

### IEA Task 46 Erosion of Wind Turbine Blades

Results from two surveys: Sandia Blade workshop (19 September 2024) and IEA Webinar (31 May 2022)

#### QUESTIONS and RESULTS

#### Sandia Blade Workshop, 19 September 2024, Albuquerque, New Mexico, USA

• What challenges to you foresee on blade erosion 10 year from now?

The respondents were primarily industry participants and some academic attendees. Sixty-three attendees responded.





#### IEA task 46 webinar 31 May 2022

- What challenges to you foresee on blade erosion 10 year from now?
- Blade erosion: What are the key challenges in the wind industry?
- Blade erosion: What are the key research challenges?

The respondents were fifty-fifty industry and academic attendees. Thirty-three attendees responded.

## IEA task 46 webinar 31 May 2022

Blade aerodynamic performance cause loss of energy production due to erosion

Scaling up offshore wind installations rapidly will increase blade erosion

1. What challenges do you foresee on blade erosion 10 years from now? (Multiple Choice) \*
33/33 (100%) answered

Weather conditions in emerging markets poorly known (13/33) 39%

Higher tip speeds of novel turbines will increase blade erosion (20/33) 61%

Cost effective coating solutions will not be available (7/33) 21%

O&M costs increase for the fleet of existing wind farms (16/33) 48%

(16/33) 48%

(20/33) 61%



## Blade erosion: What are key challenges in the wind industry?

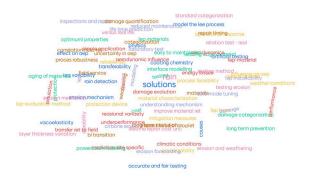
Mentimeter



24

# Blade erosion: What are key research challenges?

Mentimeter



34