



FROM PLANNING TO OPERATION: LEGAL AND REGULATORY ROAD FOR OWF DEVELOPMENT

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Project Manager
Lasse Sundahl

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Baltic Integrid project

“The project aims to...

...contribute to sustainable indigenous electricity generation,
...further integration of electricity markets and security of supply in the
Baltic Sea Region (BSR)

by

...optimizing the potential and efficiency of offshore wind energy (OWE).

It will present plans for a coordinated Baltic Sea offshore grid and
significantly reduce one of the most important bottlenecks for the
development of renewable energy sources in the BSR.”

DONG Energy today

Key figures 2015:

- DKK 70.8 Bn revenue
- DKK 18.5 Bn EBITDA
- ~6,700 employees

% share of capital employed as of 31 December 2015

Wind Power

75%



- Global leader in attractive offshore wind market
- Solid track-record in delivering large scale projects
- Cost-of-electricity being systematically reduced
- Robust and highly visible build-out plan
- Differentiated partnership model
- Attractive pipeline options post-2020

Danish utility

16%



- #1 power distribution network in Denmark
- #1 residential and industrial energy sales position in Denmark
- #1 in Danish heat and power generation with a strong and increasing biomass position
- REnescience: Innovative bioenergy technology for waste treatment

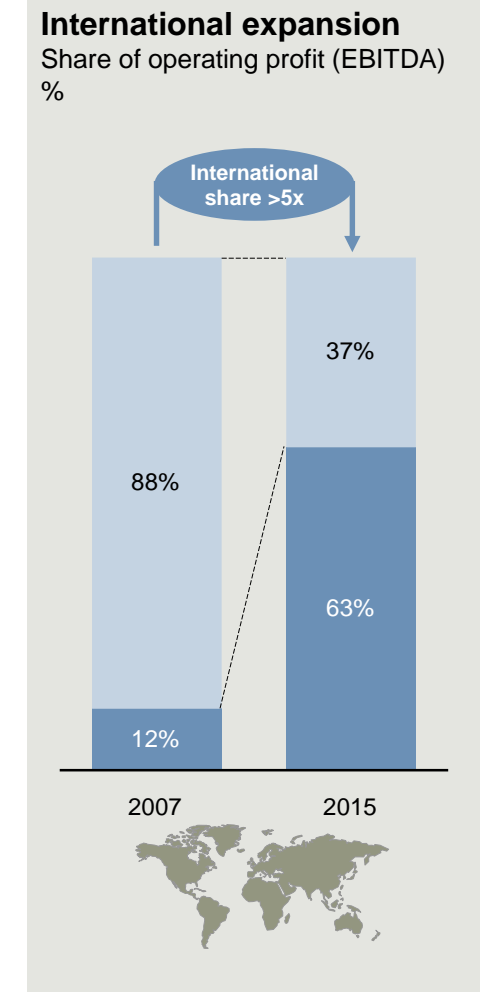
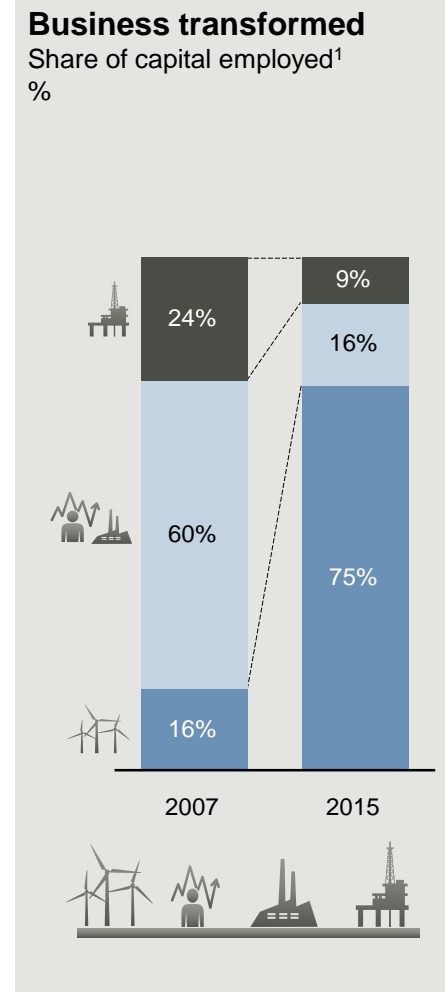
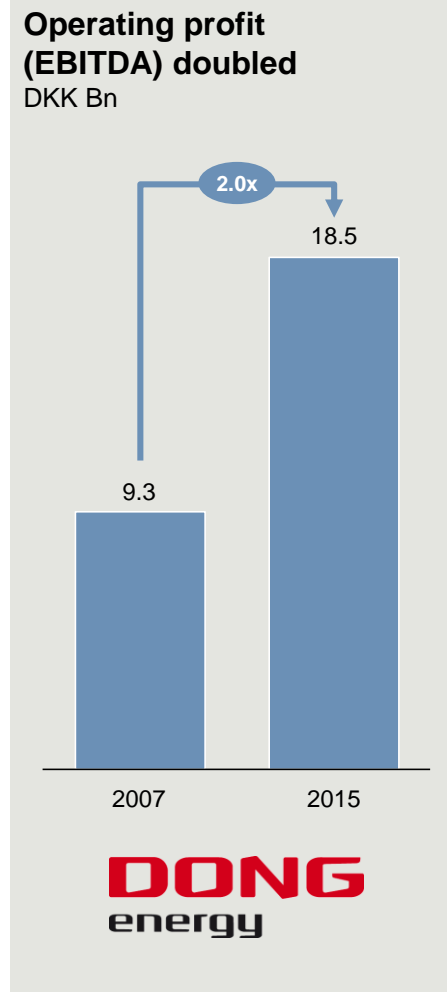
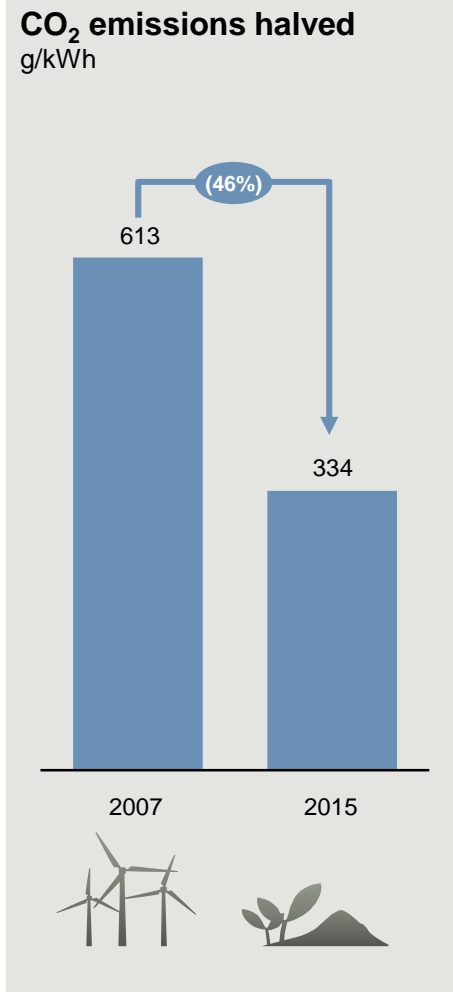
Oil & Gas

