

Global Wind Energy – shipping & logistics

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Associations



Danish
Shipowners'
Association

The Danish Shipowners' Association

- Established 1884
- Trade organization
- Employers' organisation
- Represented in Brussels since 1989
- International cooperation with ECSA, ICS, IMO



Members of the DSA

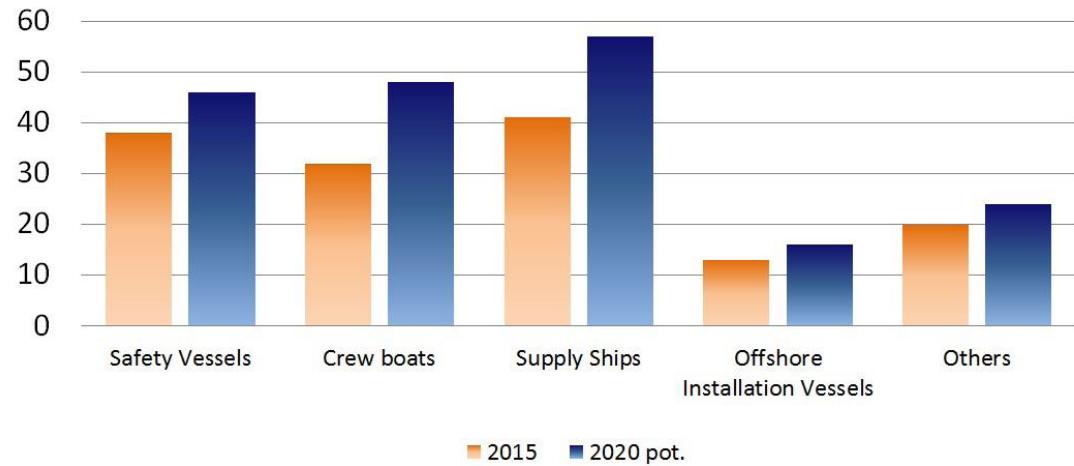


DANISH SHIOPNERS' ASSOCIATION

DK Maritime offshore wind

- 2011 – 15 : Increase in Northern European offshore wind capacity
- Similar increase in vessel capacity for DK offshore wind specialist shipowners
- x3 of installed capacity going forward to 2030

Vessels





The Ocean Economy in 2030

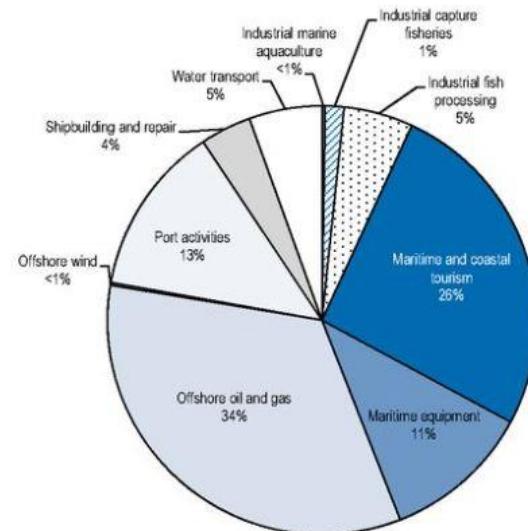


<http://www.oecd.org/futures/oceaneconomy.htm>

Launched 27th of april 2016:
<https://www.oecd.org/futures/OECD-Oceans-Symposium-Agenda-Seoul-April-2016.pdf>

Offshore wind creates limited value add 2010

Figure 1.2. Value added of ocean-based industries in 2010 by industry



1 percent of
1,5 billion USD
= not much

StatLink <http://dx.doi.org/10.1787/88893334614>

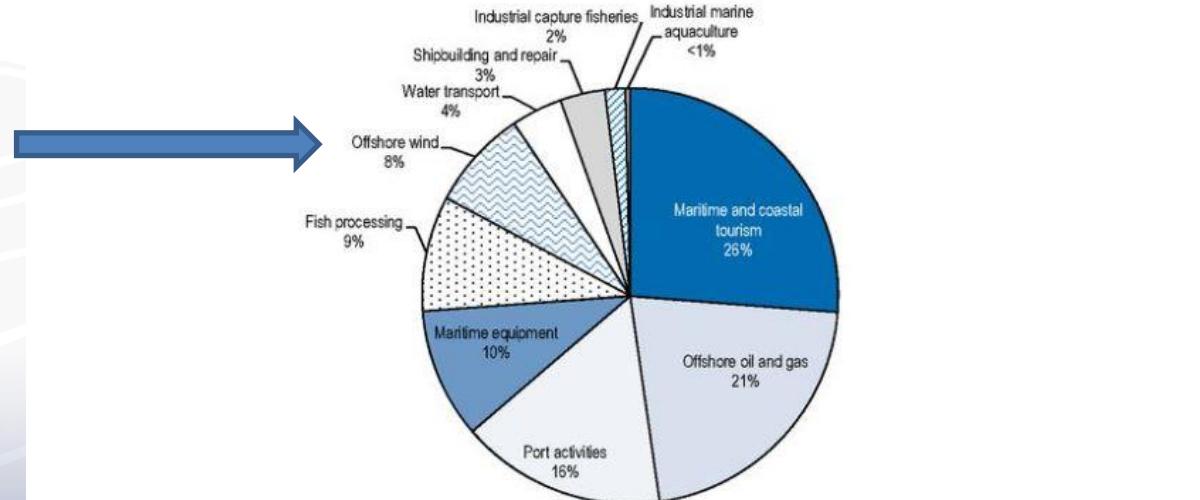
Note: Artisanal fisheries are not included in this overview.

