

### EUROPEAN TECHNOLOGY & INNOVATION PLATFORM ON WIND ENERGY



# ETIPWind Steering Committee kick-off meeting

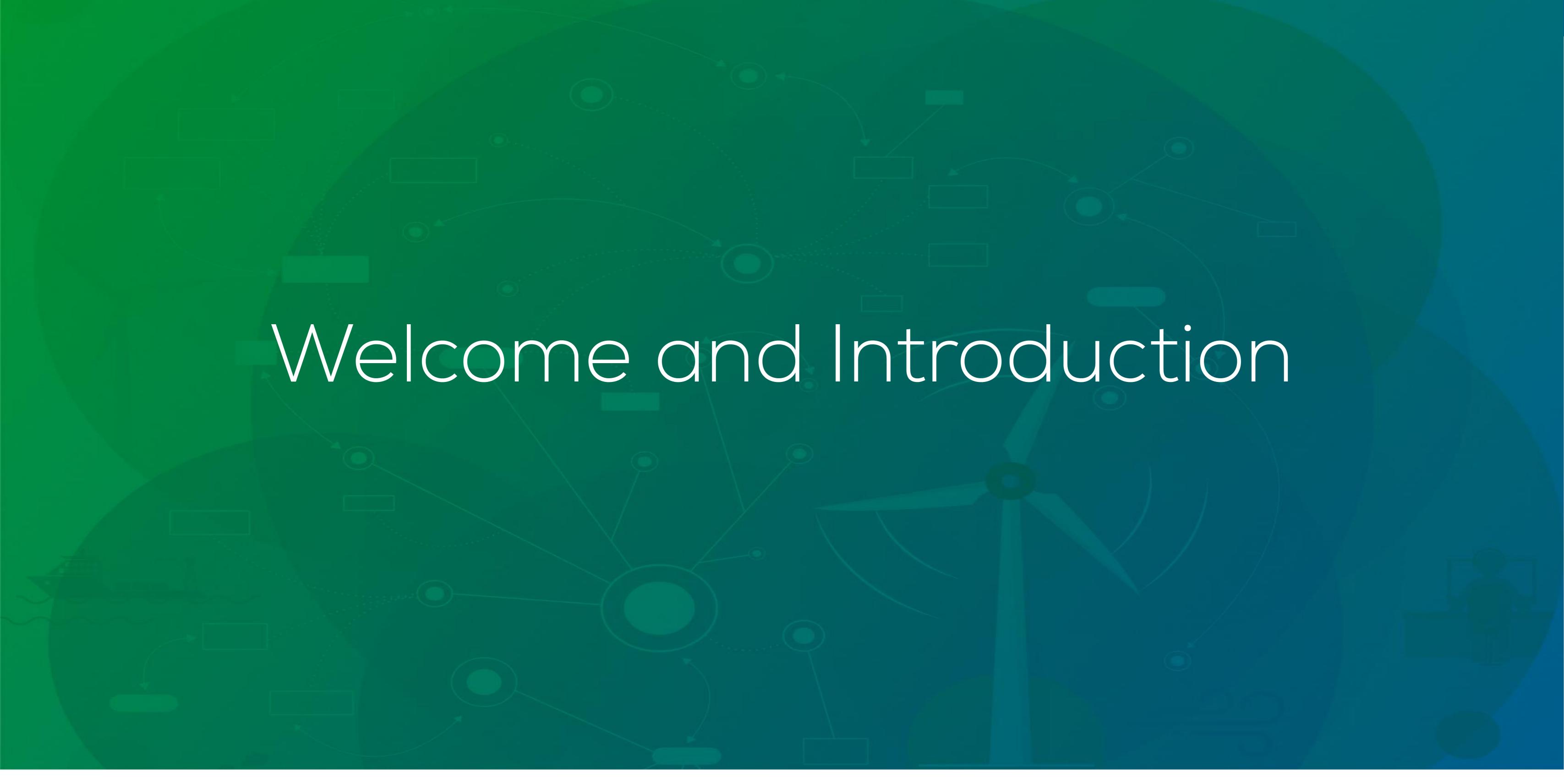
20 September – 10:00-13:00

etipwind.eu



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

Capucine Vannoorenberghe Project Manager





### Agenda

TIMING	AGENDA ITEM
10:00 - 10:05	Welcome and Introduction
10:05 - 10:45	Launch of the new Steering Committee  ➤ Official presentation of the Steering Committee members  ➤ Appointment of the Chair and Vice-chair of the Steering Committee
10:45 - 11:00	Keynote speech - Enrico Degiorgis, Policy Officer, DG RTD
11:00 – 11:45	ETIPWind Work Programme 2022-2025  ➤ ETIPWind contribution to the EU R&I Policies and Initiatives  ➤ Objectives and work programme 2022-2025  ➤ Discussion with European Commission
11:45 – 12:00	Coffee break
12:00 – 12:30	Review and approval of the Term-s of Reference
12:30 - 12:50	Preparation of the official kick-off event  ➤ Discussion on the content of panel sessions
12:50 - 13:00	Next steps and closing remarks



### ETIPWind new cycle of activities

#### Based on 6 pillars:

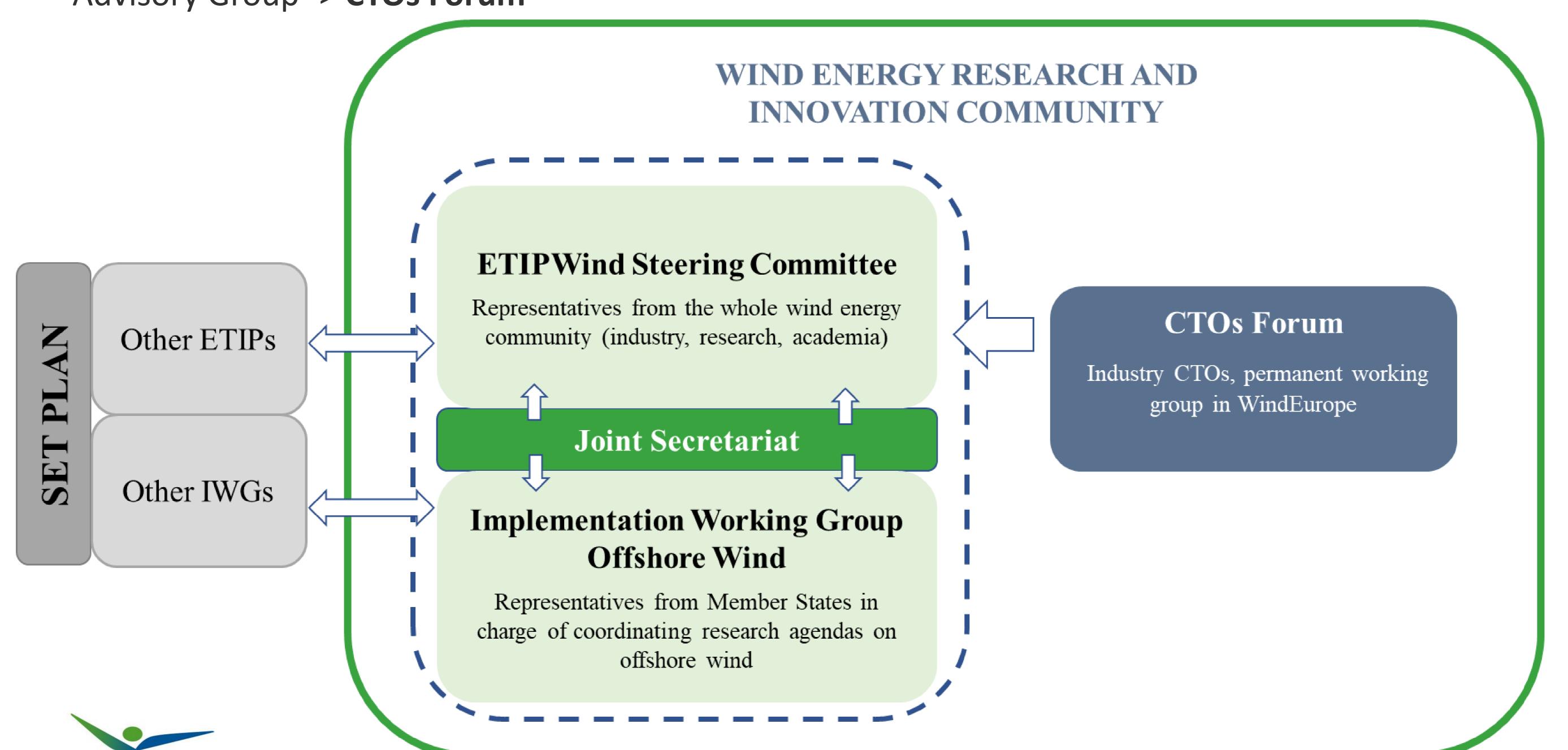
- 1. New governance for ETIPWind to involve a wider number of stakeholders.
- **2. Joint secretariat** for ETIPWind and the SET Plan Implementation Working Group on offshore wind (IWG OW).
- 3. ETIPWind work programme built around the key EU energy R&I policy milestones.
- 4. More opportunities for networking, discussion, input and collaboration.
- 5. Robust management procedures.
- 6. Examining potentials pathways for financial sustainability beyond the grant.



#### ETIPWind structure

- Executive Committee -> Steering Committee
- Advisory Group -> CTOs Forum

ETIP



### Role of the Steering Committee members

- Direct all activities of the platform and are responsible for:
- > Defining roles and responsibilities within the platform;
- > Outlining operations compliance with the platform's mission and related activities;
- > Approving and launching activities, including objectives, working groups and timing;
- > Supporting the communication and dissemination activities performed by the Secretariat;
- Final assessment of key deliverables with support from the Secretariat.
- Shall include representatives from the industry (in majority), research & academia and Social Sciences and Humanities
- SC members are elected for a period of 18 months
- At least 4 meetings / year (in-person or online)







#### Renewal of the Steering Committee





### New members of the Steering Committee

- > Benjamin Mauries, SAIPEM
- > Helena Solman, Wageningen University (online)
- > Julia Zilles, Energy Research Centre of Lower Saxony
- Marcin Luczak, Gdańsk University of Technology (online)
- Mariya Trifonova, Centre for the Study of Democracy / Sofia University (online)
- > Romana Hartke, Aker Offshore Wind (online)
- > Susanne Nies, currENT / SmartWires (online)
- > Wouter Dirks, Van Oord
- > Wouter Haans, Shell



### Appointment of the Chair of the Steering Committee

#### Chair's role:

- Keeps ETIPWind work within the guidelines approved and adjusted by the Secretariat;
- Represents ETIPWind during meetings and actively promote interests of the platform;
- > Reports on the meetings to the Steering Committee and recommends relevant decisions that need to be taken.



### **Appointment of the Chair of the Steering Committee**

#### **CANDIDATE:**

### Adrian Timbus

Vice President – Head of Portfolio and Market Strategy





### Voting for the Chair of the Steering Committee

Join at slido.com
#etipwind22



### Appointment of the Vice-Chair of the Steering Committee

#### Vice-Chair's role: (New position)

- > Supports the Chair in all activities related to advocacy and messaging;
- > Supports the enlargement of the platform's and ensure its representativeness;
- ➤ Helps to foster collaboration with the local national authorities to accelerate the adoption of wind energy technologies at the national level.



