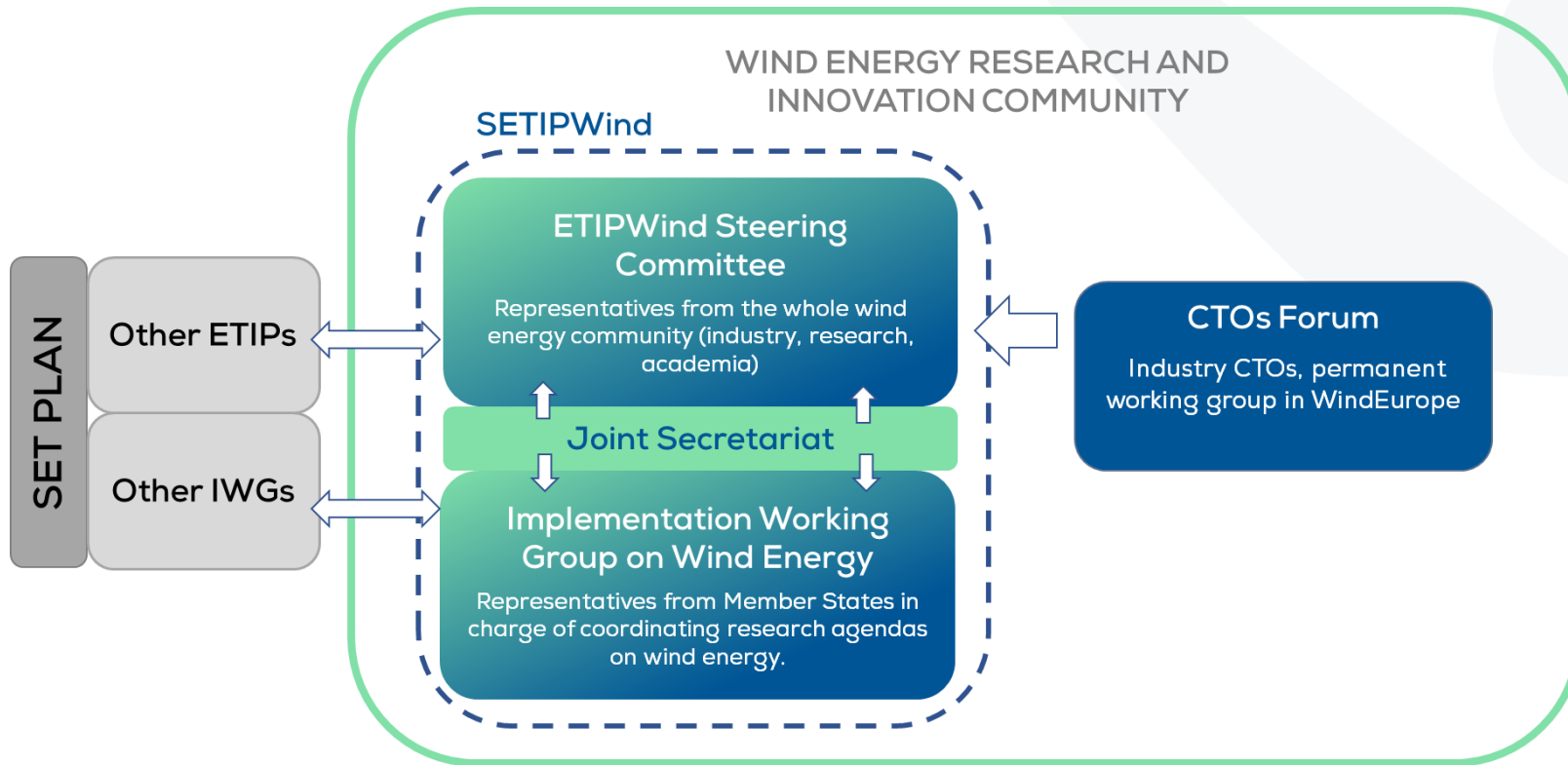


ETIPWIND PUBLIC WORKSHOP R&I PRIORITIES 2025-2027

Welcome & Introduction

What is ETIPWind



- **European Technology & Innovation Platform** established in 2016.
- Funded by the European Commission in the framework of the **SET Plan** through the **SETIPWind project (2022-2025)**.
- Industry and research experts who **provide policy and research recommendations** to the European Commission and **advocate for a faster deployment of wind energy** in Europe.

