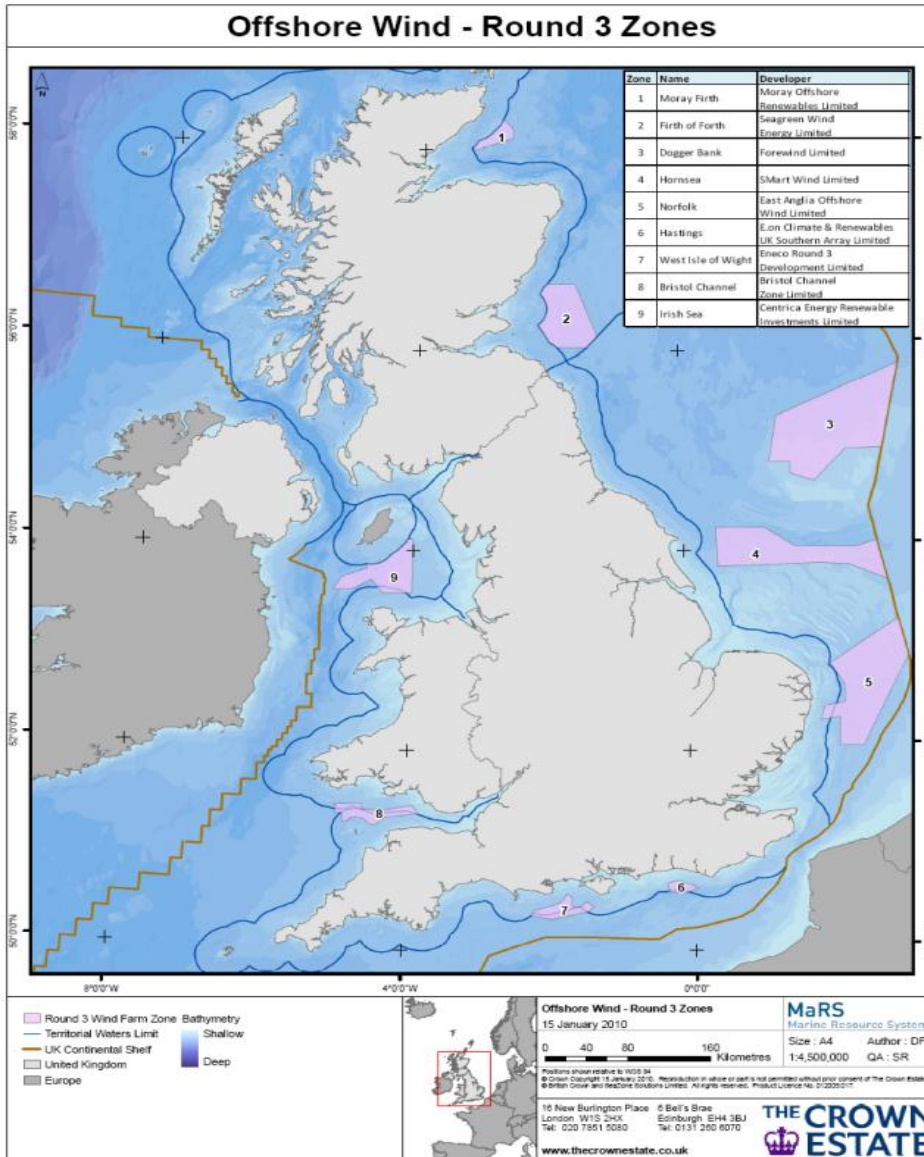


Why Do This? – The Numbers

- We need to **replace a quarter** of our existing generating capacity by **2020**.
- Around **30%** of our electricity in **2020** needs to come from renewable sources (largely onshore and offshore wind), up from **6.6%** today.
- The Committee on Climate Change has recently proposed that the power sector should be close to **zero-carbon** by **2030**.
- Demand for electricity may need to **double** by **2050** as electricity meets more of our heating and transport needs.

