

Offshore Wind: A Manifesto for Cost Reduction

20th November 2014, Trondheim

**Marte de Picciotto, Head of Renewables Advisory
Norway**

About DNV GL

On the 12th of September 2013, DNV and GL merged to form **DNV GL**. We are now...

- the **world's largest** ship and offshore classification society
- the **leading technical advisor** to the global oil and gas industry
- a **leading expert** for the energy value chain including renewables and energy efficiency
- one of the **top three** certification bodies in the world



DNV GL: a powerful heritage in offshore wind



GL Renewables Certification



DNV·GL

Our manifesto: not another cost reduction report!?



Plan Bee is the fastest way to make
UK's Premi

The Economist

World politics Business & finance Economics Science & technology Culture

Renewable

The Telegraph

Britain's offshore windpower costs twice as much as coal and gas

Offshore wind stations

Jan 4th 2014

Off shore stations

Prices paid for generating wind at the UK's offshore wind farms are likely to rise

Build thin



Thanet Wind in the world

WINDPOWER

MONTHLY

UNITED KINGDOM

Offshore wind is too expensive, says UK government body

9 May 2011 by James Quilter, [Be the first to comment](#)

UK: The UK government needs to limit its offshore wind plans as they are too expensive, according to a UK government advisory body.

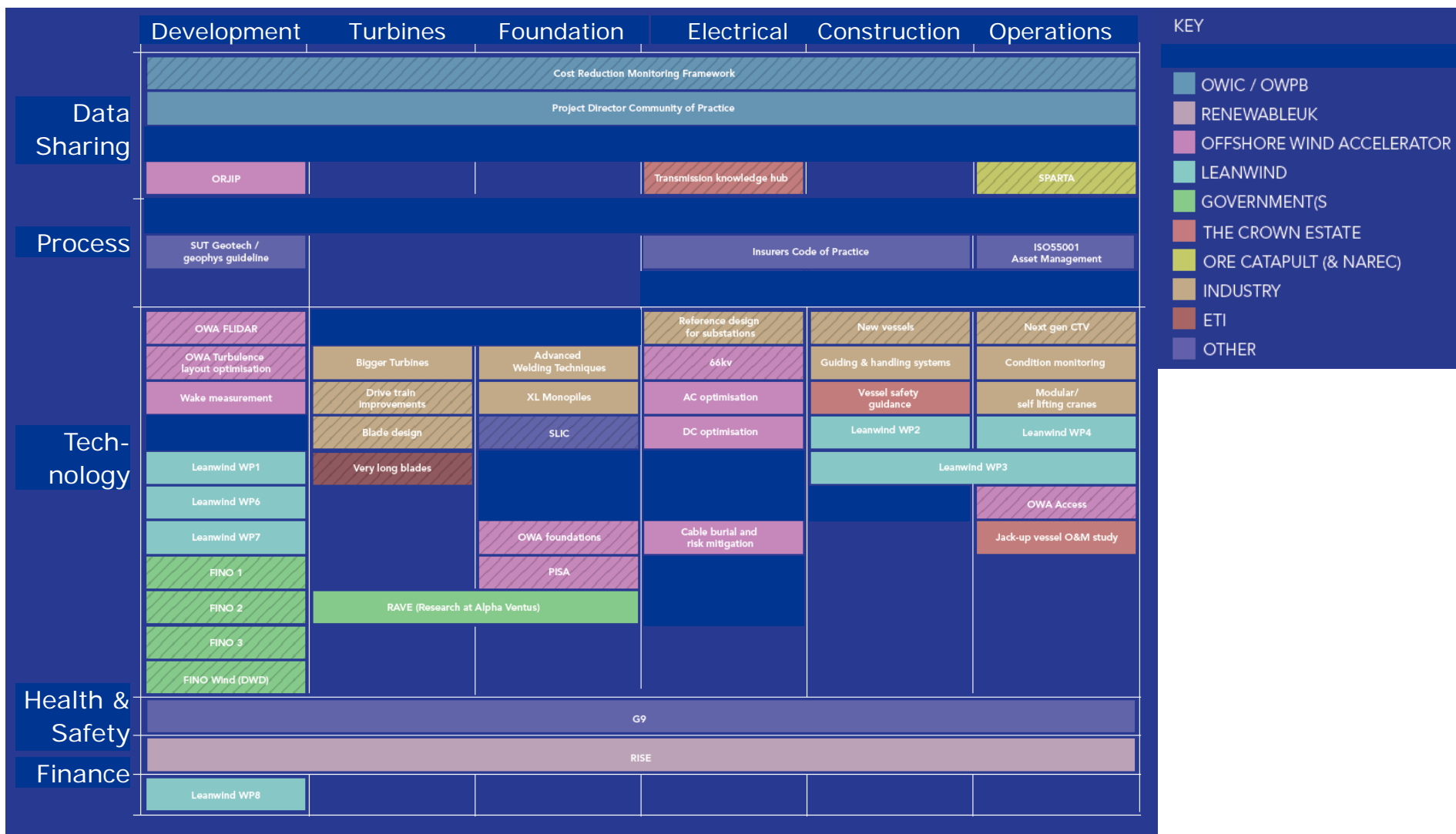
The Committee on Climate Change (CCC) report into the UK's renewable energy future was commissioned in May last year when the coalition government was formed between the Conservative and Liberal Democrat parties.

