



Making Offshore Renewables Pay: Reduced cost anchoring and mooring

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Innovate UK

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Marine South East Ltd

- Sector consortium of over 3300 marine companies
- Key activities:
 1. **Building consortia to help companies gain market access**
 2. **Facilitating investment in innovation**
 3. **Promoting the marine sector to Governments and policy makers**

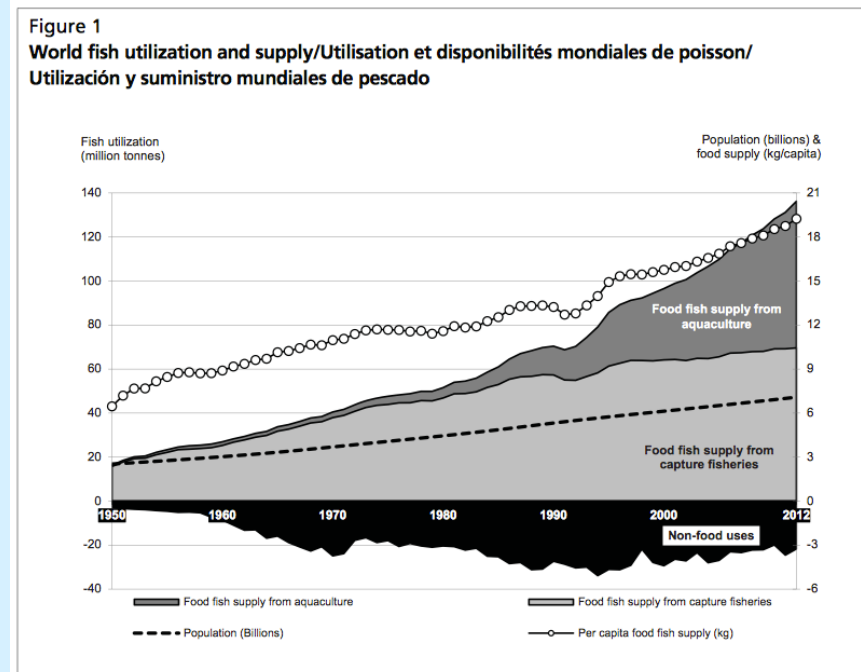
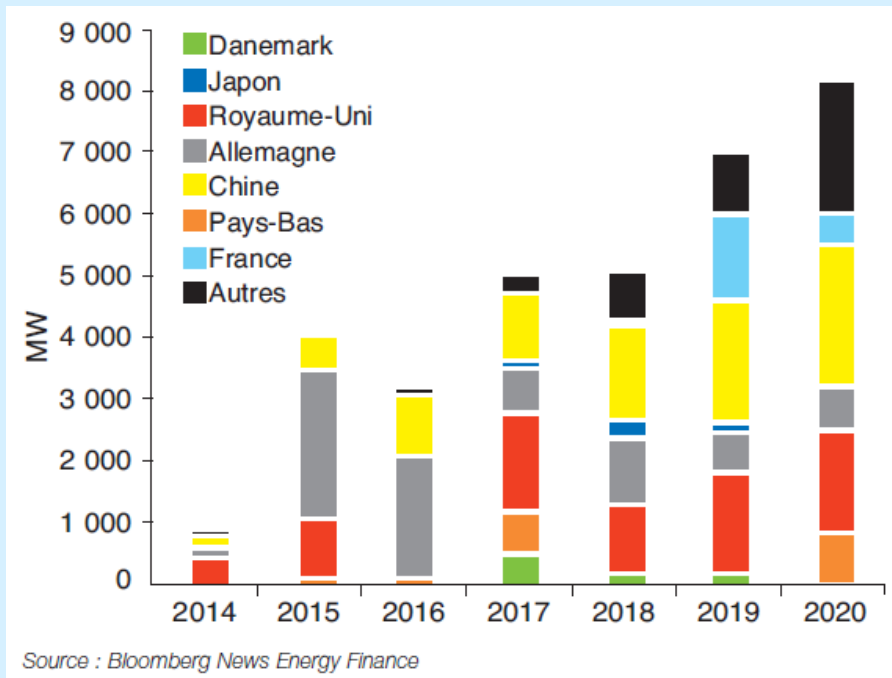


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Global Megatrends – Offshore Wind & Aquaculture

- Offshore wind now viable without subsidy
- Share for floating wind increases as farms move into deeper water
- Proportion of seafood produced from aquaculture rapidly increasing
- Large facilities being established offshore

