



Monthly TPWind Newsletter  
March 2014

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If you have any **feedback or questions** about the newsletter, or to **unsubscribe**, please contact Manuela Conconi ([manuela.conconi@ewea.org](mailto:manuela.conconi@ewea.org), +32 2 213 18 56).

Past TPWind newsletters are available here: <http://www.windplatform.eu/documents/newsletters/>

## Section 1 – Funding opportunities

On December 11 2013 the European Commission launched the first calls for projects under Horizon 2020, the EU's biggest ever research and innovation framework programme with a seven year budget worth nearly €80 billion. The programme allocates more than €15 billion for the first two years.

Most EU research funding is allocated on the basis of competitive calls, but the budget for Horizon includes funding for the Joint Research Centre, the European Commission's in-house science service; the European Institute for Innovation and Technology and research carried out within the framework of the Euratom Treaty. Separate calls will also be published under specific partnerships with industry and Member States.

Secure, clean and efficient energy is one of the seven themes identified in the Societal Challenges section of the Horizon 2020 programme. The funding opportunities under Horizon 2020 are set out in bi-annual work programmes published on the EU's digital portal for research funding.

Energy calls are identified in the Energy 2014-2015 Work Programme: [http://ec.europa.eu/research/participants/data/ref/h2020/wp/2014\\_2015/main/h2020-wp1415-energy\\_en.pdf](http://ec.europa.eu/research/participants/data/ref/h2020/wp/2014_2015/main/h2020-wp1415-energy_en.pdf).

To simplify and harmonise procedures, a new single set of rules will apply. The former research (FP) and innovation (CIP) programmes will be now part of the Horizon 2020 framework. Where relevant, calls for competitive low-carbon energy should address technical issues, synergies between technologies, regional approaches, socio-economic and environmental aspects from a life-cycle perspective (including public acceptance, business cases, pre-normative and legal issues, pollution and recycling). Environment, health and safety issues should also be considered in all demonstrations and appropriately addressed.

Moreover, an important element for renewables is the need for an increased understanding of risks - whether technological, in business processes, for particular business cases, etc - risk ownership, and possible risk mitigation. Proposals should, therefore, include appropriate work packages on this matter.

Proposals should explicitly address performance and cost targets together with relevant key performance indicators and expected impacts. Industrial involvement in the consortia and explicit exploitation plans, describing how the projects' results will be implemented, are a prerequisite. All proposals will have to include a work package on 'the business case' of the technology solution being addressed.

The new framework stresses the importance of the Manufacturing Readiness Level (MRL) and the Technology Readiness Level (TRL). More information on the MRL can be found in the annex of the work programme. More information on the TRL can be found on the general annexes to the Horizon 2020 Work Programme ([http://ec.europa.eu/research/participants/data/ref/h2020/wp/2014\\_2015/annexes/h2020-wp1415-annex-ga\\_en.pdf](http://ec.europa.eu/research/participants/data/ref/h2020/wp/2014_2015/annexes/h2020-wp1415-annex-ga_en.pdf)).

For more information on Horizon 2020 please visit <http://ec.europa.eu/programmes/horizon2020/en>.

### **CALL FOR COMPETITIVE LOW-CARBON ENERGY**

#### **1. Topic LCE-03-2014: Demonstration of renewable electricity and heating/cooling**

*Deadline: 2014-09-10 17:00:00 (Brussels local time)*

*Type of action: Innovation Actions*

**Specific challenge - Wind energy:** Demonstrating and testing of new nacelle and rotor prototypes - There is a need for demonstration and testing of new nacelle and rotor prototypes with a significant lower mass and material intensity and applicable to several types of large-scale wind turbines.

**Scope:** The proposals aiming at bringing the proposed technology solutions to a higher TRL level, aiming at "demonstration" of these solutions, accompanied, where appropriate, by supporting research activities and activities targeting market uptake. The proposals should bring the proposed technology solutions from TRL 5-6 to TRL 6-7 (please see part G of the General Annexes).

**Budget:** proposals requesting a contribution from the EU of between EUR 5 to 20 million would allow this specific challenge to be addressed appropriately.

