



# Ne WindEERA – A new research programme for the European wind energy sector



EERADeepWind Conference 2024  
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## AGENDA—The Magnificent Seven

Item	Title
1	Introduction to New EERA
2	The Three Pillars of European Wind Energy Research and Innovation
3	Establishing the Research Foundation, Spotting the Gaps
4	Selecting Research Themes, Sub-Themes & Topics
5	A Picture Paints a Thousand Words
6	Let's Not Reinvent the Wheel
7	Completing the Job



# NeWindEERA – Introduction

- ▶ **Overview of the NeWindEERA project**
- ▶ Project funded by EERA JP Wind and kicked off in April 2023
- ▶ Will outline our new strategic research programme for the European wind energy research community
- ▶ Research programme based on the present state of the art and subsequent research requirements to reach the 2050 energy goals facing our sector
- ▶ Project being delivered by ORE Catapult, SINTEF, DTU, Ciemat and RWTH Aachen on behalf of the wider EERA JP Wind Membership
- ▶ Main output will be the NeWindEERA five-chapter report outlining the new research programme and how we got there
  - ▶ Strong alignment with the ETIP Wind Strategic Research and Innovation Agenda (SRIA)
  - ▶ More on this later...



# Ne WindEERA – Introduction

- ▶ **Why are we doing this?**
- ▶ Provides a clear research roadmap/vision for our route to 2050
  - ▶ This also includes non-technical cross-cutting topics, e.g., economic, environmental, social, legal/regulatory...
- ▶ To achieve strategy alignment with other key publications, e.g., ETIP Wind SRIA
  - ▶ Whilst maintaining key themes from our current R&I Strategy document
- ▶ Ensure clear and simple messaging for our key stakeholders
  - ▶ Research community, industry, funding bodies, governing bodies/legislators...
  
- ▶ **Effective engagement with our membership**
- ▶ Programme been developed in tandem with our wider EERA JP Wind membership
  - ▶ Adopting principle of building the programme with the research community that will deliver the programme
- ▶ Several touch points to allow full engagement and report chapter contributions
  - ▶ Monthly Newsletters, Online Webinars, InPerson Workshops



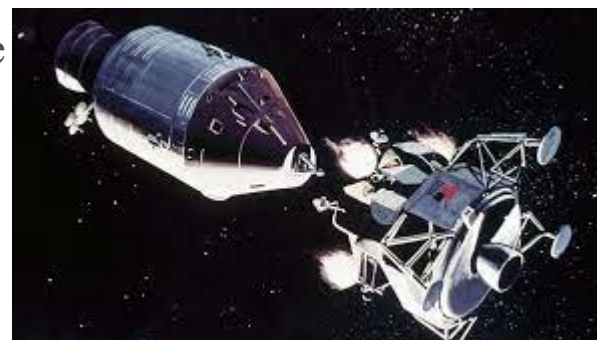
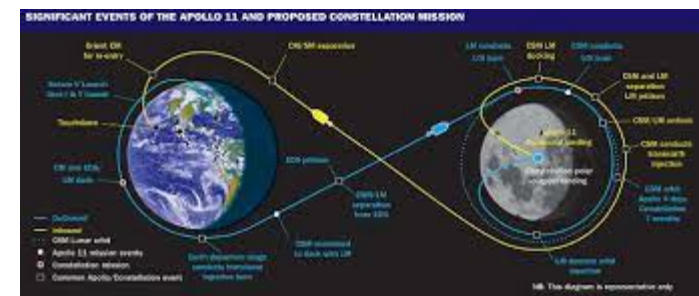
# The Three Pillars of European Wind Energy Research and Innovation

- ▶ We must have strong alignment with industry and a common set of research and innovation priorities with short, medium and longer term goals
- ▶ The first pillar is the ETIP Wind Strategic Research and Innovation Agenda
  - ▶ Shorter term R&I priorities for the next five years
- ▶ The second pillar is the Ne WinDEERA research programme
  - ▶ Medium and longer-term R&I priorities for 2035 and 2050 targets
- ▶ The third pillar is the European Wind Energy Centre of Excellence (EuCoE4Wind)
  - ▶ The framework/vehicle that will carry us on the journey



