

## **Integrating Russian Innovation Actors into European Networks: Facilitating Cooperation between Russia and European Technology Platforms”**

*20 May 2014  
HSE, Moscow*

### **TPWind: an introduction**

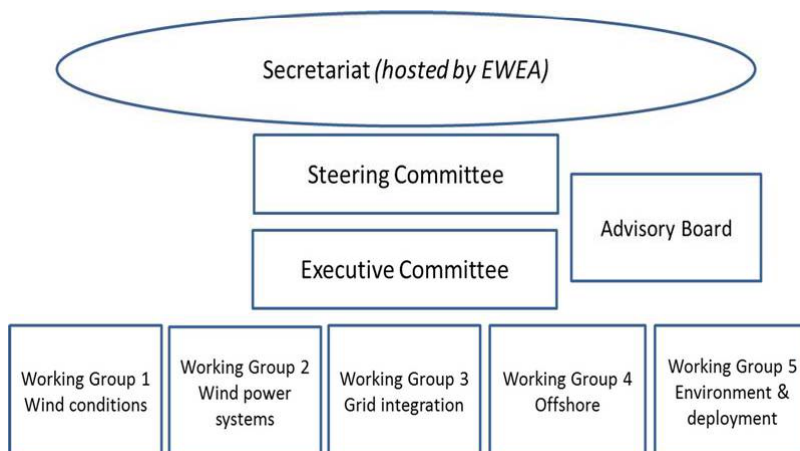
#### **What is TPWind?**

- TPWind is a permanent network and R&D forum;
- More than 150 wind energy experts;
- Representing the entire wind energy sector: Industry, R&D institutions, government, civil society, finance organisations;
- Identify areas for increased innovation, new and existing research and development tasks;
- Advise European institutions and Member States on R&D priorities.

## TPWind: an introduction

- 2002 Barcelona European Council: EU goal to increase its research effort to 3% of GDP by 2010;
- Instrument: establish **European Technology Platforms** to identify common R&D agendas in strategic sector;
- TPWind: established in 2005 with the support of the European Wind Energy Association and officially launched in 2006;
- EU funding since 2007 (6<sup>th</sup> and 7<sup>th</sup> Framework programme);
- The secretariat is hosted by EWEA.

## TPWind: structure and governance



## TPWind: structure

- ExCo: 6 members - overall planning and coordination of Platform activities;
  - *Current chairman: Mr. Kruse, SIEMENS WIND POWER*
- Steering Committee: 25 members - includes chairs of WGs and ExCo members – decision-making body of the platform;
- WGs: 30 representatives max - each one has a chair + a secretary + a co-chair; max 2 representatives extra-EU;
- Advisory board: representatives of different technology.



WGs: very strict rules on nationality – max 2 representatives extra-EU

Advisory board: no issue with nationalities, but subject to approve of the Steering Committee

## TPWind: structure – advisory board

The advisory board:

- Is composed of external stakeholders (i.e. non-Platform members) who help TPWind to enhance its network and effectiveness by providing advice and contacts;
- represents an essential link between the Platform and other relevant sectors and stakeholders;
- acts as a quick access point to the expertise and know-how developed by other sectors, which is essential to reduce fragmentation of R&D activities;
- is not a decision-making body of the Platform, but has a consultative role.
- The steering committee is responsible for accepting new members.

## TPWind: structure – advisory board

### Organisation

- European Academy of Wind Energy
- Community of European Shipyards Associations
- European Steel Technology Platform (ESTEP)
- EUROGAS
- LNEG
- EU Ocean Energy Association
- European Energy Research Alliance
- Project Management ETN, Forschungszentrum Julich GmbH, on behalf of the German State North Rhine Westphalia
- European Marine Equipment Council
- European Energy Research Alliance
- ENTSO-E
- Austrian National Wind Energy Technology Platform
- International Energy Agency
- Danish National Wind Energy Technology Platform
- UK National Wind Energy Technology Platform
- Global Wind Energy Council
- Spanish National Wind Energy Technology Platform
- National Renewable Energy Laboratory (USA)
- European Academy of Wind Energy
- The Alliance for Offshore Renewables

## TPWind: cooperation with external stakeholders

- Strict rules on the nationality of members of the working groups;
- No issue on the members of the advisory board: i.e. NREL (USA)
  - Participation in meetings of the advisory board (one per year);
  - Previous agreement of the chair and the ExCo possibility to attend WGs meetings as observer;
  - Involvement in the organisation of annual cross-sectoral event (i.e. offshore/grids/R&D funding).
  - Possibility to input on topics to be addressed in the SRA.

## Main deliverables

SRA/MDS

- Strategic document – up to 2030
- Objective: competitiveness of onshore wind energy by 2020 and of offshore wind energy by 2030.