Source: DECC Electricity Market Reform Consultation – Dec 2010

Round 3: A new approach

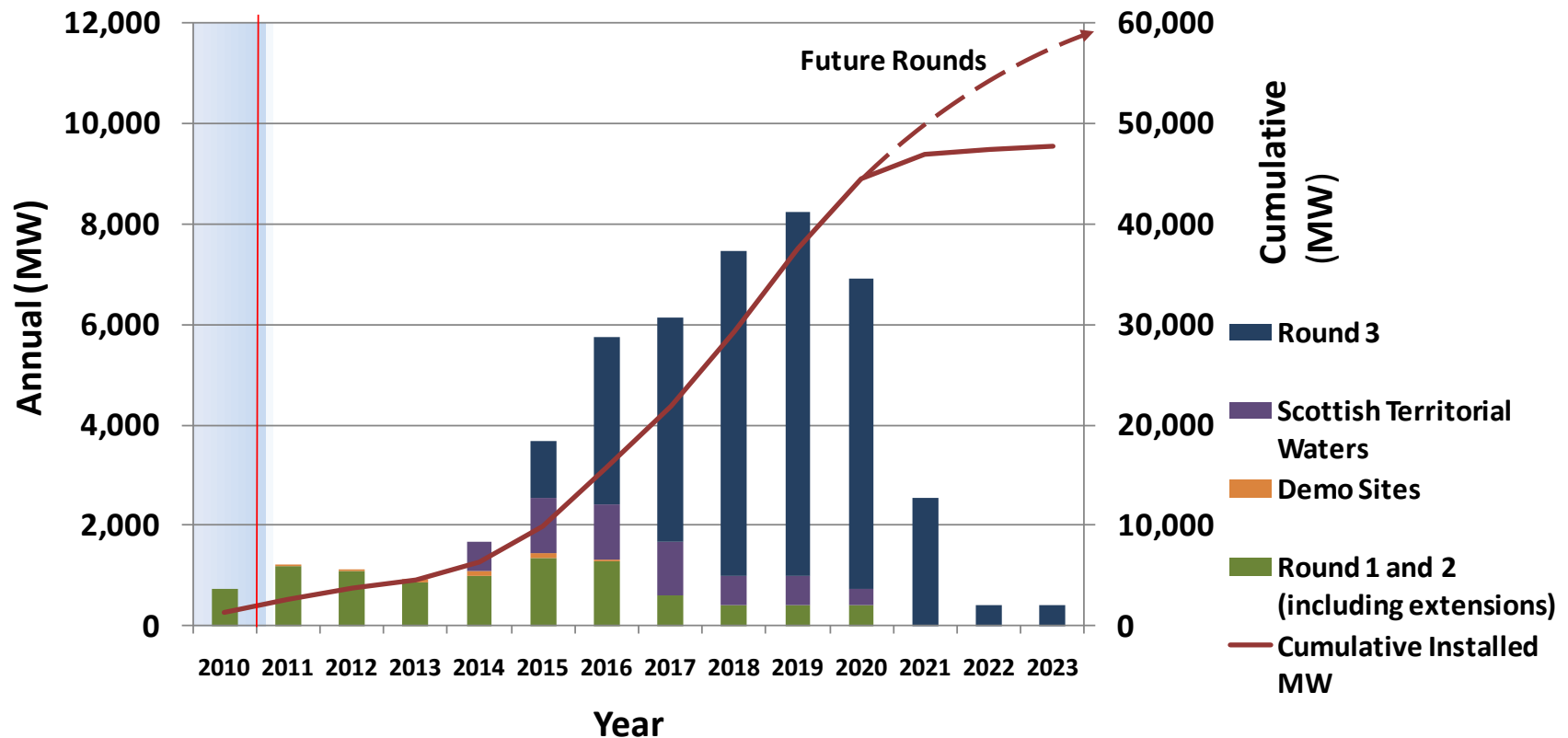


- Scale
 - Flexibility in project location within zones
 - Investment in supply chain and infrastructure
 - Est. 50,000 to 70,000 jobs*
 - 91% increase in full-time employment in the energy sector between 2007/08 and 2009/10
- The Crown Estate as a development partner

