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WINDSEC

Wind Energy Technology Platform Secretariat

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<b>PP</b>	Restricted to other programme participants (including the Commission Services)	
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<b>CO</b>	Confidential, only for members of the consortium (including the Commission Services)	

## **Introduction**

Electronic newsletters are available online on TPWind website (<http://www.windplatform.eu/9.0.html>). Newsletter articles are web pages accessible through a general summary.

The summary only is sent by email to a list of 22 000 contacts. Clicking to the summary links connects the user to the newsletter web page, on the TPWind website.

The full text of TPWind newsletters is provided in the following sections. The format is slightly different from the online versions.



TPWind

The European Wind Energy Technology Platform

*Shaping the future of Wind Energy*

## TPWind NEWSLETTER – N° 1

March – September 2007

### TPWind: Latest News

- The **first General Assembly** of the Technology Platform will take place on November 13<sup>th</sup> and 14<sup>th</sup> 2007 in Brussels. The objective is to build a first version of the Strategic Research Agenda and Market Deployment Strategy document for the sector.
- For the 6 Working Groups of TPWind and the Finance Working group, the Technology Platform is recruiting approximately **140 experts**.
- The TPWind Secretariat is currently collecting the **expressions of interest** for the different Groups. Deadline for application is **September 16<sup>th</sup>, 2007**. In October 2007, the final member's list will be established by the Steering Committee.
- This call was launched through a mailing-list of 22,000 contacts, and published through the Website of the Technology Platform (<http://www.windplatform.eu>). **A few seats are still available.**

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## The Word of the Executive Committee



Henning Kruse, Chairman

*"TPWind is the place of exchange the Wind Industry needed to build collaboration and synergies at national and international level in a long-term perspective. We open the doors for a sustainable long-term development of the Wind Sector."*



Takis Chaviaropoulos, Vice-Chairman

*"The Wind Energy sector needed a place of excellence for building tomorrow's European Research Area."*



Angeles Santamaria, Vice-Chairman

*"The sector has to focus on cost reductions, through technological improvement and large-scale development. TPWind will show the path to 2030."*



Christian Nath, Alternate member

*"We needed an instrument to expand European Research and Technology development efforts."*



Josep Prats, Alternate member

*"Wind is a story of People, of pioneers. Our work will enable to build the instruments for developing adequate training and qualifications."*

## TPWind: Activities (March – September 2007)

### Next events

The TPWind Secretariat launched a **Call for Expression of Interest** for joining each of the Working Groups and the Finance Working Group.

This call was launched through a mailing-list of 22,000 contacts, and published through the Website of the Technology Platform (<http://www.windplatform.eu>).

The applications are collected by the Secretariat, and the final list of the members of the Working Groups is assessed by the Steering Committee members.

The **first General Assembly** takes place on **November 13<sup>th</sup> and 14<sup>th</sup> 2007 in Brussels**. During this first event, the Working Groups will elaborate a first version of the Strategic Research Agenda and Market Deployment Strategy documents.

The **second General Assembly** will take place in February 2008. The Working Groups will elaborate the second version of Strategic Research Agenda and Market Deployment Strategy documents.

These results will be promoted during the **EWEC conference**, in Brussels in March 2008.

### Past events

#### Internal events

The Technology Platform was officially launched in October 2006 by Commissioner Pielbags, and members of the Advisory Board. The first Steering Committee meeting took place in Brussels in March 2007. During this event, the **Executive Committee** was elected. The Second Steering Committee meeting took place in Milan in May 2007. The **final structure** of the Technology Platform was acknowledged.

For more information:

On the internal TPWind events

<http://www.windplatform.eu/9.0.html>

On the Executive Committee

<http://www.windplatform.eu/39.0.html>

On the Steering Committee

<http://www.windplatform.eu/5.0.html>

## External events

As an **official Technology Platform**, TPWind provided input on the Strategic Energy Technology Plan (SET-Plan), and participated to the Seminar on the European Research Area.

Regarding the SET-Plan process, main input from TPWind was:

- The answer on the sector on the questions of the SET-Plan Committee,
- An initiative, for driving the development of the Wind sector up to 2050.