9%



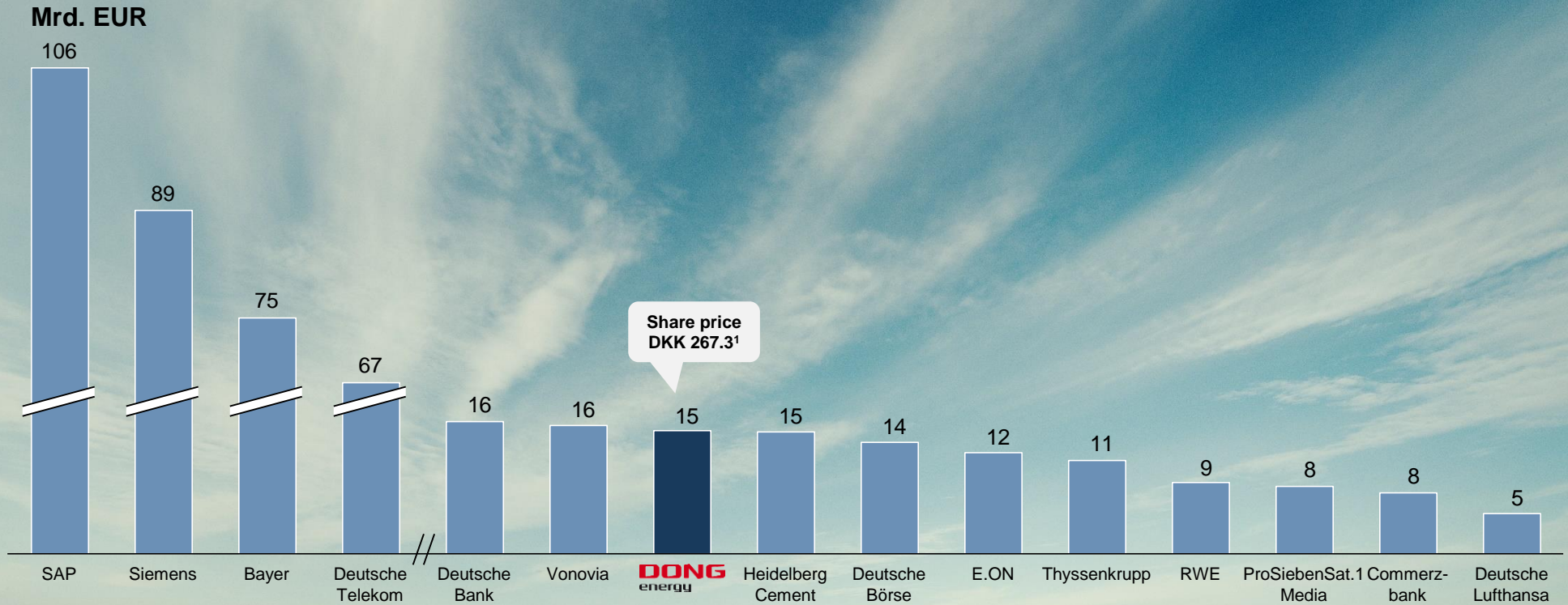
- Focused position with activities in Denmark, Norway and UK
- Low-cost, low-risk core assets
- Managed for cash to support renewable growth
- Strong hedging position