*Industry estimates/The Carbon Trust

UK Offshore Wind Market

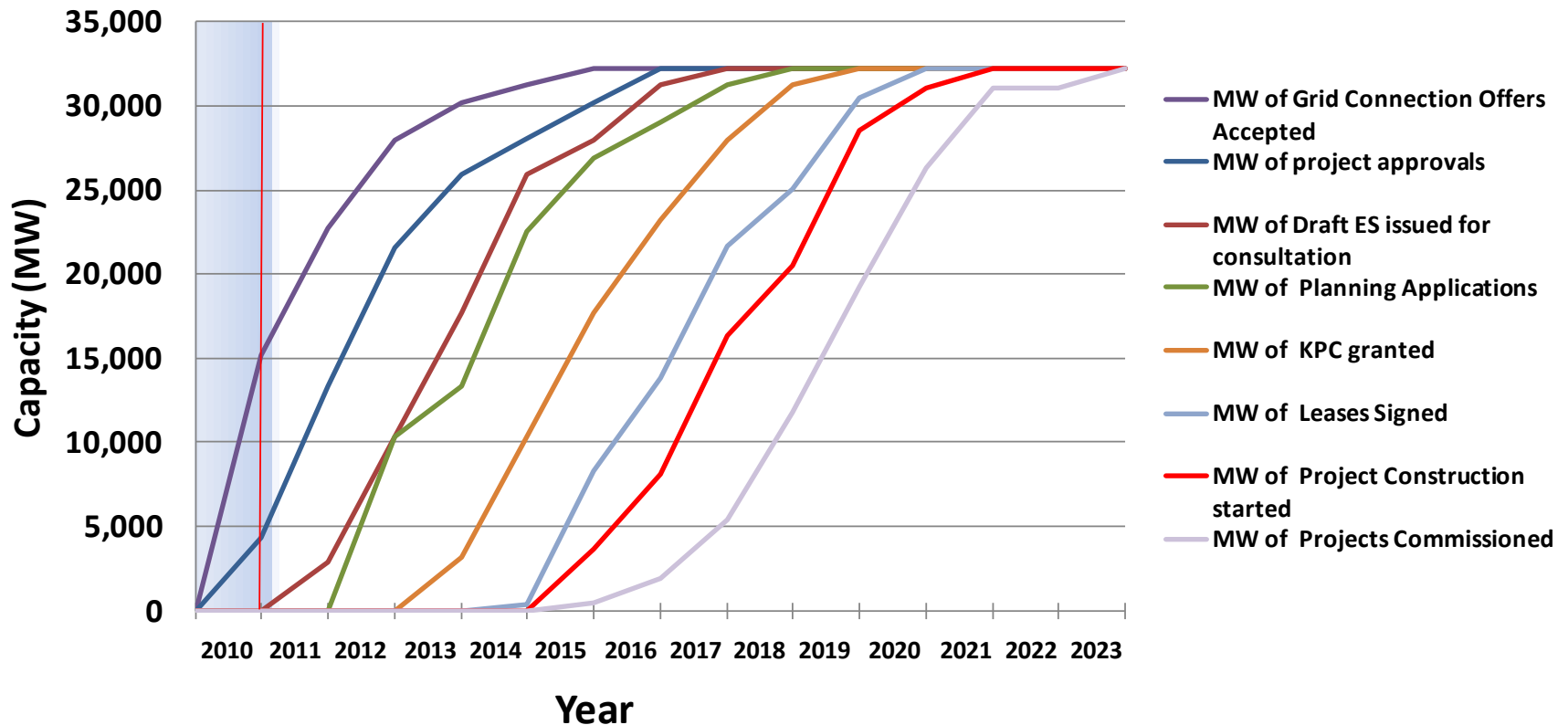
Opportunity for generating capacity from all current leasing rounds



Information taken from Developers updated Dec 2010 forward plans and projected capacity

Round 3 Programme Update

Round 3 programme delivery curves

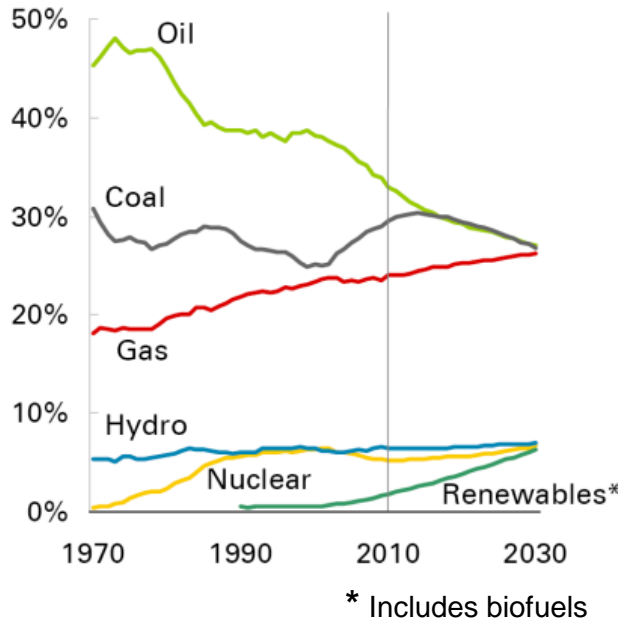


Information taken from Developers updated Dec 2010 forward plans and projected capacity

