



How innovation can deliver 450 GW of offshore wind

14 September 2020

etipwind.eu



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 826042

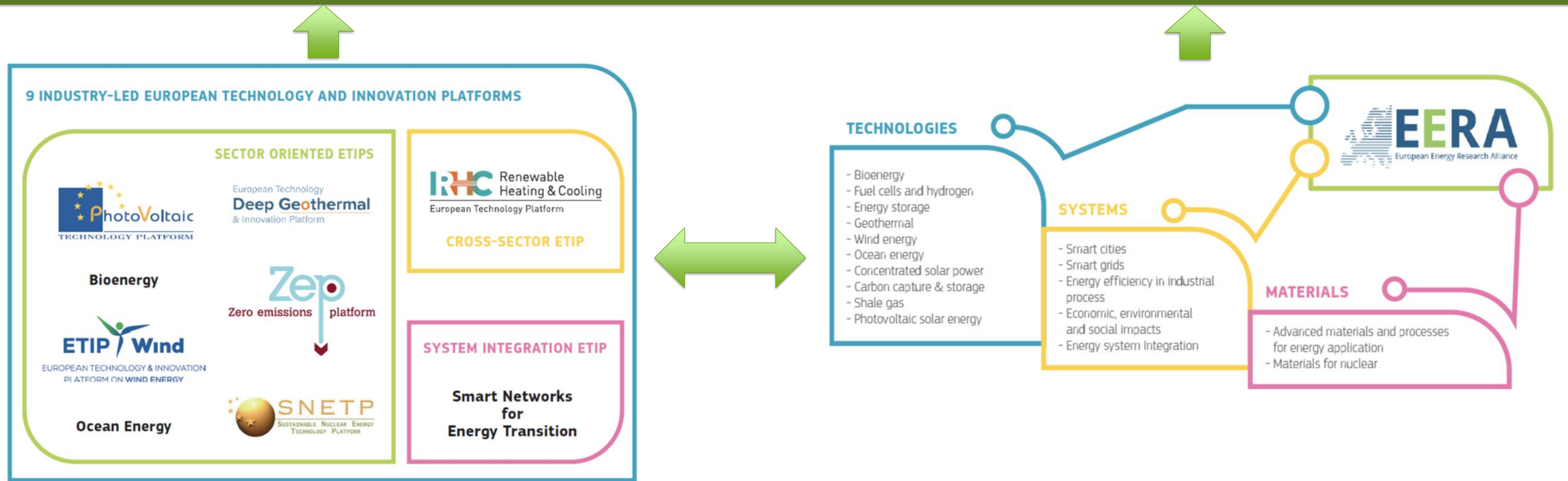
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Adrian Timbus

Chair of the Executive Committee

What are ETIPs?