Source: Authors' calculations based on OECD STAN, UNIDO INDSTAT, UNSD, World Bank (2013); IEA (2014); OECD (2014); and various industry reports.

But OECD predicts a major boom in 2030

8 percent of 3 billion USD =
A lot!

Figure 1.6. Value added of the ocean economy in 2030 in the business-as-usual scenario



Note: Artisanal fisheries are not included in this overview.

Source: Authors' calculations based on OECD STAN, UNIDO INDSTAT, UNSD; Lloyd's Register (2014; 2013); World Bank (2013); IEA (2014).

Yearly growth rates of 25 pct. for GVA . provides massive numbers

Table 1.2. Overview of estimates of industry-specific growth rates in value added and employment between 2010 and 2030

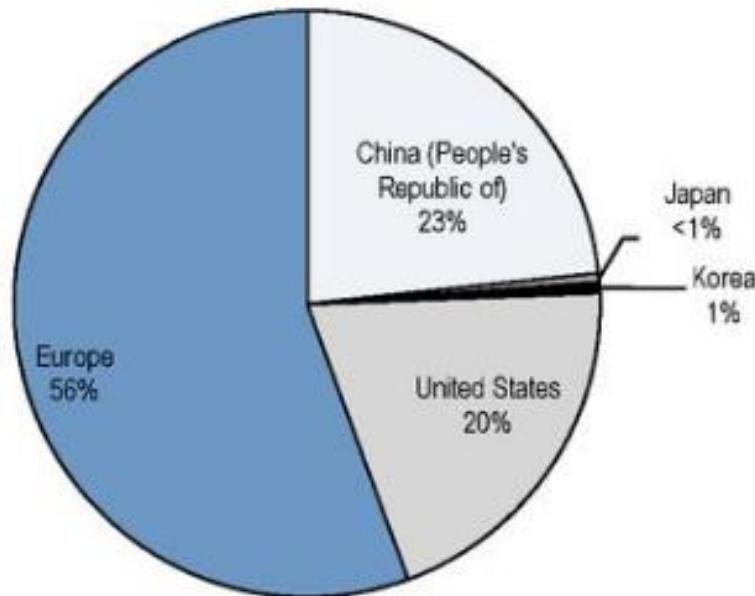
Industry	Compound annual growth rate for GVA between 2010 and 2030	Total change in GVA between 2010 and 2030	Total change in employment between 2010 and 2030
Industrial marine aquaculture	5.69%	303%	152%
Industrial capture fisheries	4.10%	223%	94%
Fish processing	6.26%	337%	206%
Maritime and coastal tourism	3.51%	199%	122%
Offshore oil and gas	1.17%	126%	126%
Offshore wind	24.52%	8 037%	1 257%
Port activities	4.58%	245%	245%
Shipbuilding and repair	2.93%	178%	124%
Maritime equipment	2.93%	178%	124%
Shipping	1.80%	143%	130%
Average of the total ocean-based industries	3.45%	197%	130%
Global economy between 2010 and 2030	3.64%	204%	120% ¹

1. Based on projections of the global workforce, extrapolated with the UN medium fertility rate.

Source: Authors' calculations based on OECD STAN, UNIDO INDSTAT, UNSD; Lloyd's Register (2014; 2013); World Bank (2013); IEA (2014); FAO (2015).