More information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/1127-lce-03-2014.html>

**2. Topic LCE-02-2014: Developing the next generation technologies of renewable electricity and heating/cooling**

*Deadline: 1<sup>st</sup> stage - 2014-04-01 17:00:00 (Brussels local time) / Stage 2: 2014-09-23 +17:00:00 (Brussels local time)*

*Type of action: Research & Innovation Actions*

**Specific challenge - Wind energy:** Develop control strategies and innovative substructure concepts - There is a need for i) control strategies and systems for new and/or large rotors and wind farms (on- and offshore); ii) new innovative substructure concepts, including floating platforms, to reduce production, installation and O&M costs for water depths of more than 50m.

**Scope:** Proposals should address one or more of the technology-specific challenges between renewables areas, where new, innovative ideas are welcome. They should bring technology solutions to a higher TRL, from TRL 3-4 to 4-5 (please see part G of the General Annexes).

**Budget:** proposals requesting a contribution from the EU of between EUR 3 to 6 million would allow this specific challenge to be addressed appropriately.

More information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/1123-lce-02-2014.html>

**3. TOPIC LCE-02-2015: Developing the next generation technologies of renewable electricity and heating/cooling**

*Deadline: 1<sup>st</sup> stage - 2014-09-03 17:00:00 (Brussels local time) / Stage 2: 2015-03-03 +17:00:00 (Brussels local time)*

*Type of action: Research & Innovation Actions*

**Specific challenge: Substantially reduce the costs of wind energy.** There is a need for innovative integrated dedicated offshore systems (e.g. with a significant lower mass per unit power installed) to reduce production, installation and O&M costs for water depths of more than 50m.

**Scope:** Proposals shall explicitly address performance and cost targets together with relevant key performance indicators, expected impacts, as well as provide for development of explicit exploitation plans. Proposals should also indicate the current Manufacturing Readiness Level (MRL, see Annex to the Secure, Cleanwork programme) and the activities needed to keep the MRL aligned with the advances in the TRL that will be undertaken in the proposal to ensure the potential for exploitation.

**Budget:** proposal requesting a contribution from the EU of between EUR 3 to 6 million would allow this specific challenge to be addressed appropriately.

More information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/1138-lce-02-2015.html>

**4. Topic LCE-04-2014: Market uptake of existing and emerging renewable electricity, heating and cooling technologies**

*Deadline: 2014-05-07 17:00:00 (Brussels local time)*

*Type of action: Coordination and Support Actions*

**Scope:** To ensure the level of growth needed to deliver the EU targets for renewable energy, and to create the appropriate business environment for EU industrial leadership in low-carbon energy technologies, a number of important market-uptake challenges still need to be addressed, notably:

- Ensuring sustained public acceptance of renewable energy projects and renewable energy overall, while taking into account the implications of the substantial increase in RES share in the final energy consumption;
- Ensuring speedy and user friendly permitting procedures;
- Implementing renewable energy policies, codes and legislations at EU, national, regional and local levels in a coordinated manner using best practice examples with significant replication potential;
- Capacity building and contributing to the further development of renewable energy policy, legislation and regulation, and informing the debate on post-2020 horizons;
- Capacity building and facilitating the deployment of improved business models and innovative financing schemes for mobilising investments in innovative and established renewable energy systems and services.

Proposals should address one or several of the challenges mentioned above for technologies and systems which are at TRL 7-9 (please see part G of the General Annexes). Regional specificities, socio-economic, spatial and environmental aspects from a life-cycle perspective shall be considered. For all actions, the consortia should involve and/or engage relevant stakeholders and market actors who are committed to adopting/implementing the results.

More information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/1131-lce-04-2014.html>

#### **5. Topic LCE-19-2014: Supporting coordination of national R&D activities**

*Deadline: 2014-09-10 17:00:00 (Brussels local time)*

*Type of action: Coordination and Support Actions*

**Scope:** As a pilot case, the scope will be on the areas and challenges targeted in this 'Competitive low-carbon energy' call. Research and Innovation activities in the proposals should focus on bringing technology solutions from TRL 3 to TRL 5 (please see part G of the General Annexes). Activities should focus on supporting either:

- The transfer of knowledge among participants and other dissemination activities, activities to foster the use of research outcomes by industry of a project resulting from synchronised funding processes of at least three Member States, or
- The coordination of call for proposals of at least three Member States, for instance, through support to networking activities of public funding bodies, leading to the promotion of the use of single peer-reviewed evaluations, development and use of harmonised monitoring and review methodologies, support to the preparation of high risk, high cost large scale pilots for joint actions with or without EC funding, linking national research programmes and other funding mechanisms and building partnerships with the necessary scale and scope etc.