ETIPWind Steering Committee

• INDUSTRY



• RESEARCH



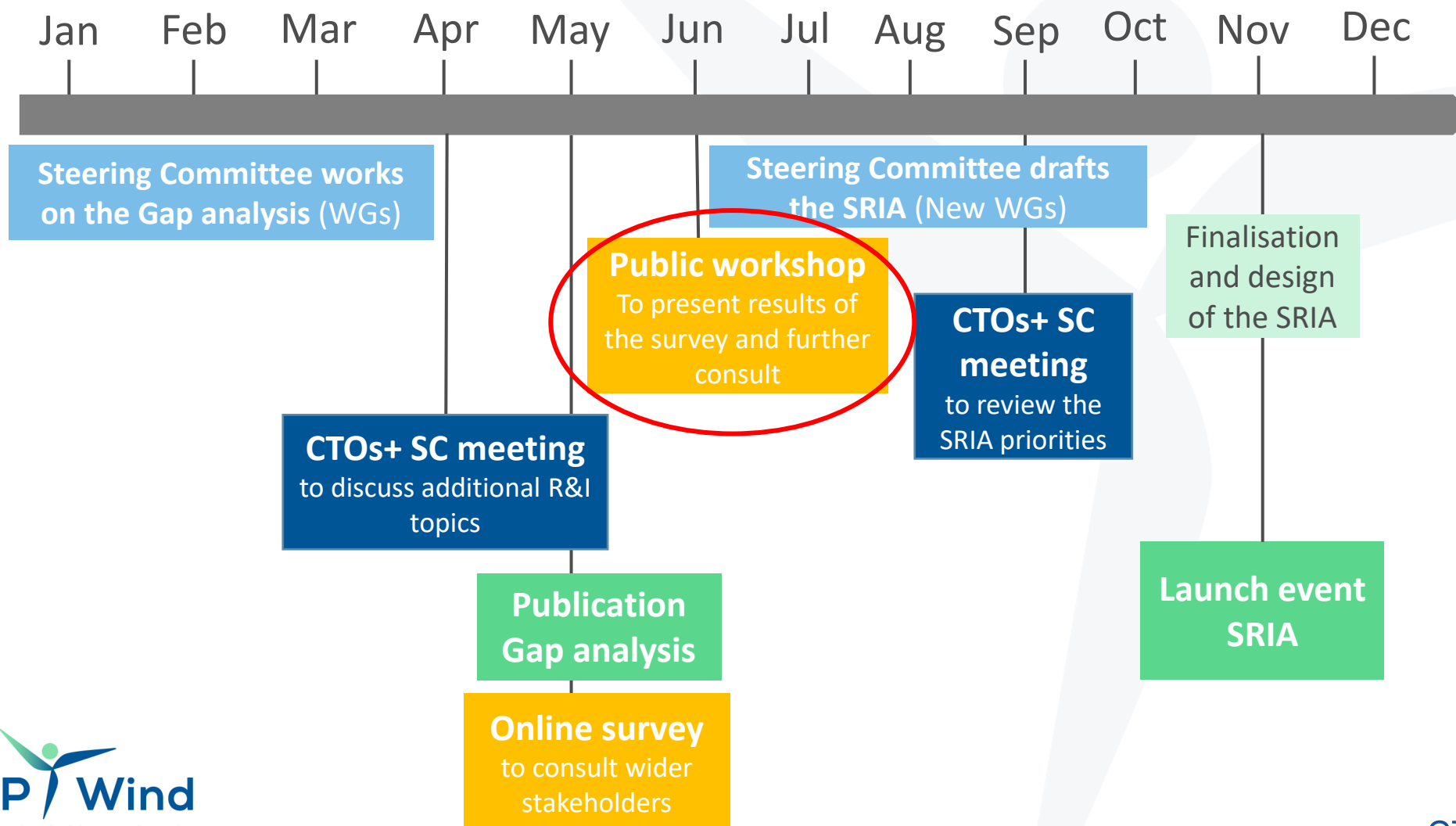
• OBSERVER

Objectives of the workshop

- To present the results of the **ETIPWind online survey** on R&I priorities for 2025-2027
- To have more in-depth discussions with wind energy experts on the priorities that will have the most **impact on the competitiveness of the European supply chain.**

Your input will feed the update of the ETIPWind Strategic R&I Agenda.

Timeline to update the SRIA



Agenda

10:00-10:30	<i>Registrations & Welcome coffee</i>	
10:30-10:45	Introduction and Opening speech from the European Commission	Hélène Chraye, Deputy Director, DG RTD, European Commission Adrian Timbus, ETIPWind Chair
10:45-10:55	Methodology and results of the ETIPWind online survey	Capucine Vannoorenberghe, ETIPWind Secretariat
10:55-11:15	Challenge 1 – Wind energy system integration	Adrian Timbus, Hitachi Energy
11:15-11:35	Challenge 2 – Industrialisation, scale up and competitiveness.	Aidan Cronin, Siemens Energy
11:35-11:45	<i>Coffee break</i>	
11:45-12:05	Challenge 3 – Operations & Maintenance and Digitalisation	Ivan Pineda, ETIPWind Secretariat
12:05-12:25	Challenge 4 – Sustainability and Circularity	Jacob Edmonds, Ørsted
12:25-12:45	Challenge 5 – Skills & Coexistence	Helena Solman, Wageningen University
12:45-13:00	Conclusion and Next steps	Adrian Timbus, ETIPWind Chair Enrico Degiorgis, DG RTD, European Commission
13:00-14:00	<i>Networking lunch</i>	

Opening speech

Helene Chraye

Head of Unit - Clean Planet

DG RTD - European Commission



R&I policy update

Next wind energy R&I priorities workshop

20 June 2023

Hélène

CHRAYE

Deputy Director Clean Planet

HoU Clean Energy Transition

DG Research & Innovation

European Commission

Strategic Energy Technology (SET) Plan revamp

Three main **objectives**:

- Support the European Green Deal policies and strategies and make the SET Plan 'fit for 55', as well as embedding the approach of REPowerEU;
 - Contribute to the ERA policy agenda and reinforce synergies with and between Member States;
 - Increase the participation of all countries in SET Plan activities and increase the political visibility of the activities, in order to maximize their impact.
-
- **Extend the scope** of current IWGs technology coverage (e.g. **onshore wind**, medium and low geothermal, LVDC, etc)
 - Systematically **embed cross-cutting issues** (circularity and materials substitution, digitalisation, R&I for societal needs, skills and industrial capacity)
 - Building on the work of the IWG CSP and IWG PV to develop a joint **strategic solar energy R&I agenda**
 - Hydrogen: ERA pilot on green hydrogen evolving into an **Implementation Working Group (IWG) on hydrogen** - ongoing
 - Communication of the Commission on SET Plan revamping is expected in **autumn 2023**
 - SET Plan Presidency Conference (Viladecans – Barcellona - 13-14 November 2023)

Horizon Europe – work programme (WP) 2025 and following

- Adoption of the Strategic Plan 2025 – 2027: early 2024
- Work programme 2025:
 - Only urgent needs and continuity of some recurrent actions: early 2024
 - Full WP in early 2025 – including ‘politically sensitive’ files
 - Topics drafting: flexibility needed to consider new College’s priorities
- New College of Commissioners: end 2024

Exact procedure and timing still to be fully defined

Thank you



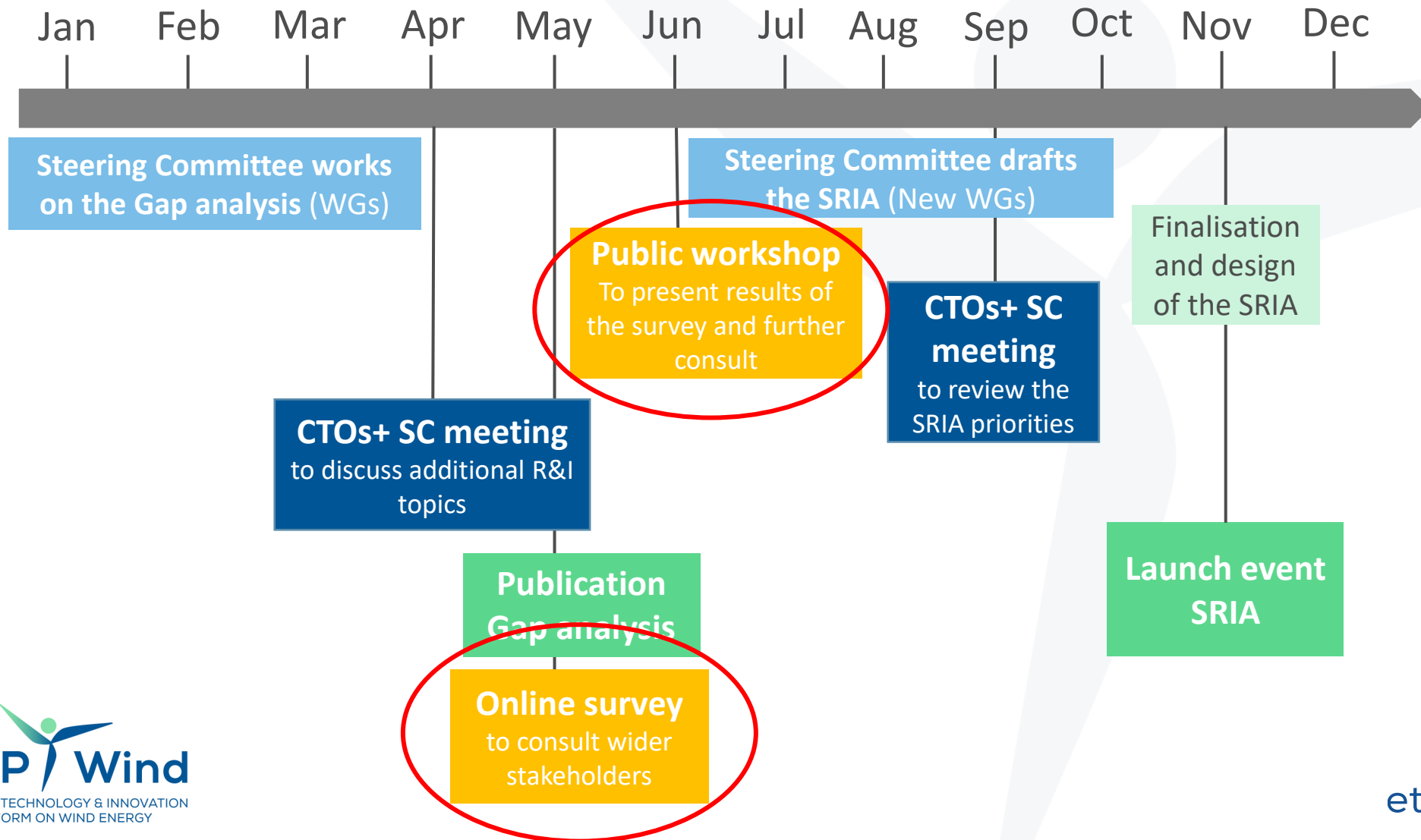
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Methodology and results of the ETIPWind online survey