### Appointment of the Vice-Chair of the Steering Committee

#### **CANDIDATE:**

### Jacob Edmonds

Head of Ørsted Innovation

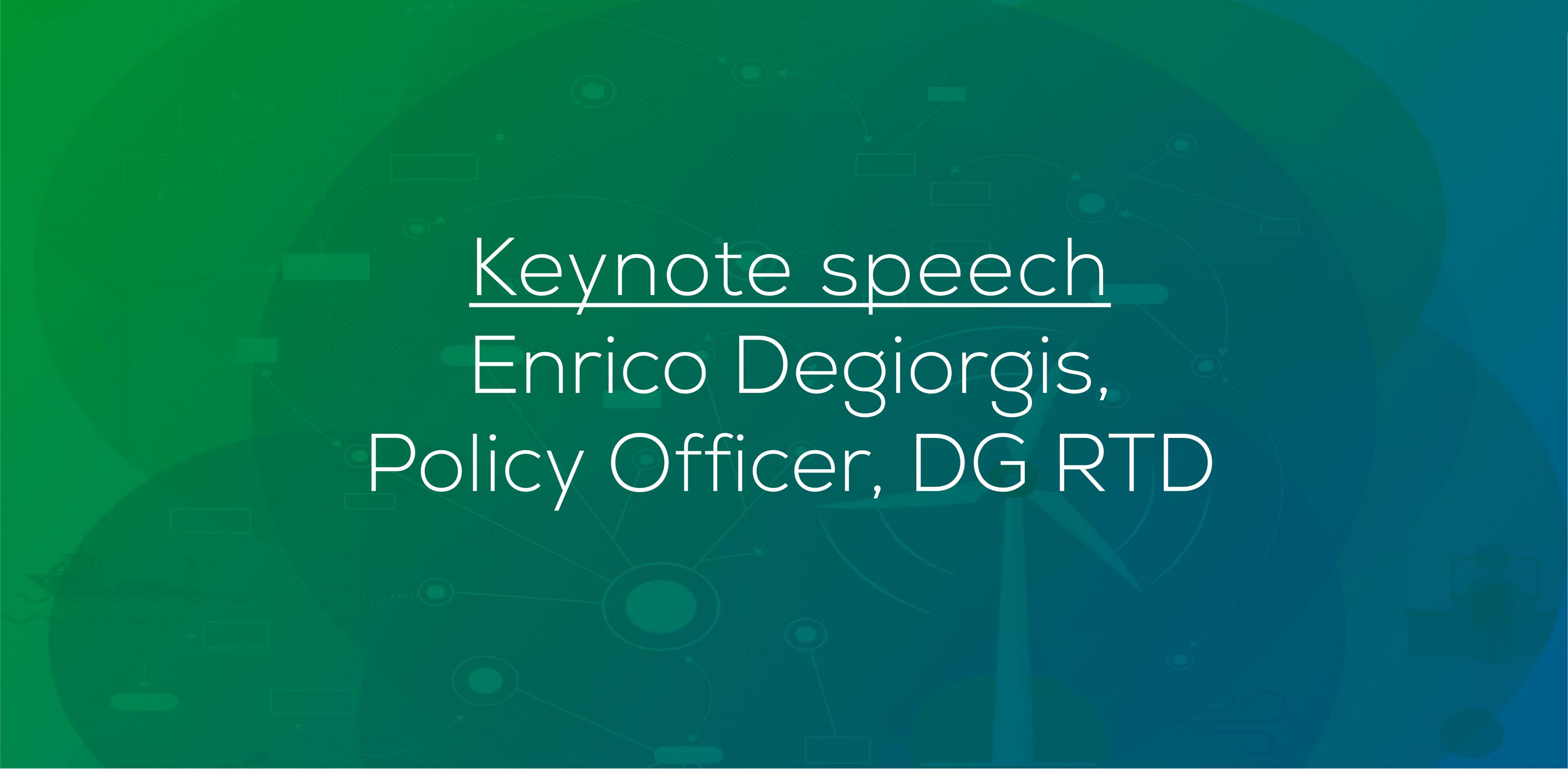




### Voting for the Vice-Chair of the Steering Committee

Join at slido.com
#etipwind22









# EU wind energy and R&I policy

### ETIPWind Steering Committee - Internal kick-off meeting

Amsterdam, 20 September 2022

Enrico Degiorgis

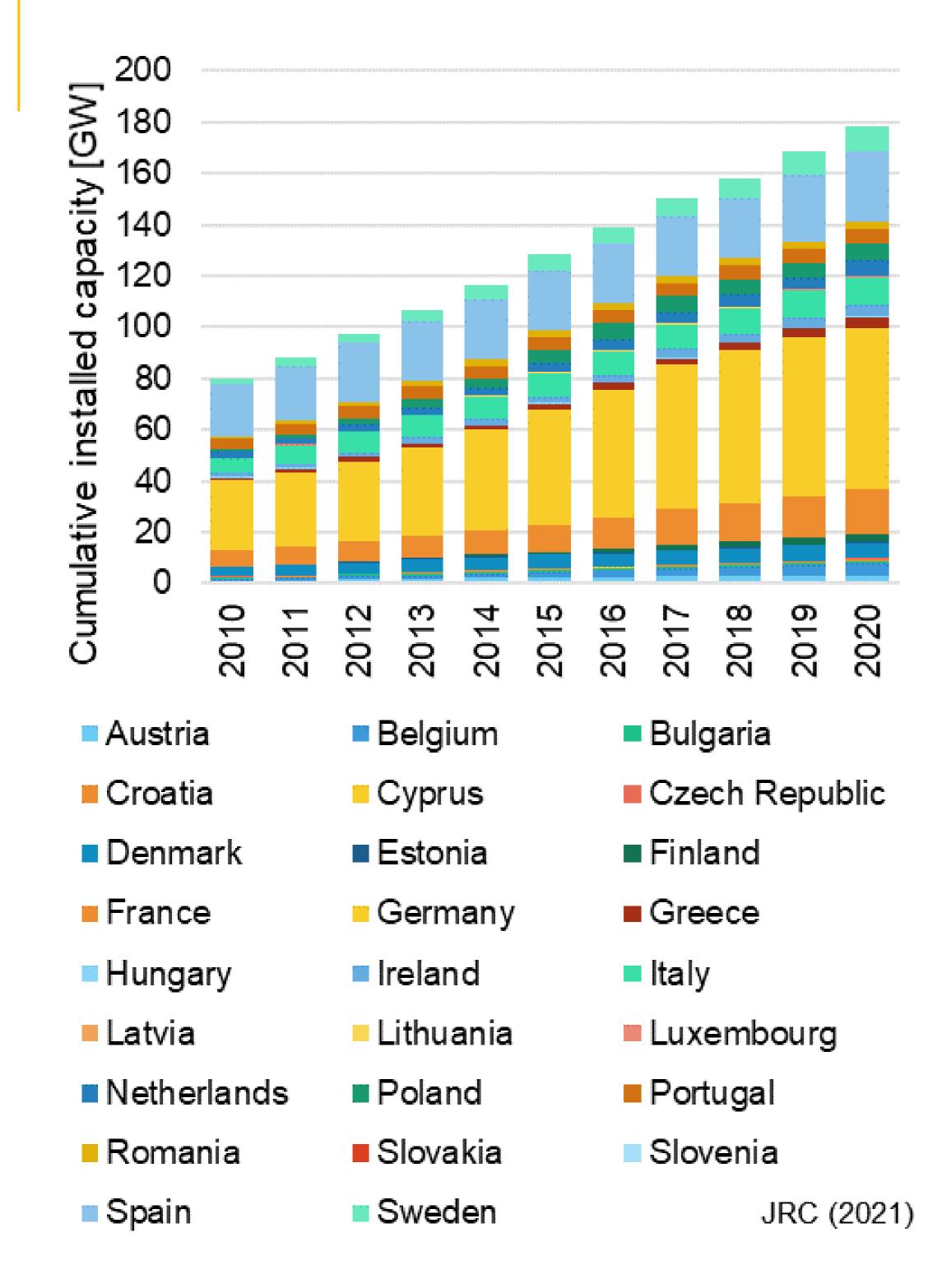
DG Research & Innovation Clean Planet Directorate Unit Clean Energy Transition Policy Officer

### Agenda

- EU wind energy current status and future scenarios
- REPowerEU package
- EU wind energy R&I
- Strategic Energy Technology (SET) Plan revision state of play and next steps



### Current status – EU cumulative installed capacity

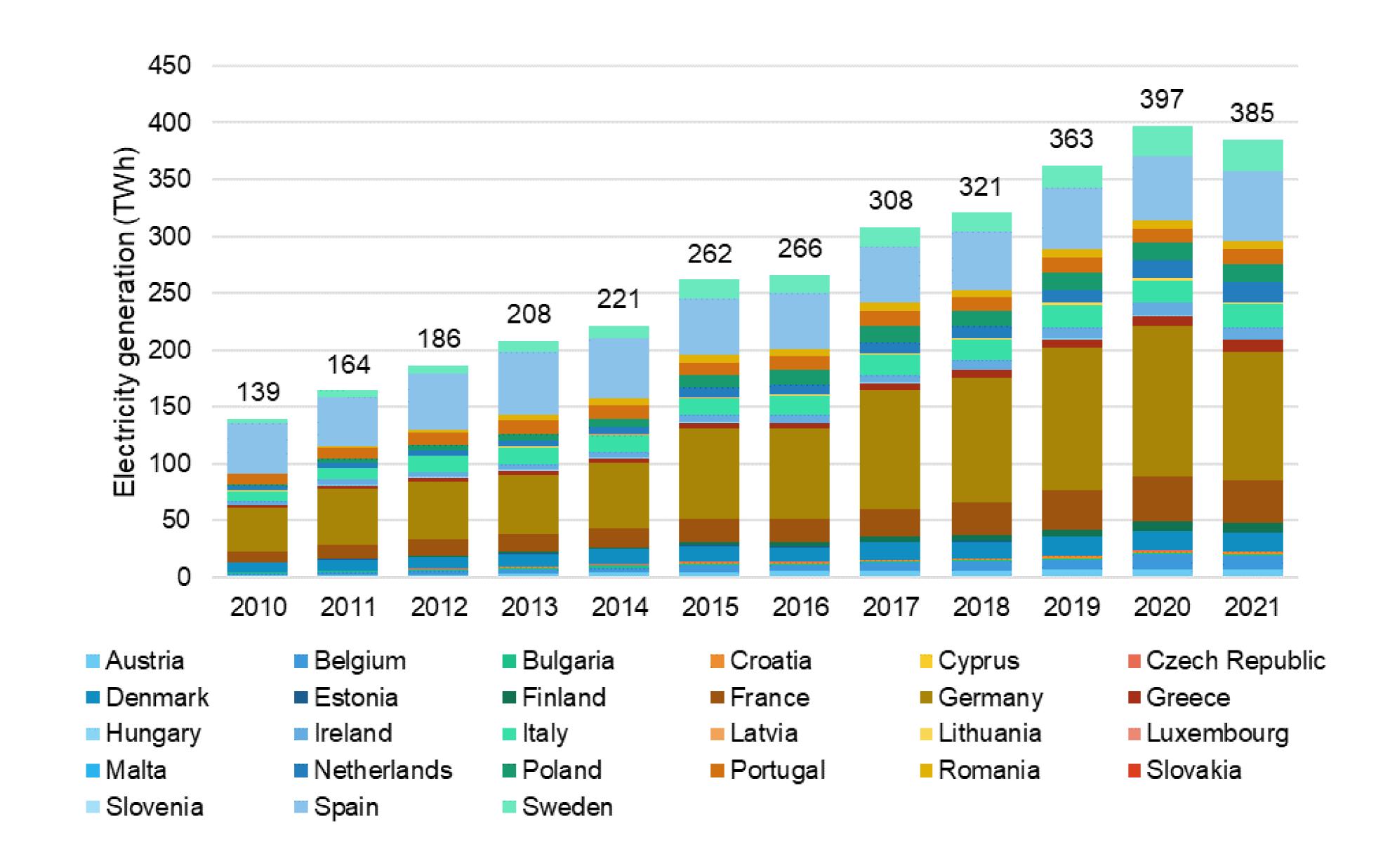


- TOTAL: 178,7 GW in 2020
  - 164,1 GW of onshore wind
  - 14,1 GW of offshore wind

Increase of 123% from 80 GW in 2010 to 178.7 GW in 2020 (~ +10 GW/year)