Significant transformation of DONG Energy over the past decade



1. Excluding unallocated capital employed on DONG Energy group level

In Deutschland wäre DONG Energy auf Platz 23 der börsennotierten Firmen...

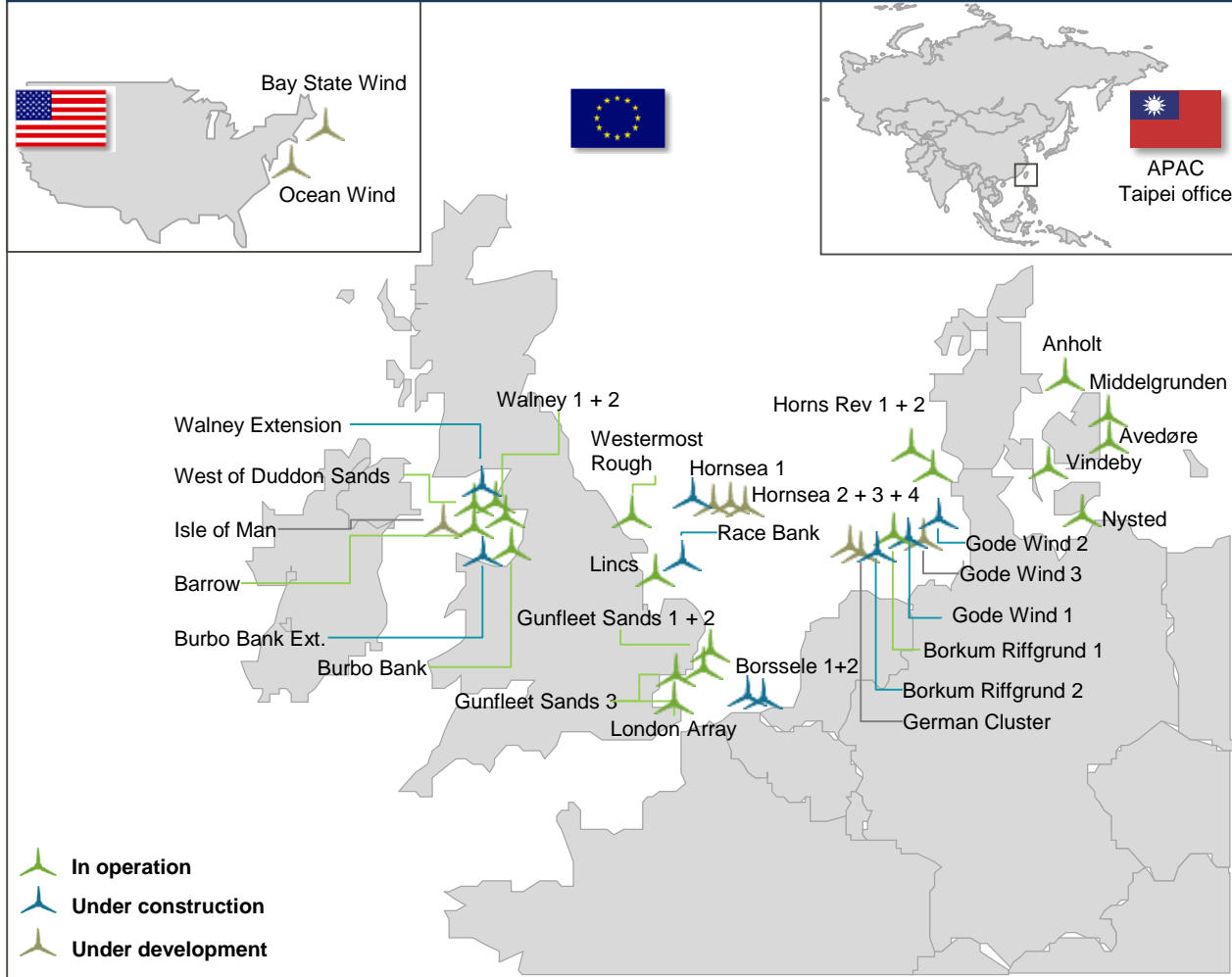


Source: FactSet as at 16.09.2016

1. EUR/DKK: 0.13431

DONG Energy Wind Power is the market leader within offshore wind

DONG Energy Wind Power geographical footprint



Unparalleled experience and track record

1991

25 years of experience and track record in the offshore wind sector

2016

19 offshore wind farms in operation

9 offshore wind farms under construction

3,009 MW
Constructed capacity

2,000
Dedicated employees

4,440 MW
under construction

7.5 million
Europeans with clean electricity

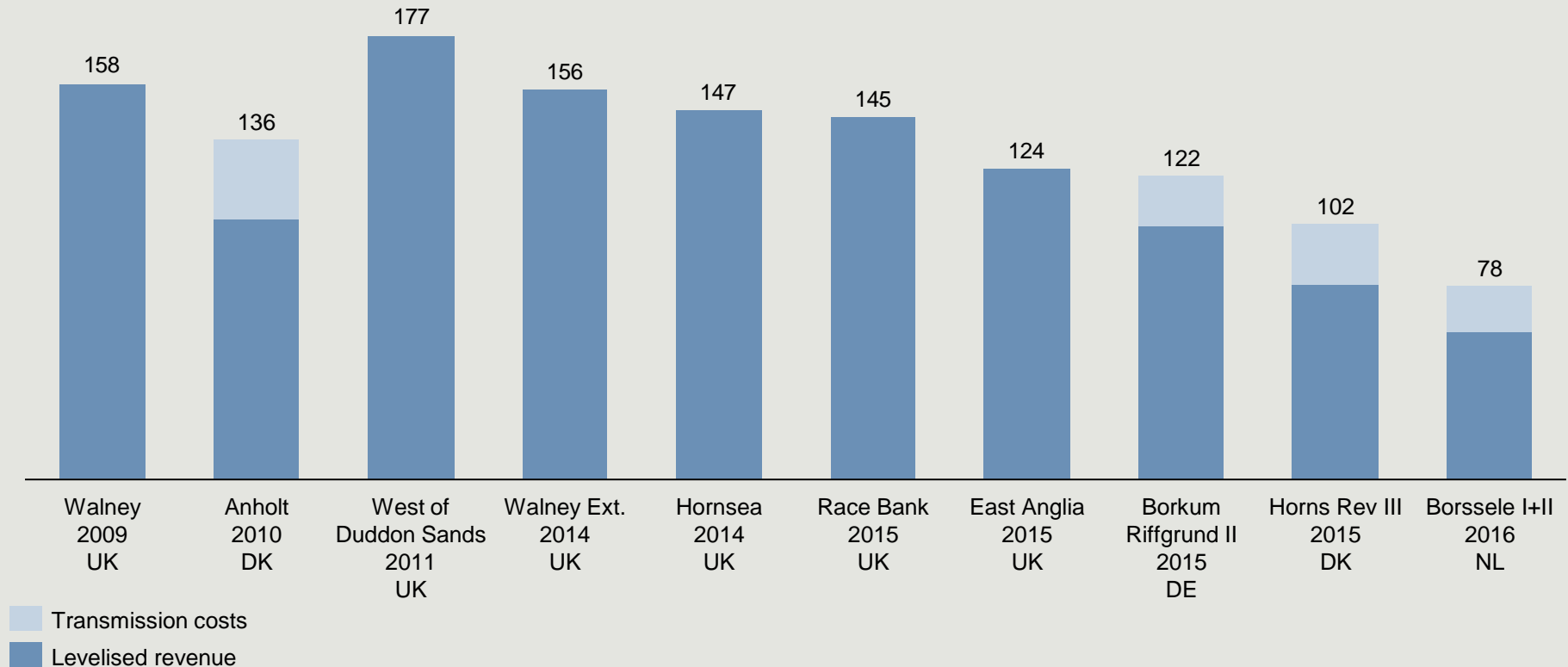
3,103 MW
World's leading operator

13
Partnerships

Costs of offshore wind are falling rapidly, and we expect that the industry can continue to push costs down

Offshore wind costs¹

Estimated at the year of contracting, EUR/MWh, 2016 prices



1: Average price for the electricity over the lifetime of the plant used as proxy for the levelised costs of electricity. It consists of a subsidy element for the first years and a market income for the remaining years of the 25 years lifetime. Discount rate of 3,5% used to reflect society's discount rate. Market income based on country specific wholesale market price projections at the time of contracting

Note: Exchange rate on July 7 2016 has been used. Adjustment of costs to account for the fact that the 2012 target was set for a UK project which primarily incl. costs of transmission and extra development costs.