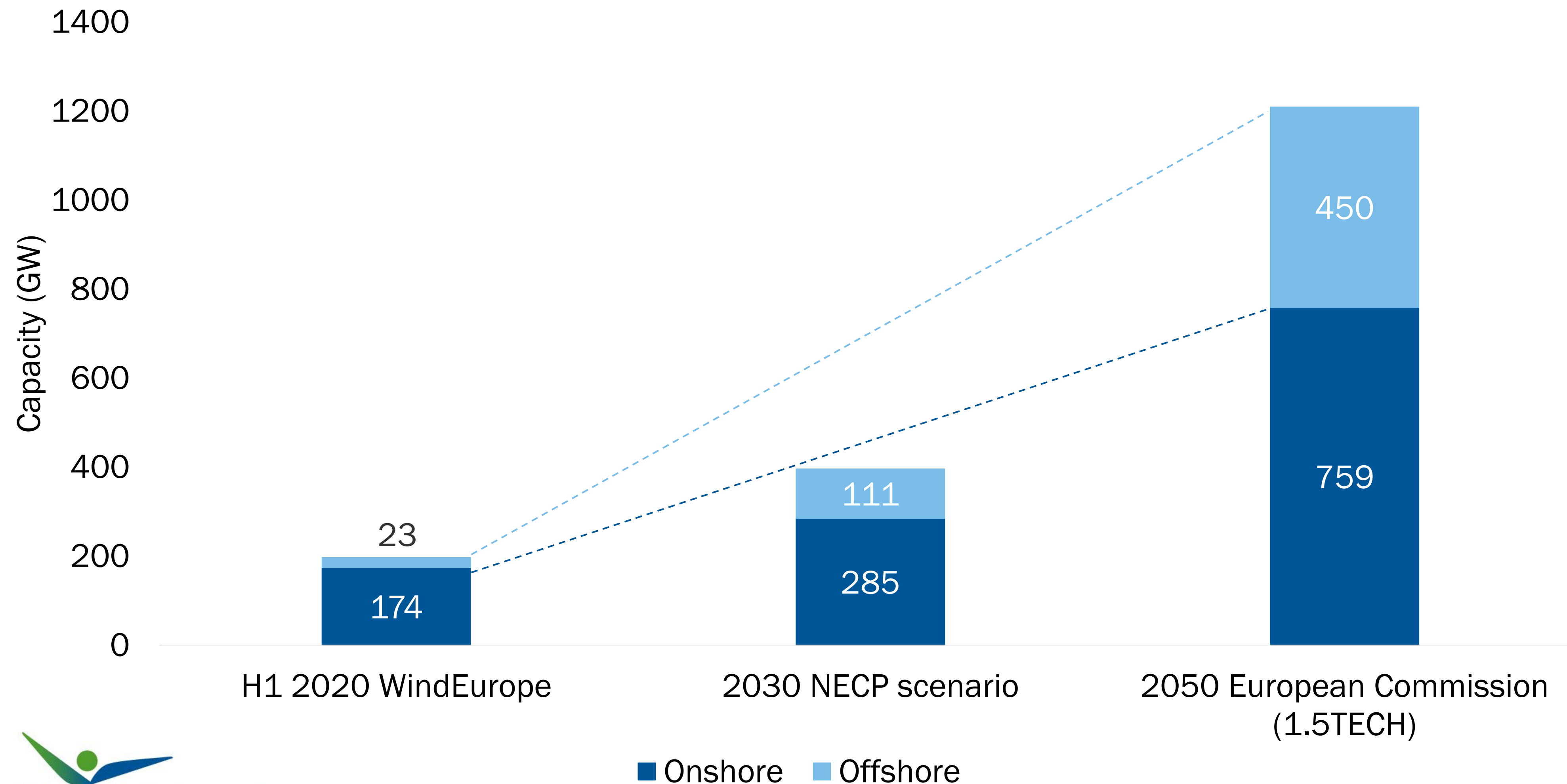
EU Strategic Energy Technology plan



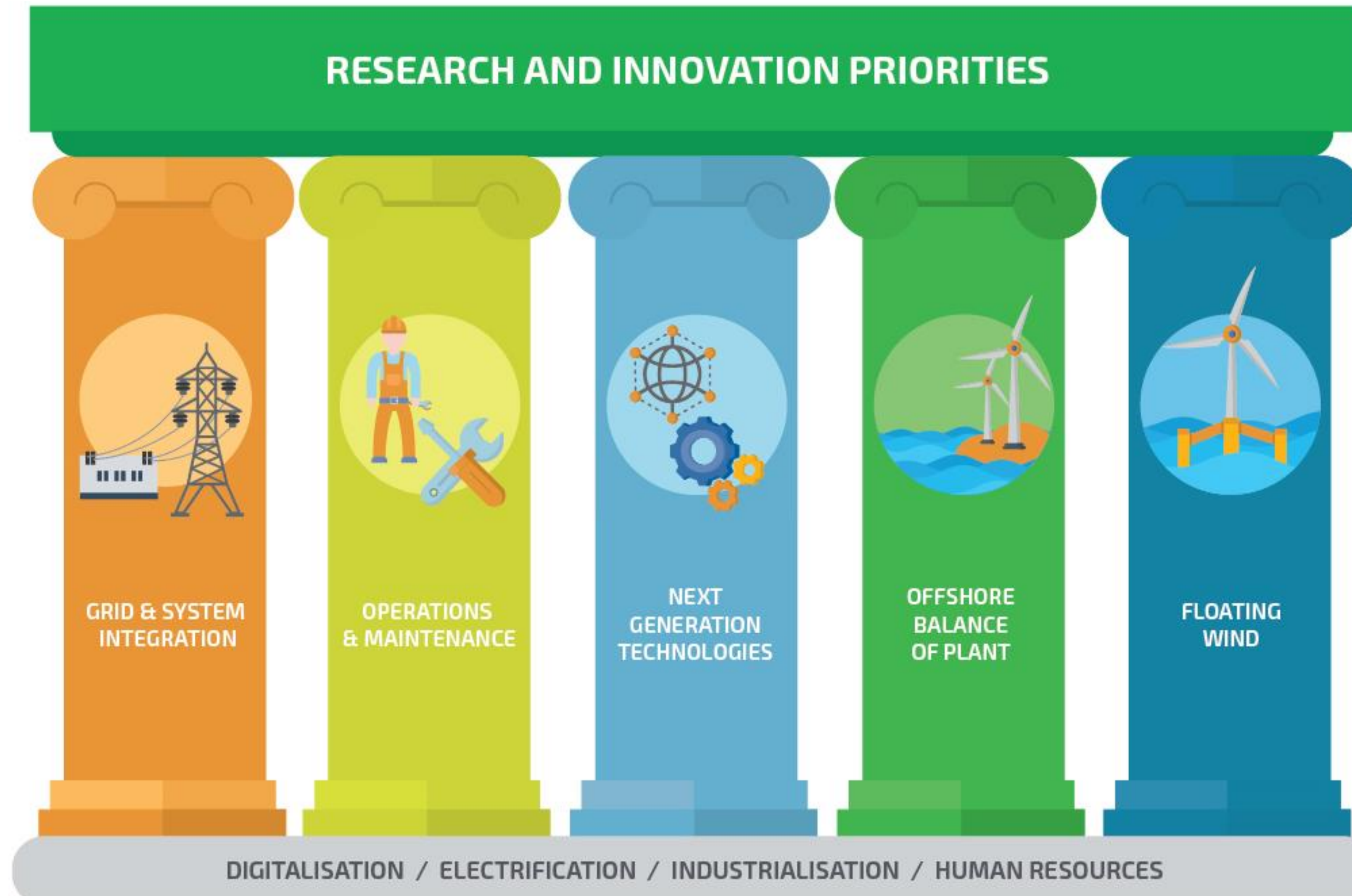
- Drive innovation, knowledge transfer and European competitiveness
- Develop research and innovation agendas and roadmaps for action at EU and national levels

