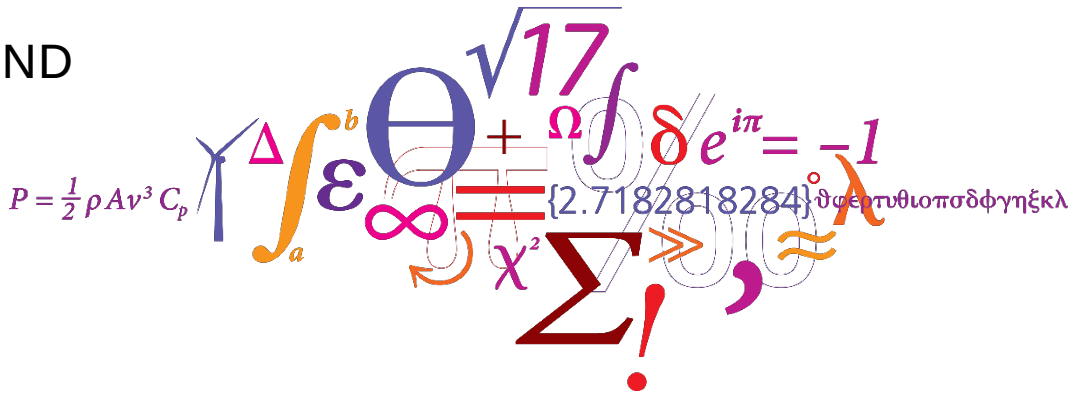
Progress in EERA JP Wind towards stronger collaboration and impact

SINTEF-DTU partnership for offshore wind energy

Peter Hauge Madsen
Director, DTU Wind Energy & Coordinator of EERA JP WIND
Deepwind conference 2018
Trondheim



DTU Wind Energy
Department of Wind Energy

Why collaborate (more)?

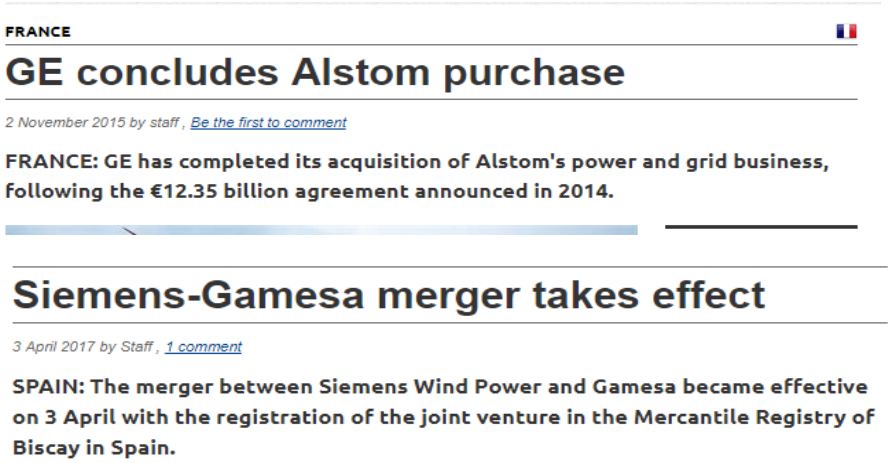
MEGATRENDS

- MATURATION, INDUSTRIALISATION AND GLOBALISATION
- SUBSIDY-FREE WIND POWER AND TECHNOLOGY NEUTRAL TENDERS
- DIGITALISATION
- ENERGY SYSTEMS INTEGRATION

MEGAVIND

Different modes of scale & consolidation

Companies merge



FRANCE

GE concludes Alstom purchase

2 November 2015 by staff , Be the first to comment

FRANCE: GE has completed its acquisition of Alstom's power and grid business, following the €12.35 billion agreement announced in 2014.

Siemens-Gamesa merger takes effect

3 April 2017 by Staff , 1 comment

SPAIN: The merger between Siemens Wind Power and Gamesa became effective on 3 April with the registration of the joint venture in the Mercantile Registry of Biscay in Spain.