**Budget:** proposals requesting an EC contribution between EUR 0.1 to 0.5 million would allow this specific challenge to be addressed appropriately.

More information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/1129-lce-19-2014.html>

#### **6. Topic LCE-18-2014: Supporting Joint Actions on demonstration and validation of innovative energy solutions**

*Deadline: 2014-05-07 17:00:00 (Brussels local time)*

*Type of action: ERA-NET Co-fund*

**Scope:** The proposals should aim at coordinating the research efforts of the participating Member States, Associated States and Regions in the areas and challenges targeted in this 'Competitive low-carbon energy' call or in the 'Smart Cities and Communities' call and to implement a joint transnational call for proposals resulting in grants to third parties with EU co-funding to fund multinational innovative research initiatives in this domain. Proposers are encouraged to implement other joint activities including additional joint calls without EU co-funding.

Activities should focus on demonstrating and validating solutions that reached already TRL 5-6 and bringing them to TRL 6-7 (please see part G of the General Annexes). Lower TRL research activities necessary to support this work and forming an integral part of these proposals, will be in scope for funding, provided the bulk of the activities in the proposal remains focused on demonstrating and validating solutions. Appropriate user and general public acceptance, regulatory, market up-take (e.g. e.g. regulatory issues, capacity building and access to finance), social, environmental and resource efficiency aspects should be included. Opening up demonstration facilities for practice-oriented education and training is encouraged.

**Budget:** The Commission considers that proposals requesting a contribution from the EU in the range of 10 to 20 million Euro would allow this specific challenge to be addressed appropriately.

More information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/1136-lce-18-2014.html>

## Blue Growth: Unlocking the potential of Seas and Oceans

### 1. Topic BG-05-2014: Preparing for the future innovative offshore economy

*Deadline: 2014-06-26 17:00:00 (Brussels local time)*

*Type of action: Coordination and support actions*

**Specific challenge:** Economic activities in Europe's seas and coasts are expected to intensify, diversify and expand further offshore driven by the competition for space on coastal areas and the increased exploitation of marine (renewable) energy, biological and mineral resources in the deep sea.

**Scope:** Proposals should analyse and identify the social and economic developments in the offshore economy and the most promising, environmentally sustainable and economically feasible business models. This should include a review of marine renewable energy farms (both wind and ocean energy), offshore aquaculture facilities, multi-use offshore platforms projects and their business models, as well as issues of competing access to marine space between different activities and, more broadly, all social and environmental impacts (including impacts on coastal areas). Proposals should also set-up a mechanism associating key stakeholders interested in the development of the Blue Economy, with a view to covering all the following objectives:

- identify the technological, challenges to be overcome to make these business models operational and define a shared research and technology agenda
- investigate solutions to overcome the non-technological challenges such as the infrastructure and grid development within the relevant EU legislative framework ( in particular the maritime spatial planning and existing coastal and planning systems)
- propose large scale pilot initiative(s) to be launched in European seas which should demonstrate the feasibility of the most promising business models.

**Budget:** The Commission considers that proposals requesting a contribution from the EU in the range of EUR 2 million would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

More information:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2454-bg-05-2014.html>

## Horizon 2020: call for experts

The European Commission has launched a new call for independent experts who are needed to evaluate proposals for EU funding and for other activities such as monitoring, programme evaluation and policy development.

Interested candidates are invited to file their application online on: <http://ec.europa.eu/research/participants/portal/desktop/en/experts/index.html>

In addition to researchers and academics, the European Commission is aiming to substantially increase the number of specialists from the commercial and business communities. Horizon 2020 covers a whole range of activities in the fields of science and technology, innovation, social sciences and humanities, ethics, gender,

communication, project management and more. This call is open to those of any nationality with a high level of expertise in the relevant fields of research and innovation.

Independent experts who registered under the Seventh Framework Programme for Research and Technological Development are invited to declare their interest in being considered for Horizon 2020 assignments and update their area of expertise in line with the new set of Horizon 2020 specialist fields.