EWI  
Implementation  
Plans

- Three-year period
- Detailed description of the overall R&D priorities and goals (including budget implications).

Yearly Work  
Programmes

- Yearly
- Detailed list of EU and national calls for proposals and budget allocations that can be easily implemented by relevant authorities

Thank you for your attention!



European Wind Energy  
Technology Platform

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## TPWind, the SET-Plan and the EWI

The **Strategic Energy Technology Plan**: established an energy technology policy for Europe to accelerate the development and deployment of cost-effective low carbon technologies.



One of the goals: launch six **European Industrial Initiatives (EII)**: long term large-scale programmes to accelerate the development of those technologies with the potential to contribute effectively to the decarbonisation of the European energy system.



**EWI** - European Wind Initiative: it includes representative of the industry and research sector, EC, EIB and Member States.

Thank you for your attention!



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## TPWind, the SET-Plan and the EWI

### The European Wind Initiative :

- Period: 2010-2020;
- Objectives:
  - Achieve an average 20% reduction of wind energy electricity production costs by 2020 (compared with 2009);
  - Enable a 20% share of wind energy in the final EU electricity consumption by 2020.
- EWI implementation: Wind European Industrial Initiative Team (Wind EII Team) *including TPWind, European Energy Research Alliance (EERA), EC, EIB and Member States representatives.*

## TPWind, the SET-Plan and the EWI

### EWI - budget:

EWI priority	Total budget (€ m)	Share
1. New turbines and components	2,500	42%
2. Offshore Technology	1,200	20%
3. Grid integration	2,100	35%
4. Resource assessment, social acceptance and spatial planning	200	4%
<b>TOTAL</b>	<b>6,000</b>	<b>100%</b>

Funding sources: FP7, EEPR, NER300, EIB, etc...

## How TPWind achieve his goals?

SRA/MDS

- Strategic document – up to 2030
- Objective: competitiveness of onshore wind energy by 2020 and of offshore wind energy by 2030.

EWI  
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Plans

- Three-year period
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Yearly Work  
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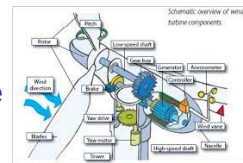
- Yearly
- Detailed list of EU and national calls for proposals and budget allocations that can be easily implemented by relevant authorities

## How TPWind achieve his goals? The EWI Implementation Plan

EWI Implementation Plan:

### a. New turbines and components:

- R&D programme focused on new turbine designs, materials and components addressing on- and offshore applications;
- Network fo five to ten European testing facilities;
- EU cross industrial programme drawing upon the know-how of other industrial sectors for mass production of wind systems focused on increased component and reliability, advanced manufacturing technology and offshore turbines.





## How TPWind achieve his goals? The EWI Implementation Plan

EWI Implementation Plan:

### b. Offshore technology

- Development and demonstration of innovative substructures and floating structures;
- Efficient and cost effective logistics;
- Operation and maintenance;
- Offshore wind farms design.



## How TPWind achieve his goals? The EWI Implementation Plan

2. EWI Implementation Plan:

### c. Grid integration

- Connection technologies for offshore and onshore wind power plants to AC and DC networks;
- Wind power capabilities for system support and virtual power plant operation;
- Wind energy in the power market.

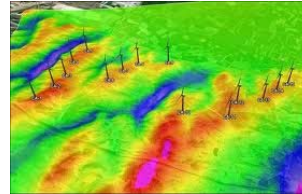


## How TPWind achieve his goals? The EWI Implementation Plan

EWI Implementation Plan:

**d. Resource assessment, spatial planning and social acceptance**

- Integrated climatic conditions;
- Environmental research;
- Offshore planning;
- Economic studies.



## How TPWind achieve his goals? Horizon 2020

**2014:**

- Topic LCE-03-2014 - Wind energy: Demonstrating and testing of new nacelle and rotor prototype;
- Topic LCE-02-2014 - Wind energy: Develop control strategies and innovative substructure concepts;
- Topic LCE-04-2014 - Ensuring public acceptance and speedy/user friendly permitting procedures, facilitating the deployment of improved business models and innovative financing schemes;
- Topic BG-05-2014: Preparing for the future innovative offshore economy: analyse and identify the social and economic developments in the offshore economy including a review of marine renewable energy farms (both wind and ocean energy).

## How TPWind achieve his goals? Horizon 2020

### 2015:

- Topic LCE-05-2015 - Innovation and technologies for the deployment of meshed off-shore grids;
- Topic LCE-06-2015 - Transmission grid and wholesale market (*Demonstration of new approaches to the wholesale electricity markets facilitating the participation of variable renewable energy sources*);
- Topic LCE-03-2015 - Wind energy: Demonstrating innovative substructure and floating concepts;
- Topic LCE-02-2015 - Wind energy: Substantially reduce the costs of wind energy (offshore).