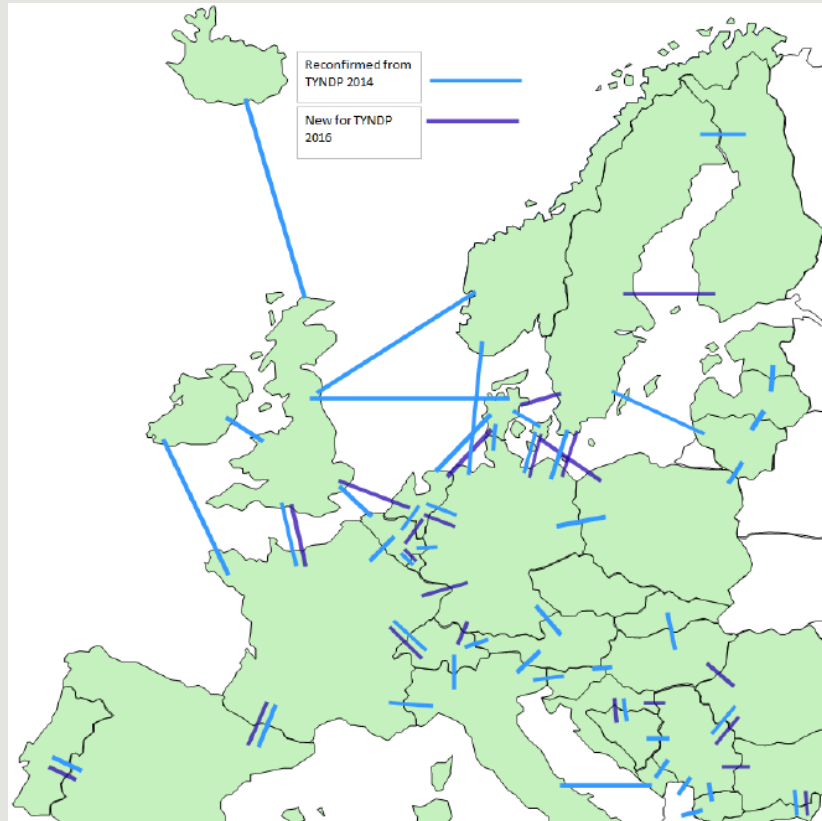
Source: DECC; Danish Energy Agency; Energinet.dk; NEV

The Baltic Sea Region today – already somewhat interlinked

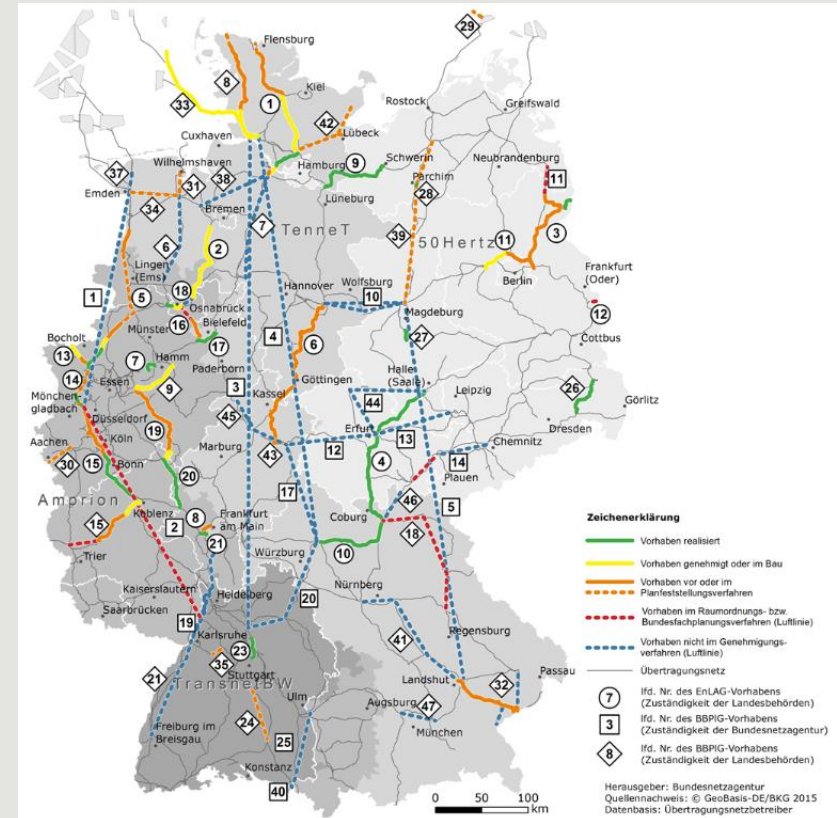


Transmission grid build out pipe line significant towards 2025, pipeline towards 2040/50?