... and offshore wind turns truly global

Figure 8.6. Shares of value-added of offshore wind in 2030

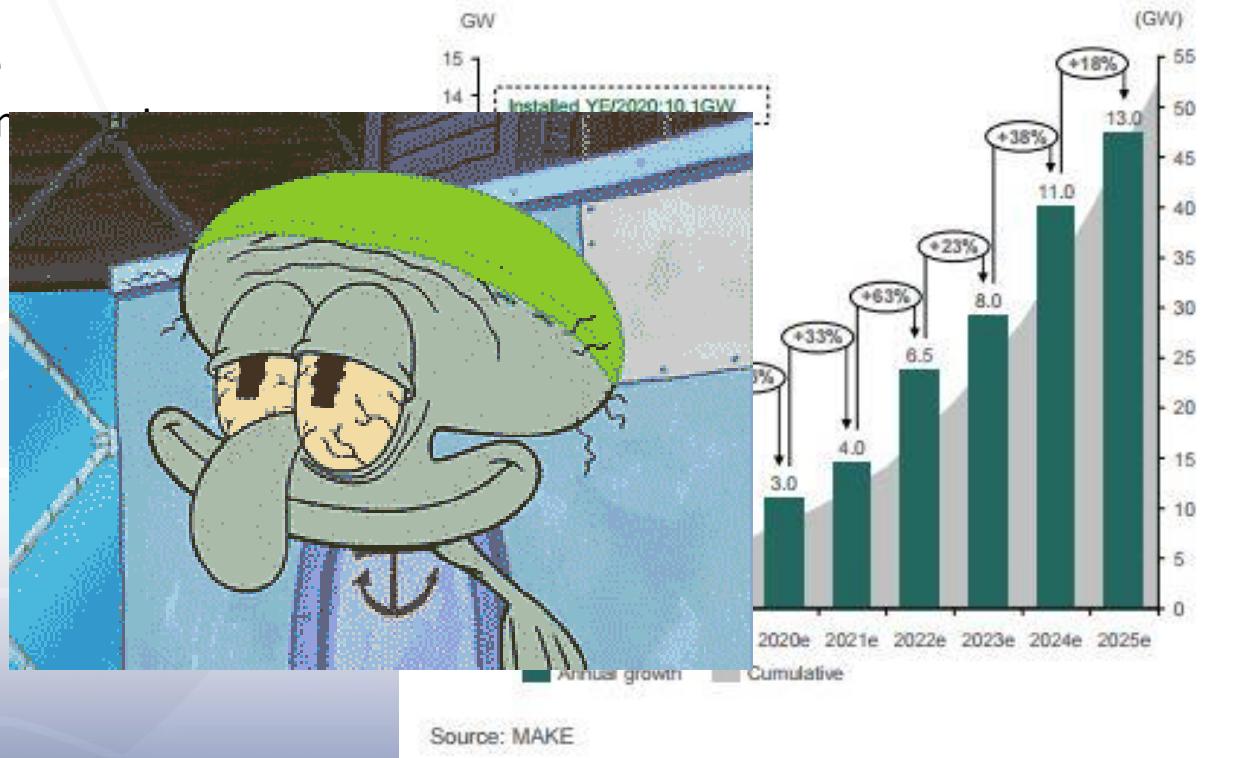


Extrapolated to
housing more
than 435.000
jobs (page 212)

Figure 10. Offshore wind power outlook, 2016e to 2025e

Chinese market

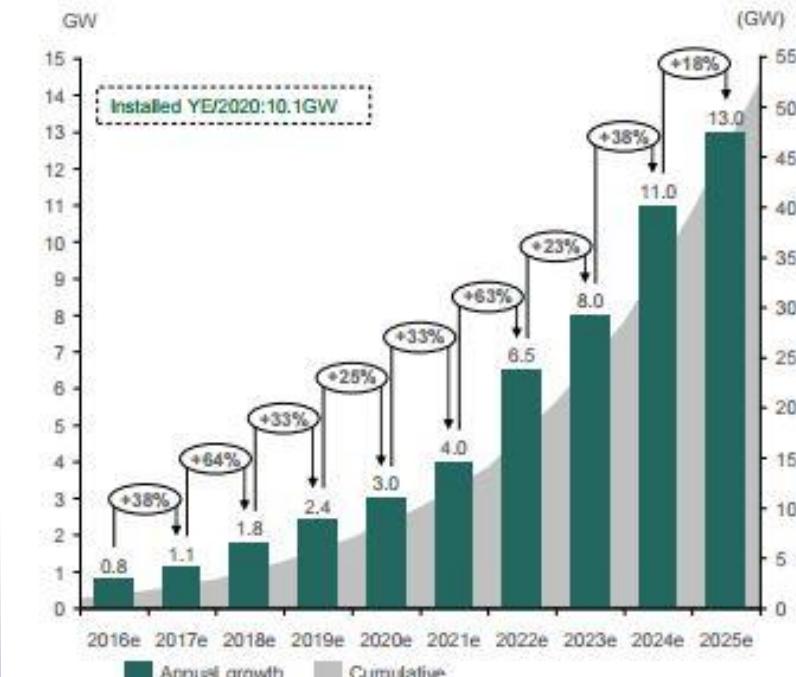
- National offshore development plan ambitions



Chinese market

- National offshore development plan - great ambitions
- Several barriers to growth
- Still – China hugely important for global offshore wind market going forward.

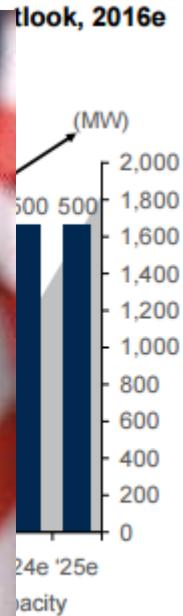
Figure 10. Offshore wind power outlook, 2016e to 2025e



Source: MAKE

US market

- 30 MW B
concept
- Massachu
- Barriers t



Moving forward

- Ambitions for joint North Sea strategy:
 - Joint OW planning – exploit the primary sites
 - Joint market design
 - Joint Maritime framework conditions(construction, safety)
- 2016 - Joint North Sea Commission



