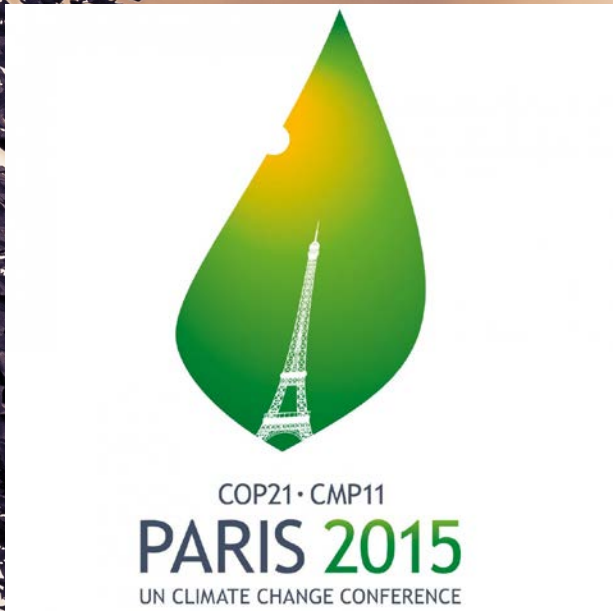


A photograph of an offshore wind farm with several white wind turbines on yellow jackets in the ocean under a blue sky with scattered clouds. A dark, wavy line, possibly a cable or a shadow, runs across the lower part of the image.

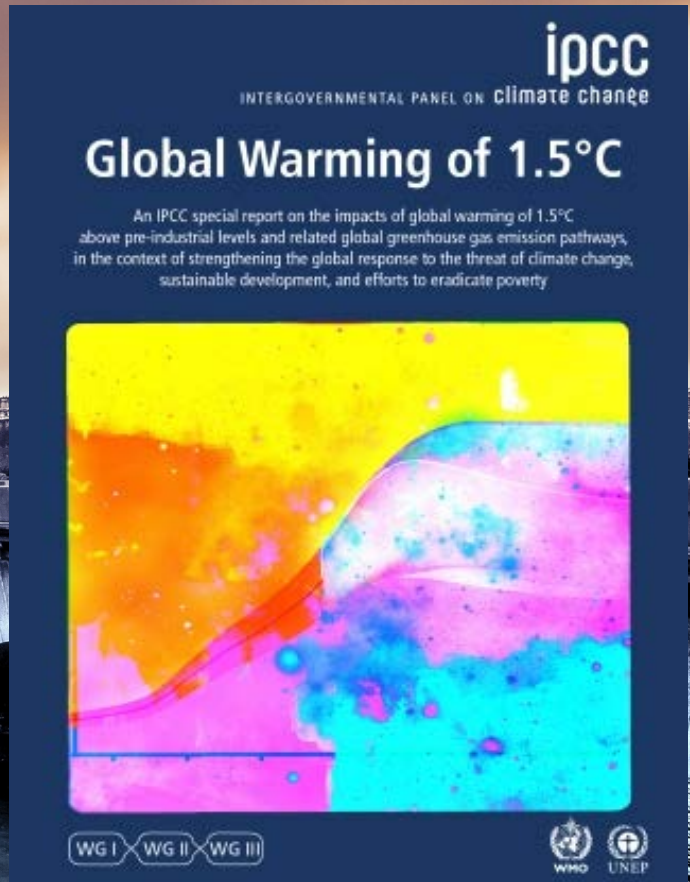
Industry meets Science, juni 2019

Europeisk forskningssamarbeid på havvind

John Olav Tande, Sjefforsker, SINTEF Energi AS



Need for action!





Nordic Offshore Wind R&I Centre

Vision: Accelerating deployment of offshore wind



Nordic Offshore Wind R&I Centre (NOWRIC)

The Centre is established with DTU, SINTEF and NTNU as research partners together with selected industry partners.