Public Research organisations collaborate

EERA JP WIND - a vehicle for collaboration

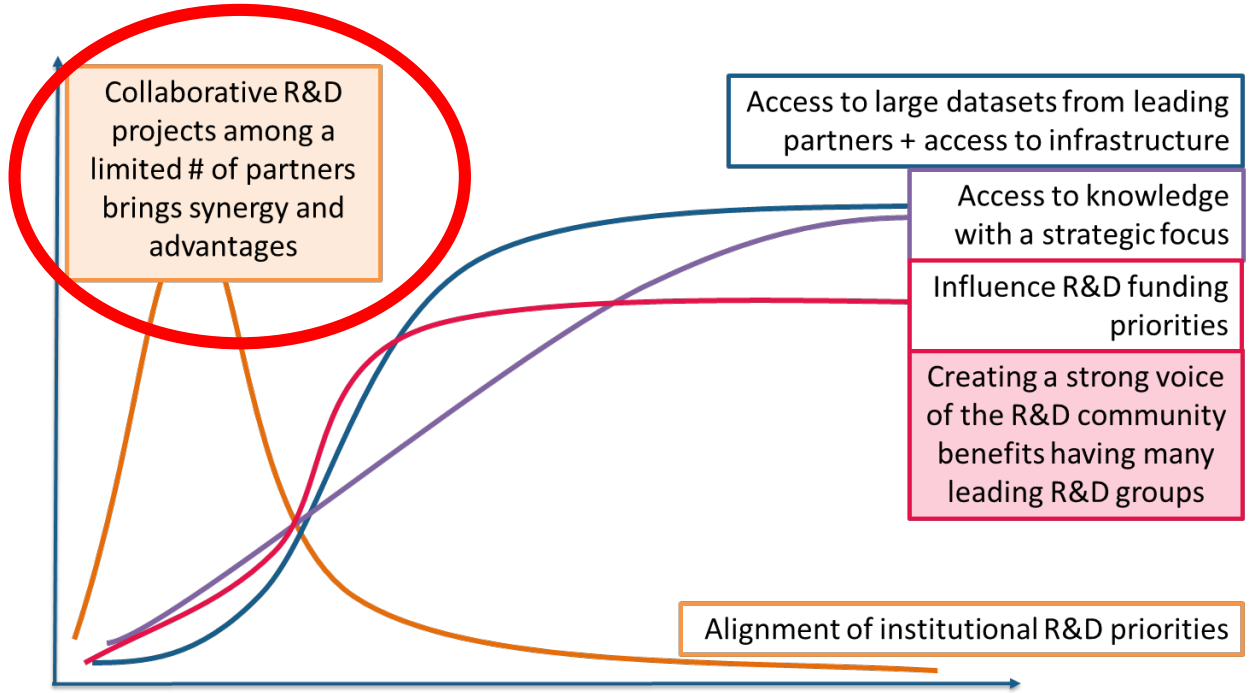
- EERA is an organisation under the EU SET-Plan
- EERA JP WIND 1 of 17 Joint Programmes
- 50 member organisations
- Building trust & knowledge exchange
- Major EU projects setup through EERA JP WIND collaboration
- IRPWIND project supporting JP WIND coordination and research

Summary - 8 years of learning

- 8 years of coordination growing from 13 to 50+ participants

- General value and impact from
  - Strategy and policy
  - Platform for coordination
  - Data and facility sharing
  - Knowledge sharing
  - Mobility and community building

- Challenges
  - Alignment of national programmes
  - Leveraging ”own resources” in joint activities
  - Wide involvement in industry cooperation
  - Managing expectations



Working together in Europe

- In width and setting the EU Strategy

- In depth and working with industry

- Individually
- Ad-hoc
- Strategic partnerships

Why DTU and SINTEF?

Complementary competence profiles

DTU

A leader in wind energy research including wind turbine loads and control, aerodynamics, and resource assessment

Operating three wind turbine test sites in Denmark and turbine technology labs

PhD and MSc education

Total staff of about 5900 (incl. approx. 1200 PhD students)

SINTEF

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

Relevant laboratories include ocean basin and smart grids

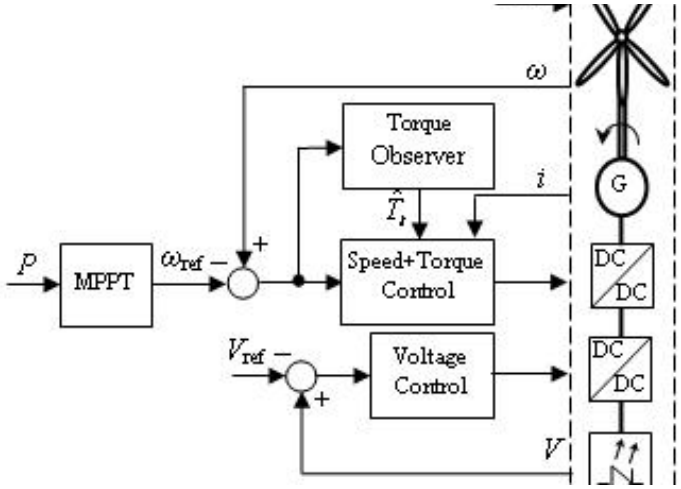
Strong collaboration with NTNU for PhD and MSc education

Total staff of about 2000

Strategic areas of collaboration

- Offshore wind energy

Offshore grid development



Wind farm control

Wind turbine sub-structures

Key elements in the partnership

- Focus on key offshore wind challenges
- Partnership for building strength and value
- Commitment to cooperate and coordinate
- Joint roadmap for research
- Transparency and openness within partnership
- Flexible funding approach
- Non-exclusivity and open for collaboration with others

Targeting industry R&D needs

Perspective

- Serving offshore wind industry needs
- A step towards European R&I integration
  - Institutional alignment
  - Public-private collaboration
- Wider knowledge and service portfolio
  - From research to demonstration
  - From education to testing
  - From lab to full scale

Challenges

- Culture
  - From national to international outlook
  - From personal to institutional collaboration
- Administrative issues
  - Aligning national funding
  - Legal
  - Cost and overhead

International collaboration is the new norm

Let us pave the way