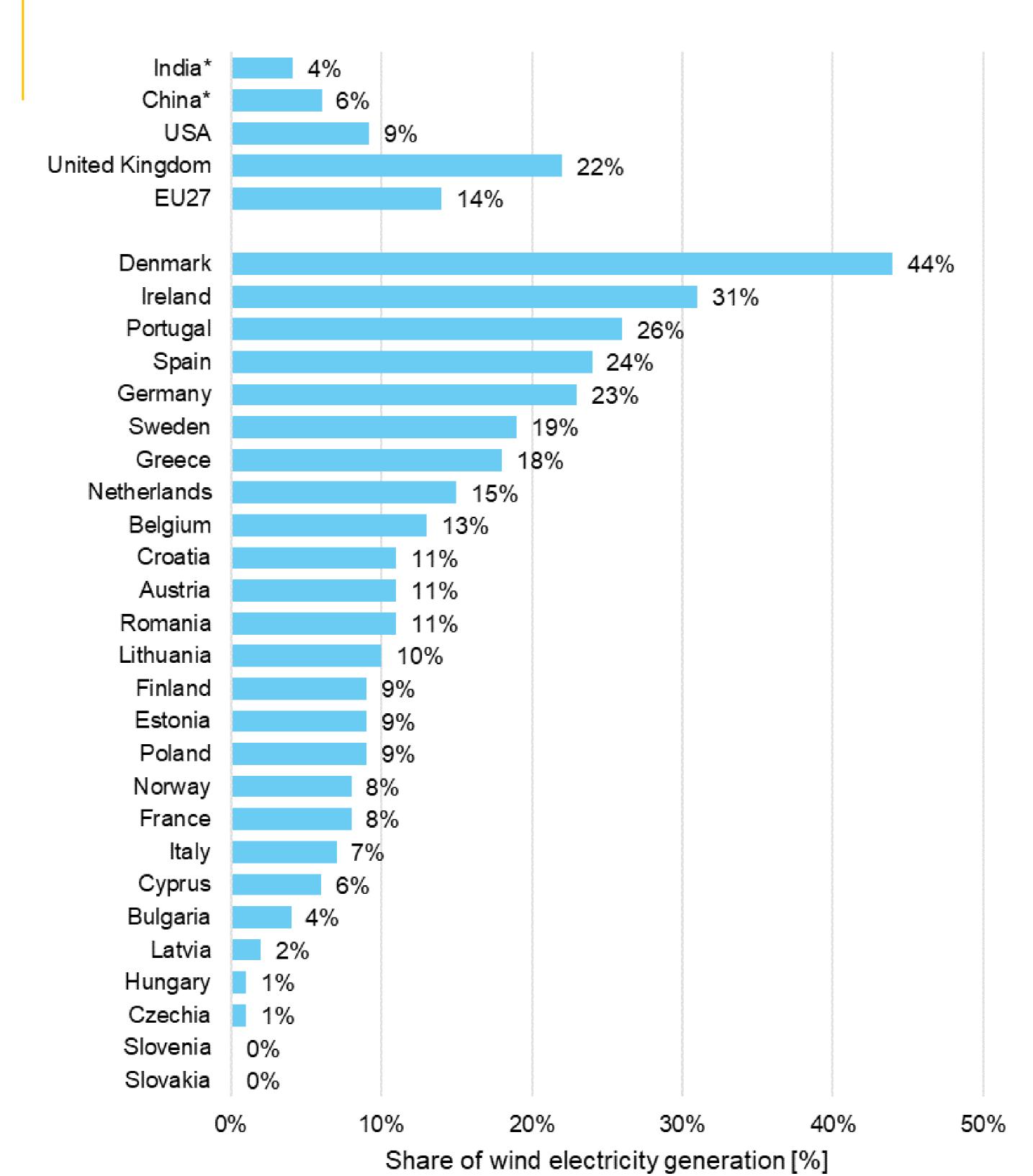


### Current status – EU wind electricity generation





### Current status – share of total electricity generation



2021 - \* Data for India and China represent 2020 values.

European

Commission

### EU Energy and climate strategies and plans (1)

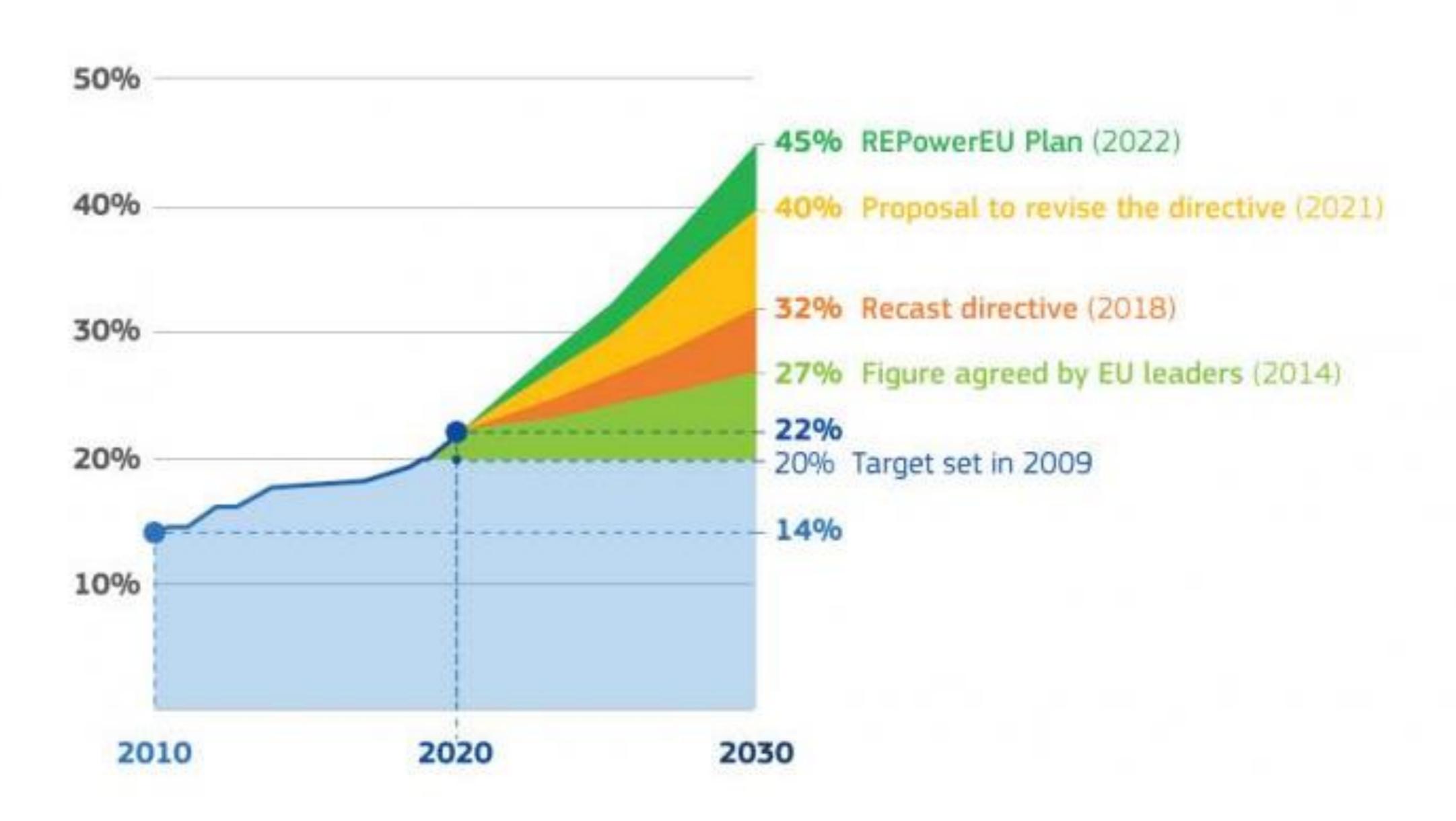
Greenhouse gas emissions reduction and renewable sources share: increasingly ambitious targets

- > January 2014: A policy framework for climate and energy in the period from 2020 to 2030
  - At least 40% cuts in greenhouse gas emissions (from 1990 levels)
  - At least 32% share for <u>renewable energy</u>
  - At least 32.5% improvement in energy efficiency
- > REVISED RENEWABLE ENERGY DIRECTIVE 11 December 2018
  - binding target of renewable sources in the EU's energy mix to at least 32% by 2030
- > European Green Deal December 2019
  - no net emissions of greenhouse gases by 2050
- > 2030 Climate Target Plan 17 September 2020
  - greenhouse gas emissions to at least 55% below 1990 levels by 2030
- > 'Fit for 55' package 14 July 2021
  - The Commission proposes to increase the binding target of renewable sources in the EU's energy mix to 40%
- > REPowerEU Plan 18 May 2022
  - The Commission is proposing to increase the EU's 2030 target for renewables from the current 40% to 45%.



### EU Energy and climate strategies and plans (2)

#### Evolution of renewable energy targets





### Projected wind energy capacities – scenarios (1)

#### 2030 Climate Target Plan – 17 September 2020

Projected capacities in onshore wind and offshore wind according to 2030 Climate Target Plan - CTP-MIX scenario:

- Onshore: 366 GW in 2030, 963 GW in 2050
- Offshore: 73 GW in 2030, 290 GW in 2050

Projected electricity generation in onshore wind and offshore wind according to CTP-MIX scenario:

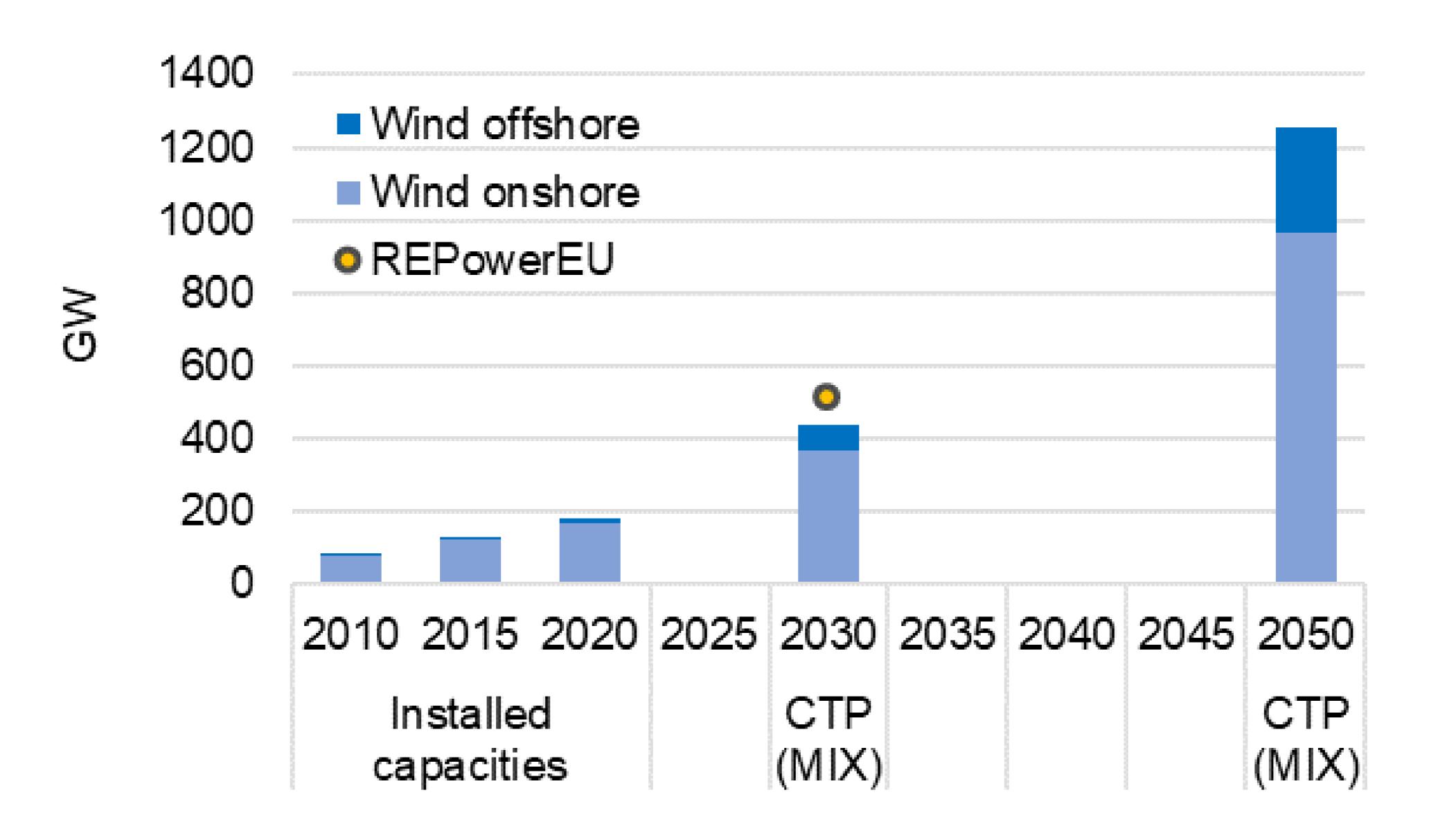
- Onshore: 847 TWh in 2030 (share of total electricity generation: 27.3%), 2 259 TWh in 2050 (share:32.9%);
- Offshore: 229 TWh in 2030 (share: 7.4%), 1 154 TWh in 2050 (share: 16.8%).