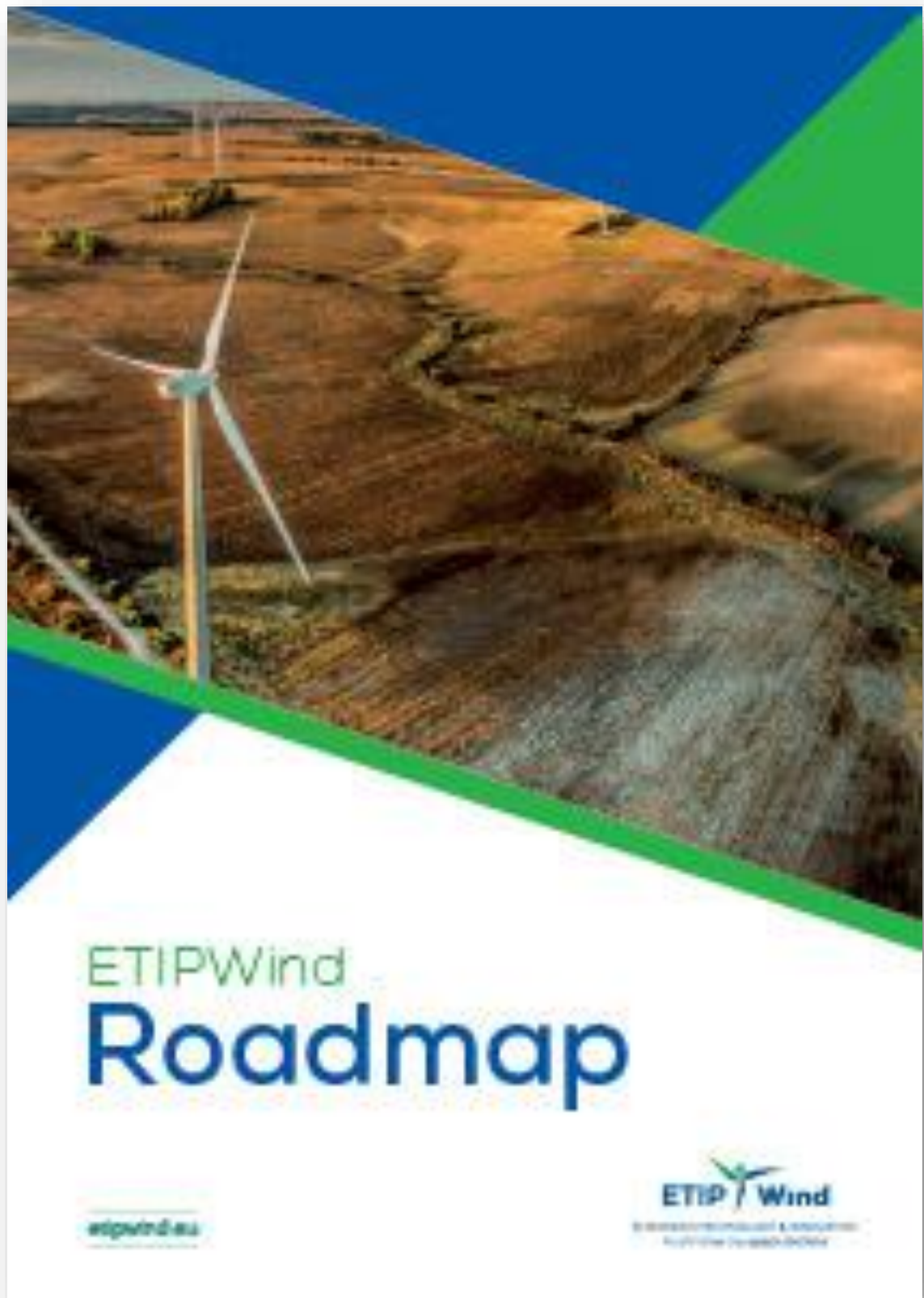
HUGE INCREASE IN WIND CAPACITY COMING

Almost 40 GW pa between 2030 and 2050



DELIVERING CLIMATE-NEUTRALITY WITH TARGETED R&I





Research & Innovation priorities 2020-2027

Technology Roadmap



- Grid & system integration
- Operations & maintenance
- Next generation technologies
- Offshore balance of plant
- Floating offshore wind
- Skills & human resources

Short-term 2020-2022

- Integrated forecasting of power production & demand
- Short-term energy storage
- Lifetime assesment and condition monitoring
- Digital tools for control and monitoring
- Development and validation of components & materials
- Blade recycling demonstration
- Integrating wind energy in the surrounding natural and social environment
- Lean production
- Validation of design tools
- Mooring and anchors
- Dynamic electric cables
- Control methods
- Expand and harmonise wind energy teaching in Europe

- Long-term energy storage
- Robotic inspection and repair methods
- New transportation methods for large components
- Data availability & sharing
- Serial production – analysis of substructure production processes

- Multi-cultured wind farms
- Modelling future system needs

Medium-term 2023-2024

- Optimising transmission infrastructure
- Dynamic cable repair solutions
- Digital solutions for smart operations
- Predicting environmental parameters
- Development of sustainable materials
- Standards
- Manufacturing processes
- Cabling and connections
- Boost wind energy higher education

- Quantification of system services
- Sustainable hybrid solutions
- Decommissioning strategies and technology
- Solutions for operating in extreme conditions
- Sensor technologies, diagnostics and response
- Next generation generators
- Noise reduction
- Reliability of components
- Material durability and protection
- Integrated design process in supply chain
- Joint academia-industry educational programmes

- Floating installation, assembly and heavy maintenance

Long-term 2025-2027

- Stable system with 100% RES
- Recycling methods for materials and components
- Cross-industry agreement and standards
- Integrated optimised design plan
- Verification of methods and procedures

- Disruptive technologies

- Park level control

- Supply chain logistics (decommissioning)

Online Conference 2020

14th - 18th September



Welcome to the EERA JP Wind & SETWind annual event, organized this year in collaboration with ETIPWind.

