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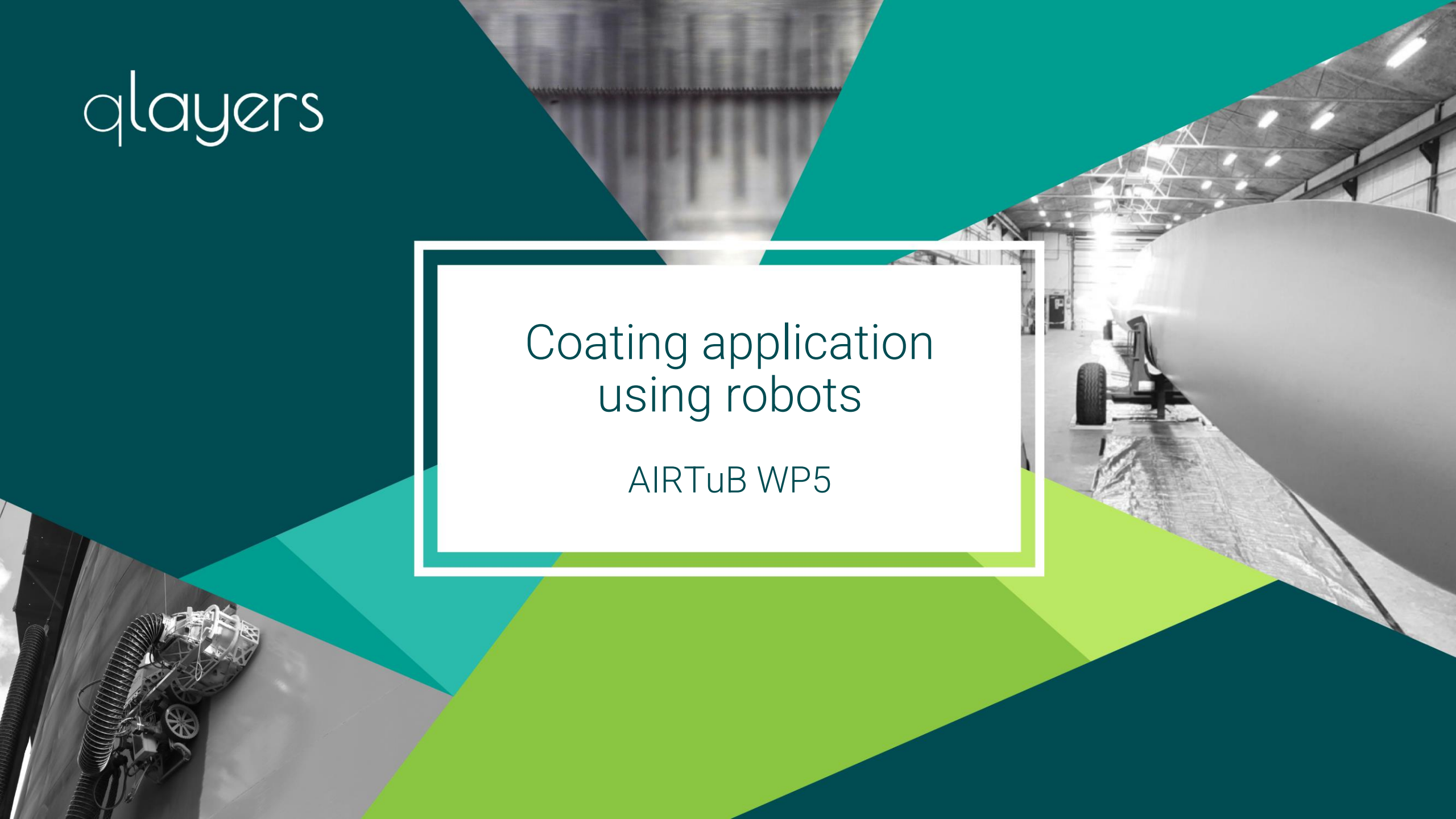
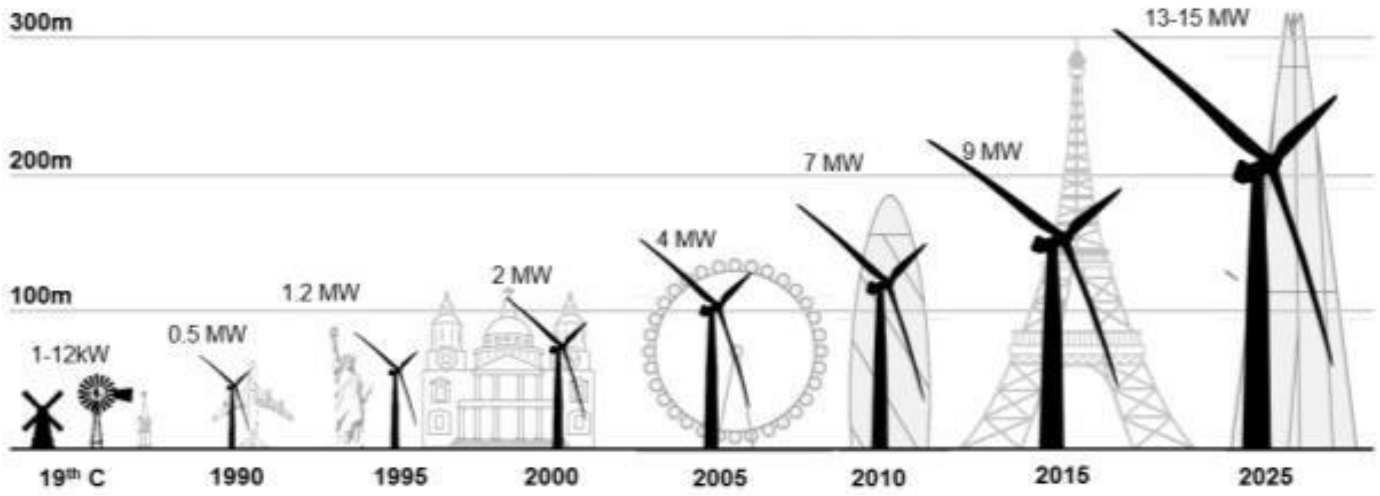
Coating application using robots