Current share of total electricity generation (2020): Onshore wind 13.7%; Offshore wind (1.7%)

- **► EU Offshore Strategy 19 November 2020** 
  - 60 GW by 2030, 300 GW by 2050 (offshore only)
- > 'Fit for 55' package 14 July 2021
  - 469 GW by 2030
- > REPowerEU Plan − 18 May 2022
  - With respect to wind energy the REPowerEU Plan proposes an installed capacity of 510 GW by 2030, an increase by 16% as compared to CTP-MIX scenario



### Projected wind energy capacities – scenarios (2)

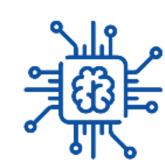


Source: JRC based on 2030 Climate Target Plan Impact Assessment, 2022.



### REPowerEU Package

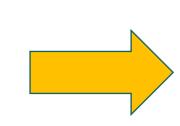
European Commission's plan to make Europe independent from Russian fossil fuels well before 2030, in light of Russia's invasion of Ukraine



REPowerEU Plan Communication, Annexes and Staff Working Documents



Amendments to Renewable Energy Directive, Energy Performance of Buildings Directive and Energy Efficiency Directive



EP position on EED and RED II adopted on 14.9.2022



**EU Save Energy Communication** 



EU Solar Strategy Communication



EU External Energy Engagement Communication



Recommendation on speeding up permit-granting procedures for renewable energy projects and facilitating Power Purchase Agreements



Amendment to RRF Regulation and Guidance



Draft Delegated Acts on Renewable Fuels of Non-Biological Origin - RFNBO additionality and low-carbon hydrogen



Outside the package but to be adopted on the same day:





### REPowerEU plan Accelerating the clean energy transition – permitting



Legislative proposal on 'go to' areas and simpler and faster permitting (amendment of the Renewable Energy Directive - REDII)

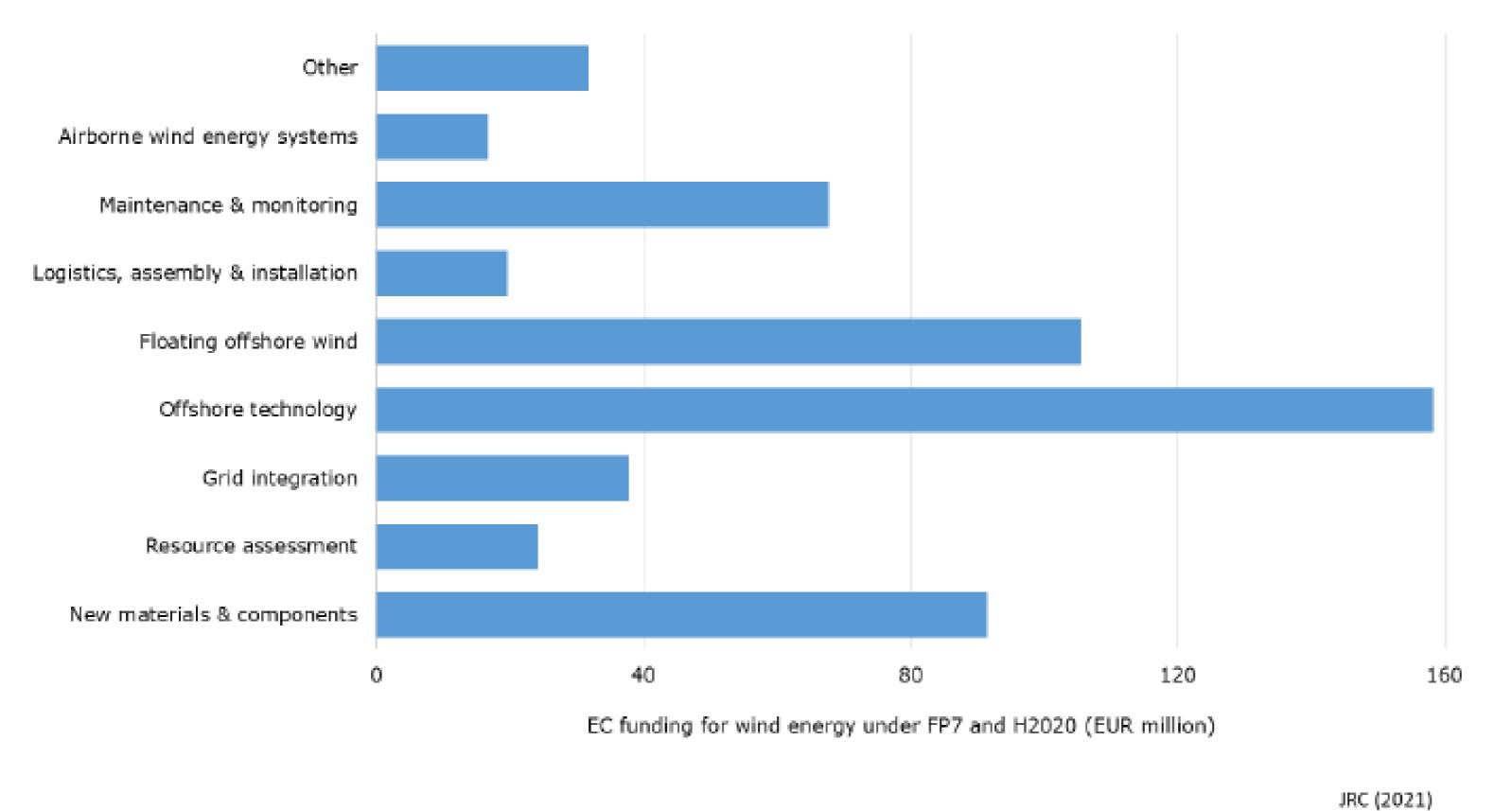
Joint event with MS RES and environmental assessment experts

Fast transposition of current RED II to speed up permitting

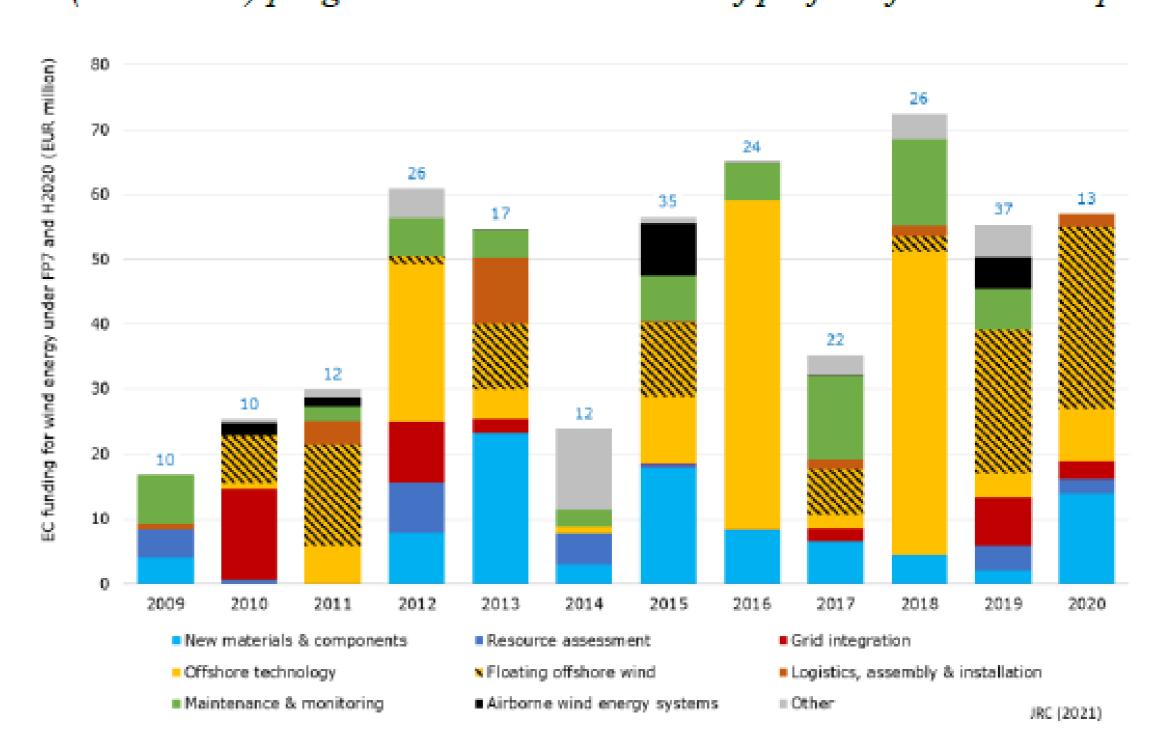


### EU R&I funding – wind sector – 2009-2020

Figure 9: EC funding on wind energy R&I priorities in the period 2009 -2020 under FP7 and H2020. Figure 41: Evolution of EU R&I funding categorised by R&I priorities for wind energy under FP7 (2009-2013) and H2020 (2014-2020) programmes and the number of projects funded in the period 2009-2020



