

# Coastal Futures - 2019



## SUDG – a socio-economic update

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[www.sudg.org.uk](http://www.sudg.org.uk)



## Current situation

- SUDG industries make a significant contribution to the UK economy
- Environment needs protecting and improving
- Extensive experience of working with legislation and regulators

# Future goals for environment and economy



- Need for economic growth to meet UK targets for energy, climate change etc
- Better alignment of socio-economic targets to parallel environmental targets?
- 25 year Environment Plan, ecosystem services, net gain and natural capital



# Current approaches from SUDG: environmental:



- Working with conservation NGOs
  - Shared objectives
  - Development of agreed good practices
  - Joint statement
- Better ways to comply with legislation
  - Better regulation
  - Link compensation to site management
  - Ecosystem and natural capital



# Current approaches from SUDG: socio-economic:



## Updating information on:

- Economic value to UK economy
- Value to societal well-being
- Benefits of sustainable development
- Positive and negative impacts on natural capital assets



# Socio-economic study ABPmer and ICF



## What

- Social and economic data
- Future trends
- Preliminary look at Natural Capital

## How

- Differing sources of information for different sectors
- As accurate as possible
- Not necessarily the same methods as used in 2008, but still consistent between sectors



# Definitions for both social and economic data



**Direct impact:** the value generated and jobs supported directly by the economic activities of businesses in the sector.

**Indirect impact:** the value generated and jobs supported in industries as a result of the sector's purchase of goods and services inputs from its UK supply chain.

**Induced impact:** the value generated and jobs supported in the wider economy when the direct and indirect employees of the sector spend their wages and salaries.

# Future trends in sector activity

- Three scenarios
  - Business as Usual
  - Nature at Work
  - Local Stewardship
- Approach
  - Identify key drivers of sector activity
  - Relative influence of drivers under scenarios
  - Indicative projections about future sector growth





# Value of key sectors



Sector	GVA (£m) <sup>i</sup>	Change (%) <sup>ii</sup>
Minerals	247	5
Oil and gas	23516	-18
Offshore wind	3411	10.7
Wave and tidal	267	6.9
Ports	23810	1
Recreational boating	4720	- 2.4

**3.2% of  
total GVA  
UK**

i. Direct + indirect + induced

ii. Average growth per annum over last 5 or 7 years (depending on sector)

# Number of jobs in key sectors

Sector	Number of jobs <sup>i</sup>
Minerals	1791
Oil and gas	280000
Offshore wind	30500
Wave and tidal	3242
Ports	690000
Recreational boating	142824



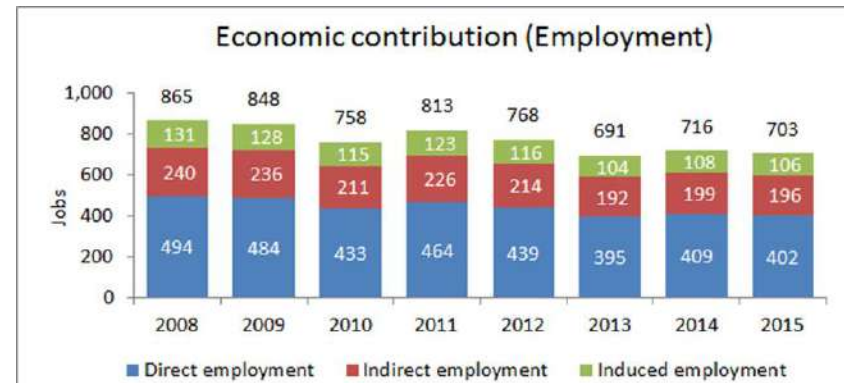
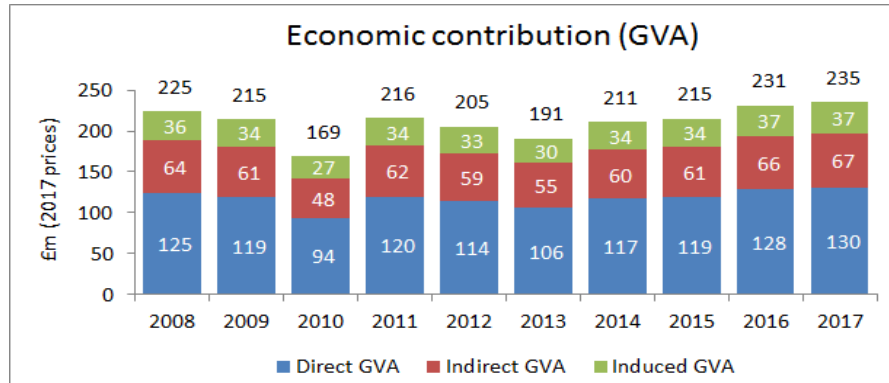
**Total number of jobs = 1,154,000**

i. Direct + indirect + induced

# Mineral extraction: economic value



- Recovery since economic downturn
- £34m of capital investment over ten years to 2015