Investment

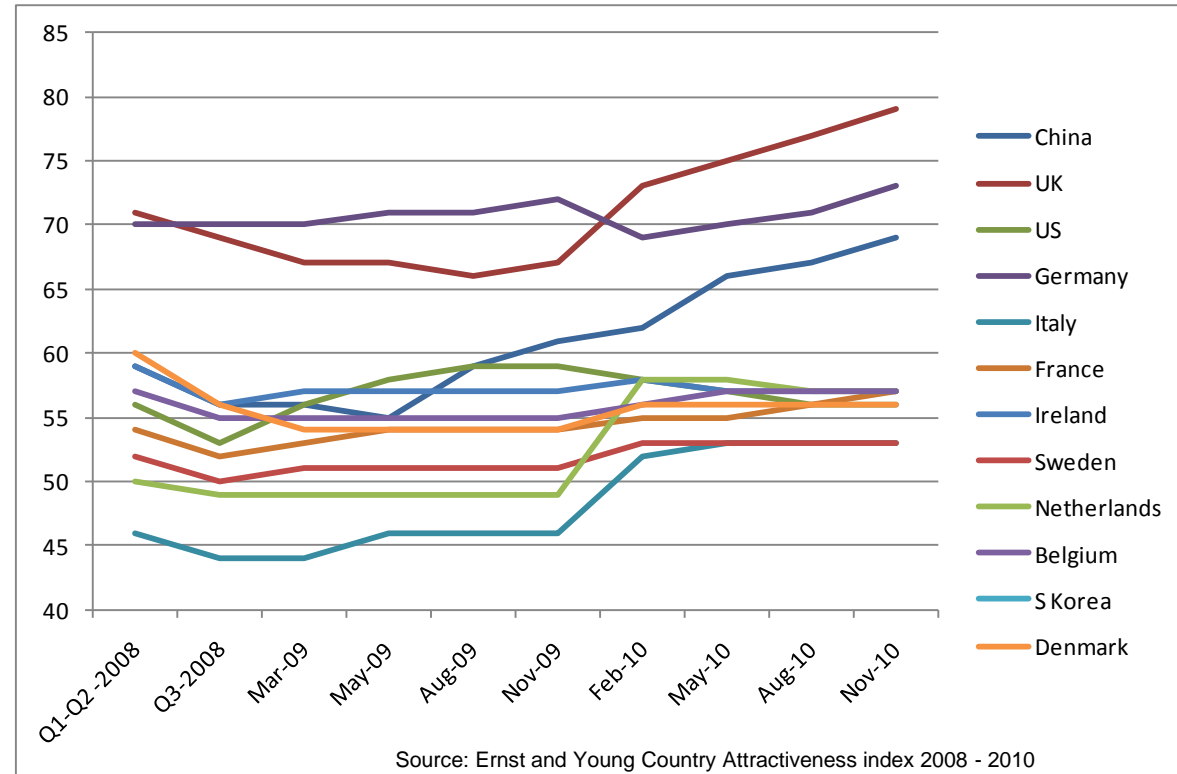
Future global energy mix

Shares of world primary energy



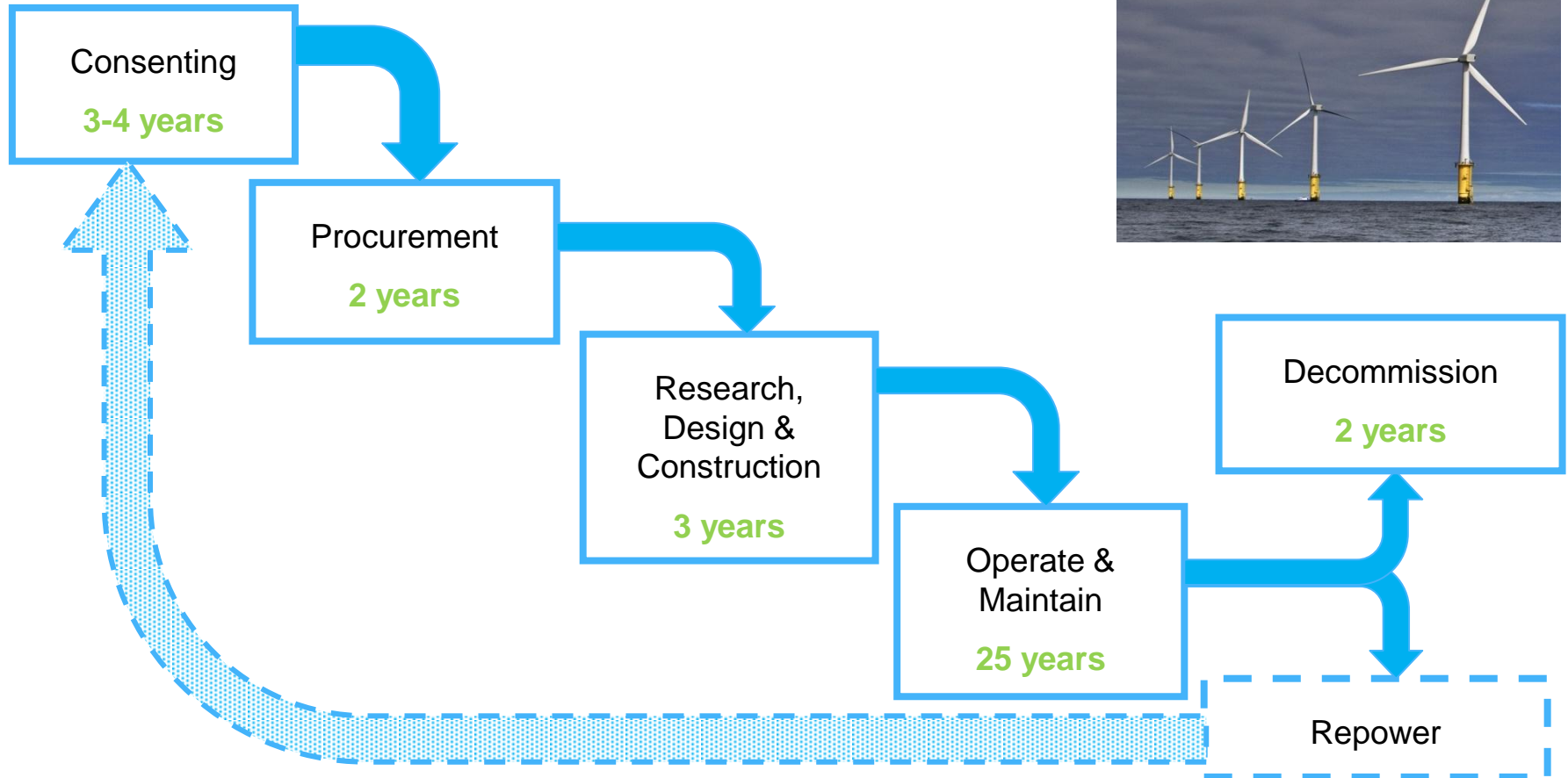
Source: BP 2030 energy outlook Jan 2011

Offshore Wind Investor Attractiveness Index



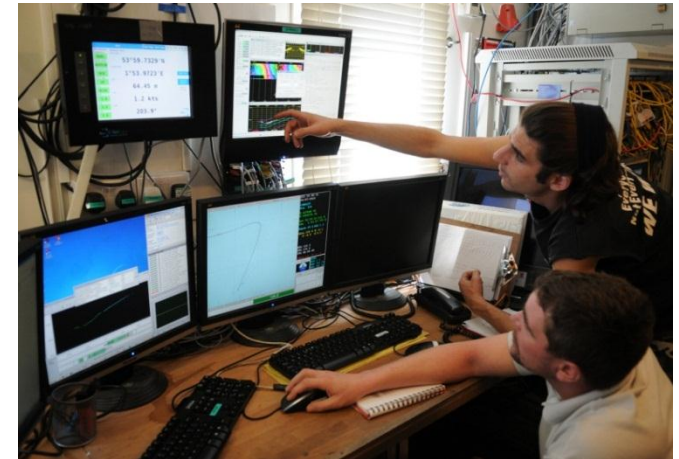
Source: Ernst and Young Country Attractiveness index 2008 - 2010

The Offshore Wind Lifecycle



Consenting

Geologists	Communications
Archaeologists	Environmentalists
Ornithologists	Marine Planners
Air and ship crew	Marine Scientists
Town & Country Planners	Accountants
Radar Engineers	Project Managers
Health & Safety Specialists	Wind Analysts
Contract Managers	Lawyers
GIS Specialists	Client reps