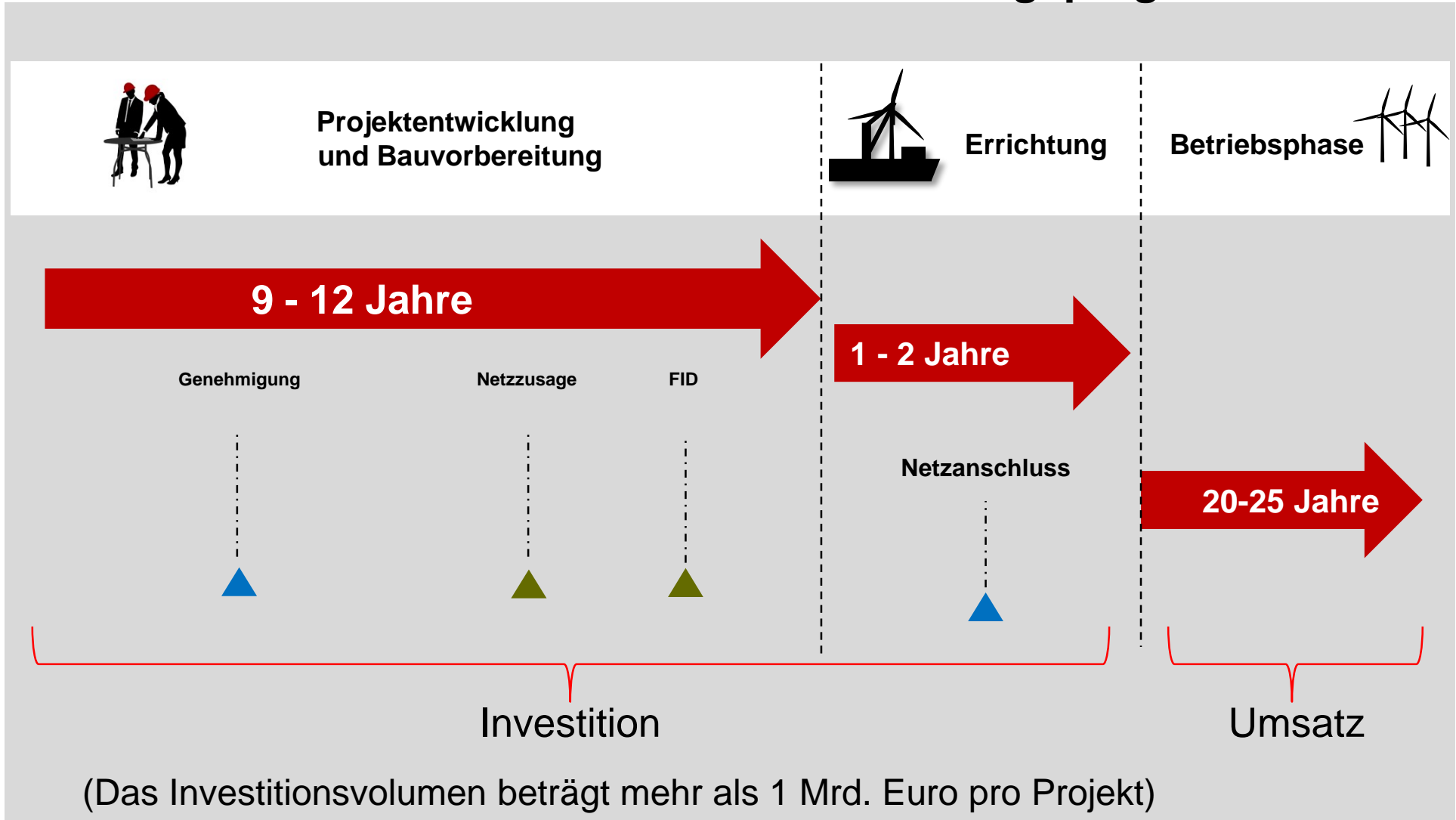
Existing projects and new proposals for ENTSO-E Ten Year Network Development Plan 2016 (TYNDP)⁽¹⁾



Projects in internal German grid: 9% (730 of 7900 km.) commissioned as of q3 2016, in q3 2016 14 km. commissioned⁽²⁾.