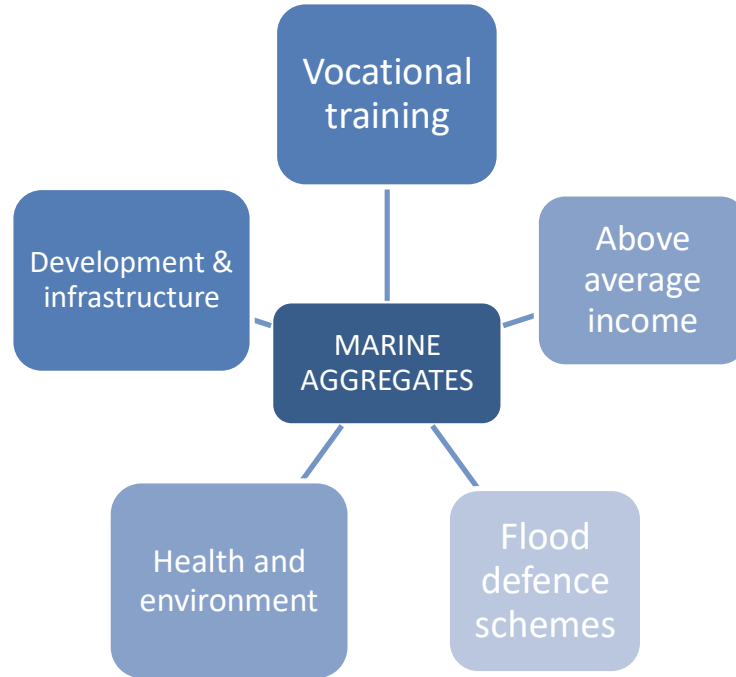


# Socio-economics – Mineral extraction social value

## Examples:

- 2012 London Olympic site,
- Heathrow Terminal 5,
- Crossrail,
- Cardiff Bay Barrage,

Barges carry 18,000 tonnes of marine-dredged aggregate to London every day replacing 900 lorry movements.



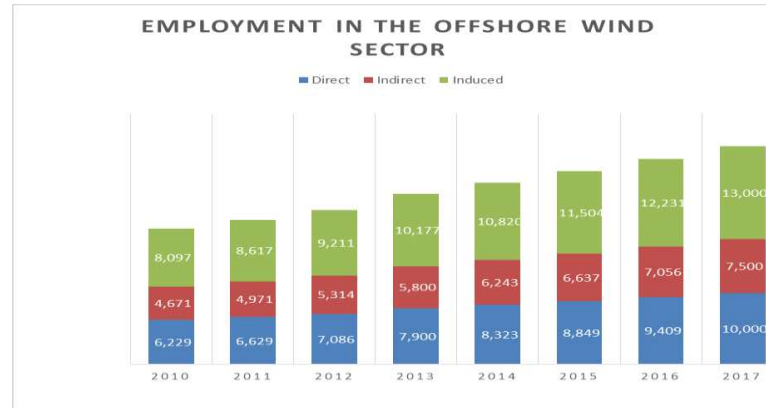
Lincshire is the largest beach nourishment scheme in the country protecting beaches and property from Mablethorpe to Skegness. value of £3bn

# Marine aggregates: future scenarios



	<b>Business as Usual</b>	<b>Nature at Work</b>	<b>Local Stewardship</b>
<b>Key drivers</b>	<ul style="list-style-type: none"> <li>Construction demand</li> <li>Climate change</li> </ul>	<ul style="list-style-type: none"> <li>Construction demand</li> <li>Climate change</li> </ul>	<ul style="list-style-type: none"> <li>Construction demand</li> <li>Climate change</li> </ul>
<b>Growth</b>	<p>In line with OBR growth projections</p> <p>80% land sand and gravel / 20% marine sand and gravel</p>	<p>&gt; BAU</p> <p>National infrastructure projects (e.g. nuclear)</p> <p>Increased beach recharge</p> <p>Increased contribution of marine sourced aggregates</p>	<p>&gt; BAU</p> <p>Local infrastructure/energy projects (e.g. tidal lagoon)</p> <p>Increased beach recharge</p> <p>Increased marine sourced aggregates</p>

