A photograph of an offshore wind farm with several white wind turbines on yellow foundations in the ocean under a blue sky with scattered clouds. The image is used as a background for the text.

Industry meets Science, October 2018

# Europeiske FOU muligheter innen energiområdet EERA & ETIPwind

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## EERA JP Wind Energy

a vehicle for collaboration

- EERA is an organisation under the EU SET-Plan
- EERA JP WIND is one of 17 Joint Programmes
- 50 member organisations
- Building trust & knowledge exchange
- Major EU projects setup through EERA JP WIND collaboration
- Lean. Transparent. Independent.



## EERA JP Wind Energy

## Vision & Mission

### Vision

**To be the globally leading R&D community in wind energy**

creating synergy advantages for European research organisations and industry in support of the green energy transition and the SET-Plan goals.

### Mission

**Build and maintain a world-class wind energy research and innovation community in Europe**

through increased alignment and coordination of national and European efforts in support of the industry of today and to enable the industry of tomorrow.

## EERA JP Wind Energy

## Objectives

1. **Strategic leadership** in prioritizing and promoting research at TRL 1-5 and working with Industry to coordinate research priority setting at higher TRLs towards the European and national policy makers
2. **Enhance knowledge** sharing through joint events and communication platforms
3. Coordinate dedicated **mobility programmes** for researchers to increase collaboration through dedicated mobility programmes
4. **Sharing infrastructures** to improve the efficiency of use and easy of access of state of the art infrastructure
5. **Enable data sharing and management** in accordance with the European Commission's F.A.I.R principles

## EERA JP Wind Energy

## Sub-programmes

### Coordination

- SP1: Programme planning and outreach
  - Strategic roadmaps and plans
  - Publish yearly R&D priorities
  - Training and mobility
- SP2: Research Infrastructure, testing and standards
  - Standard agreements and procedures, getting external funding
  - Dissemination and open data

### Research

- SP3: Wind conditions and climatic effects
- SP4: Aerodynamics, loads and control
- SP5: System integration
- SP6: Offshore Balance of Plant
- SP7: Structures, materials and components
- SP8: Planning & Deployment, social, environmental and economic issues

**This SP brings together international experts within offshore wind energy.**

**The research is carried out through projects from which results can be openly shared, e.g. EU-projects or national competence building projects.**

## **Overall objective**

**Pre-competitive research** laying a scientific foundation for the industrial development of **more cost effective** offshore wind farms and enabling large scale **deployment at any seas**



## MOTIVATION

**Offshore wind farms will be an important part of a future sustainable energy system. The technology and market is still in an early phase. Strong research and development efforts are paramount to achieve the full potential for deployment and cost reductions. Offshore wind energy is prioritized in the European SET-plan.**



## ACTIVITIES

Knowledge sharing is organized through dedicated workshops, possibly in combination with other EERA JPwind SPs, and through the annual EERA DeepWind R&D conference.

The research is aligned through sharing and preparing research strategies on offshore wind energy between institutes and public bodies.

### Offshore wind LCOE

Offshore wind has cost reduction opportunities in multiple areas including scale effects

#### Turbines & plant



- Larger turbines and wind farms
- Increased reliability
- Scale effects and industrialisation

#### Substructures



- Standardised and optimised offshore foundation design and design criteria
- Industrialised manufacturing

#### Transmission



- eBoP optimisation of substation and transmission capex
- Innovative transmission solutions
- Improved grid access

#### O&M



- Low OPEX drivetrains
- Turbine and component quality
- Condition monitoring, diagnostics, preventive maintenance