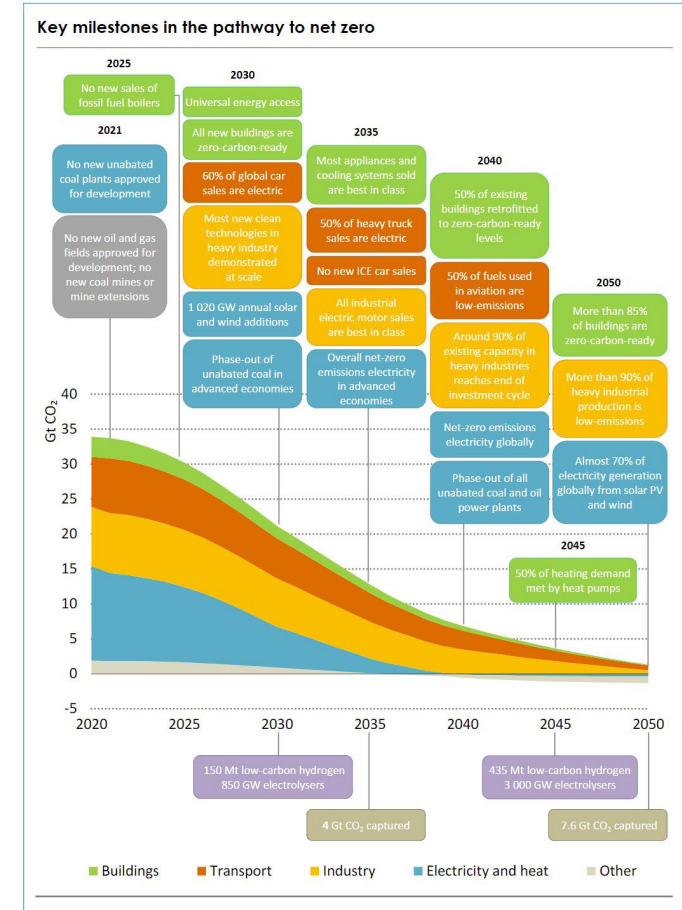
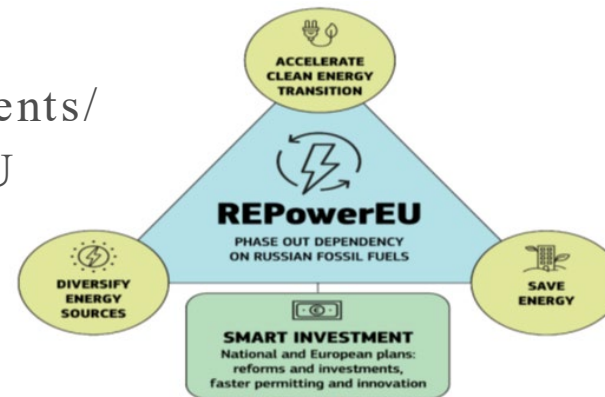
# The Three Pillars of European Wind Energy Research and Innovation

- ▶ **Mission to the Moon Analogy**
- ▶ The ETIP Wind Strategic Research and Innovation Agenda is the rocket launch
  - ▶ Big impact at the start of the mission
- ▶ The NeWindEERA research programme outlines the lunar mission
  - ▶ Helps us navigate our way to the moon
- ▶ The European Wind Energy Centre of Excellence (EuCoE4Wind) is the spacecraft
  - ▶ The vehicle that will carry us on the journey
- ▶ Net Zero is the lunar landing
  - ▶ Our ultimate goal