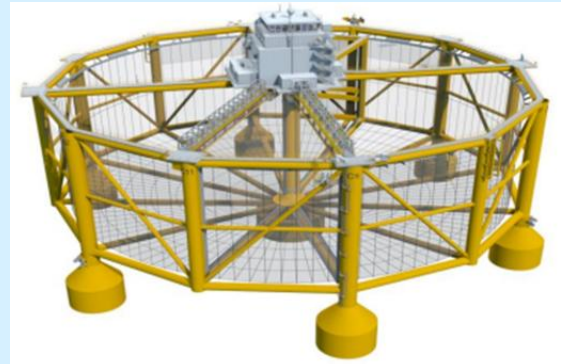


Wind Energy & Aquaculture



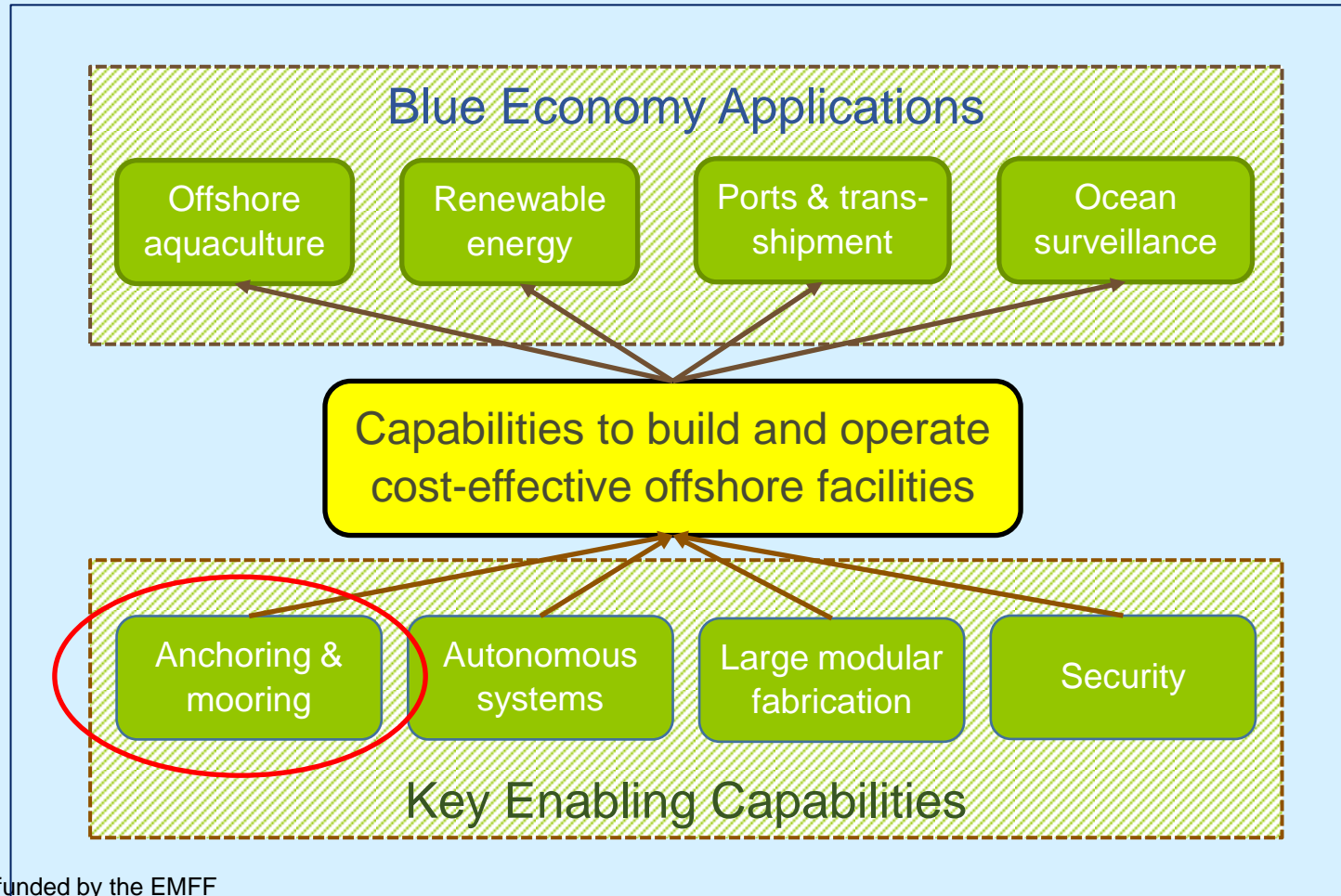
Single structure supporting both wind turbine and aquaculture facility?

- synergies?
- potential conflicts?
- business model?



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Build a 'Capability Infrastructure'



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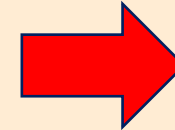


Low-cost Anchoring



- Most scope for cost reduction in marine renewables lies in:

- Foundations
- Installation
- O&M



High cost of marine operations in offshore environment

- Screw anchors as an alternative to piles and drag embedment anchors
 - Avoids use of specialist vessels and waiting-on-weather costs



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Offshore Anchoring Market

- Offshore oil & gas facilities:
 - Growing at 6%/year, \$1.5B by 2030
- Offshore floating wind:
 - 300GW capacity in Europe by 2030
 - Cumulative spend of around €5B (anchors alone)
- Offshore aquaculture:
 - 2MT/year global aquaculture capacity needed
 - ~€200M/year spend on anchoring



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Investment

- Private-sector consortium to build a commercial capability
 - Meeting anchoring requirements of floating wind and aquaculture markets
 - Key ‘pillar companies’
 - Floating windfarm developer
 - Global offshore mooring contractor
 - Seeking risk capital to co-finance the development up to offshore demonstration stage



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Marine South East:

*“Mobilising investment in innovation and capacity-
building across the Blue Economy”*

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