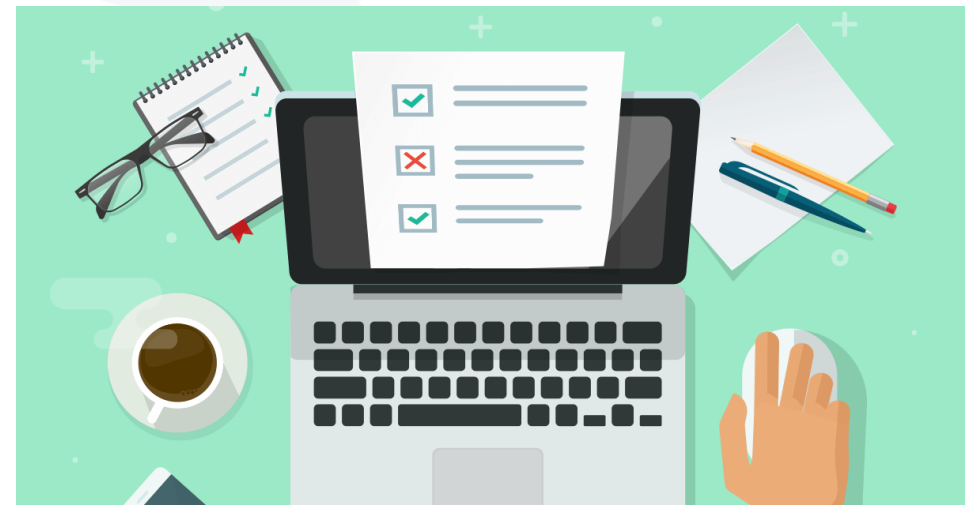
Consultation process for updating the SRIA



Consultation process for updating the SRIA

1. Online survey:

- **Objective:** to enable wind energy experts to put forward their R&I priorities and ensure ETIPWind priorities are endorsed by the entire R&I community.
- **Scope:** R&I challenges and topics 2025-2027, projects needed, prioritisation
- **When:** 10 May – 9 June 2023



Consultation process for updating the SRIA

2. Public workshop:

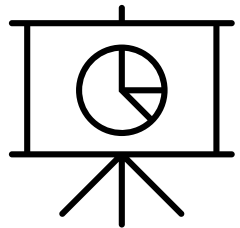
- **Objective:** to present the results of the survey and to have more in-depth discussions on the most urgent priorities, to ensure all stakeholders had a chance to raise their voices.
- **Scope:** R&I topics 2025-2027, prioritisation
- **When:** 20 June 2023



And then?

- Results of the consultation will help us identifying the most urgent priorities and redefine the R&I Pillars.

Public consultation results



New R&I Pillars and new WGs

To better fit the R&I needs of the wind sector today



List of key actions

For each pillar: list of R&I actions with descriptions



Updated Strategic R&I Agenda



STRATEGIC RESEARCH AND INNOVATION AGENDA
2023



ONLINE SURVEY RESULTS

Online survey structure

1) Main challenges faced by the wind industry / research

2) Research & Innovation topics that can help answering the challenges

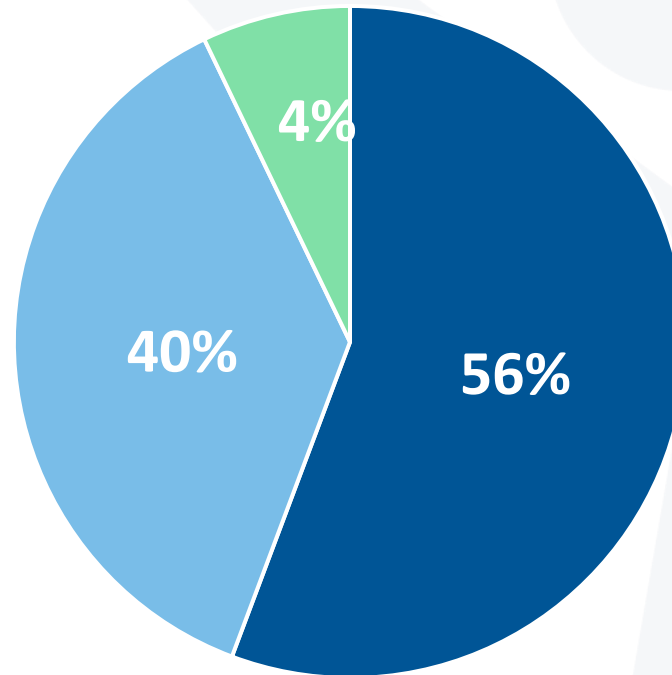
3) Research activities and projects that need to be launched

4) Prioritisation of the R&I topics for each challenge

Online survey answers

Online survey answers - Stakeholder category

Total number of answers: **71**



■ Industry ■ Research ■ Other (association, national gov, etc)

The 5 R&I challenges



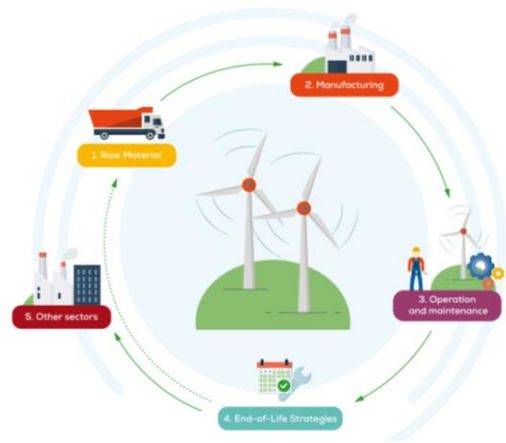
Challenge 1 – Wind energy system integration