GOOGLE TRANSLATE

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The cost reduction landscape



Three strategies: finding the magic 40%

MANIFESTO
FOCUS (25%)

TOTAL LCOE
REDUCTION
NEEDED (40%)

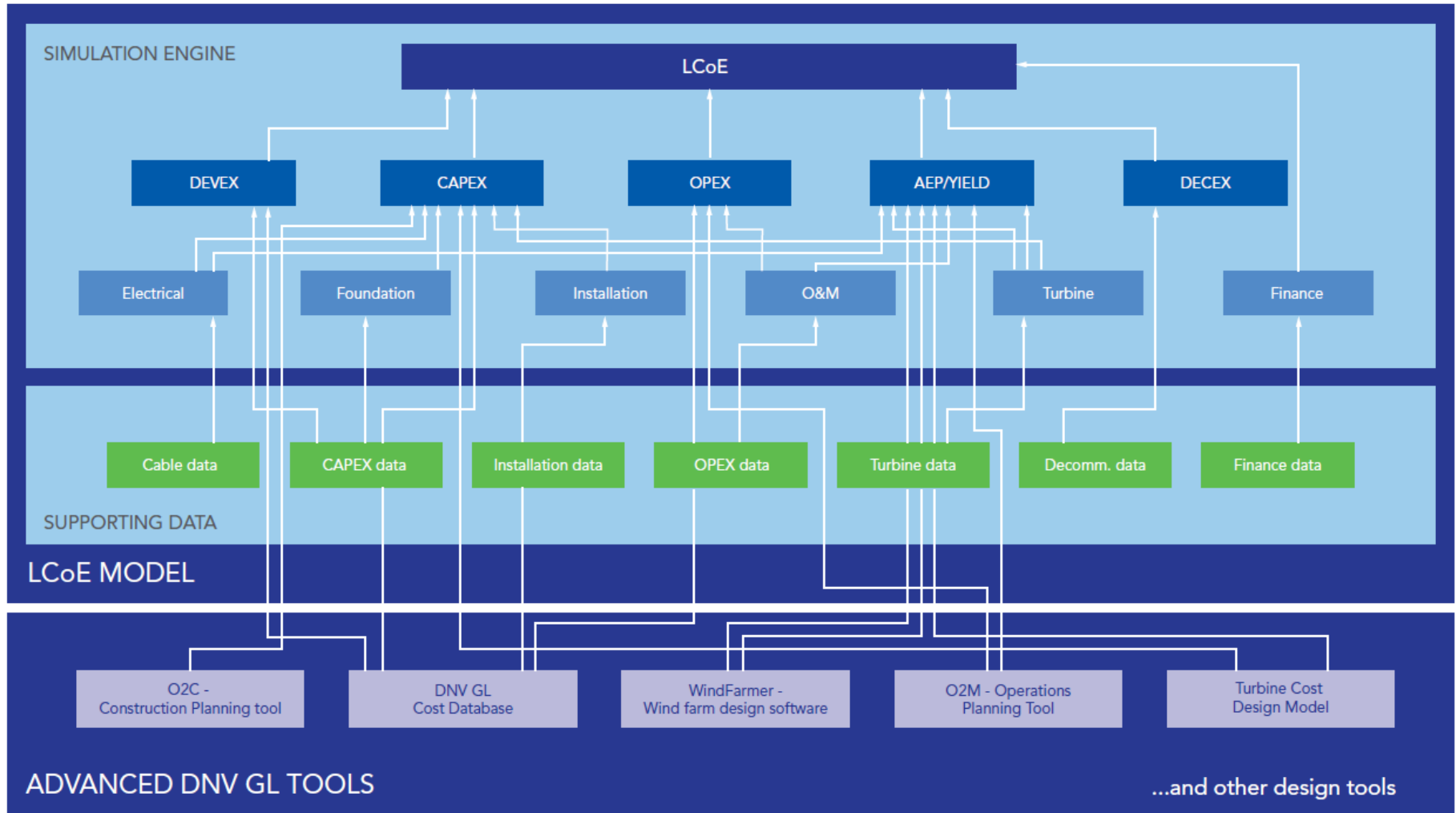
OTHER
INITIATIVES
(15%)