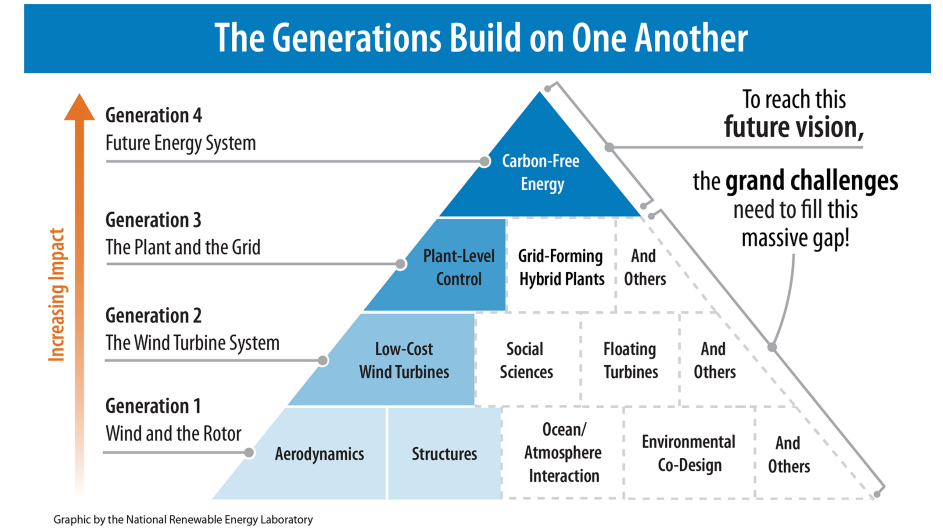
# Establishing the Research Foundation, Spotting the Gaps

- ▶ This was achieved by the first two work packages of the Ne WindEERA project
- ▶ WPI - NetZero implications for wind energy development
- ▶ Concentrated on the challenge that lies ahead
  - ▶ What are the NetZero implications for wind energy development?
- ▶ Presented relevant milestones from key documents/ initiatives such as IEA Net Zero and RePower EU



# Establishing the Research Foundation, Spotting the Gaps

- ▶ This was achieved by the first two work packages of the Ne WindEERA project
- ▶ WP2 - Current state of the art and related research gaps
- ▶ Assessed current state of the art and activities needed to address the challenges identified in WP1
- ▶ Built on the outcome of the Grand Challenges in the Science of Wind Energy and ETIP Wind's SRIA findings
- ▶ Identified related research gaps, themes and first indications of prioritisation

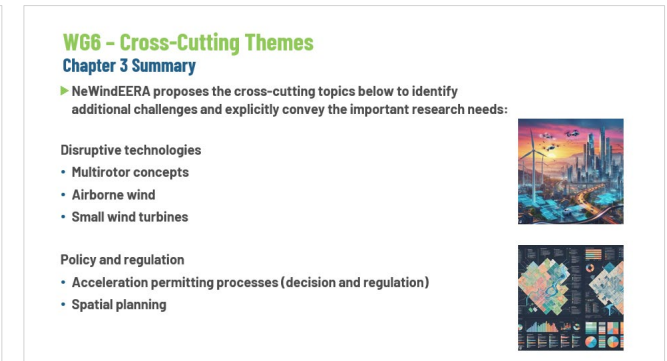
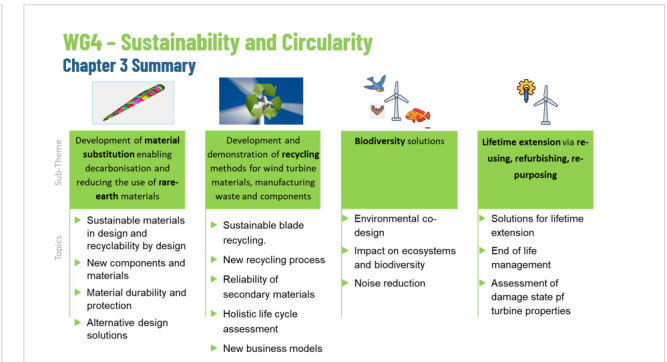
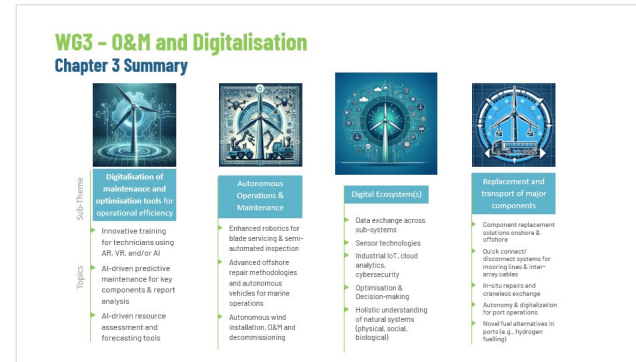
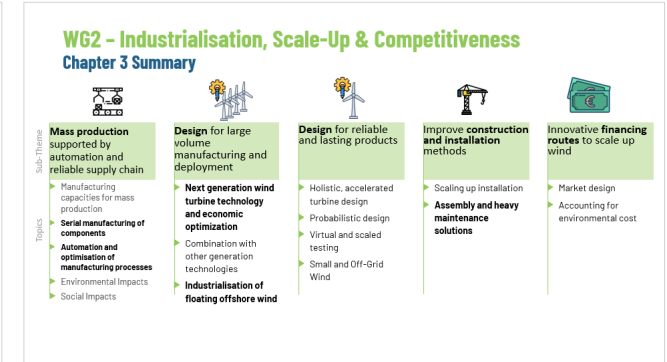
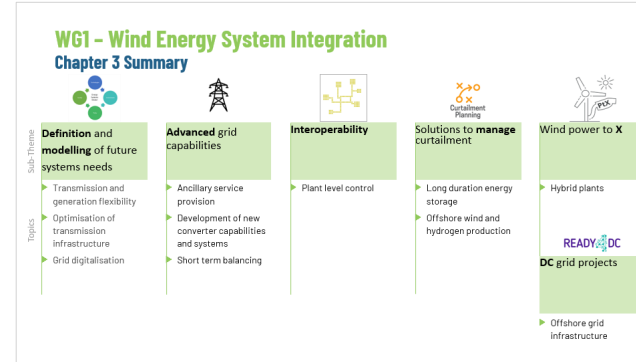