Mission:

- A strong platform for academic and industrial collaboration
- Focused research within prioritized areas

Duration:

- Start-up during 2019, to continue for 5 years or longer

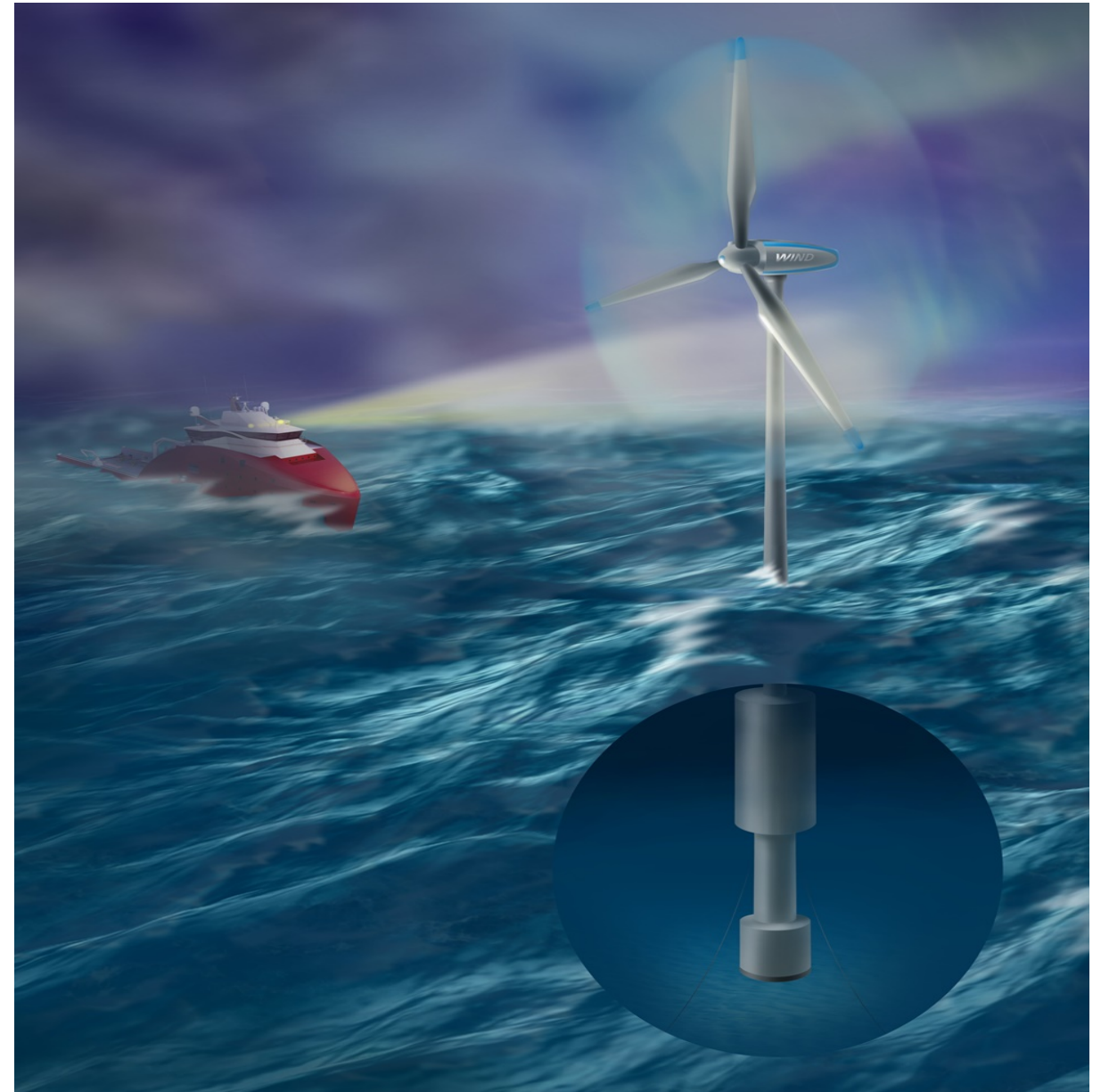
Scope of works

- ✓ Develop a joint research program for offshore wind.
- ✓ Execute research and innovation, both long-term basic research and shorter targeted studies according to prioritization of the partners.
- ✓ Sharing of results from open research projects in a series of workshops.
- ✓ Outreach activities and dialogue with public bodies.



