



# Making Blue Growth happen for SMEs

## *Smart Blue Regions*

### *Gdansk, 19/20 Sept 2016*

Jonathan Williams,  
Marine South East Ltd



# Blue Growth → Blue Jobs



## Blue Growth

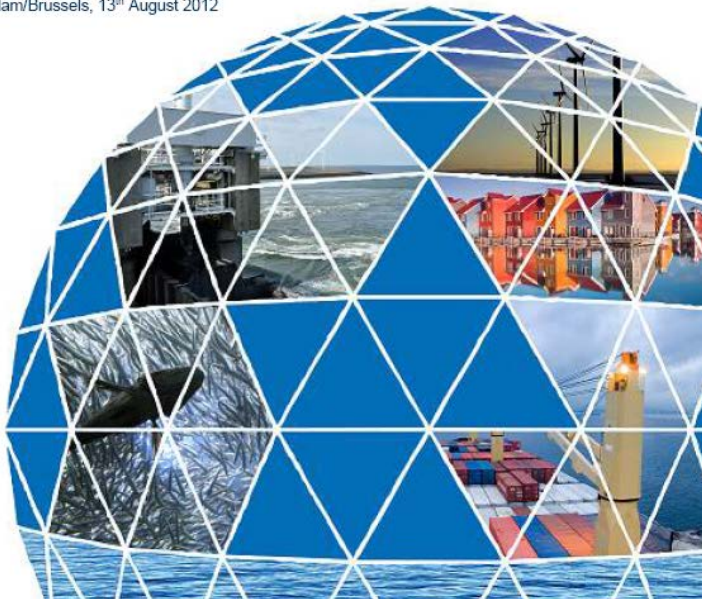
Scenarios and drivers for Sustainable Growth  
from the Oceans, Seas and Coasts

Final Report

Call for tenders No. MARE/2010/01

Client: European Commission, DG MARE

Rotterdam/Brussels, 13<sup>th</sup> August 2012



- Analysis can create the 'big picture'
  - Shows the Blue Economy is important
  - Drives top-down policy
- How to influence investment by SMEs?
  - Bottom-up 'small picture'
  - Collaborative investment