The call for expression of interest will remain open for the lifetime of Horizon 2020. The support services (FAQ as well as the Research Enquiry Service for general enquiries and the IT helpdesk for technical matters) are accessible from the online registration platform. Further details on the type of expertise sought are set out in the Participant Portal.

More information can be found at <http://ec.europa.eu/programmes/horizon2020/en/experts>.

## Section2 – Secretariat's news

### **TPWind call for expression of interest to renew the Steering Committee will be launched on Friday 7 March**

TPWind is renewing its Steering Committee. Individuals interested in participating in the platform's decision making body over the next three years should visit the website ([www.windplatform.eu](http://www.windplatform.eu)) and read the "call for expression of interest" that will be available as from Friday 7 March.

A candidate cannot submit more than one application, only the first submission will be taken into consideration. Successful candidates will be selected by the Executive Committee according to the modalities outlined in the call: the final decision of the Executive Committee is irrevocable.

The deadline of the call is to 30 April, 2014, at midnight (Brussels time). Any application received after the deadline will be disregarded.

### **Launch of the new TPWind Strategic Research Agenda**

The new Strategic Research Agenda (SRA) will be launched on **Tuesday 11 March 2014 during EWEA** annual conference and exhibition in Barcelona.

The SRA identifies the research priorities for the wind sector in the coming years to reach full competitiveness of the onshore sector by 2020 and of the offshore one by 2030. The session will look at how wind technology research priorities have changed over the past years, what the key research barriers to market deployment are, and how the European Commission can continue to play a strong role in supporting wind energy R&D.

The text has been drafted by the chairs and secretaries of TPWind, with the input of working group members, under the supervision of the TPWind secretariat.

Agenda and more information: [TPWind website](#) and [EWEA 2014 conference](#).

### **TPWind Working Groups selection**

The Steering Committee is currently evaluating the applications received in response to the call for expression of interest to renew the Working Groups.

The Secretariat aims at communicating the final list of new members by the end of March/beginning of April.

## Section 3 – Members' news

### Economic study of an advanced condition monitoring system (CMS) for offshore wind turbine machinery

*Emilien Simonot (Asociación Empresarial Eólica),  
Slim Soua (TWI),  
Jesus Antonio Jimenez (TWI),  
Estefania Artigao (Brunel University)*

The development of the wind energy industry has been significant over the past 20 years and offshore deployment is an important option for the future. Plans for offshore wind farms are ambitious, particularly in countries with high offshore wind potential.

The current project, CMSWind, is developing a condition monitoring system (CMS) whilst investigating its commercialisation in the wind energy sector. The team realised an exhaustive analysis of lifetime costs of wind energy assets, considering the investment & operation costs as well as the impact of component failure on the WF output.

Wind turbine generator, gearbox and drive train are responsible for about 22% of all WT downtime due to component failure ie unscheduled downtime. Based on our investigation, a wind turbine operator would incur a loss of €15,000 - €45,000 for a single failure, generating a 5% loss of operation time per year. The break-even point for a 20% and 30% profit is at 20 and 18 months, relatively.

The cost of a full CMS system could vary from €1,500 - €6,000 for a single system operating on one turbine. As wind farm projects are located further offshore, technology development and industry learning need to have a significant impact in reducing downtime and unexpected costs.

Download full article here: <http://www.cmswind.eu/cmswind-economic-impact-analysis/>

Meet the CMSWind team to discuss those issues: find us on booth 7B40 during EWEA 2014.

More information: [www.cmswind.eu](http://www.cmswind.eu)

### ENTSO-E Releases the R&D Implementation Plan 2015-2017

**The ENTSO-E Implementation Plan 2015-2017 defines core R&D activities and gives practical implementation details for the next three years.**

This second issue of the ENTSO-E Implementation Plan builds on the monitoring of the R&D Roadmap achievements, as well as new or updated inputs from Transmission System Operators (TSOs) and other stakeholders.

The Implementation Plan 2015-2017 focuses on three main topics:

- 'Inertia, control and inertia of large power systems with large share of inverter-based components';
- 'Methods and tools for optimising asset management'; and
- 'Demonstration of power-load control mechanisms at TSO and DSO level'.

The Implementation Plan is defined with a combination of top-down and bottom-up approaches: following the ENTSO-E R&D Roadmap to reflect the upcoming needs and priorities of TSOs and stakeholders.