Challenge 2 – Industrialisation, scale-up and competitiveness



Challenge 3 – Operation & Maintenance and Digitalisation



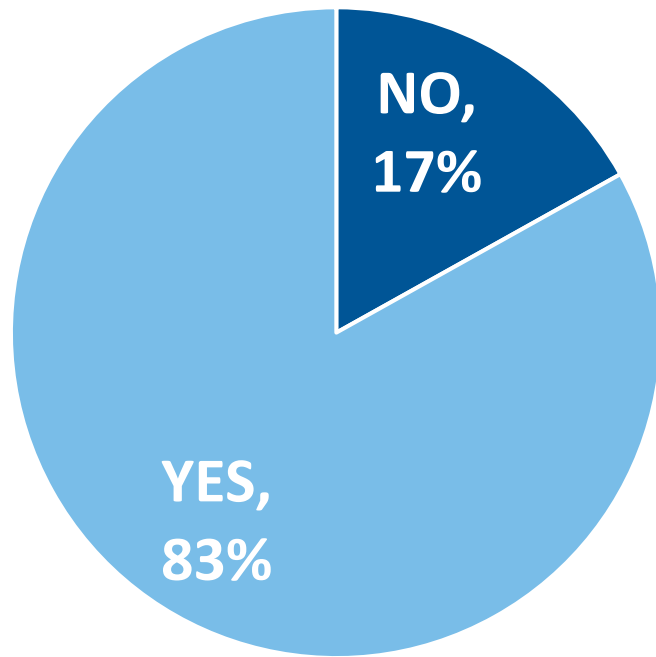
Challenge 4 – Sustainability and Circularity



Challenge 5 – Skills & Coexistence

No additional challenge as standalone topic

Question: Do you think the 5 R&I challenges accurately capture the reality of the wind energy sector?



Additional topics mentioned by the respondents:

- Forecasting, weather conditions and adaptation to climate change of wind operations. *Challenge 3*
- Energy system dynamics (sector coupling, increase role of demand).
- Logistics and supply chain *Challenge 2*
- Degradation, corrosion, fatigue, performance *Challenge 3/4*
- Offshore infrastructure development (energy islands, offshore grids) *Challenge 1*
- Repurposing *Challenge 4*

Workshop sessions and discussion

- 5 sessions dedicated to the 5 challenges
- Each session will consist of:
 - A 5mn presentation of the survey results
 - A 15mn discussion with the audience and interaction via Slido

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Challenge 1 – Wind energy system integration

Moderator:

Adrian Timbus

Vice President Portfolio and Market

Strategy – Hitachi Energy

ETIPWind Chair

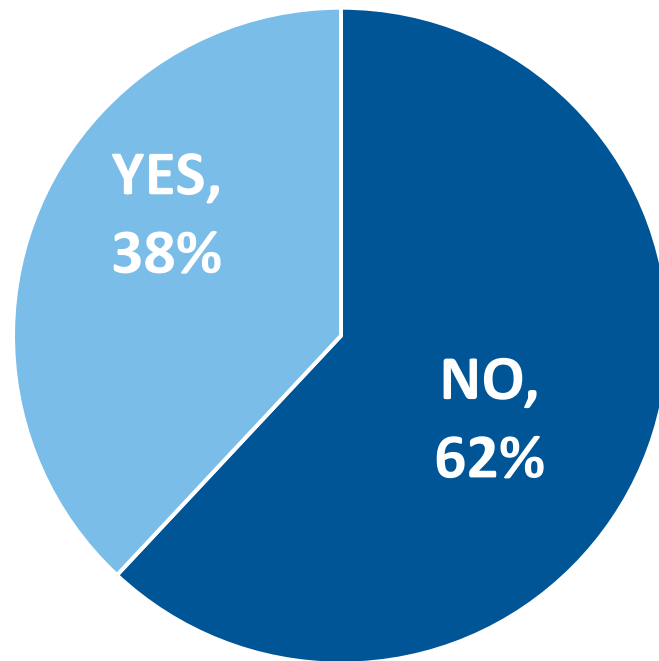
Challenge 1 – Wind energy system integration

List of R&I topics identified by ETIPWind experts :

- Grid forming capabilities
- Flexibility on the transmission and generation side
- Renewable energy sources penetration in the energy system
- Long-duration energy storage
- Provision of ancillary services
- Hybridisation with other technologies (wind+solar, +storage, etc)
- Quantification of system services and definitions
- Optimising transmission infrastructure
- Digitalisation of grids
- Solutions to avoid curtailment
- Modelling future system needs
- Development of new converters/systems for provision of system services

Specific R&I topics mentioned by respondents in the online survey

Question: Is there any additional topic that can help solving Challenge 1?