For more information:

On the events related to TPWind

<http://www.windplatform.eu/10.0.html>

On official Technology Platforms

[http://cordis.europa.eu/technology-platforms/home\\_en.html](http://cordis.europa.eu/technology-platforms/home_en.html)

On the SET-Plan, and the input provided by TPWind

<http://www.windplatform.eu/47.0.html>

On the European Research Area seminar

<http://www.windplatform.eu/49.0.html>

## TPWind: Objectives & Structure

### Objectives

The objective of TPWind is to identify areas for increased innovation, new and existing research and development tasks. These will then be prioritised on the basis of “*must haves*” versus “*nice to haves*,” the primary objective being overall (social, environmental and technological) **cost reductions**.

This will help to achieve EU objectives in terms of renewable electricity production. The platform will develop coherent recommendations, detailing specific tasks, approaches, participants and the necessary infrastructure, in the context of private R&D, as well as EU and Member State Programmes, such as FP7. TPWind will also assess the overall funding available to carry out this work, from public and private sources.

### Working Groups

The main objective of TPWind is cost reductions. Cost reductions shall be performed through **Technological improvement** and **large-scale deployment** of the technology (figure 3).

The aim of TPWind is therefore to provide two main outputs:

- a **Strategic Research Agenda**, addressing Technological improvement, and
- A **Market Deployment Strategy**, addressing large-scale deployment of the Technology.

Through its **Strategic Research Agenda**, TPWind will encourage the industry to intensify its research efforts in line with, or exceeding, the overall Lisbon objectives, while increasing the focus on the long term view, and it will encourage the uptake of long term research findings in the development of new prototypes.

Through the **Market Deployment Strategy**, Member States, EU institutions and the industry will be able to tailor policy development against the changing needs of the technology as it matures.

The structure of TPWind therefore comprises:

- **Technology Research and Development Working Groups** responsible for building the Strategic Research Agenda, and
- **Policy / Market Development Working Groups** responsible for building the Market Development Strategy.

For each group, a preliminary work programme is available online at: <http://www.windplatform.eu>. This work programme is focused on areas of main interest for reducing the costs of Wind Energy.

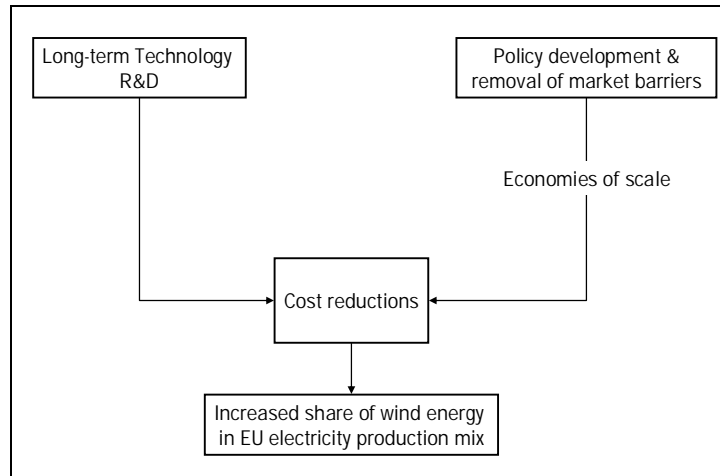


Figure 1: Cost reductions - the pillar of TPWind.

## Finance Working Group

One of the key concerns of the platform is the assessment and procurement of sufficient funds to pay for the innovation and R&D tasks it identifies.

The Finance Working Group explores and quantifies the complete range of opportunities for research funding, which can then be matched to the tasks as prioritised by the Steering Committee. It endeavours to build up the role of private industry in collaborative R&D, and to identify new sources of investment in the public sector through, for example, the Structural Funds.

It also investigates opportunities to be had through the new initiative of the European Investment Bank (EIB) and the European Commission—the Risk-Sharing Finance Facility—to leverage EIB loan investments in large European R&D projects and infrastructures.

## Mirror Group

This Group comprises the relevant ministries and energy agencies of Member States that wish to participate. This group is fundamental to the success of TPWind. It provides an opportunity to tailor national R&D activities to complement EU activities, and vice versa, and to develop synergies.

It is also an opportunity for Member States to collaborate in pushing forward some of the short term operational issues facing wind energy, such as those described in the Copenhagen Declaration.

## Steering Committee

The Steering Committee is the decision-making body and executive arm of the Technology Platform. It directs all activities and is accountable for:

- ∅ defining roles and responsibilities within the platform
- ∅ Outlining operations compliance with the Platform mission and related activities
- ∅ Approval and launch of activities, including objectives, timing and scope

- ∅ Follow-up activities and approval of deliverables
- ∅ Final assessment of key deliverables (Strategic Research Agenda and Market Development Strategy) with support from the Secretariat, based on Working group reports.