Picture Courtesy of Forewind

Procurement

Engineers (All)	Procurement Specialists
Lawyers	Accountants
Health and Safety Specialists	Project Managers



Pictures Courtesy of Forewind

Research, design and construction

Geologists	Communications
Engineers (All)	Environmentalists
Marine Crew	Mathematicians
Economists	Physicists
Naval Architects	Aeronautical Engineers
Aircrew	Logistics Specialists
Welders	Accountants
Power Systems Engineers	Project Managers
Electrical Engineers	Health & Safety Specialists
Wind Turbine Designers	Wind Analysts
Contract Managers	Lawyers



Pictures Courtesy of Forewind

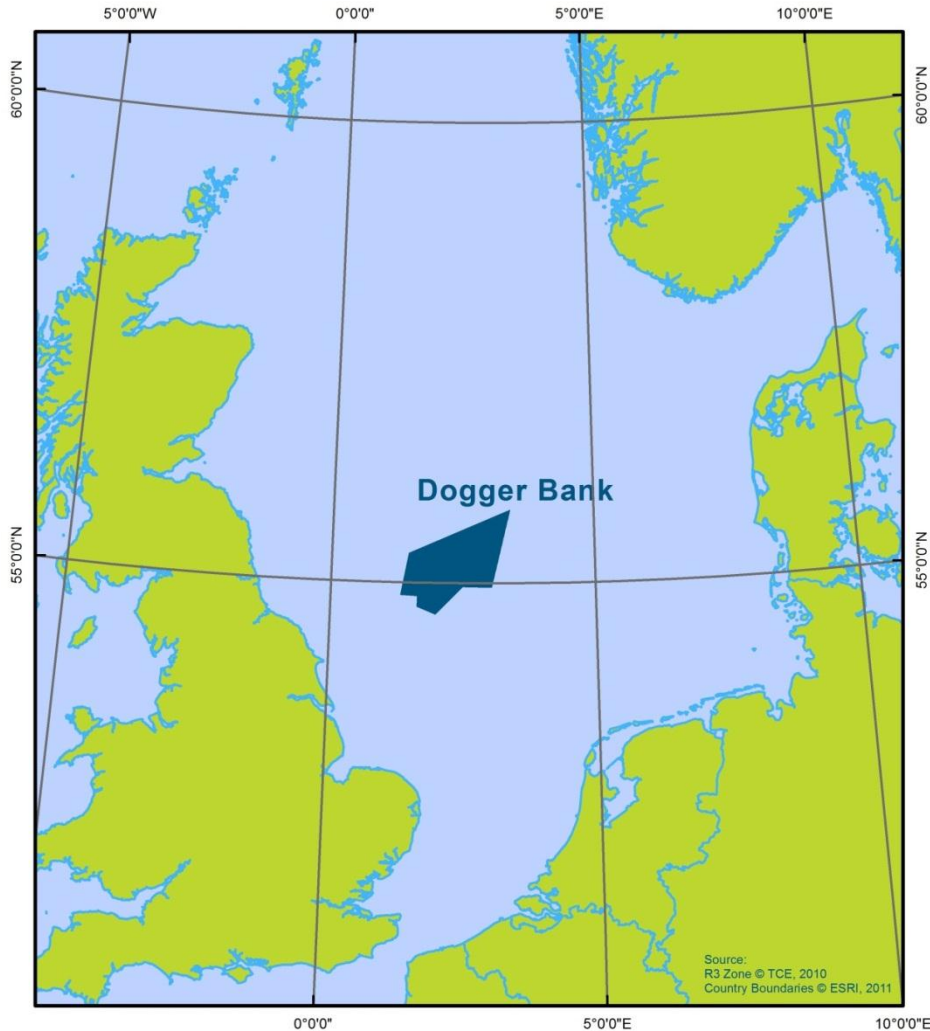
Operations & maintenance

Traders	Communications
Electrical Engineers	Environmentalists
Marine Crew	Welders
Economists	Aircrew
Naval Architects	Aeronautical Engineers
Logistics Specialists	Accountants
Vibration Engineers	Project Managers
SCADA & Control Engineers	Health & Safety Specialists



Pictures Courtesy of Forewind

Dogger Bank in a European context



- R3 has provided the UK with a huge opportunity to develop as a centre of expertise for the offshore wind industry

But!

- The UK is competing with Europe as a supplier of skilled labour, manufacturing facilities and support services

Thank You



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THE CROWN
 **ESTATE**