# Selecting Research Themes, Sub-Themes and Topics

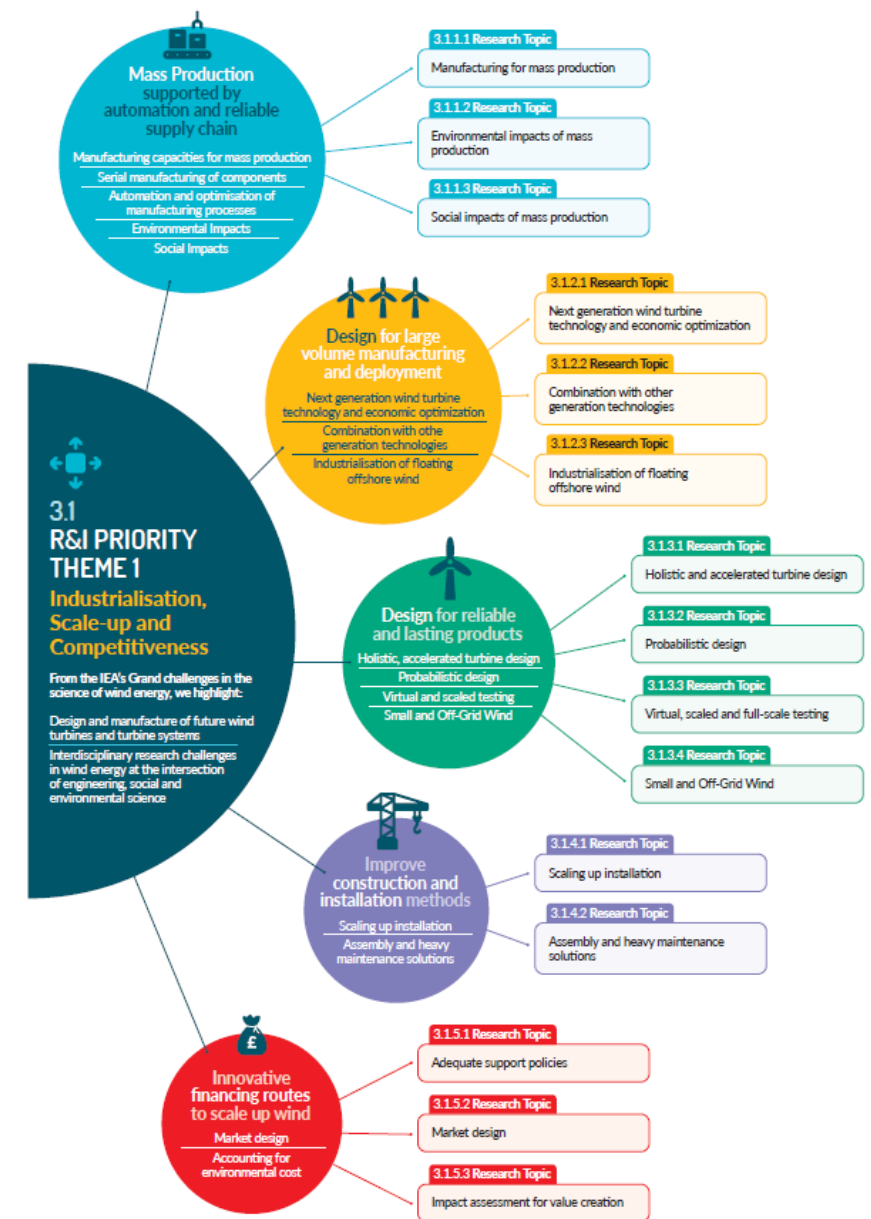
- ▶ This was the objective of work package 3 of Ne WindEERA
- ▶ Strong alignment with ETIP Wind SRIA themes
  - ▶ Wind Energy System Integration
  - ▶ Industrialisation, Scale -Up & Competitiveness
  - ▶ O&M and Digitalisation
  - ▶ Sustainability and Circularity
  - ▶ Skills & Coexistence
- ▶ Also accommodates a Cross-Cutting Theme
  - ▶ Addresses the need to research other areas