## Secretariat

The Secretariat of the Wind Energy Technology Platform optimises the activities of the Platform. It manages the calls for selecting the members of the high-level Member States Mirror Group, Working Groups and Financing Group. It also provides logistical, functional and organisational support to the Technology Platform groups, and, where appropriate, will provide intellectual input to their discussions, particularly with regard to the fine-tuning of its Action Plans: the Market Development Strategy and the Strategic Research Agenda.

The Secretariat comprises EWEA, Garrad Hassan and Risoe. The Secretariat has been assigned for an initial period of 36 months. Under contract with the European Commission, the secretariat supports the technology platform's key objectives and helps to build an identity for the platform. It maintains a strictly neutral position as regards policy setting and orientation of final documents and deliverables of the Platform.

The structure of TPWind is summarized figure 2. The structure is focused on cost reductions. It answers to three main aspects:

- what shall we propose? (Working Groups),
- how do we pay? (Finance Working Group),
- how do we implement these proposals? (Mirror Group).

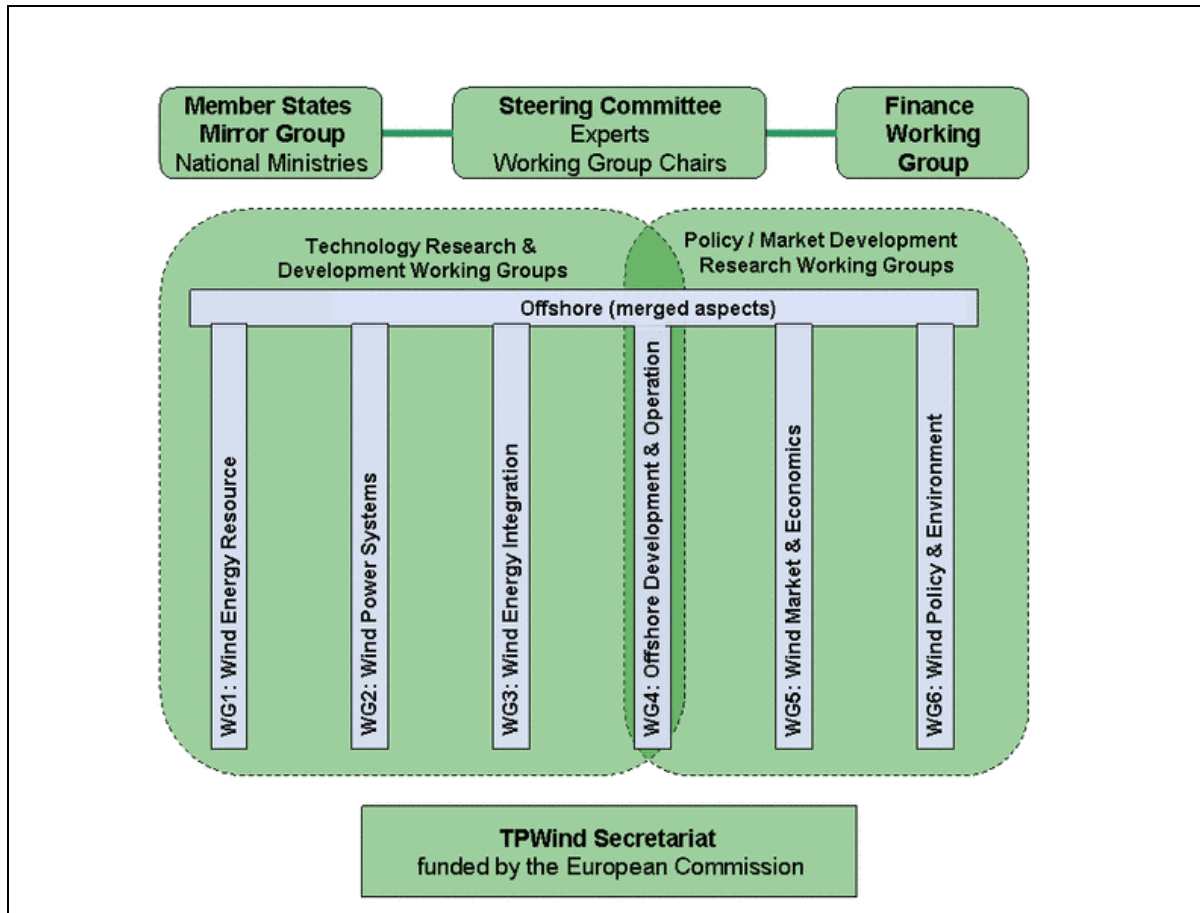


Figure 2: Structure of TPWind.