Excellent track record

- Internationally leading within offshore wind energy research and innovation
- Large national and international network
- Held strategic positions giving input on research priorities to national and international bodies
- Long-term relation to leading industry parties



Complementary competence profiles

DTU

Globally leading in wind energy research including wind turbine loads and control, aerodynamics, and resource assessment

Operating three wind turbine test sites in Denmark

PhD and MSc education

Total staff of about 5900: incl. approx. 1200 PhD students

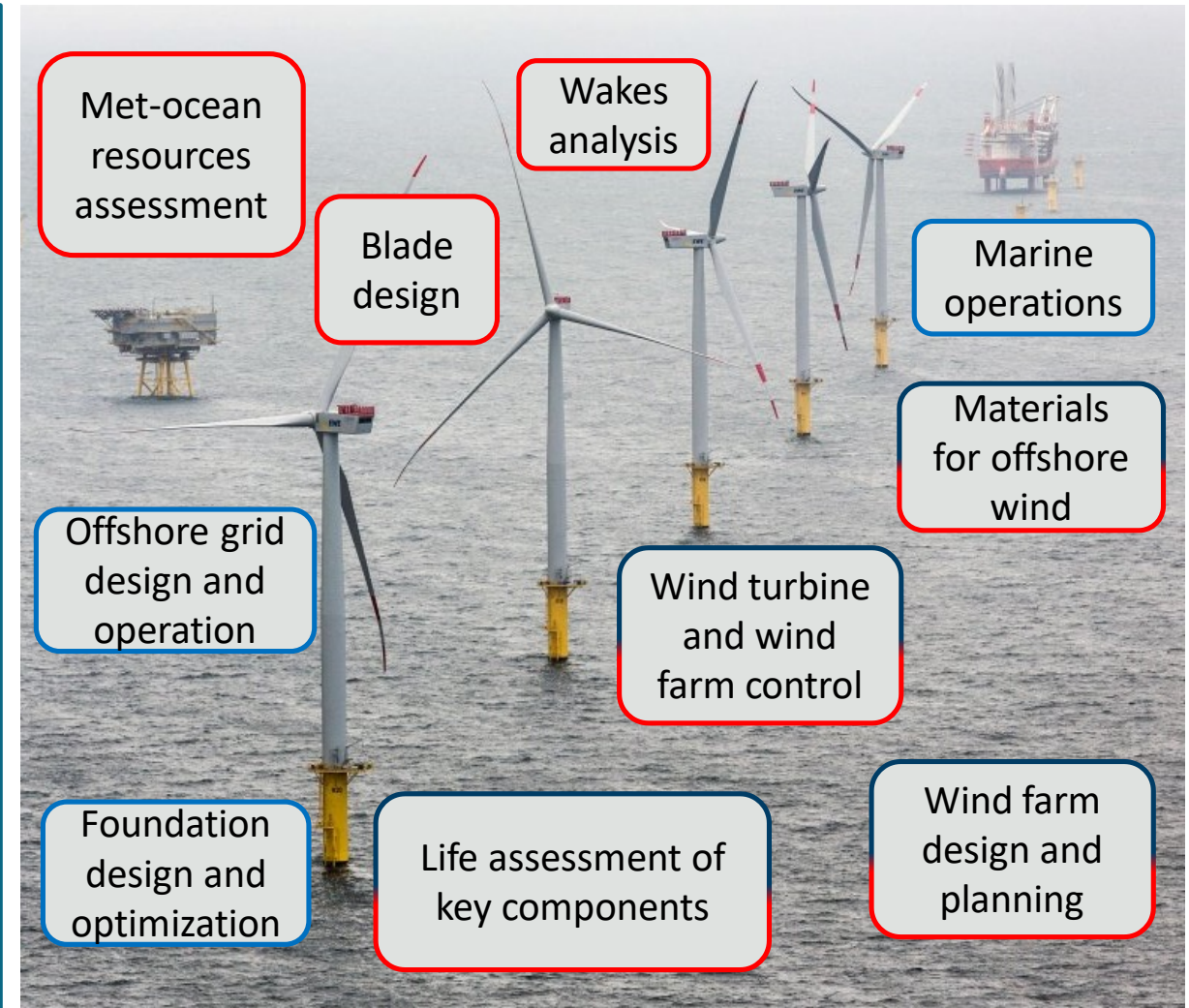
SINTEF & NTNU

Strong competence on offshore wind technology, including substructures, O&M, materials, grid connection and control