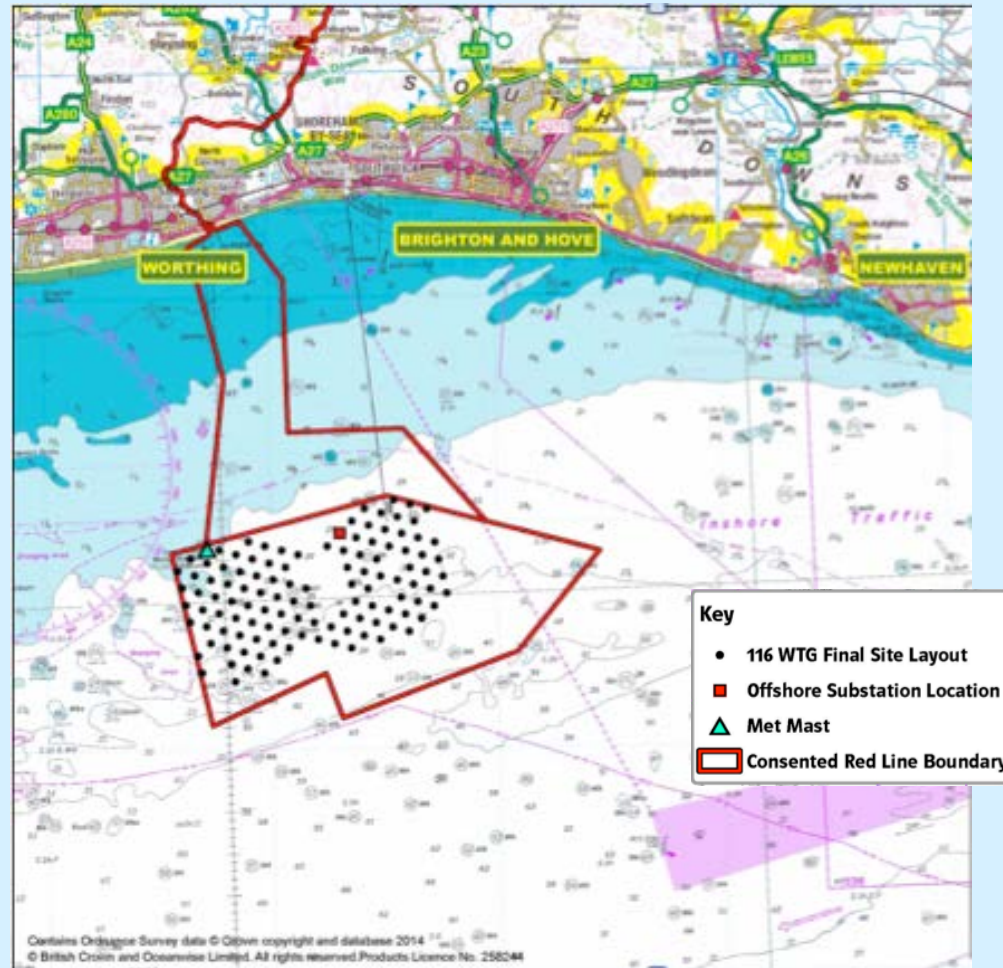
# Content

- Blue Growth value chains
  - Offshore wind sector as an example
- Barriers to SMEs selling into emerging Blue Growth markets
  - Lessons learned
- Example of value chain priorities for SMEs
  - Marine autonomous systems



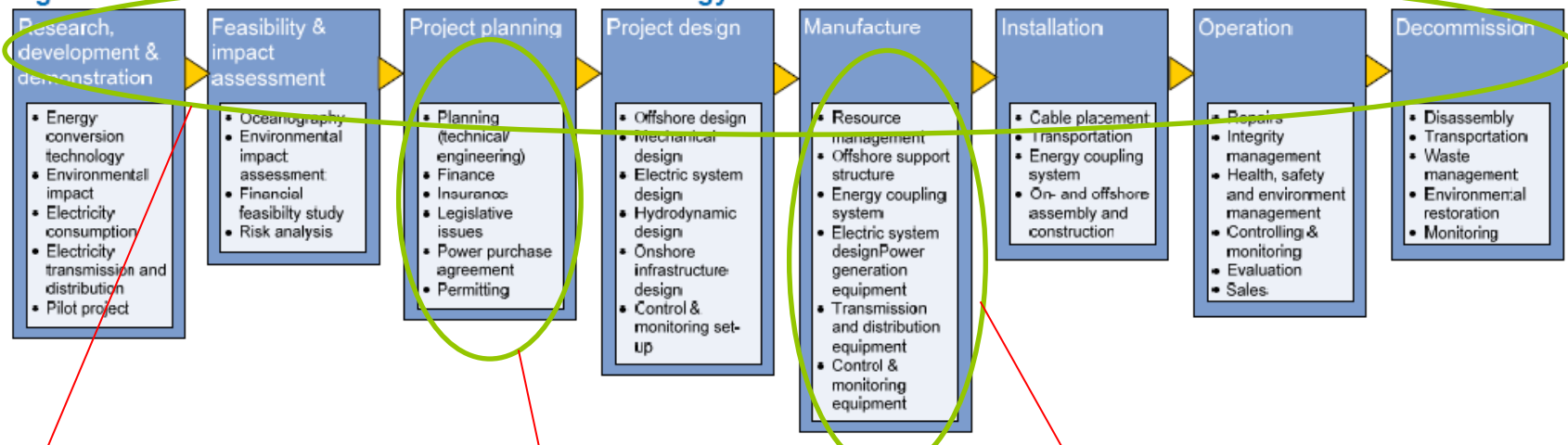
# Rampion Offshore Windfarm

- 116 turbines
- Hub height 84m / Tip height 140m
- 13-20km off Sussex coast
- 400MW installed electrical capacity
- 72km<sup>2</sup> wind farm site area
- Inter array cables to one substation
- Main contracts with large 'Tier 1' contractors
  - Many smaller firms are involved supplying equipment and services, mainly at Tier 3 and Tier 4



# Value Chain Example (DG Mare Blue Growth report)

Figure 1 General value chain for offshore wind energy



Long time-line,  
affecting investment  
proposition

Multiple value-adding  
services

Supply chain, diverse  
supplier base

# Supply Chain Categories

## Balance of Plant

- Cabling
  - Array cables
  - Export cables
  - Cable protection
  - Onshore cables
  - Accessories & terminations
- Offshore sub-station
  - Design & Engineering
  - Electrical system
  - "Facilities, HVAC & fittings"
  - Structure
- Onshore sub-station
  - Design & Engineering
  - Electrical system
  - Facilities
  - Groundworks
- Turbine foundation
  - Gravity base
  - Jacket/tripod
  - Pile
  - Transition piece
  - Scour protection
  - Ancillary fittings