## TPWind: Working Group Activities

A Group is a small number (e.g. 20) of high-level persons willing to provide intellectual inputs, participate to the work and attend the meetings of the Technology Platform.

Members of the Technology Platform are representatives from public and private sector at Senior and Director level. Membership is subject to validation by the Steering Committee.

A preliminary Workplan proposal is available online at <http://www.windplatform.eu>. The Workplan will be updated during the first TPWind General Assembly in Brussels in November 2007.

The preliminary Workplan was proposed by the Working Group chairmen. The activities of the Working Group are focused on the main Research aspects enabling costs reductions.

### Working Group 1 (chairman E. L. Petersen)



This Working Group has to focus on areas where wind exploitation is still poor, for enabling the full deployment of wind energy. Particular emphasis shall be put on offshore and extreme climate resources.

Key areas in this thematic may include: *advanced siting and wind characterization models. Wind resource mapping, advanced wind power forecasting techniques, advanced measurements techniques including remote sensing.*

### Working Group 2 (chairman J. Beurskens)



This Working Group focuses on aspects enabling costs reductions on the wind-turbine side (onshore and offshore). Key areas in this thematic may include: *Materials, Drive-trains, Blades, O&M and Wind turbine design and efficiency increase.*

### Working Group 3 (chairman J. Buddenberg)



The scope of this Working Group work extends from the single (large) wind farm level (onshore and offshore) to the large-scale integration in the power system level. The layout and basic structure of the grid need to be adapted to large amounts of variable electricity supply.

Key areas in this thematic may include: *Grid codes/communication standards, Grid structure and planning, Grid operation and energy management (prediction tools, probabilistic capacity planning, and storage facilities), Energy market integration (converting stochastic wind energy production into energy market products, providing additional grid services to TSO's and DSO's).*

#### Working Group 4 (chairman A. MacAskill)



Following the declaration of the European Policy Workshop on Offshore Wind Power Deployment (Berlin, 2007), this group is invited to provide a roadmap for a large-scale deployment of offshore wind energy, focusing on the relevant Research & Development topics. The five other Working Groups of the Technology Platform are dealing both with onshore and offshore. **WG4** is focused on offshore aspects not addressed by the other Working Groups.

Key areas in this thematic may include: *safety and access to offshore turbines, new and improved concepts for offshore wind turbines, design and fabrication of offshore substructures, new concepts for assembly installation and hook up of large scale developments, offshore cables and connectors, operations and maintenance, spatial planning and decommissioning*

#### Working Group 5 (chairman A. Santamaria)



This Working group is scrutinizing the economics and market instruments related to wind energy, both onshore and offshore.

Key areas in this thematic may include: *cost and financing of wind turbine and wind farm projects, supply chain analysis and proposal for improvements, market instruments for electricity exchanges at EU level, impact of certificates on the wind energy market.*

#### Working Group 6 (chairman A. Zervos)



This Working group is focused on possible improvements of policy and environmental measures at international, EU and Member States level, for onshore and offshore.

Key areas in this thematic may include: *policy optimisation, environmental aspects optimisation. Specific weight will be given to administrative and institutional barriers, and the effects that they have on wind development.*

# Why a European Wind Energy Technology Platform?

## Context

The Wind Energy market outperforms its own record every year. Market growth rates are in the same range as those of high-tech technologies (internet, cell phones ...). Europe is world leader in terms of installations and manufacturing. Most top-ten manufacturers are European. These figures are successful, but the industry has now to ensure a sustainable long-term development.

Indeed, symptoms of market overheating are visible:

- delays for wind turbines delivery are increasing,
- competition for projects is increasing, together with the price of the terrains,
- international competition is growing, and non-EU competitors have significant market shares,
- as a consequence, prices of wind turbines are increasing.

These overheating symptoms are related to the fact that the Wind Energy Industry is not in a virtuous development scheme.

## A virtuous scheme for wind energy development

A virtuous scheme for wind energy would be a configuration where development is based on four pillars: Science / Technology / Local Market and International Market (Figure 3).