AIRTuB WP5



Trend in wind industry



Source: Bloomberg New Energy Finance

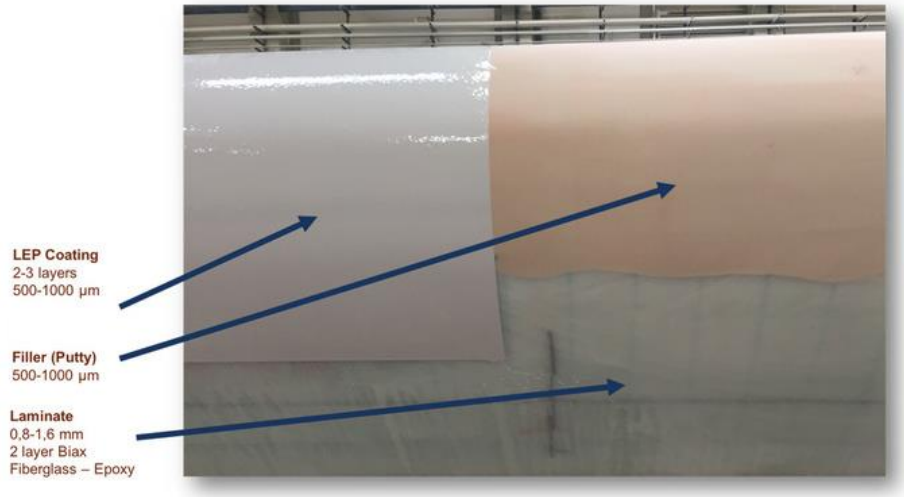
Increasing demand in renewable energy

→ Blades length >100 m

→ Challenges in production & maintenance on coating

Wind turbine coating challenges

Coating large surfaces
with a consistent quality



Leading Edge Protection application

BL8 – Wind turbine blades

Coating of wind turbine blade sections 2021

BL8 – Wind turbine blades

Why Leading Edge Protection (LEP)?