Five days of knowledge sharing, inspiring discussions, networking and collaboration opportunities within the Wind community.

Conference programme

Online
Conference
2020

14th - 18th September



	Tuesday 15th	Wednesday 16th	Thursday 17th	Friday 18th
9:00	Opening Annual Event Adrian Timbus <i>Peter Eecen</i>	Adel El Gammal, <i>Clean Energy Transition in Green Recovery times</i>	Hélène Chraye, <i>Head of unit for EU D1 – “Clean Energy Transition”</i>	David Molenaar, <i>SGRE</i> “Large, larger, largest?”
10:00 – 11:00	General Assembly; R&I agenda's Impact Covid19 CETP <i>Peter Eecen</i>	“Infrastructure for material and structural testing” <i>Paul McKeever, Arno van Wingerde</i>	“Changing wind conditions and impact to the wind turbine design” <i>Jake Badger, Antonio Ugarte Olarreaga</i>	/
14:00- 16:00	SETWind: Creating multinational projects and lighthouse initiatives. <i>Mattias Andersson</i>	“Transforming the energy system and the impact to European citizens” <i>Nicolaos Cutululis, Lena Kitzing</i>	“Floating offshore wind technology” <i>John Olav Tande</i>	1. Workshop on Open and Fair Data 2. “Integrating priorities on sustainability, social acceptance and economics into R&I”.





EERA JP Wind aims for Lighthouse Initiatives

**Enable reliable
power system
operation with
large-scale
offshore wind**



**Make floating
wind cost
competitive**

The topics have been used for the green deal calls. Demonstration projects benefit only few companies, so that it needs to follow-up by more extensive programmes on lower TRL.

WORKSHOP AGENDA

Time	Item
14:00 – 14:10	Introduction and opening statement <ul style="list-style-type: none"> • Adrian Timbus, ETIPWind Executive Committee Chair • Peter Eecen, Coordinator EERA JP Wind
14:10 – 14:20	Keynote presentation <ul style="list-style-type: none"> • Ignacio Martí, Secretary, IEA Wind TCP
14:20 – 15:00	Panel 1: Scaling-up offshore wind deployment <i>Moderator: Javier Sanz, Thematic Leader – Renewable Energies, EIT InnoEnergy</i> <ul style="list-style-type: none"> • Aidan Cronin, Advisory Specialist, Siemens Gamesa Renewable Energy • André Burdet, Head of Product, Management & Marketing Grid Integration, Hitachi ABB Power Grids • Leif Delp, Head of Floating Offshore Wind Technology, Equinor
15:00 – 15:40	Topic 2: Providing stable and secure energy <i>Moderator: Marie Berthelot, Head of Renewables, EDF R&D UK</i> <ul style="list-style-type: none"> • Katherine Dykes, Head of Section, Loads and Control, DTU Wind Energy • Norela Constantinescu, Manager Research & Innovation, ENTSO-E • Stavroula Petsa, Director, Head of Transformers & HV Components, Ørsted
15:40 – 15:55	Conclusions & Discussion <i>Moderator: Adrian Timbus, ETIPWind Executive Committee Chair</i> <ul style="list-style-type: none"> • Javier Sanz, Thematic Leader – Renewable Energies, EIT InnoEnergy • Marie Berthelot, Head of Renewables, EDF R&D UK
15:55 – 16:00	Closing statement <ul style="list-style-type: none"> • Adrian Timbus, ETIPWind Executive Committee Chair



EUROPEAN TECHNOLOGY & INNOVATION
PLATFORM ON WIND ENERGY

Let's start the conversation



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