### Research / Research and Development / Market:

In such a scheme, long-term research objectives are prospected by the academic bodies. These bodies progressively transfer the research results to industry (figure 4). **These Technological advantages are key issues for decreasing the costs.**

Jointly with technological cost benefits, removal of administrative barriers, optimisation of Environmental regulations, and implementation of efficient Market regulations and instruments enable to establish a sustainable internal market. This enables **costs reductions through large-scale deployment of the Technology**, and galvanizes long-term private investment.

### EU Market / International:

The EWEA scenario for 2030 forecasts an installed power capacity of 300 GW. The 2006 installed capacity was 48 GW. Reaching 300 GW implies the installation of 10.5 GW/y. If an average investment cost of 1.3 €/W is assumed, the yearly investment level would then be 13.65 b€/y.

To enable this Technological deployment, massive investments are needed in the supply (turbine, gearboxes, blades...) and installation chain (trucks, boats, roads, harbours...). Also, the corresponding jobs (installation, O&M...) and training institutes must be created. These long-term investments shall be performed with a view of a progressive saturation of the internal market, which will progressively move to re-powering. At this point, **main market shares will be outside Europe**. To prepare this phase, International agreements and Intellectual Property Rights have to be implemented. The supply chain shall be structured and already optimised to face direct competition on low-labour costs markets.

In order to build such a virtuous scheme, the Wind Industry claimed for the implementation of a Technology Platform. The main objective of TPWind is to identify areas for increased innovation, new and existing research and development tasks. These will then be prioritised on the basis of “*must haves*” versus “*nice to haves*,” the primary objective being overall (social, environmental and technological) **cost reductions**.

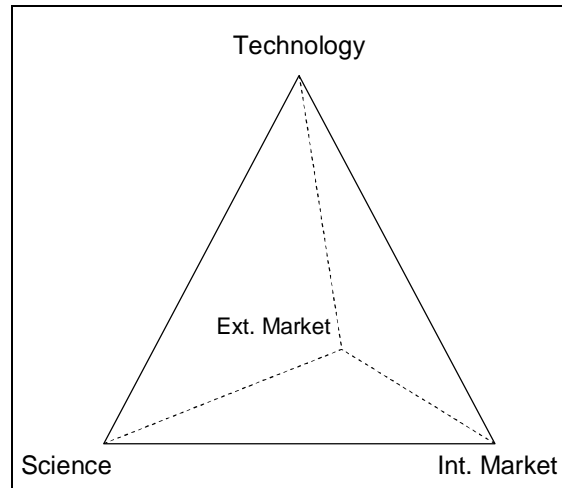


Figure 3: The 4 pillars for a sustainable International competitiveness: Science / Technology / Internal Market / External Market

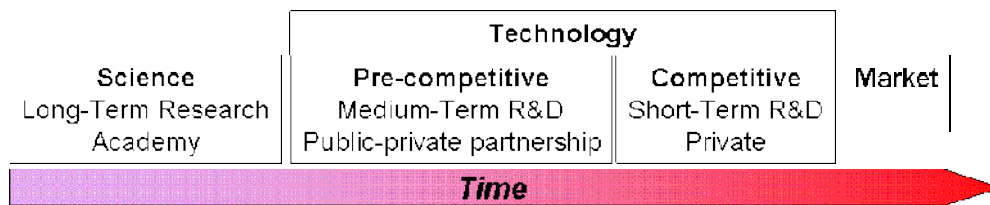


Figure 4: In a “virtuous” scheme: evolution of the nature of research and partnerships from Long-term Research to the Market.

## TPWind – the Story

Europe currently leads the world wind energy market. It is also the centre of the manufacturing industry, as well as technology development and innovation in the wind energy field. This will continue to be the case, only with sustained, strong political commitment. Such a view was endorsed in July 2004 by the Chairman of the Informal Competitiveness Council. Dutch Economy Minister Laurens Brinkhorst. He called for:

*“a limited number of platforms for precisely those areas in which Europe is successful, such as nanotechnology and wind power.”*

Participants of the Dutch EU Presidency's Policy Workshop on the Development of Offshore Wind Energy, in Egmond, The Netherlands, agreed that:

*(offshore) “wind energy will contribute significantly to the Lisbon Strategy and EU objectives on technological development, exports, employment and regional development.”*

*“Participants emphasise the need for setting up of a Wind Energy Technology Platform within the framework of FP7, as proposed by the Informal Competitiveness Council (Maastricht, July 2004).”*

At the follow up meeting in Copenhagen, in October of 2005, policy workshop participants reiterated this call.