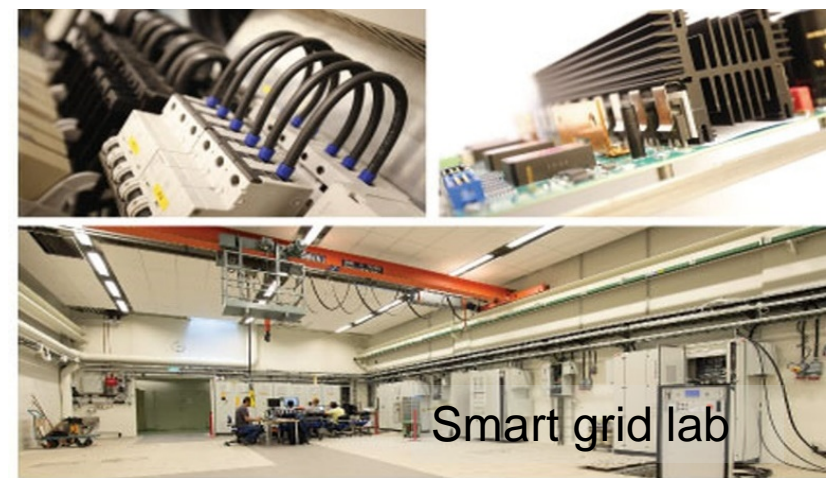
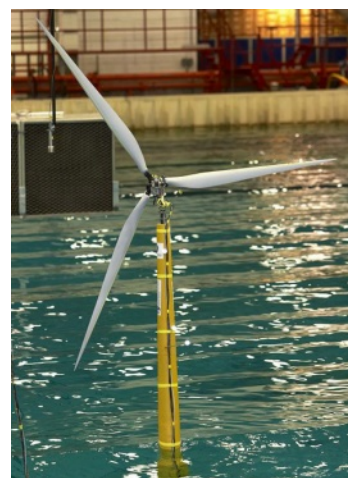
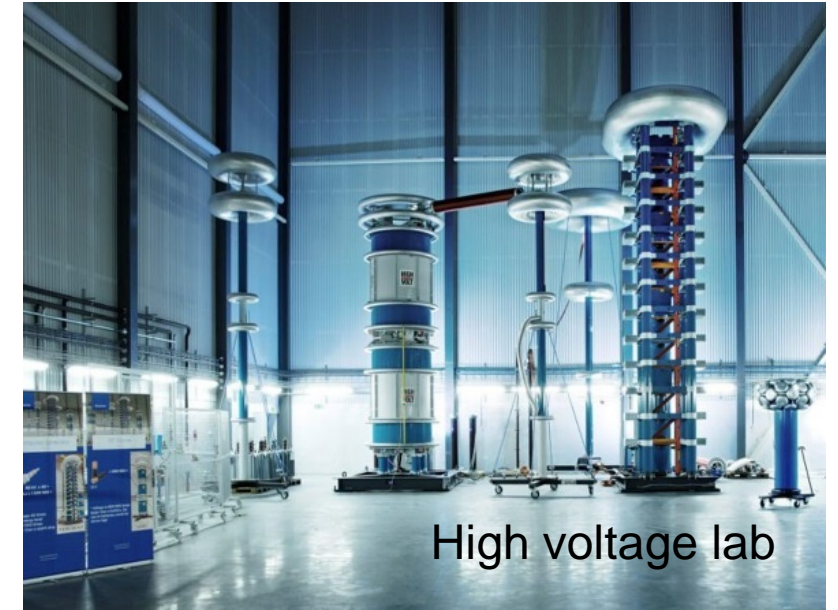