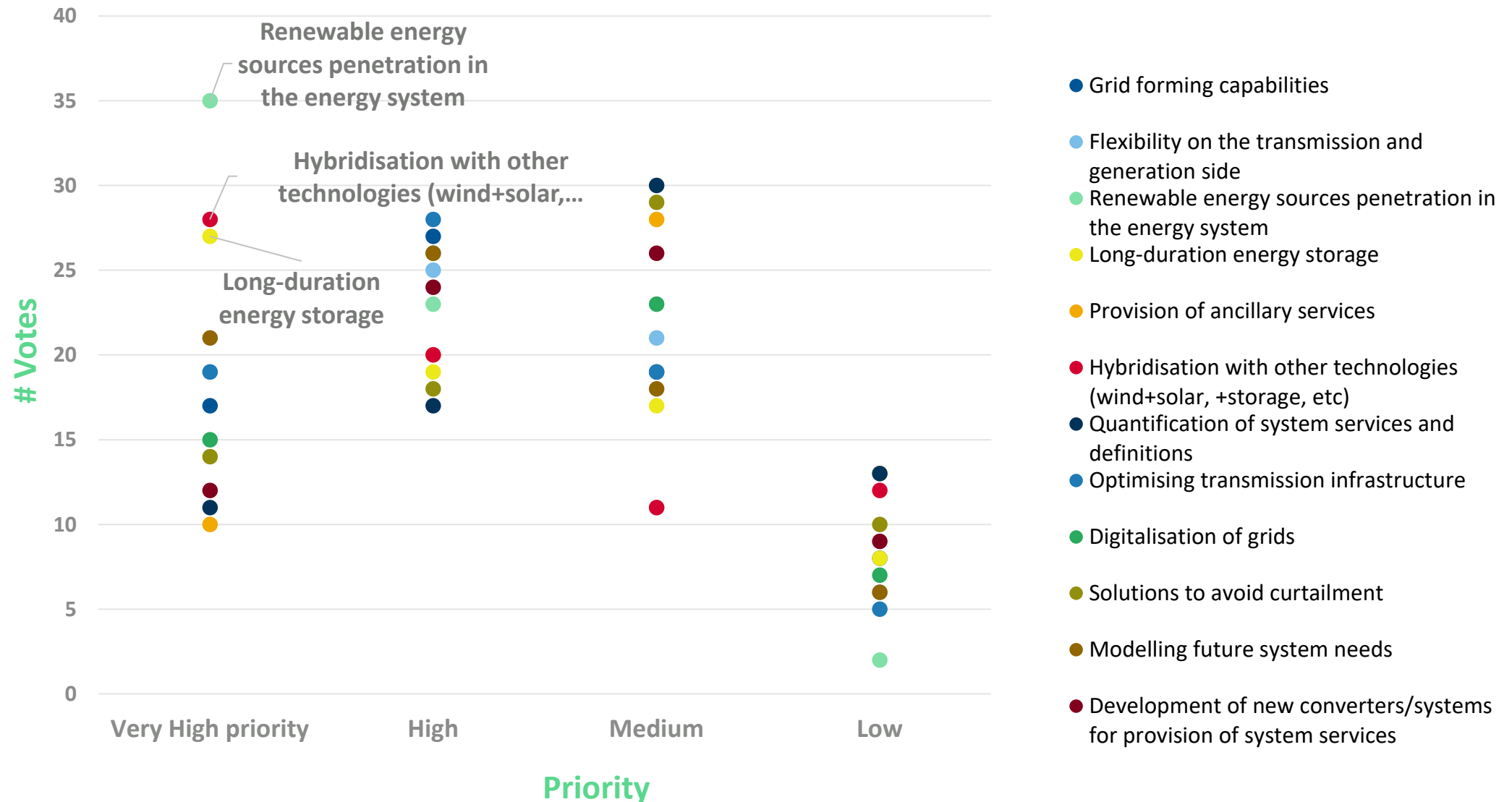


Topics mentioned by the respondents:

- DC grids, intra-array HVDC grids
- WT design digitalisation as enabler of system integration.
- System integration of Wind + H2, PtX, sector coupling
- Airborne wind
- Integration impacts (unwanted resonant conditions and control interactions)
- Grid codes
- Standards for SCADA data
- Standards for grid equipment

Challenge 1 priorities according to respondents

Challenge 1 - Wind energy system integration



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Challenge 2 – Industrialisation, scale-up and competitiveness

Moderator:

Aidan Cronin

Senior Director Government Affairs –

Siemens Energy

ETIPWind Steering Committee member

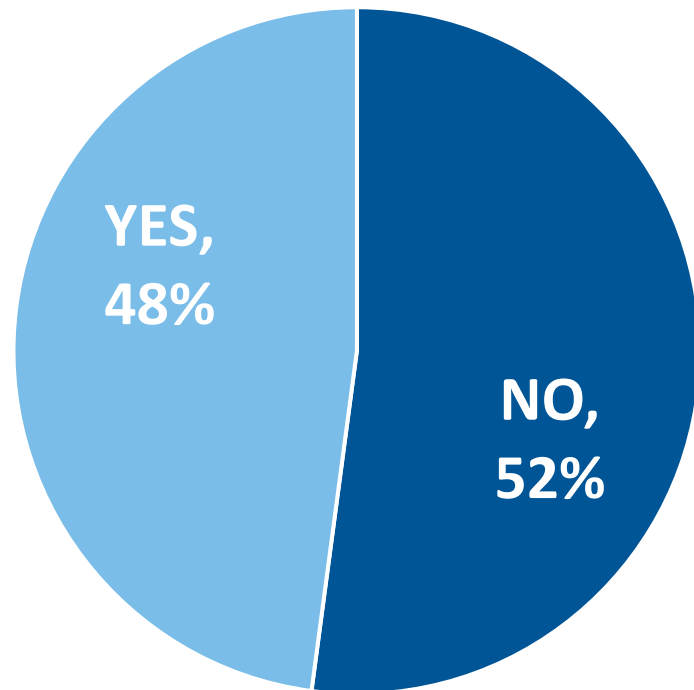
Challenge 2 – Industrialisation, scale-up and competitiveness

List of R&I topics identified by ETIPWind experts :

- Industrialisation of floaters for offshore wind
- Serial manufacturing of components for onshore / offshore wind and standardisation
- Automation and optimisation of manufacturing processes
- Dynamic sub-sea cables (manufacturing and repair solutions)
- Mooring and anchors for floating offshore wind
- Next generation of power generators and disruptive technologies (e.g. new types of wind turbines)
- Supply chain logistics for decommissioning
- Mass-production, installation, assembly and heavy maintenance solutions for floating offshore wind
- Impacts of bigger rotors in wind turbines

Specific R&I topics mentioned by respondents in the online survey

Question: Is there any additional topic that can help solving Challenge 2?