The Implementation Plan's rolling time-span approach encourages a continuous learning process. Hence, while some projects are already being executed, new topics continue to be identified and initiated. The main R&D topics and concepts reflect the ambition of TSOs to tackle the upcoming challenges and to achieve the European energy policy targets.

The ENTSO-E Implementation Plan is foreseen under the ENTSO-E R&D Roadmap 2013–2022. The Implementation Plan 2015-2017 has been developed taking into account ACER's opinion on the previous Implementation Plan and the upcoming European SET Plan Integrated Roadmap and Horizon 2020.

For further information on the ENTSO-E Implementation Plan and to download it please visit the entso-e website: <https://www.entsoe.eu/publications/rd-reports/rd-implementation-plan/>.

*In this section of the newsletter articles produced directly by TPWind members are published, providing members with the opportunity to inform the Platform of their most recent achievements, plans, products, studies or R&D efforts.*

*Every month, two to four short articles (maximum 250 words) will be selected by the Executive Committee or the Secretariat and will be included in this section of the newsletter, along with the contact details of the person or company publishing the article.*

***The Secretariat invites all TPWind members who would like to publish an article in the next issue of this newsletter to contact Manuela Conconi and send her their contribution by 21 March at the latest ([manuela.conconi@ewea.org](mailto:manuela.conconi@ewea.org); +32 2 2131856).***

*The Secretariat would like to remind all readers that this newsletter is sent to all TPWind members, to those included in the reserve lists of the Platform as well as to selected EC and EWEA representatives (approximately 500 people in total).*

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## Section 4 – Events

### Get technical at EWEA 2014



**10 – 13 March 2014**

Barcelona, Spain

The technical conference sessions will be led by people who have been doing groundbreaking work in their respective industries. Sessions will look at what the technology challenges are today and who is bringing novel solutions. 3 Track Chairs, all experts in their field, have been leading the development of these sessions:

*“The ‘Hardware Technology’ track sessions cover a wide range of key wind technologies, focusing on both turbines and grid systems. Presentations offer a mixture of status overviews and new developments, describing innovation at all levels from new breakthrough steps to implementation, all with the ultimate target in mind – to further enhance wind power as a cost-effective and stable source of electricity.” (Henrik Stiesdal, Chief Technical Officer, SIEMENS Wind Power A/S, Denmark).*

**Find out more about the sessions and view the [conference programme](#).**

The conference delegate pass includes access to the exhibition. View [pass benefits](#).

#### **Technology Workshop: Assessment of Operational Wind Turbines – 2nd edition**

**Fourth Quarter 2014**

Date and venue to be confirmed by end March 2014

Call for abstracts to be launched by end March 2014

Following our successful workshop “Assessment of Operational Wind Turbines” Lyon, France – July, 2012, many of the 160 attendees requested that we return to the topic two years later in order to debate progress in the field. The call for abstracts for this second workshop will be launched in early 2014.

See the [programme & proceedings](#) and [attendee list](#) from the first edition

Email [techworkshops@ewea.org](mailto:techworkshops@ewea.org) to be kept informed about this workshop

#### **Technology Workshop: Wind Turbine Noise – 2nd edition**

**Fourth Quarter 2014**

Date and venue to be confirmed by end March 2014

Call for abstracts to be launched by end March 2014

Our first workshop on this highly topical issues was “Wind Turbine Noise – from source to receiver”, Oxford, UK – December 2012. Many of the 160 attendees and 8 exhibiting companies requested that a second edition should be held two years later. The call for abstracts for this second workshop will be launched in early 2014.

See the [programme & proceedings](#) and [attendee list](#) from the first edition

Email [techworkshops@ewea.org](mailto:techworkshops@ewea.org) to be kept informed about this workshop

#### **Extra visibility for your organisation:**

If you would like to present your company to the highly targeted audiences that the technology workshops attract contact Tim Robinson on [techworkshops@ewea.org](mailto:techworkshops@ewea.org) or tel: +32 2 213 1844 to discuss the exhibition & sponsorship opportunities available.

### ***Support EWEA because we support you***

Revenues from EWEA events and membership go right back into the industry, making EWEA's policy and lobbying activities possible. By attending this event you are directly strengthening the voice of the industry. Your money goes further than you think!



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