*Reducing risk and
preventing mistakes*

*Improving efficiency of
existing processes*

*Bringing innovation
to market*

Levelised Cost of Energy Model



Reducing risk and preventing mistakes



Improving the efficiency of existing processes



Bringing innovation to market

12

Use the FORCE



13

**Pushing the technical
limits of turbines**



14

Commercialising Floating Wind



Concluding remarks



*Shift the debate
towards "how"*

*We are making
progress*

*Technology is
leading the way*

*Focus on
doing it right*

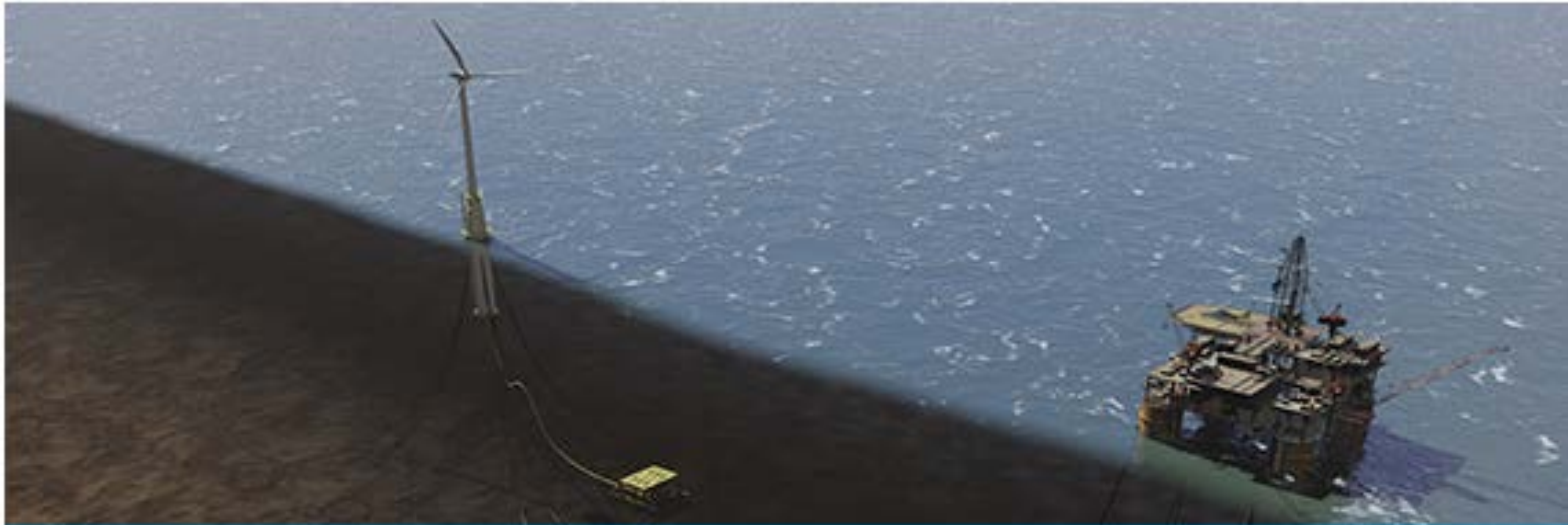
*Focus on
doing it better*

*Focus,
commitment and
partnership*

*"The secret is to gang up on the
problem, rather than each other."*

Thomas Stallkamp

Win Win (Joint Industry Project)



Win Win - Wind powered Water Injection

DNV GL launches new Joint Industry Project (JIP)

DNV GL highlights the technical and economic feasibility of wind powered subsea water injection pumping systems that will benefit the oil industry.

Master Thesis on Floating Wind in Norway

CODEN:LUTEDX/(TEIE-5331)1-154/(2014)

Floating wind power in Norway

Analysis of future opportunities and challenges



Daniel Nilsson
Anders Westin

Division of Industrial Electrical Engineering and Automation
Faculty of Engineering, Lund University



Vil ha vindpark: Et norsk hjemmemarked for havvind er en forutsetning for at norske leverandørfirmer skal klare å hevde seg i det globale havvindmarkedet, mener leverandørfirmer. Bildet er fra Vattenfallens havvindpark Lillgrund i Sverige. Foto: Kjell Malmgren Hovland

VINDKRAFT