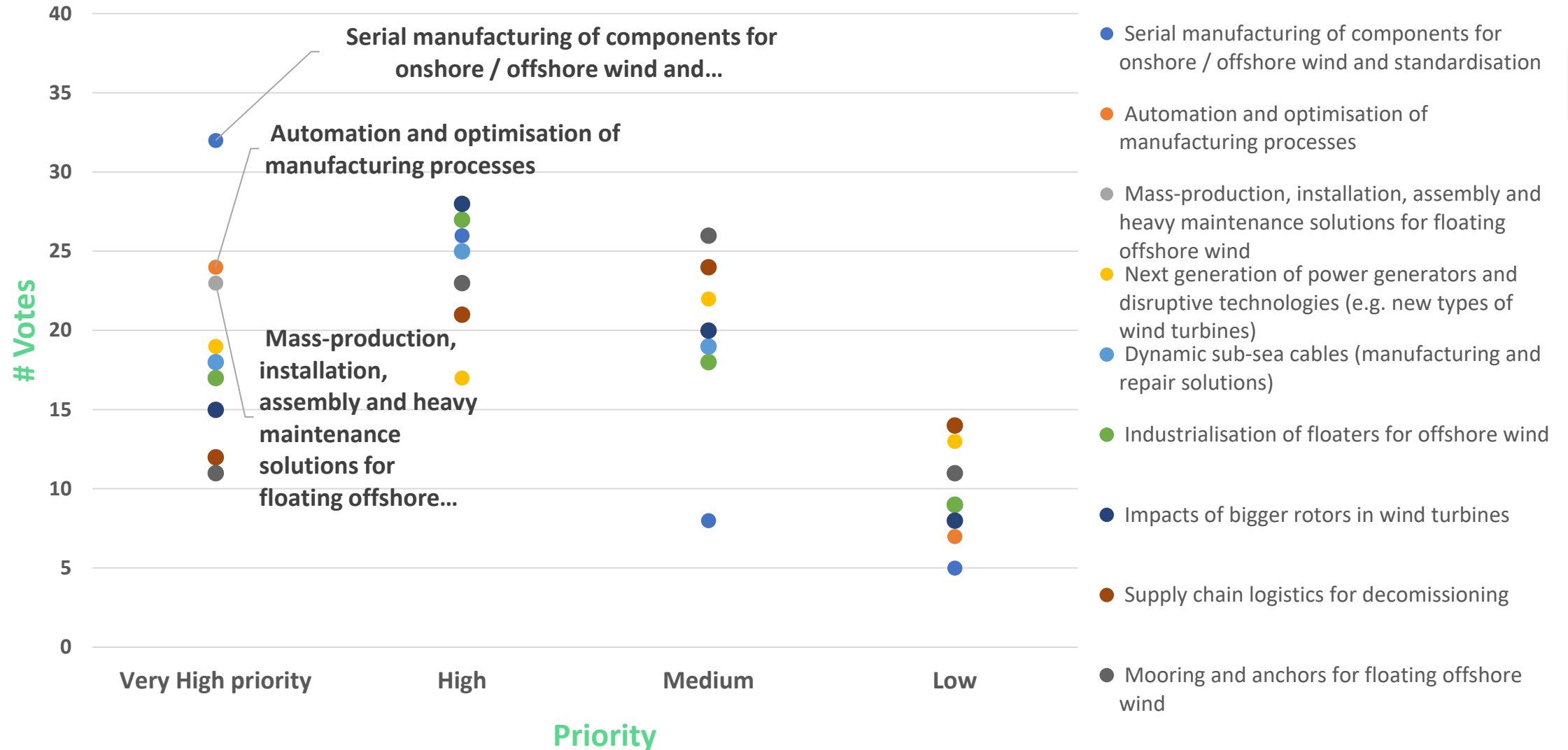


Topics mentioned by the respondents:

- Testing and validation
- More specific design challenges and impacts of bigger rotors
- Infrastructure for scale up
- Design methods for scaling up, probabilistic design approaches
- Limits to scale components
- 20+MW generators
- Onsite manufacturing

Challenge 2 priorities according to respondents

Challenge 2: Industrialisation, scale-up and competitiveness



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Challenge 3 – Operation & Maintenance and Digitalisation

Moderator:

Ivan Pineda

Director of Innovation – WindEurope

ETIPWind Secretariat

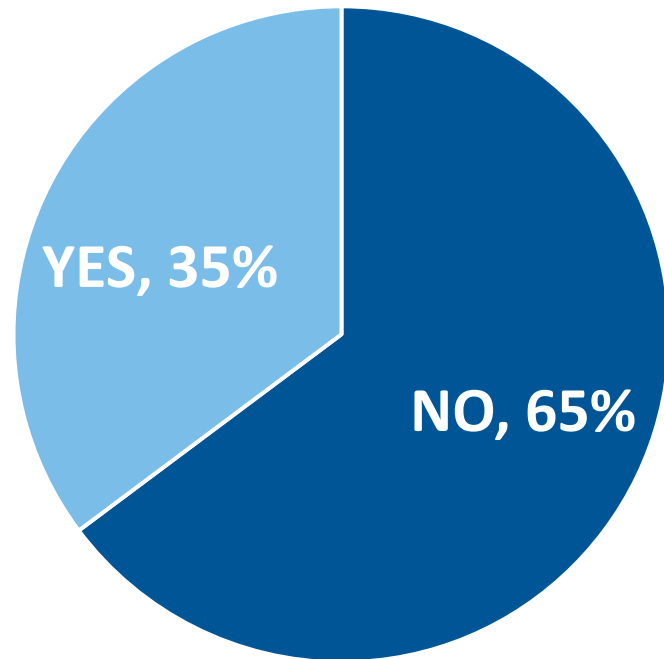
Challenge 3 – Operation & Maintenance and Digitalisation

List of R&I topics identified by ETIPWind experts :

- Monitoring technologies
- Cross-border transport and transport of large components
- Ports infrastructure
- Automation for O&M and installation for offshore wind
- Integrated forecasting of power production & demand
- Digital tools for control and monitoring, digital solutions for smart operations
- Solutions to operate in extreme conditions
- Predicting environmental parameters
- Sensor technologies diagnostic and response
- Integrated verification of models for the balance of plant and turbine.
- New installation methods or processes including low noise foundation installation technologies
- Control methods and park level control

Specific R&I topics mentioned by respondents in the online survey

Question: Is there any additional topic that can help solving Challenge 3?

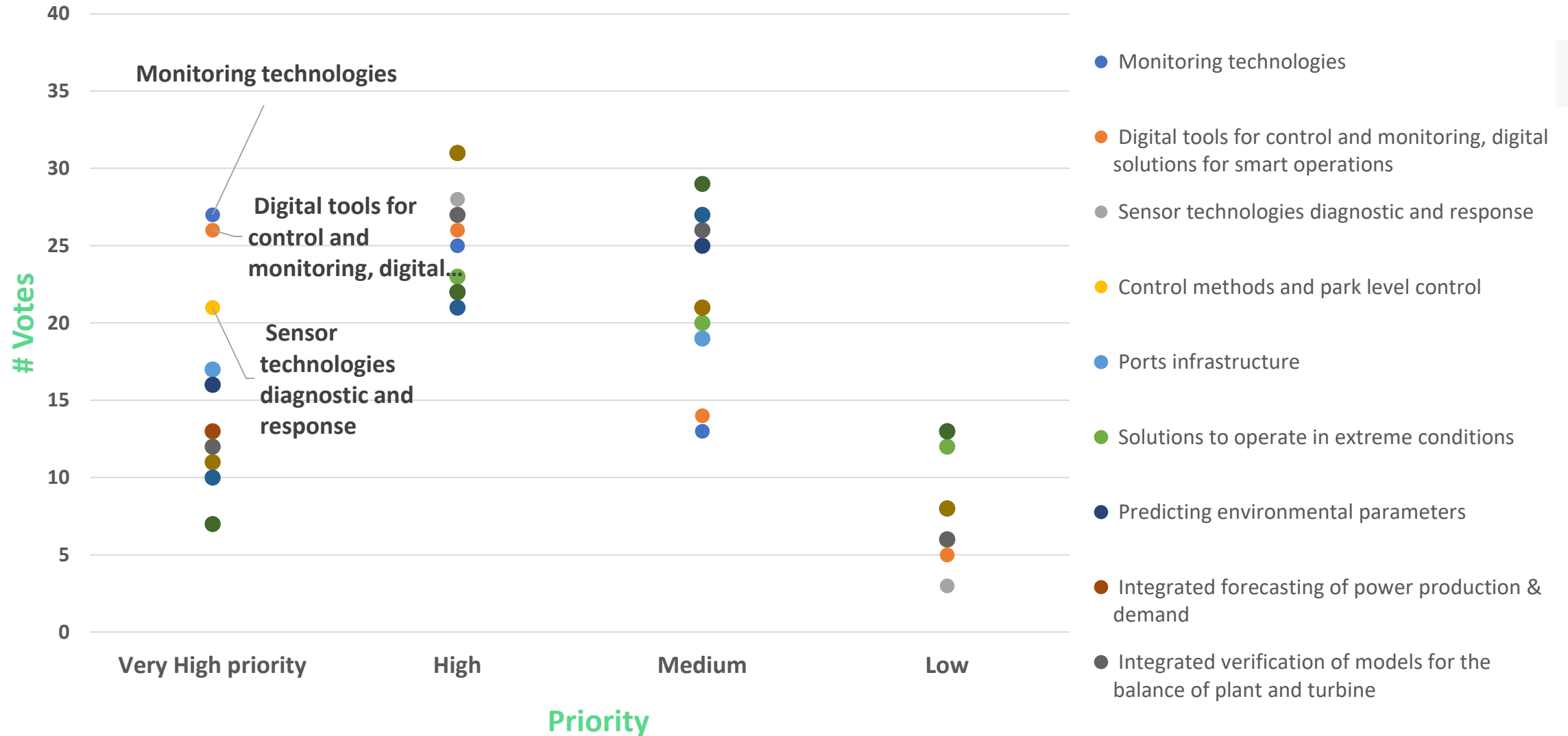


Topics mentioned by the respondents:

