

A stylized, colorful illustration in shades of blue, green, and yellow. It depicts various energy-related concepts: wind turbines, power lines, a suspension bridge, industrial buildings, a modern office interior with people, a large building with a dome, and a field of sunflowers. The illustration is composed of several overlapping panels.

▶ European Centre of Excellence on Offshore Wind

The European Energy Research Alliance (EERA)

20 September 2022

► Vision and Mission

To **assure and maintain European leadership** on offshore wind by addressing grand scientific and technological challenges that are crucial for further improvement of offshore wind energy, providing new knowledge and basis for innovation.

Building new generations of young researchers working and learning from senior experimented researchers.

Creating reference data basis open to research.

Providing all necessary resources to support development of new challenges and European collaborative projects.

► Technical Challenges

to provide highest impact solutions for upcoming technologies as:

- **multi-wind-turbine floaters**
- **shared mooring lines** among floaters
- **floater-wind turbine integrated designs**
- **FOWT dedicated controllers** based on a better integration of the environmental conditions
- holistic **wind farm flow control**
- research **innovations assessment**

and for existing technologies with unsolved problems like:

- reliable and accurate **external conditions** assessment for offshore sites
- **aeroelasticity** for longer and more flexible blades on floater conditions
- **smart grid integration**
- **open access European strategy**
- **supply chain European strategy for offshore deployment**

► **Impacts**

Reducing the risks in offshore wind to foster development and deployment

Creating **new generation of researchers**

Maintain European leadership on offshore wind