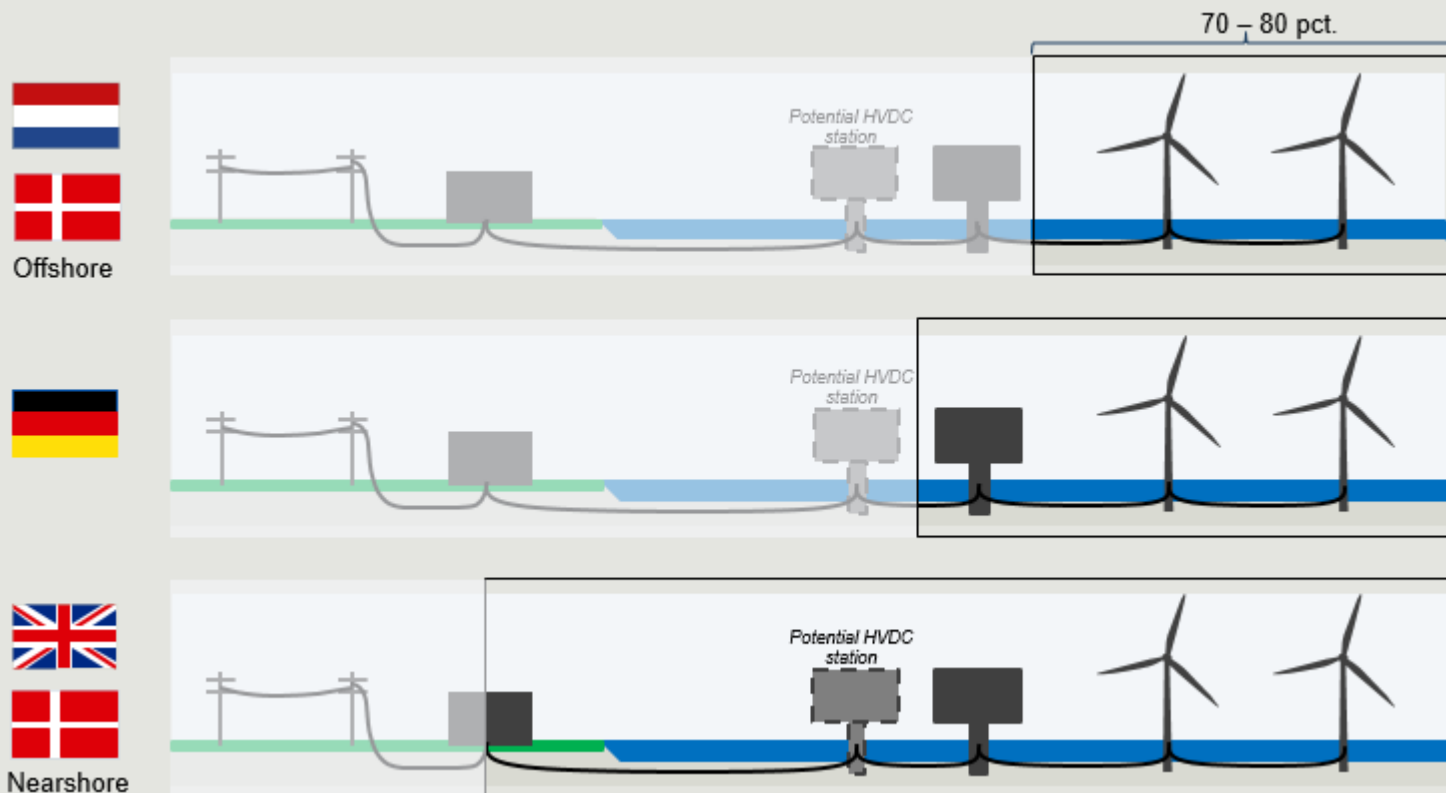


Offshore-Windenergie ist durch lange Planungs- und Vorlaufzeiten sowie erhebliche Investitionen geprägt



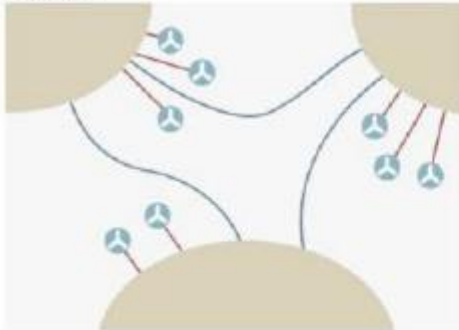
Who builds what? How to ensure competition and coordination to reduce costs?