- Cybersecurity
- Disruptive component replacement methods offshore
- Erosion prediction tools
- Reliability models for maintenance and failure prediction
- Structural health monitoring
- Drones

Challenge 3 priorities according to respondents

Challenge 3: Operation & Maintenance and Digitalisation



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Challenge 4 – Sustainability & Circularity

Moderator:

Jacob Edmonds

Head of Ørsted Innovation – Ørsted

ETIPWind Vice-Chair

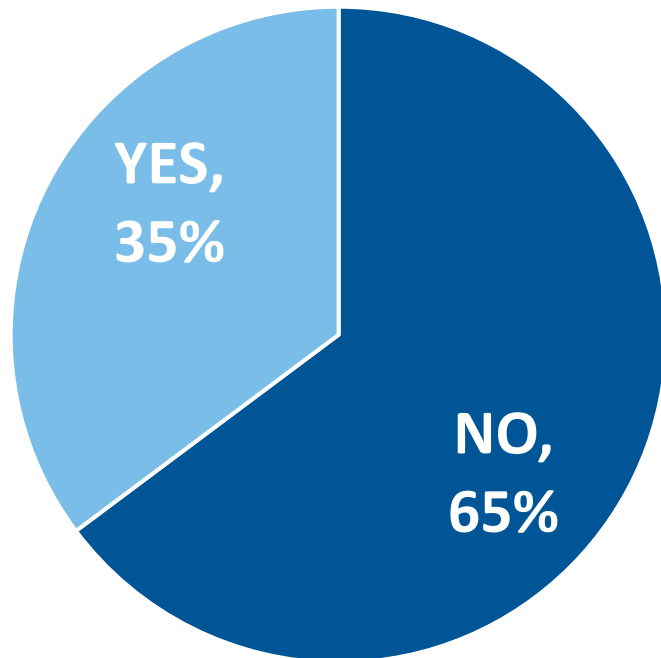
Challenge 4 – Sustainability & Circularity

List of R&I topics identified by ETIPWind experts :

- Sustainable materials in design and recyclability by design
- Blade recycling
- Sustainable technologies to lower CO2 footprint
- Impact on ecosystems and biodiversity
- Solutions for lifetime extension
- Development and validation of new components and materials (e.g. replacement of carbon-fibre)
- Reliability of secondary materials (e.g. recycled steel and copper)
- New recycling processes
- Noise reduction
- Material durability and protection

Specific R&I topics mentioned by respondents in the online survey

Question: Is there any additional topic that can help solving Challenge 4?

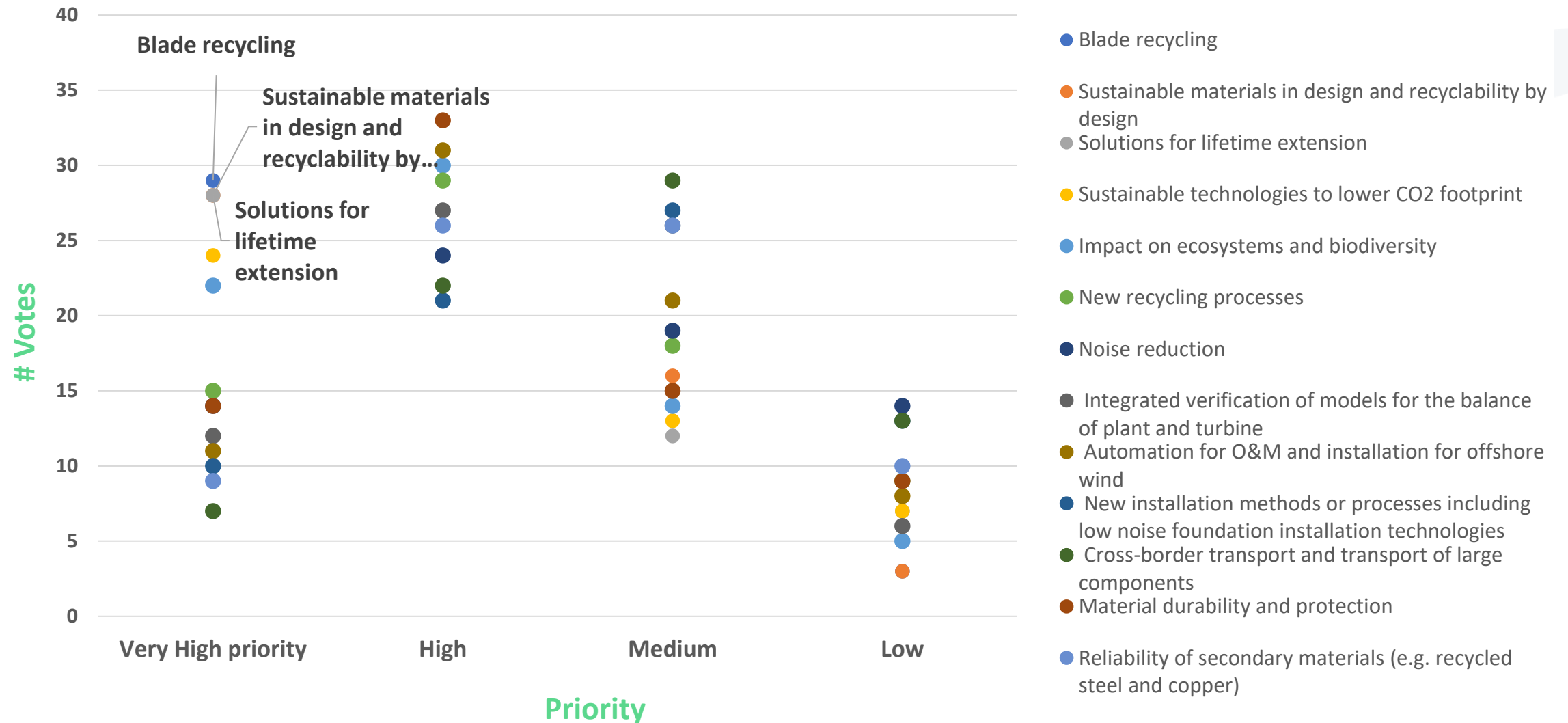


Topics mentioned by the respondents:

- Sustainable raw materials and components (steel, cement, grid equipment)
- Supply chain ESG reporting
- Sustainability assessments (modelling, methods)
- Sustainable decommissioning processes
- Manufacturing waste reduction strategies.