*“There is enormous potential and benefits of enhanced, EU-wide and global collaboration in wind power related research and development. Participants recommend the establishment, under the 7th Framework programme, of a Technology Platform for Wind Energy, as proposed by the Informal Competitive Council in July 2004, and call on the European Commission to facilitate such a Platform (COM (2004)366) with the aim of a more extensive Joint Technology Initiative.”*

And the Berlin declaration, in February 2007, indicated that:

*“Member States should encourage the full use of this Platform to further improve the coordination of national R&D programmes.”*

The Green Paper “A European Strategy for Sustainable, Competitive and Secure energy Market” (COM(2006), 105 final) also states that:

*“The EU needs to ensure that its internal energy market guarantees security of supply and solidarity between Member States. Concrete measures should include..a strategic energy technology plan, making best use of Europe's resources, building on European technology platforms and with the option of joint technology initiatives or joint undertakings to develop leading markets for energy innovation...”*

## Partners

*The TPWind Secretariat is supported by the European Commission*



*Secretariat Partners*





## TPWind

The European Wind Energy  
Technology Platform

*Shaping the future of Wind Energy*

### **TPWind NEWSLETTER – N°2**

**September 2007 - August 2008**

### **TPWind latest news**

TPWind released the Strategic Research Agenda and Market Deployment Strategy for the wind energy sector. This event is the end of the first phase of activities of the Technology Platform. TPWind will now give priority to implementing these priorities.

Next TPWind General Assembly will take place on 8-9 October 2008. This event is open to TPWind members. This event might be broadcasted. It will be followed by a public workshop organised by the [UpWind](#) project partners.

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## Release of TPWind Strategic Research Agenda

### Launch of the Strategic Research Agenda and Market Deployment Strategy for the wind energy sector

In its newly released Strategic Research Agenda, the European Wind Energy Technology Platform (TPWind) presents an ambitious vision in which over a quarter of the EU's electricity could be provided by wind in 2030. It describes the research priorities that tie in with this vision, and the financial and human resources these priorities will entail.

According to the Strategic Research Agenda (SRA), wind energy could cover 12-14% of the EU's electricity consumption by 2020, with a total installed capacity of 180 GW. This could increase to 22-28% of consumption and 300 GW in 2030.

The SRA points out that fulfilling this vision will be a major industrial and technological challenge for Europe, and that public and industry research resources across Europe must be mobilised via the coordination of investment at European and national level. It gives research priorities and actions for the sector to ensure that it develops successfully.

Part of the document is devoted to a Market Deployment Strategy, which examines the ways to remove market barriers to large-scale wind energy deployment, such as creating a level playing field for grid access, reducing investment costs and streamlining administrative procedures.

The SRA is the most in-depth analysis to date of the research requirements of the wind energy sector, and is based on two years of work and discussions. It is supported by extensive annexes, which are available online.

TPWind Chairman Henning Kruse said, "TPWind's vision and action plan for research, as presented in the SRA, are hugely important steps forward for the future deployment of wind energy in Europe. The time has now come to begin putting the action plan to effect, and for this the support of the European Commission and Member States will make all the difference."

Download the SRA [here](#)

See EWEA [Press release](#) and related articles on [Euractiv](#), [Ends Europe Daily](#) or [Cordis](#)

## FP7 information

### Ongoing FP7 call

**Call identifier:** FP7-ENERGY-2008-TREN-1

**Date of publication:** 29 April 2008

**Deadline:** 8 October 2008 at 17.00.00, Brussels local time

**Topic ENERGY.2008.2.3.1: Demonstration of large scale systems for on- and off-shore wind farms including their cost effective grid integration**

The priorities of this call are in line with TPWind priorities, as listed by TPWind Strategic Research Agenda. The scope of the call is broad. The applications are not requested to fulfill all listed activities, but can put emphasis on a specific point. Large-scale grid integration and pooling of wind farms in particular is of strong interest.