Off shore wind cost reductions realised, but in some countries only for 70 – 80 pct. of total asset

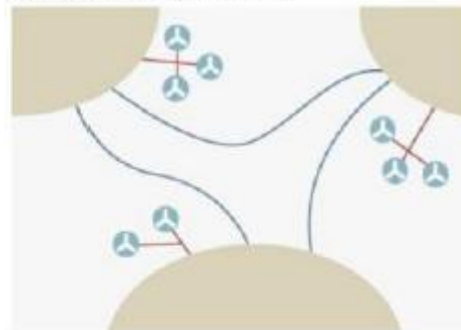


Meshed grid: Costs high, upfront and certain – benefits maybe higher, but slow and uncertain?

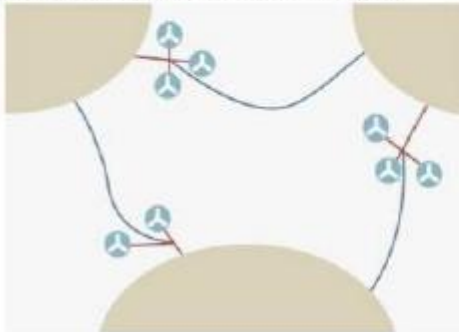
Radial



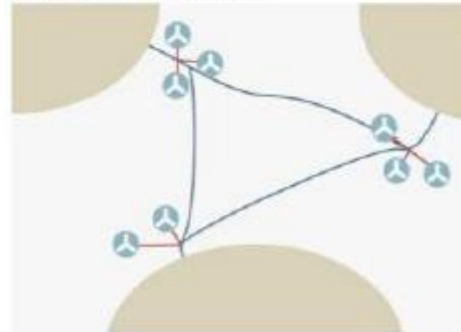
Local coordination



International coordination



Meshed solution



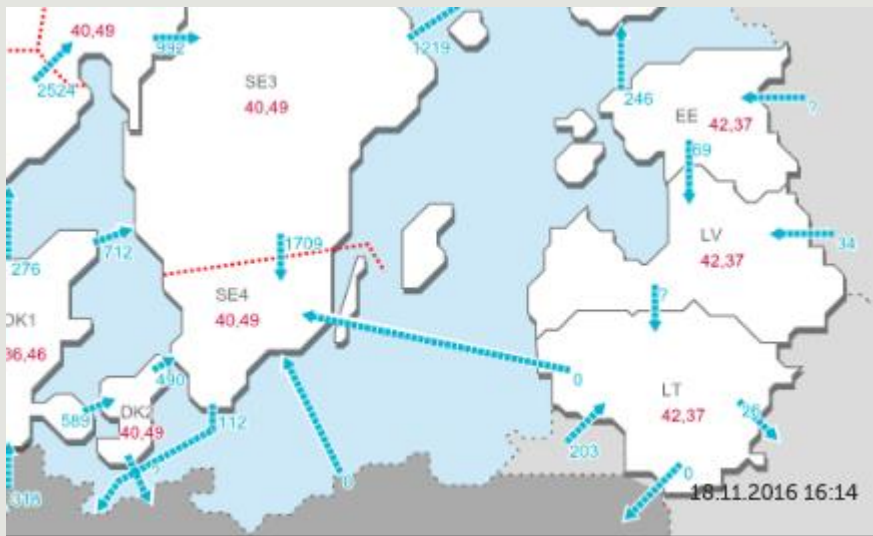
“Meshed grid entails higher initial costs than radial connections, however these costs are outbalanced by annual savings especially if the EU member states also coordinate reserve capacities.”⁽¹⁾

(1) SOURCE: STUDY OF THE BENEFITS OF A MESHED OFFSHORE GRID IN NORTHERN SEA REGION. EU COMMISSION. JULY 2014

Offshore wind is a large scale renewable technology with growth rates exceeding other renewables

Off shore wind well positioned to lead the transition of the Baltic Sea Region

- Could drive employment through industry hubs utilising existing industry infrastructure
- Stable energy source increasing energy independence
- Decreasing costs



Source: Bloomberg New Energy Finance (BNEF)

1. Load factor is a performance indicator measuring to what degree a wind farm has produced according to the farms capacity (actual production / (capacity x hours in period))
2. According to BNEF, long-term offtake price required to achieve a required equity hurdle rate for the project

Offshore wind offers multiple advantages

Utility size power generation

659 MW Walney Extension will power more than 460,000 UK homes

Offers +45% load factors¹

Significantly higher than onshore wind and solar PV

Rapidly declining cost

Industry maturity, volume and technological development reduce LCoE²

Limited visual impact on landscape

Wind farms are built far from shore

Key messages

- 
- Long term visions should support short term progress allowing incremental steps
 - Establish cash flow to support necessary development
 - Plan common target for region
 - Find solutions attractive to energy policy in all countries allowing for different levels of ambitions and stable investment climate
 - Off shore wind well positioned to drive the transition of the Baltic region



Thank your for your attention!