Larger turbine blades

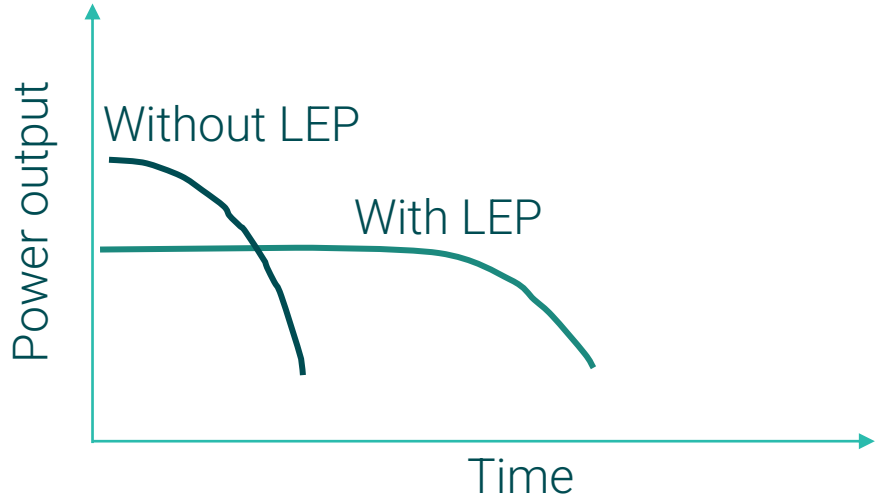
→larger tip speeds

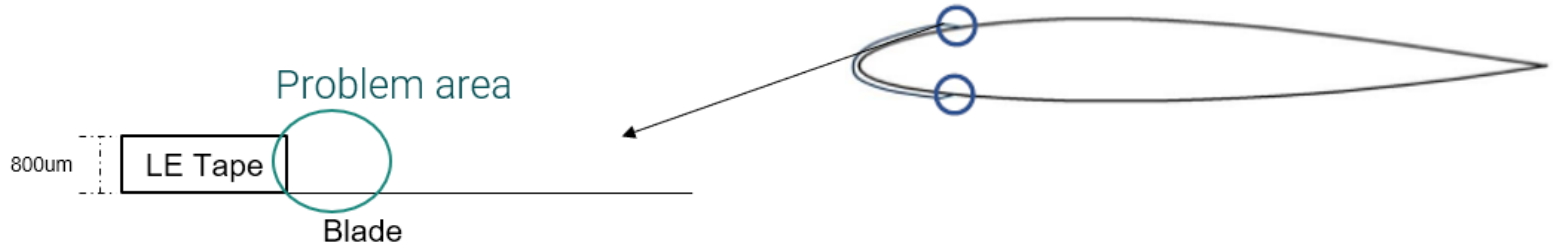
→more chance of cavitation during rain impact

→Use of LEP required for maintaining performance of the blade

AIRTuB WP5

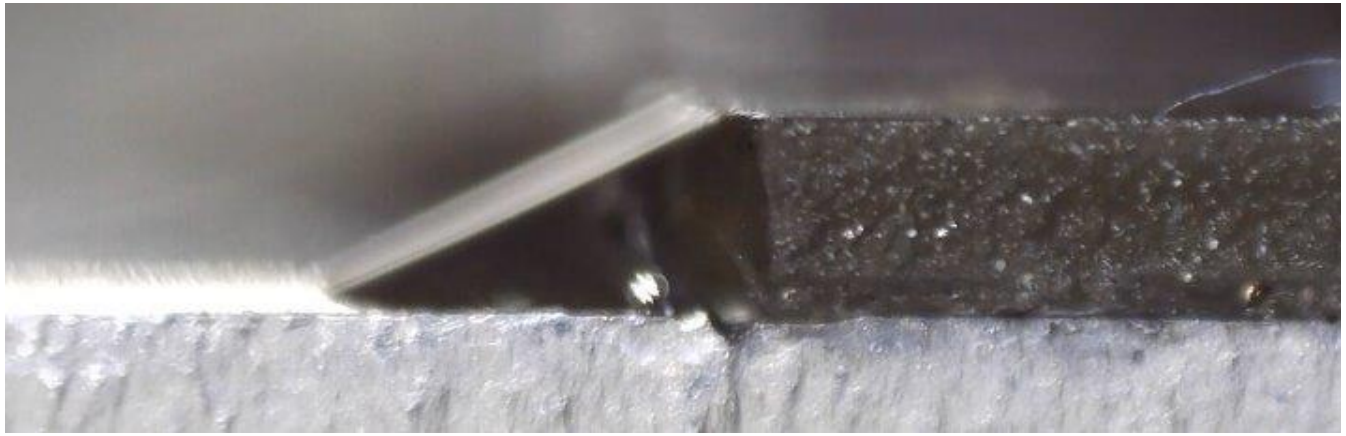
- LEP addition results in aerodynamic disturbance → reduces the initial the wind turbine performance→ maintains performance over longer time



