

# **Development of a research programme for EERA JP Wind**

## **"Request for proposals to map the research needed to reach the 2050 energy goals"**

### **Project scope**

The project will focus on the development of a Research Programme of work for wind energy research activities spanning from now towards 2050 goals. The program will include the identification of research gaps and key Research Themes for wind energy with a timeline for each theme, including key high-level milestones. These outputs will be followed and used to guide development of an EERA JP Wind European Centre of Excellence, incorporating the Lighthouse Projects of Floating Wind Energy and Integration of Large-Scale Offshore Wind Energy.

The programme will link to the 'Net Zero by 2050' scenario formulated by IEA and the REPowerEU plan defined by the European Commission that has identified the research needed to achieve the targets for wind energy. Overall, the proposal shall refer to the SET Plan ensuring alignment and providing clarity about the research needed to fulfill EU energy and technology objectives.

The programme will have inputs including the EERA JP Wind R&I Strategy, the Grand Challenges in the Science of Wind Energy and the ETIP Wind SRIA and roadmap, converting those inputs into a programme linked to the research needs identified.

The formulation of the Research Programme will be done in consultation with EERA JP Wind members. The EERA JP Wind Management Board will approve the programme in a first step followed by a final approval from the EERA JP Wind Steering Committee at the end of 2023.

The programme will be formulated as Research Themes with a timeline and a description that can be used by decision makers as input for R&D public funded programmes.

The project will also develop a mapping of existing relevant national and EU R&D projects that are linked to the different research areas identified in the Research Programme.

The output of this project will be used, after the project finalisation, to establish a European Centre of Excellence on wind energy. The project deliverables will also be utilised to influence key stakeholders about the need for long term support for wind energy research.

### **Key outputs of the project**

The project shall consist of a report with five chapters and a series of workshops associated with these chapters describing the research programme and providing an overview of ongoing R&D activities in Europe.

#### *Research Programme*

The programme will be formulated as Research Themes, with a description of the theme, the rationale, the scope, time span, how the theme will contribute to the objectives set in the global Net Zero scenario and the current status of research. The themes are expected "to develop European capability to address global wind energy research challenges"

- Chapter 1 : NetZero implications for wind energy development  
Identify which milestones included in IEA Net Zero and RePower EU scenarios are relevant for wind energy research, explaining why further research is needed.

- Chapter 2 : Current state of the art and related research gaps  
Description of the state of the art research on wind energy, using as inputs the Grand Challenges in the Science of Wind Energy and SRIA, as well as any other relevant source of information. Identification of the research gaps connected to IEA Net Zero and RePower EU scenarios, with an explanation of why existing technology and knowledge is not enough and what is missing.

- Chapter 3 : Research Theme descriptions and timelines  
Research Themes will be linked to the research gaps, explaining what research scope and topics are needed to fill the gaps. The Research Themes should be formulated including expected outcomes that will address the gaps and contribute to achieve the scenarios mentioned before.

- Chapter 4 : Pictorial timeline representation of the research gaps, themes and suggested actions. (This should be also delivered in a form suitable for use in presentations.)  
The timeline will clearly indicate in which period the actions should take place, with an estimated duration.

- Chapter 5 : List and brief description of key projects related to Research Themes  
Map of relevant European R&D projects linked to the Research Programme. As part of Chapter 5, the map will include a list of key research projects (both national and EU) that are active in 2023, with a description of the project, consortium, budget, funding, main research objectives and how the project is expected to contribute to the Research Theme(s).

**The report should be clear and readable by non-scientists and be around 50 pages in length.**

### **Project milestones and deliverables**

<b>Milestone (MS) Deliverable (D)</b>	<b>Description</b>	<b>Date*</b>
MS0. Workshop	Review Chapter 1	M2
D1. Chapter 1	NetZero implications for wind energy development	M2
MS1. Workshop (JP Wind MB)	First concept research gaps approval	M2
D2. Chapter 2	Current state of the art and related research gaps	M3
MS2.1 Workshop (full JP Wind membership)	Translating research gaps into Research Themes and key milestones	M4

MS2.2 Workshop (JP Wind SC)	Review draft chapter 3	M5
D3. Chapter 3	Research theme descriptions and timelines	M5
MS3. Workshop at EERA JP Wind Innovation Forum	Presentation of Research Programme draft. Key research projects	<b>Sept 2023</b>
D4. Chapter 4	Pictorial timeline representation of the research gaps, themes and suggested actions	M6
MS4. Workshop (JP Wind MB)	List of key projects	M7
D5. Chapter 5	List and brief description of key projects related to Research Themes	M8
MS5. Report to JP Wind SC for approval	Final approval by JP Wind SC and further dissemination of the report	<b>Dec 2023</b>

\*Project starts early March 2023. Milestone and deliverable dates are indicative, but MS3 and MS5 are fixed.

## Call for proposals

The deadline to submit a project proposal is the 17<sup>th</sup> of February. Proposals will be sent to the EERA JP Wind Secretary by email.

The full proposal will not be longer than 4 pages excluding CVs and budget breakdown.

Only EERA JP Wind member organisations are invited to send proposals.

Project proposals should include:

- Detailed scope of work, organized in work packages according to the description of work in this document
- Description of the process to be followed to engage with the EERA JP Wind MB and EERA JP Wind membership
- Proposed person or team to deliver the work
- CVs of the delivery team personnel, including references to similar projects
- Budget breakdown

## Required expertise

In order to perform the work, the following expertise is required from the team to deliver the project:

- Track record in defining strategic research agendas
- Experience working within EERA JP Wind
- Broad perspective of wind energy
- Participation in R&D projects related to wind energy

- Track record on international networks related to wind energy like ETIP Wind, IEA Wind, etc.

## **Budget**

**The total budget cannot exceed 150k€**

The budget to deliver the project will include:

- Hourly rates for the team participating in the project
- Budget per WP, including hours and expenses
- Requested amount of hours from the EERA JP Wind Secretary

The budget for the following tasks will be covered by EERA JP Wind:

- Meeting venues for MB meetings and workshops, SC meetings and workshops, JP members' workshops
- Support work carried out by the EERA JP Wind Secretary
- Final editing and printing costs of the deliverables

## **Selection process**

The selection of the applicants to deliver the project will be done by the EERA JP Wind MB with the following criteria:

- Quality of the project proposal
- Proven expertise in similar projects
- Budget breakdown (and associated value)