[More information](#)

### FP7 info day on 2009 calls

FP7 Information Days for Energy, are organised on **24-25 September 2008** (on 2009 calls). Four new Calls for Proposals for Energy under the Seventh Framework Programme for Research and Technological Development (FP7) are scheduled to be published on **3 September 2008**:

- **FP7-ENERGY-2009-1** (managed by DG RTD): a general call focusing on research with a long-term horizon
- **FP7-ENERGY-2009-2** (managed by DG TREN): a general call focusing on research with a short-and medium-term horizon and on demonstration
- **FP7-ENERGY-2009-3** (managed by DG RTD): a call for coordination and support actions
- **FP7-2009-BIOREFINERY** (managed by DG RTD): a joint call including Theme 2 - Knowledge based Bio-Economy, Theme 4 - Nano-Material Programme and Theme 6 – Environment

[More information](#)

## Past TPWind events

### April 2008: TPWind workshop during the European Wind Energy Conference, and launch of the *Synopsis* document

TPWind launched the [Synopsis](#) document during its workshop in the [EWEC 2008 Conference](#), on 1 April 2008. This document provided an overview of the Strategic Research Agenda and Market Deployment Strategy documents. It summarized the **TPWind Vision** for the Wind Energy Sector and the corresponding **Research Action Plan**. EC Research Commissioner Potocnik welcomed this event in his [speech](#) provided during the EWEC closing session.

[More information](#)

### February 2008: Second TPWind General Assembly

The Second TPWind General Assembly took place in Brussels on February 12th and 13th, 2008. 130 delegates attended.

[More information](#)

### February 2008: Fourth Steering Committee meeting

[More information](#)

### December 2007: Seminar of the industrial leaders of the European Technology Platforms

The seminar was chaired by Commissioner Potocnik. 60 representatives of European Technology Platforms and 40 representatives of Commission services participated in the 8th seminar of the industrial leaders of ETPs, which focused on the evolving role of ETPs. The objectives of the seminar were:

- To present and discuss recent or upcoming Commission policy initiatives relevant to ETPs
- To present and discuss views on the evolution of ETPs, sharing information on major achievements and best practices
- To offer the ETPs bilateral meetings with the EIB members to discuss financing possibilities under the now operative RSFF scheme

[More information](#)

### November 2007: First TPWind General assembly

The First TPWind General Assembly took place in Brussels on November 13th and 14th, 2007. 129 delegates were present. This 2-days meeting was focused on developing the two main outcomes of TPWind: the Strategic Research Agenda and Market Deployment Strategy Documents.

[More information](#)

## November 2007: Third Steering Committee meeting

[More information](#)

### Ongoing European activities

#### Public consultation on the Second Strategic Energy Review

The Strategic Energy Review is a strategic exercise conducted by the European Commission. The communication [Energy policy for Europe](#) (COM(2007) 1 final) was issued in 2007. This document provided the priorities of the European Commission for the next two years. It was, for example, announcing the currently ongoing Strategic Energy Technology Plan.

On June 2008, the [draft 18-month programme of the Council](#) was published. This document announces the Second Action Plan on Energy Policy for Europe (2010-2012). This document will be prepared in the light of the European Council's examination of the forthcoming Strategic Energy Review in Spring 2009. The ongoing [public consultation on the second strategic energy review](#) is therefore of crucial importance (closing 10 september 2008).

This publication will come at a strategic moment, in the context of the implementation of the 20% target for renewables, the launch of the Strategic Energy Technology Plan, or the upcoming FP7 review. Moreover, it will set the priorities for the new European Commission, the renewed European Parliament and corresponding Committees.

#### Communication on Financing low-carbon technologies

The [Strategic Energy Technology Plan](#) (SET-Plan) proposes a serie of six european industrial initiatives to be launched on short notice, amongst which is the European Wind Initiative. Financing for these initiatives is not defined in this communication, but shall be addressed by the upcoming European Commission *Communication on financing low-carbon technologies*. A public consultation shall be open on short notice.

#### Communication on Joint Programming

The [communication towards joint programming in research](#) (COM(2008) 468) proposes a new approach based on Joint programming for optimising the use of European public R&D funds through enhanced cooperation. Joint Programming involves Member States developping and implementing common strategic research agendas. It may involve strategic collaboration between existing national programmes or jointly planning and setting up entirely new ones. In both cases, it entails putting resources together, selecting or developing the most appropriate instrument(s), implementing, and collectively monitoring and reviewing progress. This new approach make use of article 165 of the [EU treaty](#).

## Partners

*The TPWind Secretariat is supported by the European Commission*



## Secretariat Partners