Source: JRC



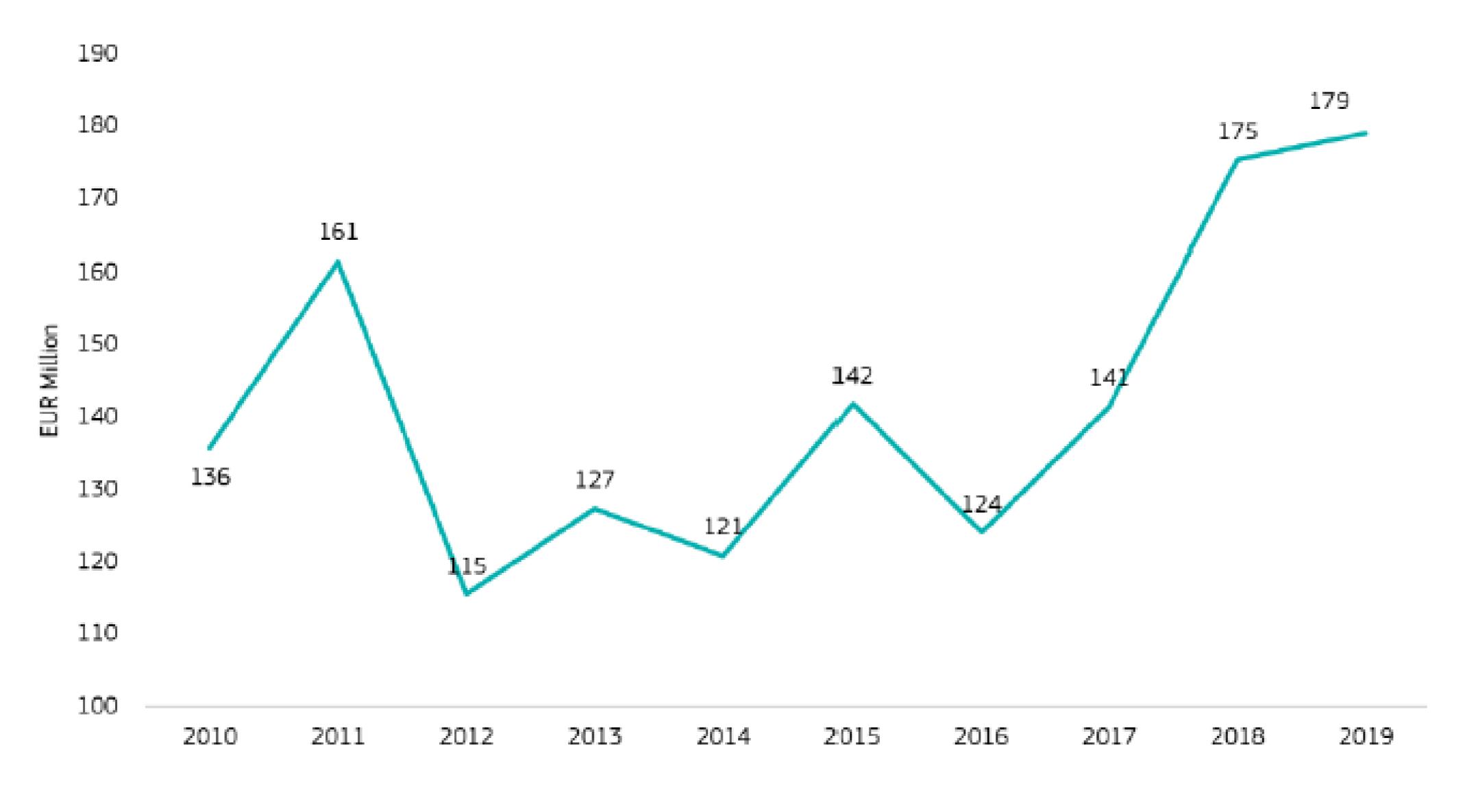
Source: JRC<sup>246</sup>





### EU R&I funding – wind sector – 2009-2019

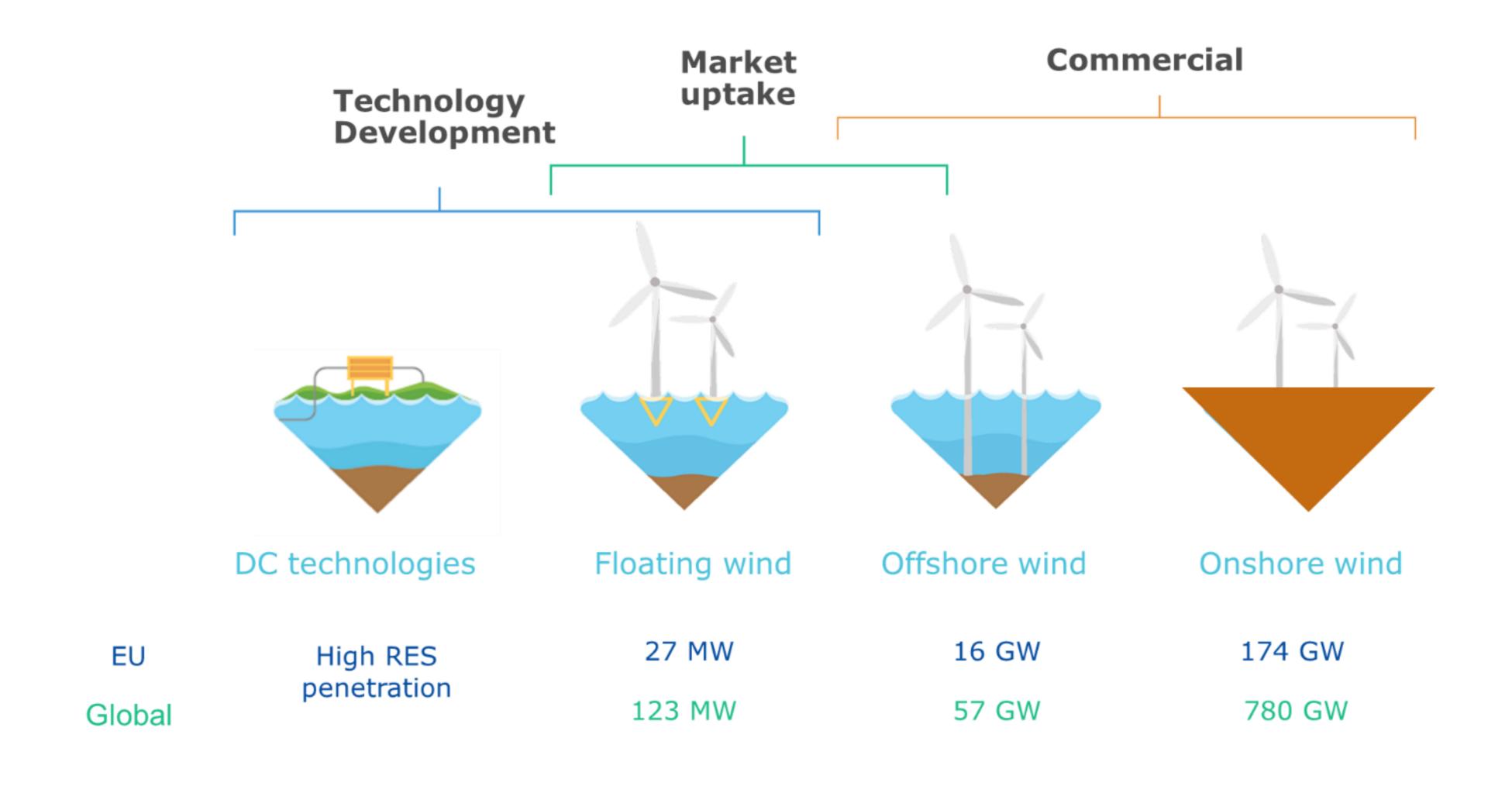
Figure 10: Public R&I investments in wind energy in the EU



Source: JRC



# Technology readiness level of the main technologies in wind energy



Source: JRC, 2022

Note: Direct current (DC) technologies are mentioned as they are a key enabler for high offshore RES penetration rates



## Horizon Europe – cluster 5 work programme 2021 - 2022 wind-related topics

- HORIZON-CL5-2021-D3-03-04: Physics and aerodynamics of atmospheric flow of wind for power production
- HORIZON-CL5-2021-D3-03-05: Wind energy in the natural and social environment
- HORIZON-CL5-2021-D3-03-12: Innovation on floating wind energy deployment optimized for deep waters and different sea basins (Mediterranean Sea, Black Sea, Baltic Sea, North-east Atlantic Ocean)
- HORIZON-CL5-2022-D3-01-02: Demonstration of innovative materials, supply cycles, recycling technologies to increase the overall circularity of wind energy technology and to reduce the primary use of critical raw materials
- HORIZON-CL5-2022-D5-01-03: Exploiting renewable energy for shipping, in particular focusing on the potential of wind energy (ZEWT Partnership)

(forthcoming – opening date 6.9.2022)

HORIZON-CL5-2022-D3-03-04: Integrated wind farm control



# Horizon Europe – cluster 5 priorities for 2023-2024 work programme

- Critical technologies for offshore wind farm
- Forecasting of power production to wind energy demand
- Lifetime improvement, efficient decommissioning and increased circularity
- Minimisation of environmental, and optimisation of socio-economic impacts
- Demonstration of innovative floating wind concepts



# Strategic Energy Technology (SET) Plan revision – State of play and next steps (1)

SET Plan aim: to help coordinate national research and innovation efforts and promote cooperation among EU and associated countries, companies and research institutions

- > Interim evaluation of the SET Plan
  - Performed by an external contractor
  - Results ready and will be published by the end of September

- Workshop co-organised with the French Presidency (17 June 2022)
  - SET Plan revision was further discussed with the SET Plan community, European Research Area (ERA) Forum members, EC. (Presidency representatives from France, Czech Republic and Sweden were present)
  - Validation of the preliminary results from the Interim evaluation



### SET Plan revision – State of play and next steps (2)

- Further discussions on the revision of the SET Plan will continue during
  - next Steering Group meeting on 29 September
  - Annual SET Plan Conference in Prague, 9-10 November 2022
  - Public feedback on call for evidence (soon to be published) > input are welcome!



### EU funding for [offshore] renewables

+ Horizon Europe Cluster 5
+ EU Innovation Council
+ LIFE - Clean Energy Transition sub-programme
+ European Maritime Fisheries and Aquaculture Fund
+ BlueInvest
+ Innovation Fund
+ Cohesion policy funds
+ Connecting Europe Facility - Transport
+ Connecting Europe Facility - Energy
+ InvestEU Fund
+ Modernisation Fund
+ Renewable Energy Financing Mechanism

- Overview of EU funding programmes relevant to finance offshore renewable energy projects
- Information about eligible investments
- Previously funded offshore projects
- How different EU programmes can be combined



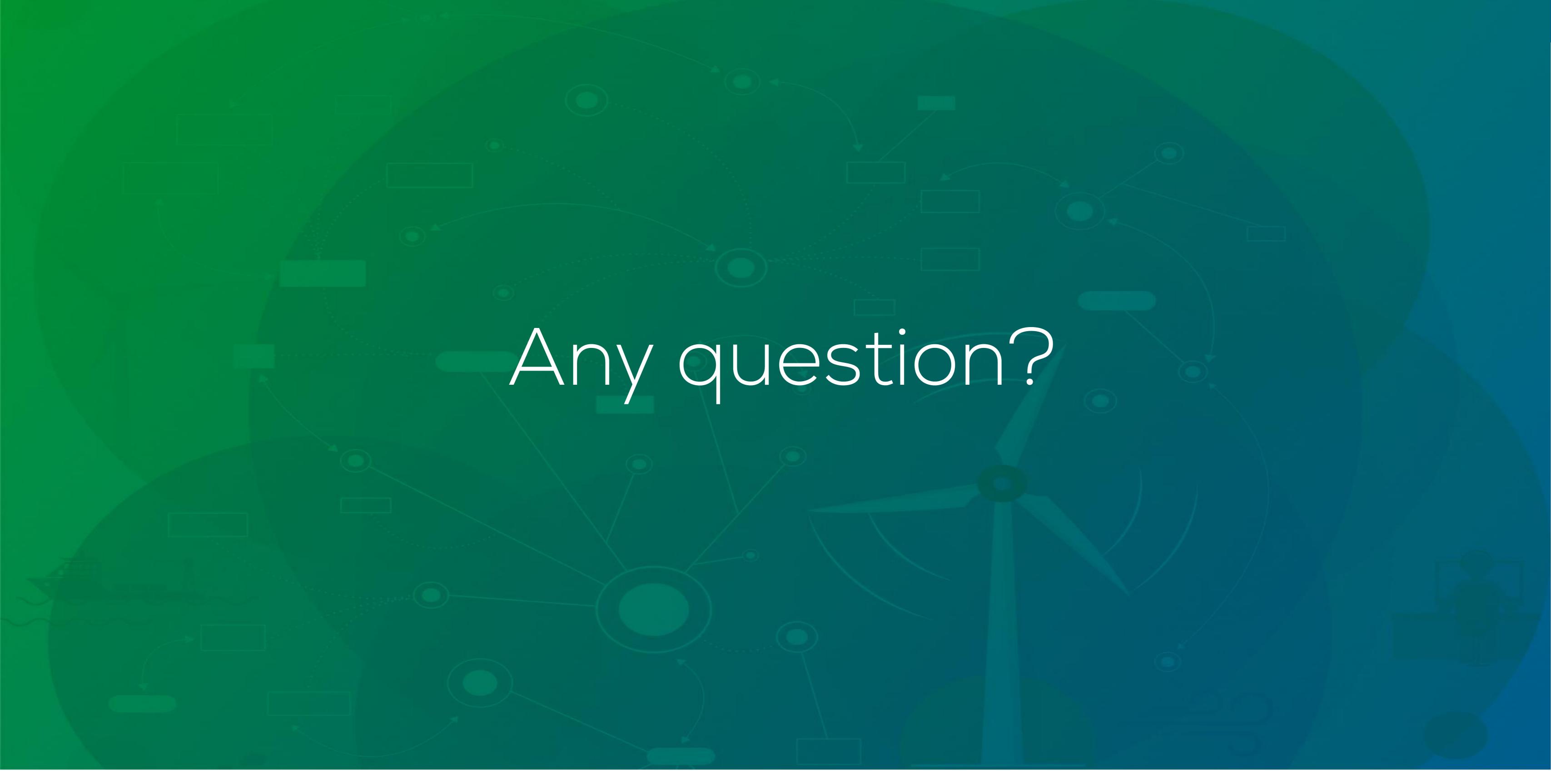
# Thank you



© European Union 2020

Unless otherwise noted the reuse of this presentation is authorised under the <u>CC BY 4.0</u> license. For any use or reproduction of elements that are not owned by the EU, permission may need to be sought directly from the respective right holders.