Leverandørindustrien krever norsk havvindpark

Mener det er nødvendig for å nå opp i konkurransen internasjonalt.

Av **Jannicke Nilsen** (@jannickenilsen)

Publisert 4. november 2014 kl. 07:00

Tweet (45) | 1 | 129 | 45

Utviklingen av norsk vindkraft på land går svært tregt, selv om kraftprodusenter kan få ekstra betalt for vindkraften gjennom elsertifikater. Til tross for den foreløpige norske vindkraftsatsingen begrenset til en enslig, flytende havvindmølle utenfor Karmøy. Dette til tross for at havvind var høyt oppe på den politiske agendaen for noen år tilbake.

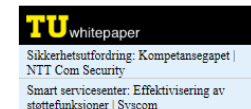
Men norsk leverandørindustri håper fortsatt på at Norge skal ta en posisjon på havvindmarkedet, om enn ikke i form av utbygging av store, kommersielle havvindparker på norsk sokkel.

– Ikke for sent

I forbindelse med en masteroppgave fra Universitetet i Lund i Sverige, gjennomførte de to sivilingeniørstudentene Daniel Nilsson og Anders Westin en undersøkelse hos norske selskaper, som i større eller mindre grad leverer til den voksende industrien for offshore vindkraft på kontinentet.

Undersøkelsen ble gjennomført ved hjelp av spørreskjema som ble sendt til 200 selskaper. De fikk inn 50 svar. I tillegg dybdaintervjuet masterstudentene åtte av selskapene.

Svarene viser at de norske industribedriftene fortsatt mener Norge, med sin petro-maritime ekspertise har et sterkt utgangspunkt når det kommer til å utvikle en nasjonal verdikjede for offshore vindkraft.



Questions?

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SAFER, SMARTER, GREENER