Challenge 4 priorities according to respondents

Challenge 4: Sustainability and Circularity



Time to hear from you!
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Challenge 5 – Skills & Coexistence

Moderator:

Helena Solman

Post doctorate researcher – Wageningen

University

ETIPWind Steering Committee member

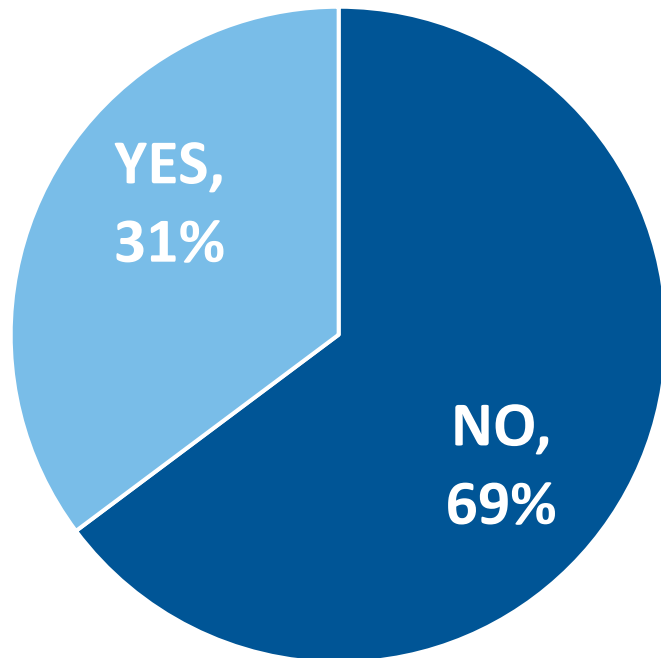
Challenge 5 – Skills and Coexistence

List of R&I topics identified by ETIPWind experts :

- Education, skilling, re-skilling and upskilling (focused on turbines but also planning, transport, etc)
- Solutions to improve acceptability and empowerment of citizens
- Coexistence with other communities (e.g. fishing) and demonstration of the benefits of windfarms for society
- Higher degree specialisation for wind energy research.

Specific R&I topics mentioned by respondents in the online survey

Question: Is there any additional topic that can help solving Challenge 5?

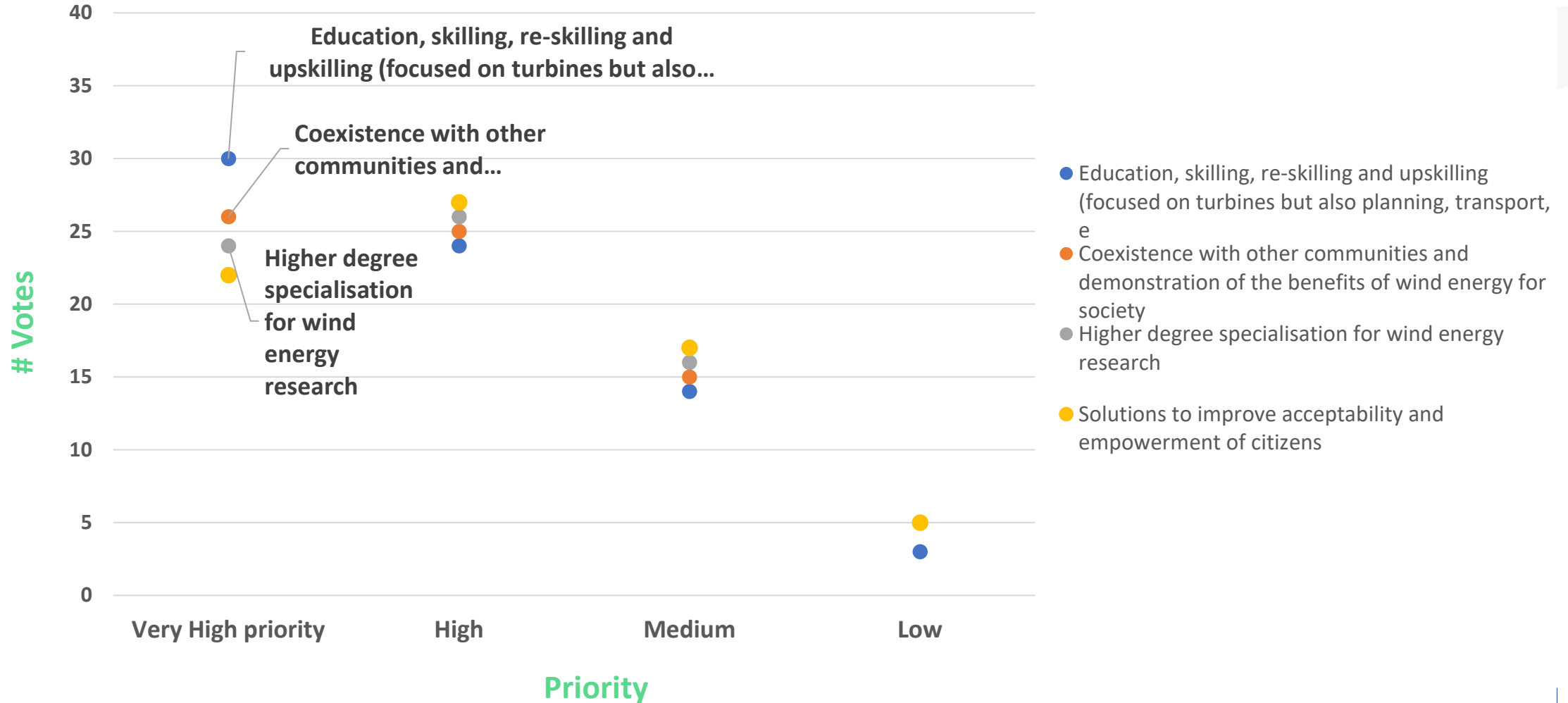


Topics mentioned by the respondents:

- Integration of acceptance into techno-economic wind farm optimization and design
- Accelerated permission process by improved policy and regulation
- Social value of wind energy
- Early age education on wind (primary school)
- Financial and other participation schemes for energy communities
- Energy communities and micro-grids

Challenge 5 priorities according to the respondents

Challenge 5 – Skills and Coexistence



Time to hear from you!
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Conclusion and Next steps

- The input gathered during this workshop will be used to update the **Strategic R&I Agenda of ETIPWind**.
- Any **additional input** to share? Please reach out by email (secretariat@etipwind.eu)
- The updated SRIA will be published by **November 2023**.
- A **launching event** will be organised in Brussels ([subscribe to our newsletter](#) to stay informed!)

Process for updating the SRIA:

- Drafting by the **Working Groups** (within the Steering Committee)
- Review meeting with the **Chief Technology Officers** of the leading wind energy companies
- Feedback from **other SET-Plan entities** (other ETIPs, Implementation Working Groups, etc)



Conclusion

Enrico Degiorgis

Policy Officer

DG RTD - European Commission

THANK YOU

Contact: secretariat@etipwind.eu