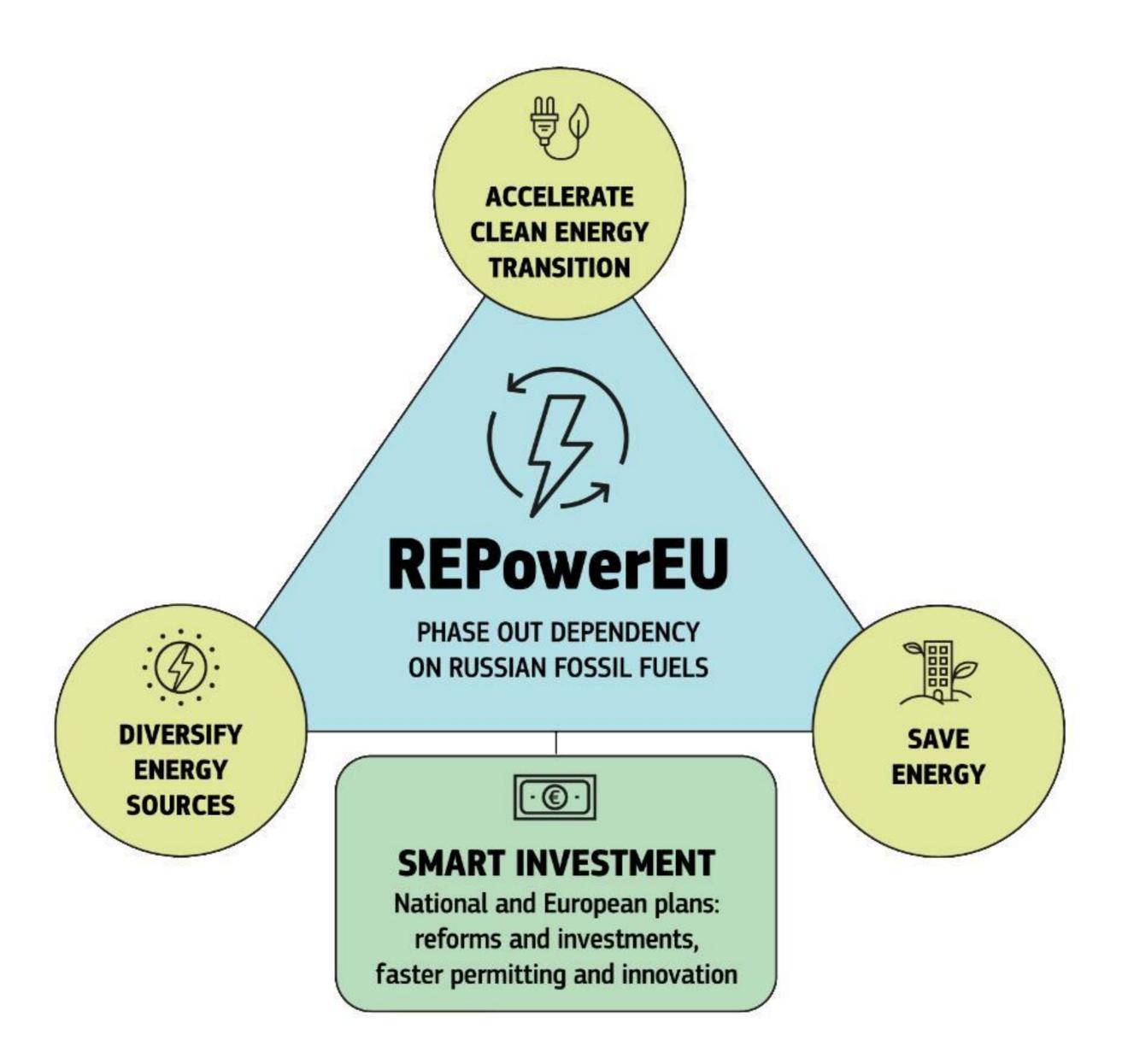








#### REPowerEU Plan



#### New 2030 targets

- -45% renewable energy (+5%)
- -13% energy savings (+4%)
- -2x heat pump deployment
- New measures
  - -Accelerate permitting for RES
  - —EU Energy Platform for joint purchase of gas, LNG, hydrogen
  - Hydrogen import corridors viaMediterranean, North Sea, Ukraine
  - Raw material value chain partnerships with
     Africa, Latin America, Australia



### Energy independence

### Ending Russian gas imports before 2030



Diversify gas supply



- Other suppliers (LNG or pipelines)
- Hydrogen
- EU production of biomethane

Replaced by the end of 2022 (BCM equivalent)

60

10

17



Increase the share of renewables where gas is dominant

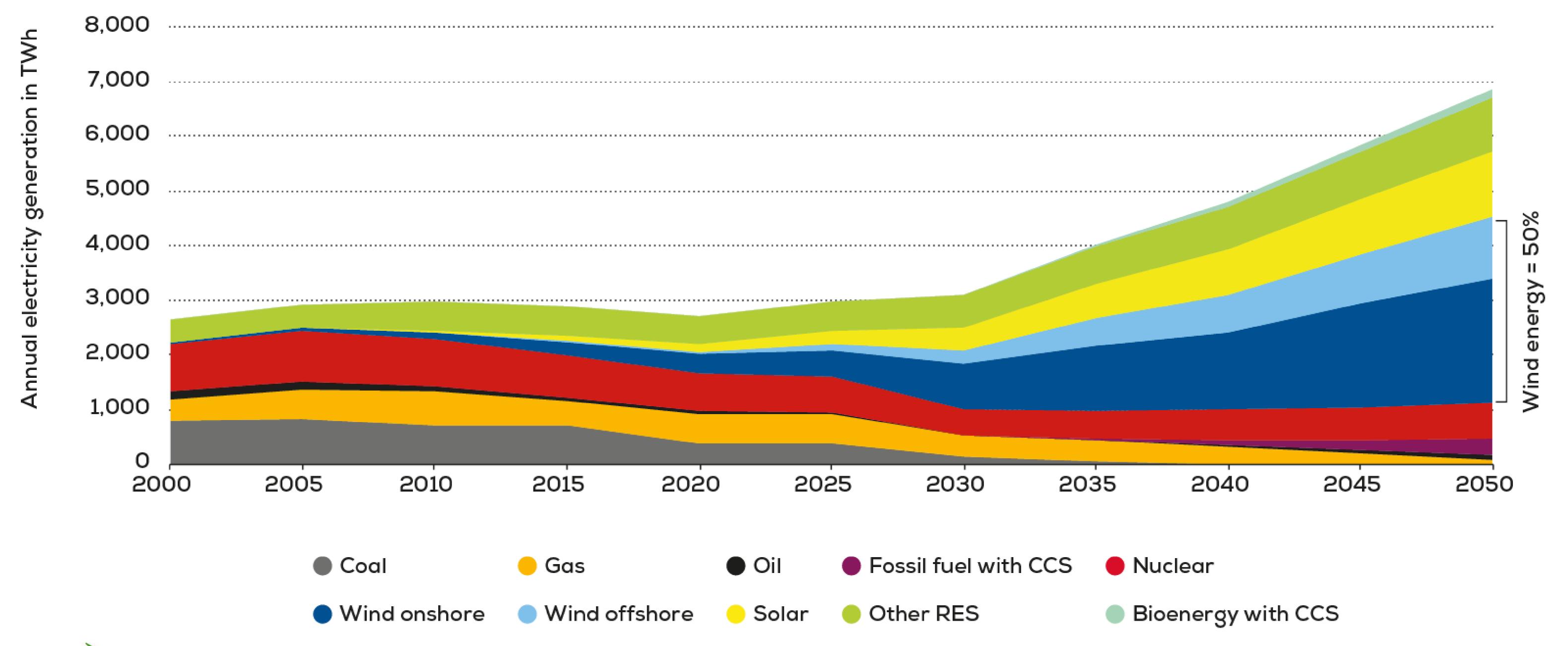


- Buildings: solar rooftops, heat pumps
- Industry: hydrogen, electrification
- Power: quicker uptake of wind and solar