- Procurement grouped under six main 'Tier 0' headings:
  - Project development
  - Port development
  - Turbine
  - Balance of plant
  - Installation & commissioning
  - Operations & maintenance
- 22 Tier 1 categories
  - Eg Balance of plant split into:
    - Cabling
    - Offshore sub-station
    - Onshore sub-station
    - Accessories & terminations
- 87 Tier 2 categories
  - Eg Onshore sub-station split into:
    - Design & engineering
    - Electrical system
    - Facilities
    - Groundworks

# Building a Regional Supply Chain

Map marine companies onto future procurement needs

6 awareness events & workshops in 2012

Grow database of registered suppliers

Meet the Buyer event Feb 2014: defined priorities

3 focused Meet the Buyer events in 2015

- Extensive outreach programme to SMEs
- Coordinated with project consenting & contracting timeline
- Supported by an on-line procurement portal

# Why is Value Chain Analysis important?

- In a very diverse marine & maritime industry, value-creation is often remote from the end market
  - Eg advanced non-marine engineering capacity supporting marine innovation
- Many markets require an increasing proportion of value-adding services. This represents a major opportunity for growth.
  - In contrast, traditional supply chain analysis focuses on material flows
- New markets (eg Blue Growth) must build upon expertise from the 'bed-rock' firms active in traditional markets
  - Map core capabilities needed to develop solutions in these markets (ie define 'cluster' capacity)
  - Presence of such expertise stimulates investment in diversification



# Blue Growth Markets



## Value-chain markets

Vessel construction, propulsion & fuels
Marine equipment & instrumentation
Marine autonomous systems
Maritime ICT ('Smart Ocean')
Marine & maritime services

## Market categories

Transport & logistics
Leisure
Defence & security
Energy resources
Living resources
Mineral resources

## Market segments

Ports & logistics		Shipping & shipbuilding	
Leisure craft, marinas		Cruise	
Naval	Surveillance	Coastal protection	Eco-systems
Oil & gas	Offshore Wind	Wave & tidal	Biofuels
Fishing	Aquaculture		Blue biotech
Aggregates		Seabed mining	

Mature	Growth-phase	Pre-development
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# Solutions for Managing Scour

- Autonomous scour monitoring:
  - Regular survey to detect trends
    - Low cost – can be run after extreme storm event
  - Data analytics to forecast scour risk
    - Sensors on autonomous vehicle
    - Sediment models
    - Metocean data
    - Assimilation tools



# Marine Autonomous Systems: innovation opportunities

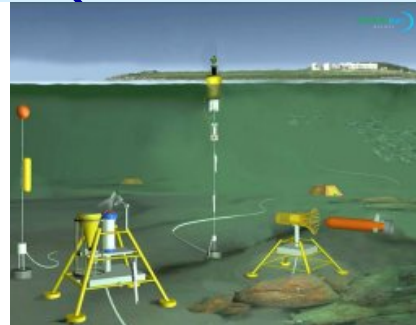
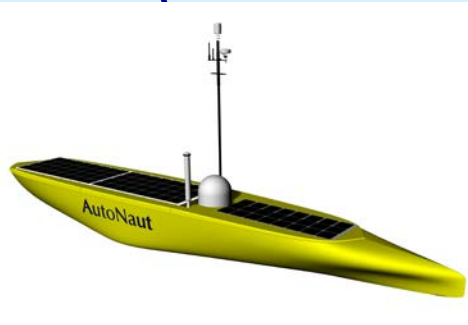
Value Chain serving multiple end-user markets

Components  
(eg sensors)

Equipment &  
platforms

Integrated  
systems

Added-value  
services



Identification  
& tracking

Spill  
response

Asset  
management

Seabed  
survey &  
mining

Fisheries  
management

# Conclusions

- Blue Growth value chain perspective can bring more detail into specialisation priorities
  - Input to smart specialisation (S3) priorities
  - Help SMEs to see specific opportunities
- Many SME opportunities in:
  - Value chains serving multiple Blue Growth markets
  - Often at tier2 to tier4 supply chain activities
  - Cross-sector consortia allowing SMEs to diversify into Blue Growth
- Cluster organisations have a key role
  - Value chain analysis and prioritisation, based on commercial knowledge
  - Building relationships for critical mass (inter-region, inter-sector and inter-business)
  - Exploiting triple-helix influence





# Marine South East: *a cluster organisation supporting investment in the Blue Economy of the UK Solent region*

2 Venture Road

Southampton Science Park

Southampton SO16 7NP

UK

Tel: +44 (0)23 8011 1590

[www.mseuk.org](http://www.mseuk.org)