# Socio-economics – Offshore wind economic value



## Offshore wind in the UK – Estimated Direct, Indirect and Induced GVA (£m)

	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Direct	672	790	862	937	1,019	1,118
Indirect	504	580	646	703	764	839
Induced	874	1,018	1,120	1,218	1,325	1,454
<b>Total</b>	<b>2,050</b>	<b>2,388</b>	<b>2,628</b>	<b>2,859</b>	<b>3,109</b>	<b>3,411</b>

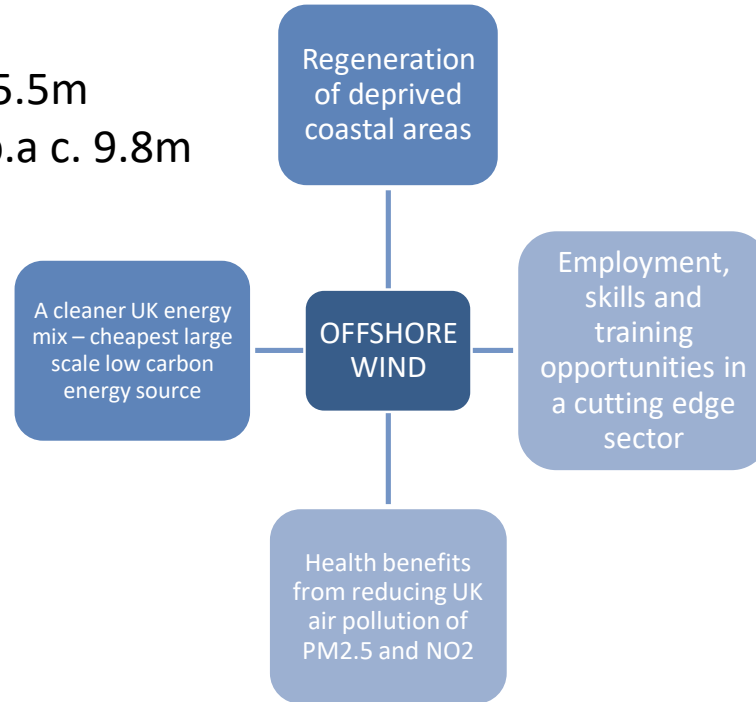
# Offshore wind economic value



- UK leads the world in offshore wind development
  - 43% of Europe's capacity
  - world's largest offshore wind farm (Walney Extension)
  - world's first 8 MW turbines (Burbo Bank Extension);
  - world's first floating offshore wind farm (Hywind)
  - pioneering new designs
- Rapid turnover and GVA growth ~10%pa since 2008
- Investment and growth continuing
- Over 1,000 UK supply chain firms

# Socio-economics – Offshore wind social value

Homes powered p.a. – c.5.5m  
CO2 reduction – tonnes p.a c. 9.8m



**Examples:**  
employment and regeneration on the Humber  
£310m investment in Green Port Hull facility, resulting in the creation of ~1000 jobs in the UK



# Offshore wind energy

	Business as Usual	Nature at Work	Local Stewardship
<b>Key drivers</b>	<ul style="list-style-type: none"> <li>▪ Climate change</li> <li>▪ Policy</li> <li>▪ Energy security</li> <li>▪ Restrictions on other sectors</li> <li>▪ Availability future lease areas</li> <li>▪ Technology</li> </ul>	As per BAU	As per BAU
<b>Growth</b>	<p>All planned projects progressed</p> <p>Additional capacity via deep water areas and new lease areas</p> <p>35 GW operating capacity by 2038</p>	<p>Technology enables development in previously unsuitable areas</p> <p>45 GW by 2038</p>	<p>Onshore community renewables reduce demand for OWFs</p> <p>30 GW by 2038</p>

# Early look at Natural Capital

- 25 Year Environment Plan highlights increases importance of natural capital thinking and opportunities for net gain
- Marine industries use natural capital assets (both biotic and abiotic assets) to deliver important socio-economic benefits
- Some uses are consumptive (oil and gas, marine aggregates); others are non-consumptive (wind energy, water transport)
- SUDG Report starts to explore positive and negative impacts associated with use of natural capital



# Summary



- SUDG industries are critical to marine and UK economy
- The environment needs protecting and enhancing
- We need better ways of examining socio-economic benefits and how they are used in decision making
- We need to find good working practices that everyone agrees deliver development and conservation

**Delivering sustainable development in the marine environment**