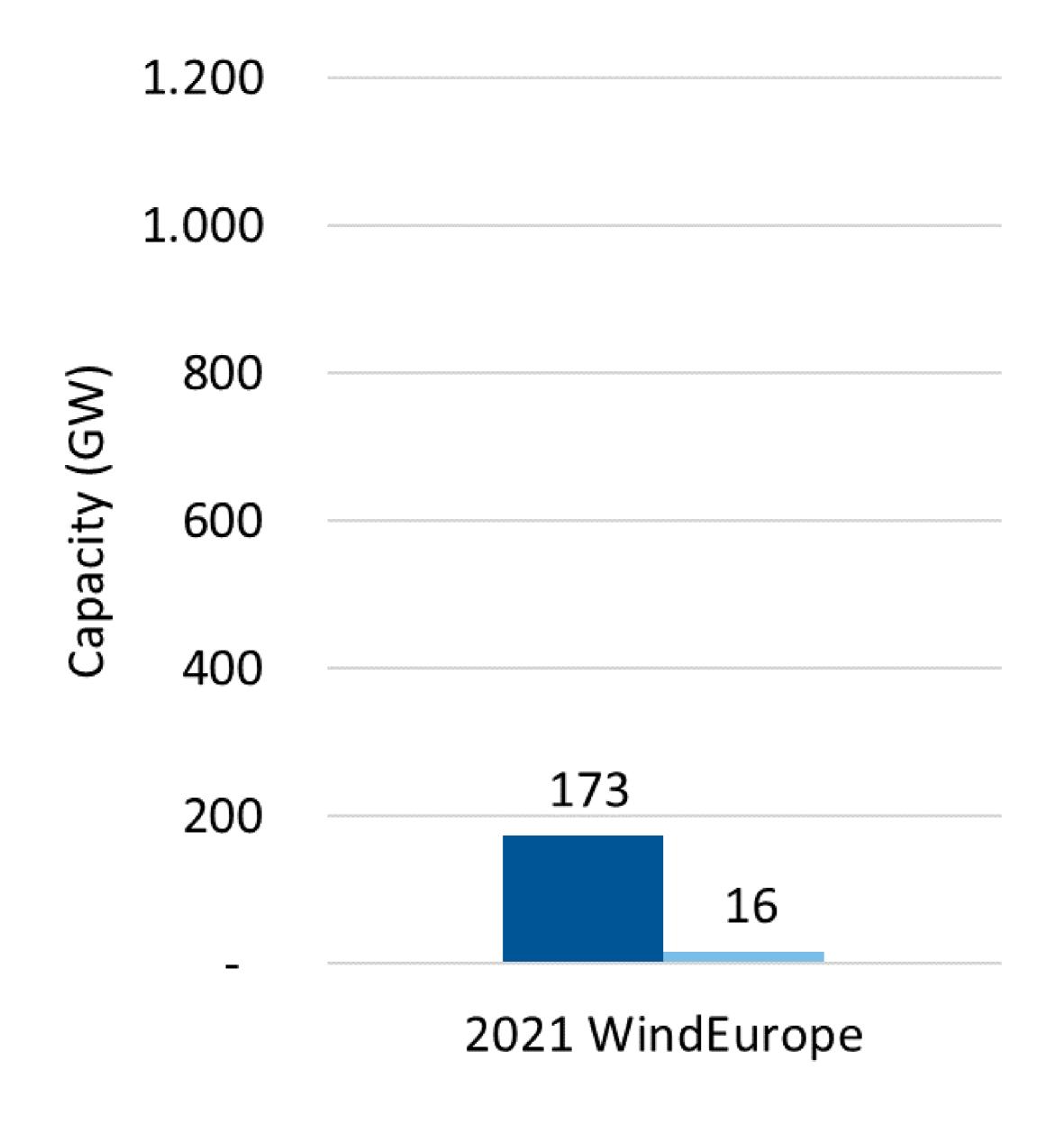


## Demand for electricity will more than double by 2050 with wind energy meeting 50%





### Huge increase in wind capacity coming





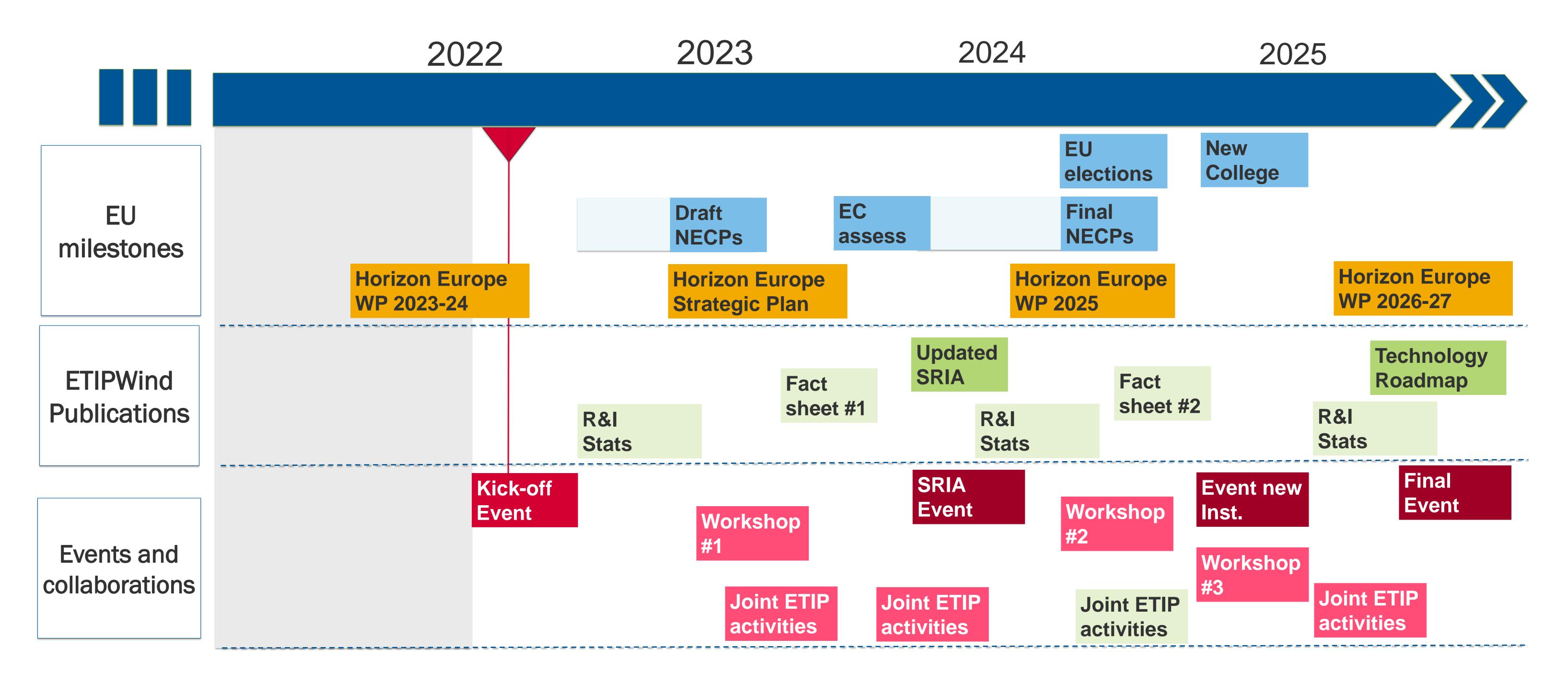


### Key objectives driving the ETIPWind Work Programme

- 1. Provide timely and targeted R&I recommendations to the European Commission
- 2. Engage with national policy makers to ensure measures are implemented at national level
- 3. Disseminate the industry's R&I priorities and raise awareness about R&I needs for wind
- 4. Foster collaboration with other SET Plan bodies and align with other sectors
- 5. Create a European knowledge hub for wind R&I
- 6. Widen participation to ETIPWind's governance and ensure representativeness
- 7. Develop a finance and sustainability plan for the platform



### Overview of the ETIPWind Work Programme (2022-2025)





### 1. Provide timely and targeted R&I recommendations to the European Commission

- > Documents timely published to follow key EU milestones:
- ☐ Strategic Research and Innovation Agenda before the Horizon Europe Work-Programme 2025-27
- ☐ Factsheet #1 summarising an analysis of the 27 draft NECPs
- ☐ Factsheet #2 to inform new policymakers of the broad state-of-play in wind energy technology
- ☐ Technology Roadmap 2028-2035
- Regular meetings with EU policy makers (DG RTD, DG ENER, DG GROW, DG ENV, DG CLIMA, DG MARE, DG CONNECT)
- > Joint meetings with the CTOs Forum



### 2. Engage with national policy makers to ensure measures are implemented at national level

- Collaboration with the Implementation Working Group on Offshore Wind (1 joint meeting / year)
- Meetings with national policy makers
- Networking opportunities between the IWG OW and other Member State-driven networks



### 3. Disseminate the industry's R&I priorities and raise awareness about R&I needs for wind

- Organisation of events and workshops on R&I priorities
- ☐ 3 high-level events: SRIA, new institutions, final event
- ☐ 3 thematic workshops
- > Strong presence on social media and dissemination campaigns (inc. connections with EU and national media)
- > Creation of online content: videos, press releases, newsletters



### 4. Foster collaboration with other SET Plan bodies and align with other sectors

- ➤ Joint study on how to deliver 500 GW of offshore energy by 2050 (ETIPOcean, ETIPSNET, IWG on HVDC, IWG on OW)
- > Joint communication and dissemination campaign with other ETIPs on NECPs
- Participation to the ETIPs Forum
- Quarterly coordination calls with relevant SET Plan bodies (ETIP SNET, IWG HVDC, ETIPOcean, ETIP PV)
- Disseminate activities of other SET Plan initiatives



### 5. Create a knowledge hub for wind R&I at EU level

- Fogrammes until now.
- 2 Annual Wind Energy Competitiveness Reports



### 6. Widen participation to ETIPWind's governance and ensure representativeness

- Steering Committee has been renewed. Assessment in 18 months -> potential new call for interests.
- Observers can join SC meetings (e.g. representatives from ETIPOcean, IWG HVDC, ETIP SNET, European Raw Materials Alliance, etc)



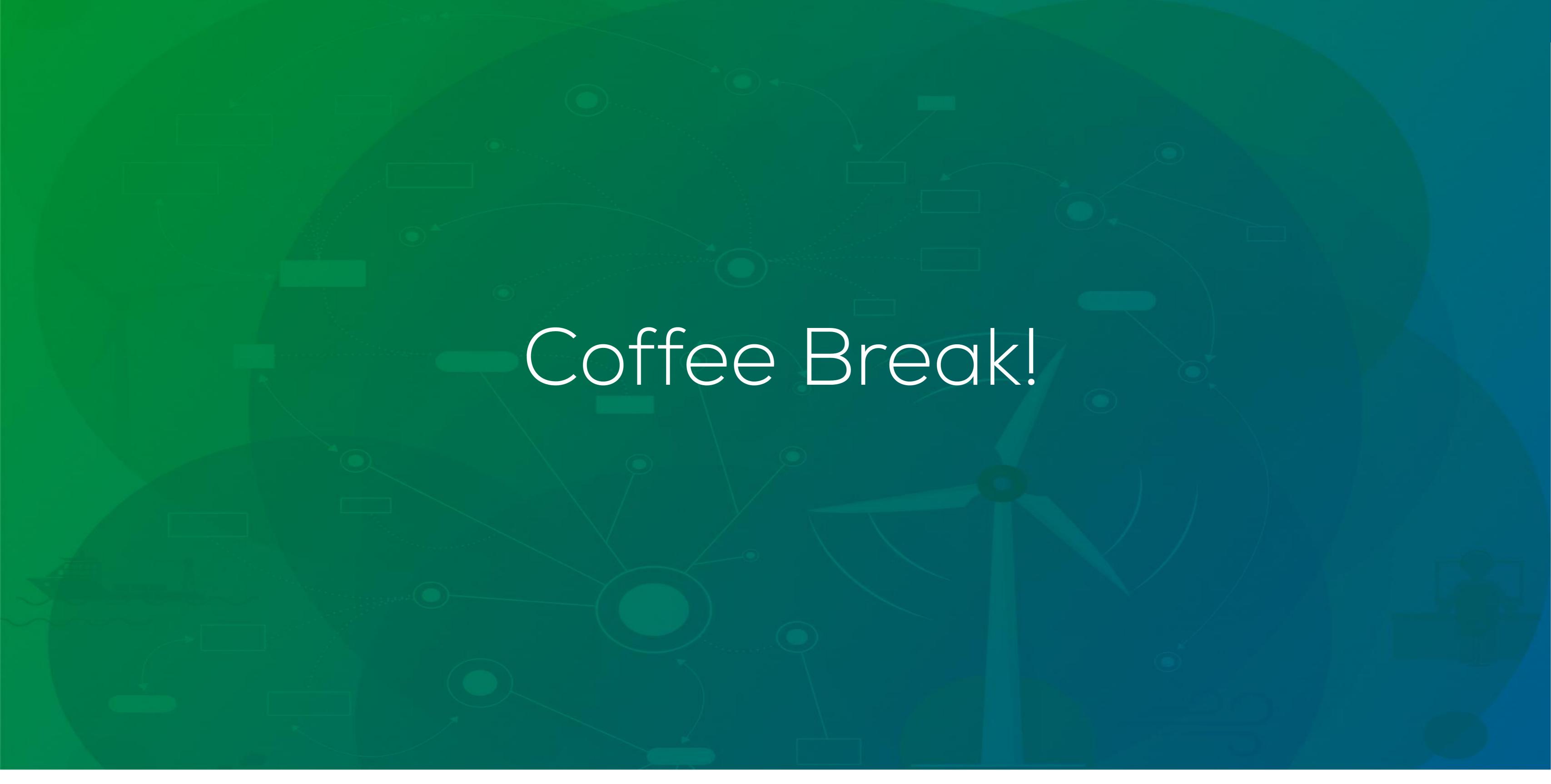
### 7. Develop a finance and sustainability plan for ETIPWind