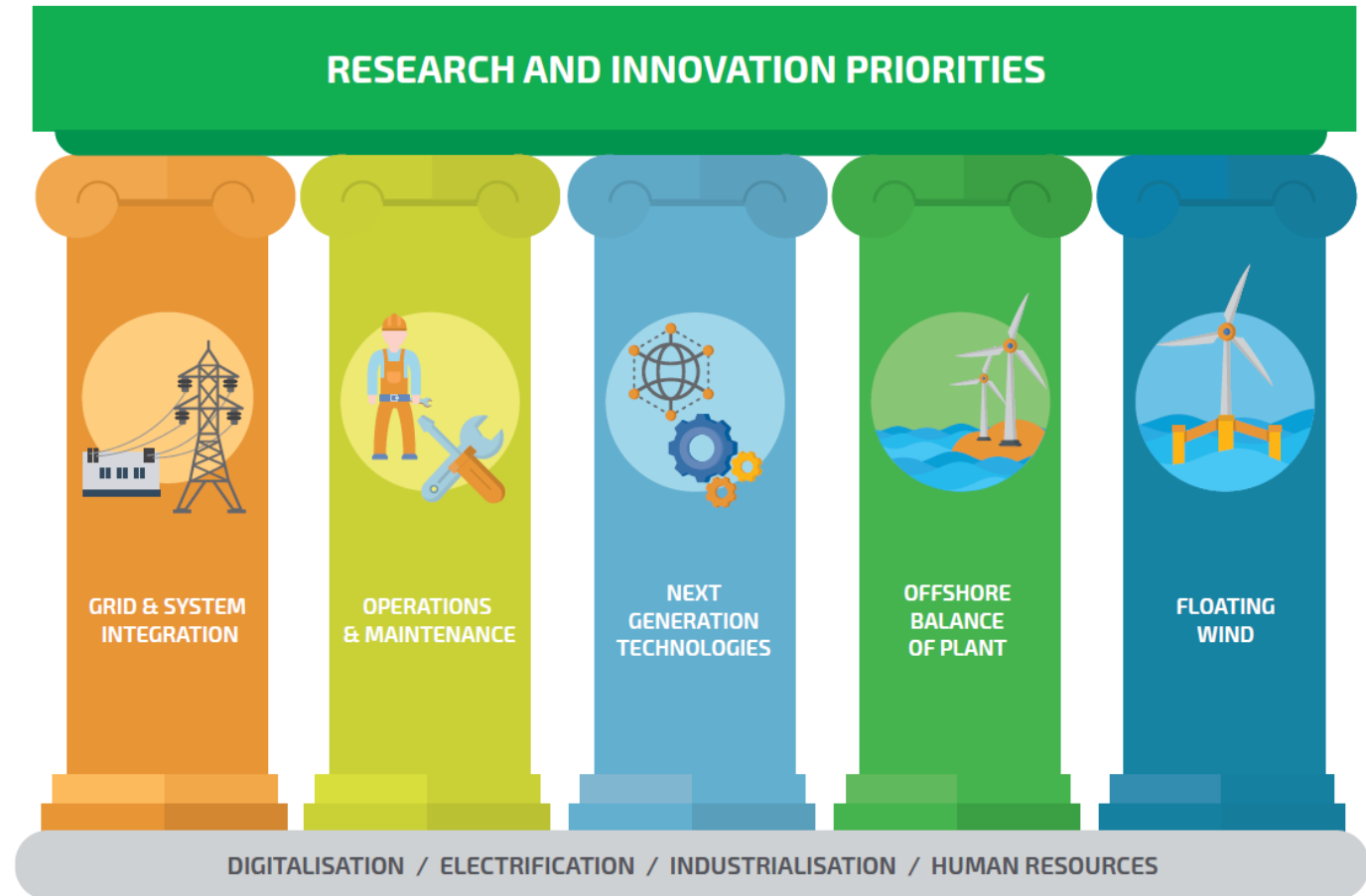
**SP6 focus**

Source: Siemens, MHI-Vestas, MAKE





# Strategic Research and Innovation Agenda





Make sure to be there!

**EERA DeepWind'2019**

**16th Deep Sea Offshore Wind R&D Conference**

**Trondheim 16-18 January, Norway**