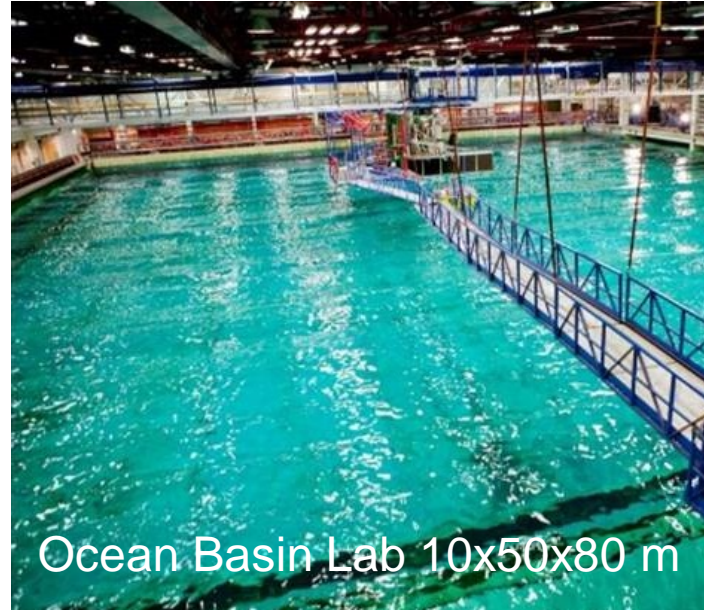
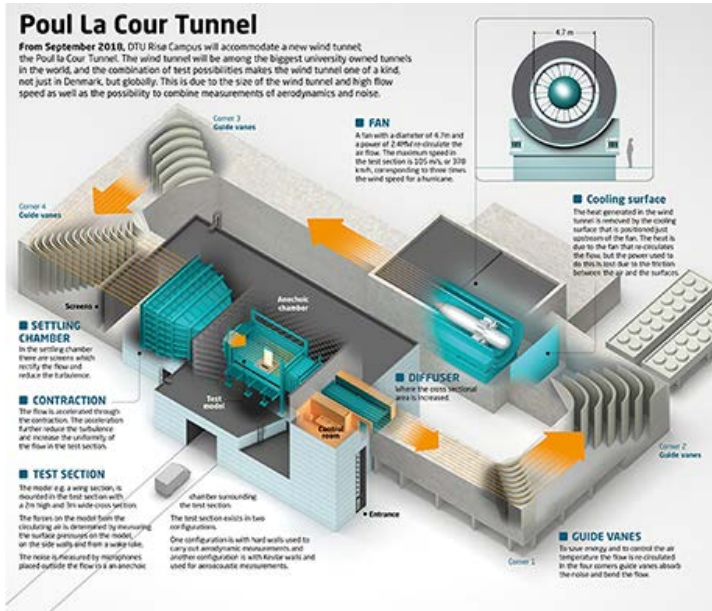
Relevant laboratories include ocean basin, smart grids and wind tunnel