- ▶ Disruptive technologies
- ▶ Environmental conditions
- ▶ Non-technical areas (policy, regulation, social, financial..)



# A Picture Paints a Thousand Words

- ▶ Work package 4 of the NeWindEERA project concerns a visual representation of the new research programme
- ▶ Will be produced as a separate brochure/pamphlet
- ▶ Provides high level summary of the programme
- ▶ Allows wider dissemination and broader reach to our key stakeholders



# Let's Not Reinvent the Wheel

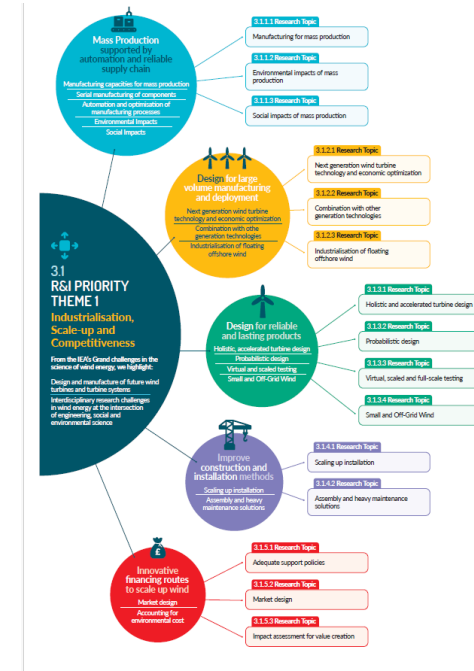
- ▶ This is the task carried out in work package 5 of the NeWinEERA project
- ▶ We are identifying existing projects/activities that are either in progress or recently completed in the field of wind energy research
  - ▶ Creating a kind of project summary library
- ▶ The aim is to identify project outcomes, what was achieved and what was not achieved
  - ▶ Provides some building blocks for the NeWinEERAresearch programme
  - ▶ Creates a more detailed starting point for the research topics
  - ▶ Helps to avoid repeating/duplicating previous work



# Completing the Job

## ► Look ahead to the completion of the NeWindEERA project

- NeWindEERA presentation at DeepWind – 19 January
- Completion of Chapters 4 and 5 – end of January
- Final online workshop for NeWindEERA – 1 February
- Final edits – early February
  - Planning to share draft with EERA and ETIP Wind colleagues for final comments
- Publication – late February
- Launch of NeWindEERA research programme
  - Targeting WindEurope, Bilbao





**Thank you**  
[www.eera-set.eu](http://www.eera-set.eu)