Finance and Sustainability plan to be developed at the end of the project

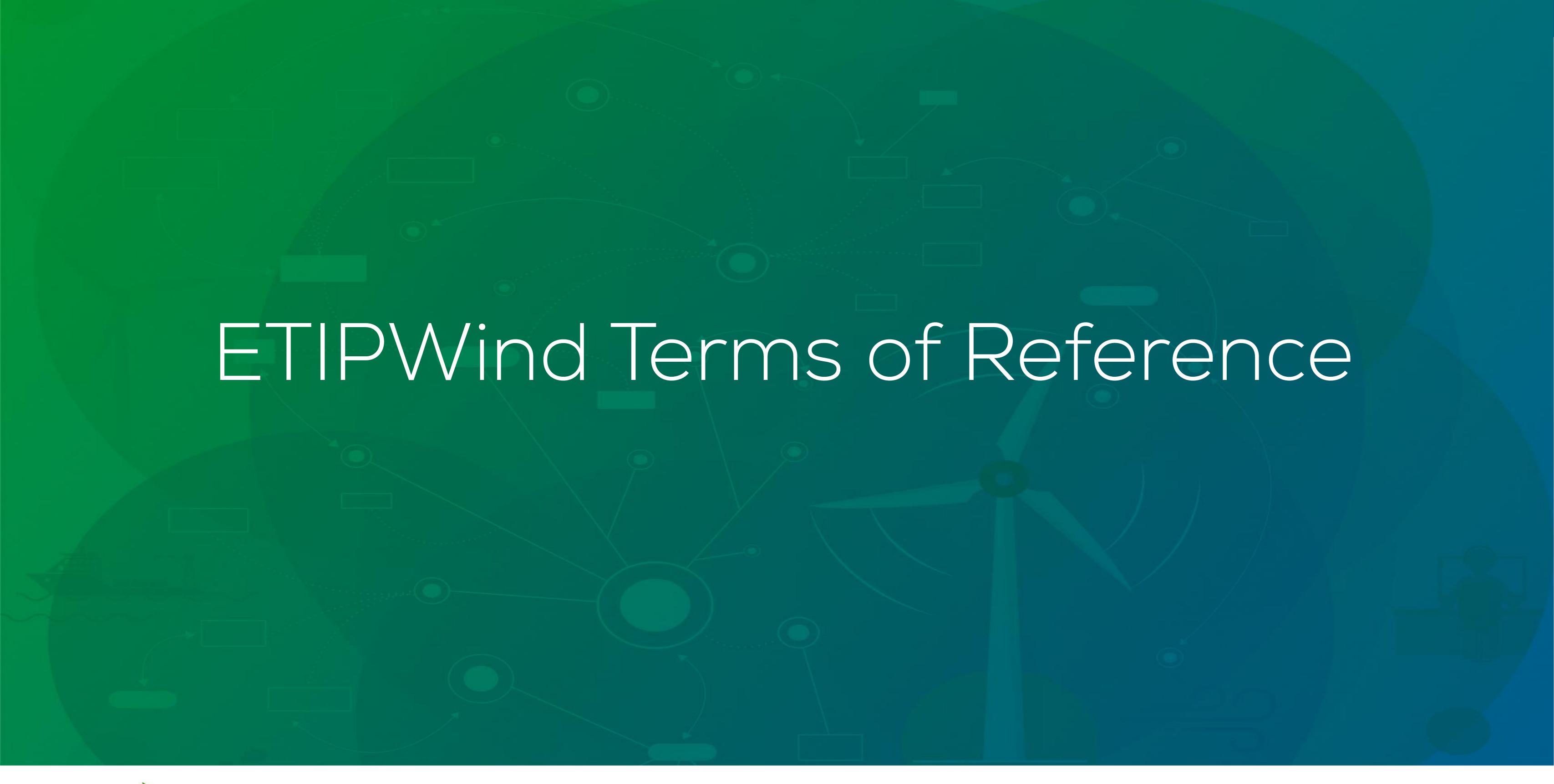














### Terms of Reference – Working Groups and Task Forces

#### 3 Working Groups:

- Permanent groups dedicated to 3 major R&I themes
- Leading the discussion on key technical topics
- Participants: SC members
- Chaired by WG leaders
- Possible structure:

WG1: Supply chain issues and manufacturing

WG2: Next Generation technologies and circularity

WG3: Grid &
System
Integration

#### 1 Task Force:

- To discuss a transversal topic
- Only one TF at a time
- On a cross-cutting issues (e.g. skills and human resources)
- For a specific period (e.g. 6 months)
- Participants: SC members + sponsored experts
- Chair by a TF leader.

#### Terms of Reference – Comments

Composition of the Steering Committee should be 2/3 of industry representatives

> A majority of industry representatives

- Steering Committee consisting of SC members
  Working Groups consisting of SC members AND SC appointed experts (within their organisation + experts sponsored by a dedicated SC member.
  - Task Forces experts sponsored by a dedicated SC member
- Ok with suggestion







#### ETIPWind kick-off event





HYBRID EVENT - ONLINE AND IN BRUSSELS

# HOW TARGETED R&I IN WIND ENERGY CONTRIBUTES TO DELIVERING REPOWEREU

Date: Thursday, 13 October

Time: 9:00-14:30 CEST

Register now

### ETIPWind kick-off event – Draft agenda

TIMING	AGENDA ITEM
9:00 – 9:30	Registrations
9:30 - 9:35	Welcome and Introduction
9:35 – 9:45	Adrian Timbus, ETIPWind Chair, Hitachi Energy  Keynote speech  Rosalinde Van der Vlies, Director Clean Planet - DG RTD, European Commission
9:45 – 10:00	Fire-side chat  Moderated by Ivan Pineda, WindEurope  Adrian Timbus, ETIPWind Chair, Hitachi Energy  Rosalinde Van der Vlies, Director Clean Planet - DG RTD, European Commission
10:00 - 10:45	Made in Europe: What policies are needed today to keep Europe's wind supply chain competitiveness?  ➤ Jacek Truszczynski, Deputy Head of Unit – DG GROW, European Commission ➤ Rolf Genz, Head of Product Management Offshore, Siemens Gamesa  Speakers to be confirmed:  ➤ Anders Nielsen, CTO, Vestas



### ETIPWind kick-off event – Draft agenda

10:45 – 11:00	Coffee Break
11:00 – 11:45	Accelerating wind turbine recycling and improving co-existence of wind with nature and society.
	<ul> <li>Jacob Edmonds, Head of Innovation, Orsted</li> <li>Hanif Mashal, CTO, LM Wind power</li> <li>Fabio Fugazzotto, Head of Wind innovation, ENEL Green Power</li> <li>Lena Kitzing, Head of Section Society, Markets &amp; Policy, DTU</li> </ul>
	Speakers to be confirmed:  Silvija Aile, Deputy Head of Unit - DG ENVI, European Commission
11:45 - 12:30	Energy System Integration: How to go from 15% to 50% wind in power demand by 2050.
	<ul> <li>Susanne Nies, General Manager, SmartWires</li> <li>Belen Linares, Innovation Director, Acciona (if online)</li> <li>Speakers to be confirmed:</li> </ul>
	<ul> <li>Head of IEA System Integration</li> <li>Norela Constantinescu, Head of Section Innovation, ENTSO-E</li> </ul>
12:30 – 13:00	Closing remarks
	Speakers to be confirmed:   Dirk Beckers, Director, CINEA
13:00 – 14:30	Networking lunch



### ETIPWind kick-off event – Support to promote the event



The EU wants wind energy to meet 50% of its electricity needs by 2050. This means a significant acceleration of wind power deployment. The REPowerEU plan, proposed by the European Commission in response to the invasion of Ukraine, already foresees the need for 510 GW of wind by 2030 – up from 190 GW today. An accelerated expansion of wind energy of this magnitude is a tremendous challenge. It also sustains Europe's technology leadership in wind energy.

Targeted Research and Innovation (R&I) investments for wind energy can make a significant contribution to foster the technology developments that will help achieving the EU's ambitions.

To kick off a new cycle of activities that will support the alignment, coordination, and prioritisation of wind energy-related R&I policies, ETIPWind will host a stakeholder event gathering key experts from the wind industry and research as well as policy makers from the European Commission.

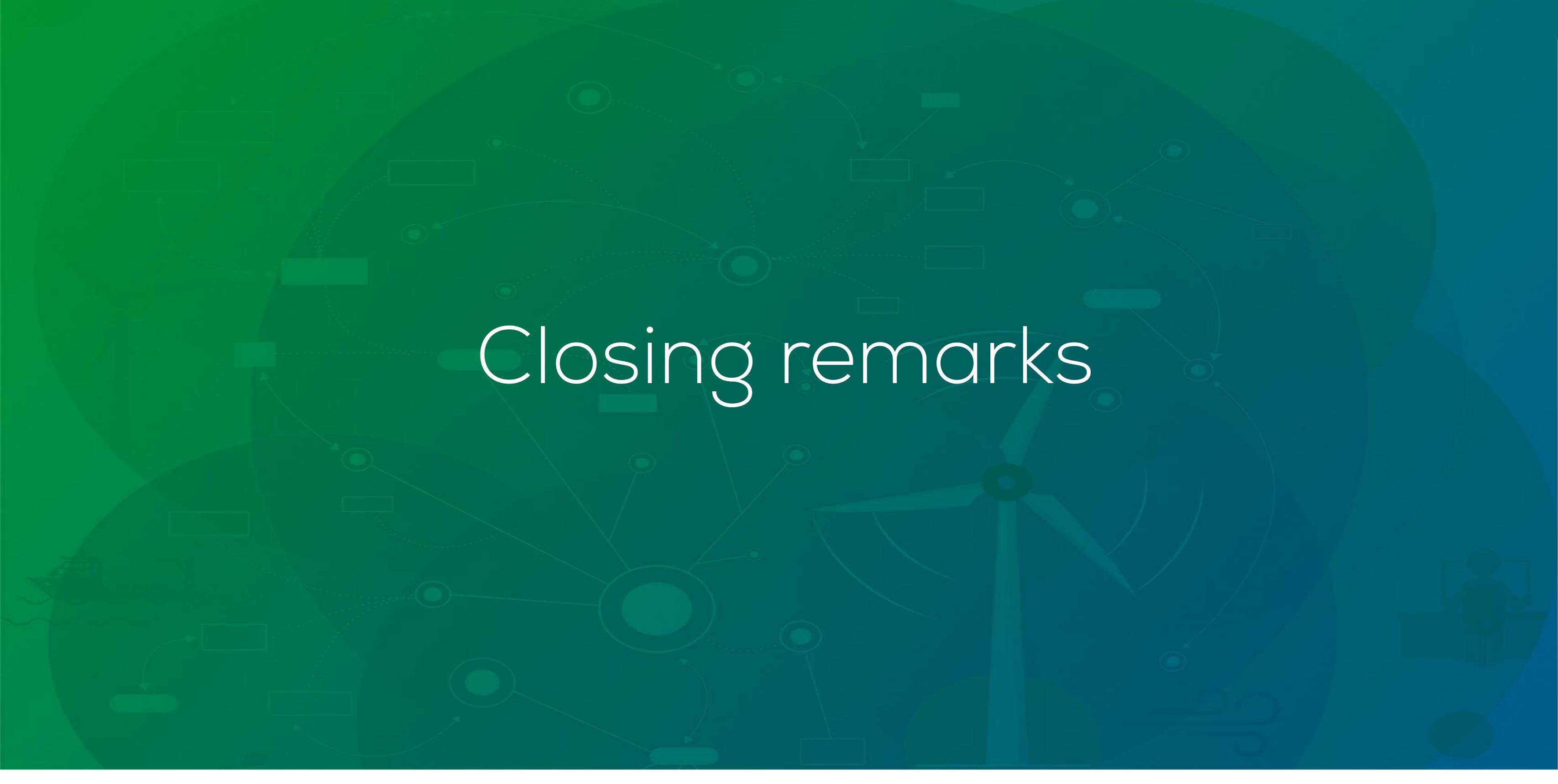
Do you want to know more about how wind energy contributes to the REPowerEU initiative? And what are the R&I solutions that Europe needs to focus on? Register now for this ETIPWind event!

It will address the following topics:

- Manufacturing and competitiveness of the wind supply-chain;
- Sustainability, recycling and coexistence of wind with nature and society; and
- Energy system integration of wind.

- Share the invitation through your networks and channels!
- Re-post / Re-tweet our posts on LinkedIn and Twitter!







### SETIPWIND: Administrative name of the EU-funded project

ETIPWind: Public name of the platform