PhD and MSc education

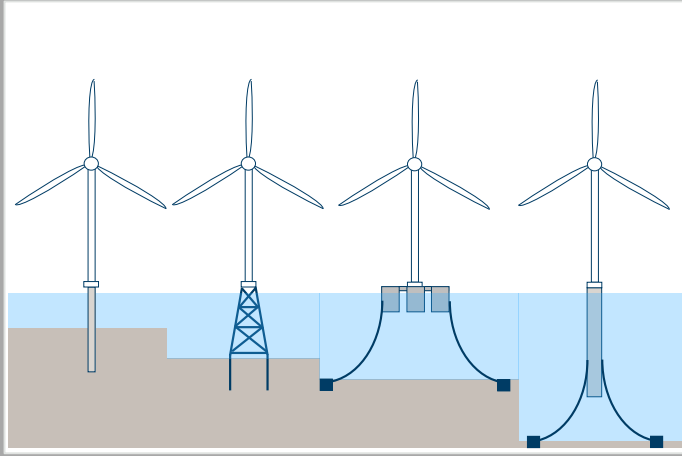
Total staff of about 2000: SINTEF, 6900: NTNU incl. approx. 1200 PhD students



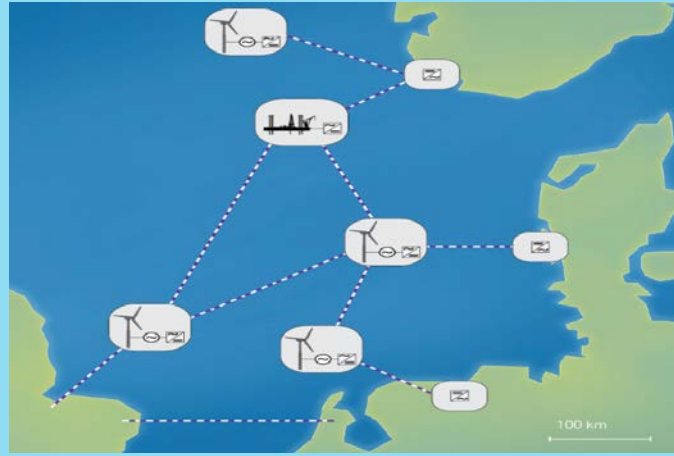
Strong research infrastructures



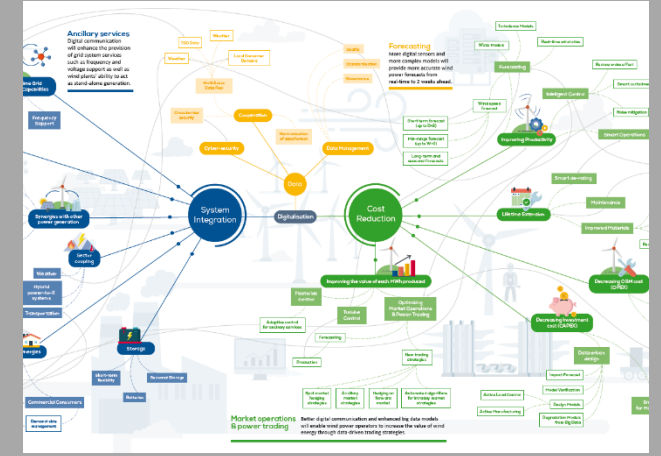
Research priorities



Support structures
Marine operations
Materials



Grid connection
System integration
Energy storage



Digitalization
Asset management
Wind farm control

Overall objectives

New knowledge and
reduced risks

**Innovation and value
creation**

Reliable & affordable
energy supply

Opportunity for innovation

- Reduce cost
- Increase value
- Improve sustainability

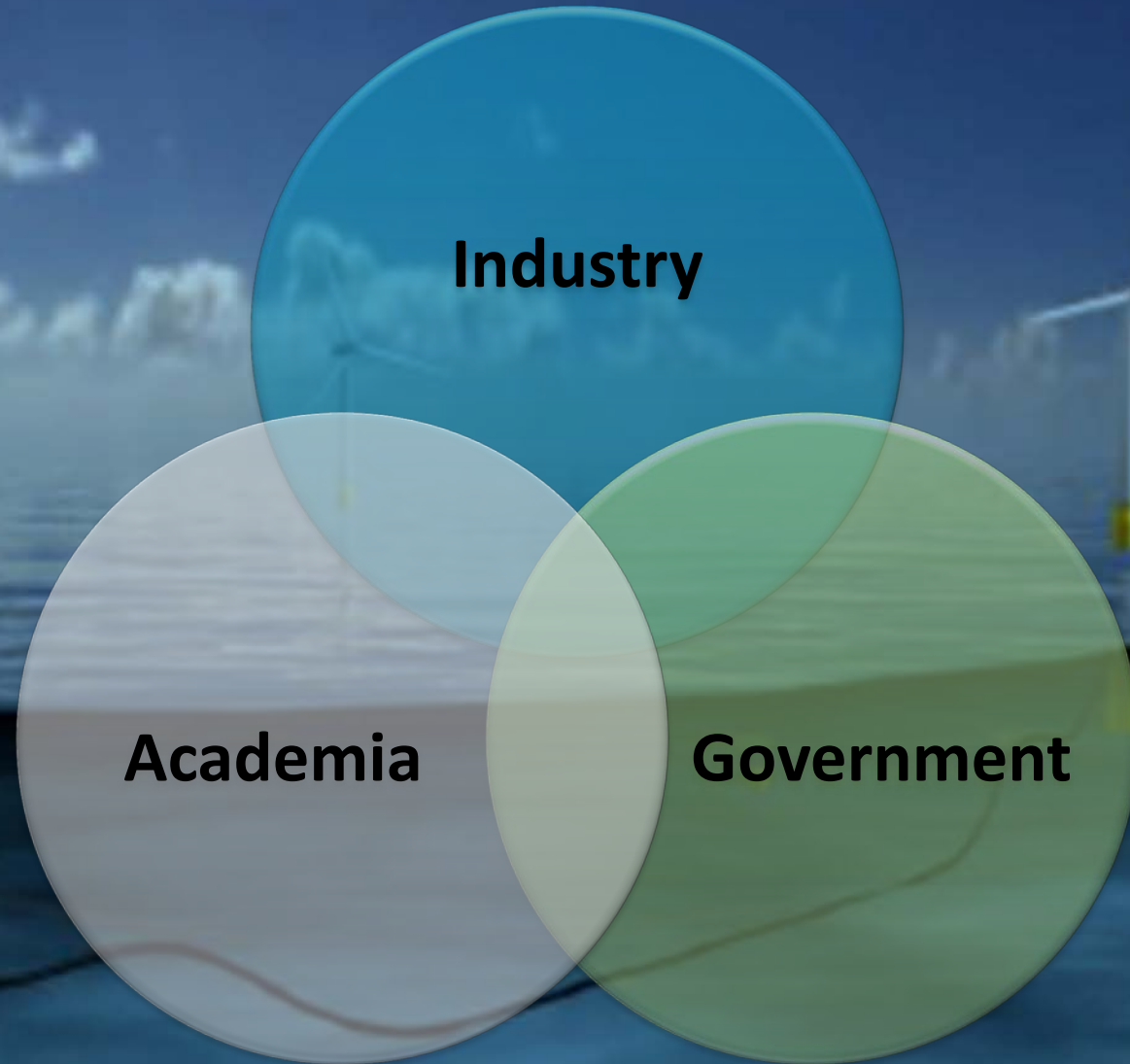
“It is the hallmark of wind energy technology development that it has continuously exceeded the expectations – even of experts.”

Megavind annual research & Innovation Agenda 2018

“Realizing the full potential of wind technology will require a paradigm shift in how wind turbines and power plants are designed, controlled, and operated”

IEA Wind TCP ‘Grand Vision for Wind Energy’

A winning triangle



Internationally outstanding together

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Make sure to be there!

EERA DeepWind'2020
17th Deep Sea Offshore Wind R&D Conference
Trondheim 15-17 January, Norway





Technology for a better society