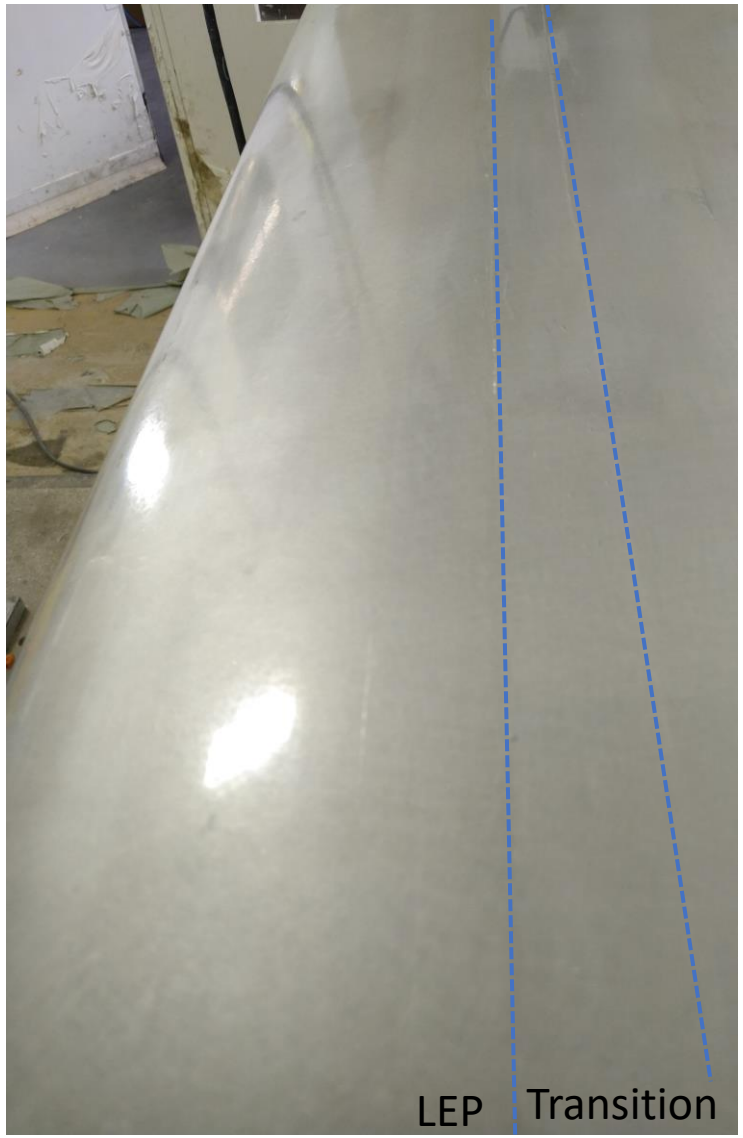


Goal: develop a coating application head that can apply an aerodynamic transition from the LEP to the blade

Results from different strategies



Finished wind tunnel



Airtub project

LM WIND POWER
a GE Renewable Energy business

Current status WP5

- Wind tunnel tests are being performed at LM wind power based on an optimized transition

Next step: Wind turbine maintenance

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Help us to apply the coatings of the future.

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