

RAVE Workshop 2023 – Opening remarks

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Gefördert durch:



aufgrund eines Beschlusses
des Deutschen Bundestages



Welcome!

... to the RAVE International Workshop 2023 –this year in hybrid setting...

- What is RAVE and alpha ventus?
- What measurements are available and how?
- How is the workshop today organized?

Offshore test field alpha ventus

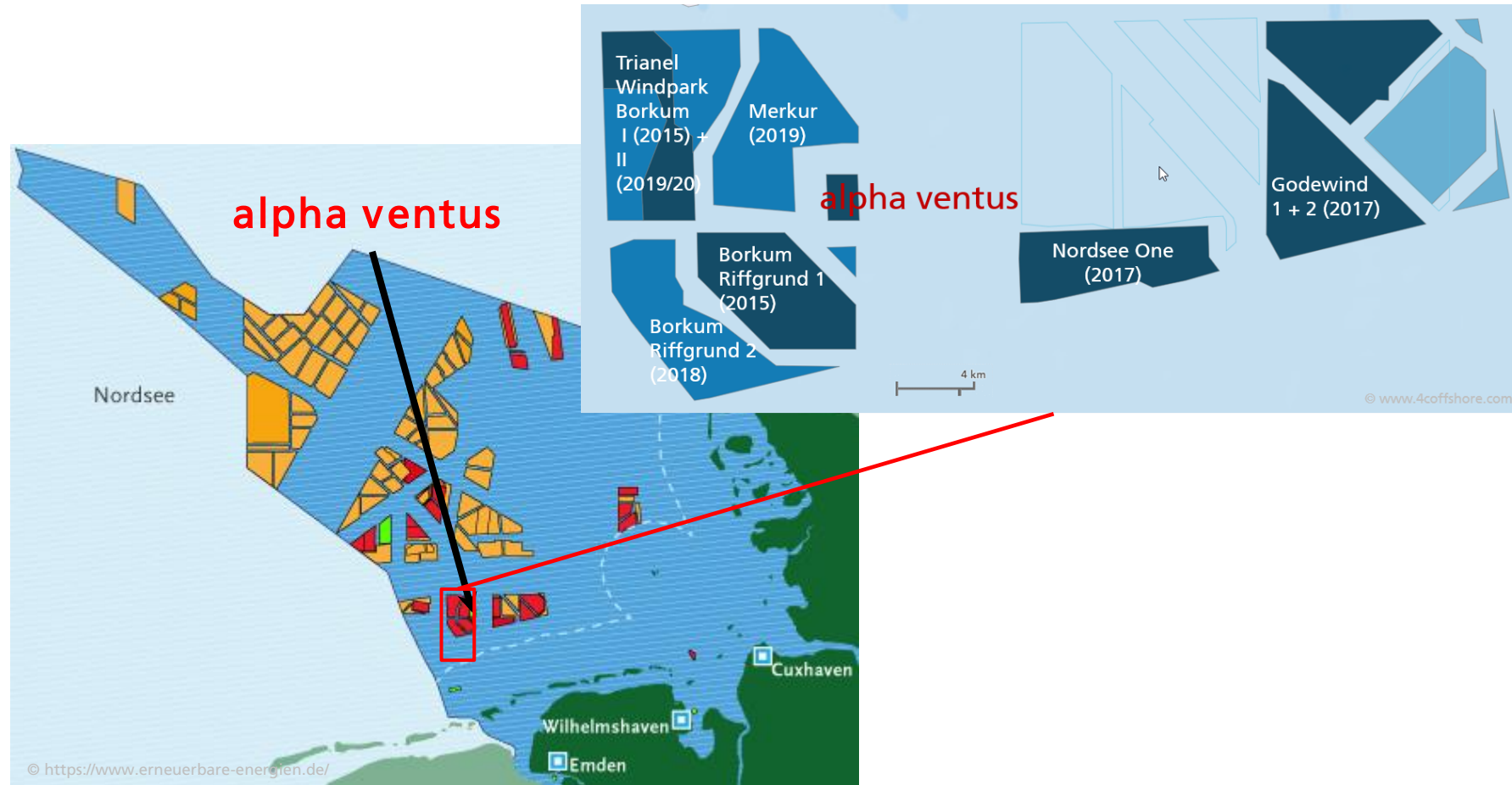
First German offshore wind farm – built 2009
Test field with support from the German government
60 km distance to coast, 30 m water depth
12 Wind energy converters

- 6 Adwen M5000 on tripod foundations
- 6 Senvion 5M on jacket foundations

CAPEX: 250 M€

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Offshore test field alpha ventus



RAVE – Research at alpha ventus

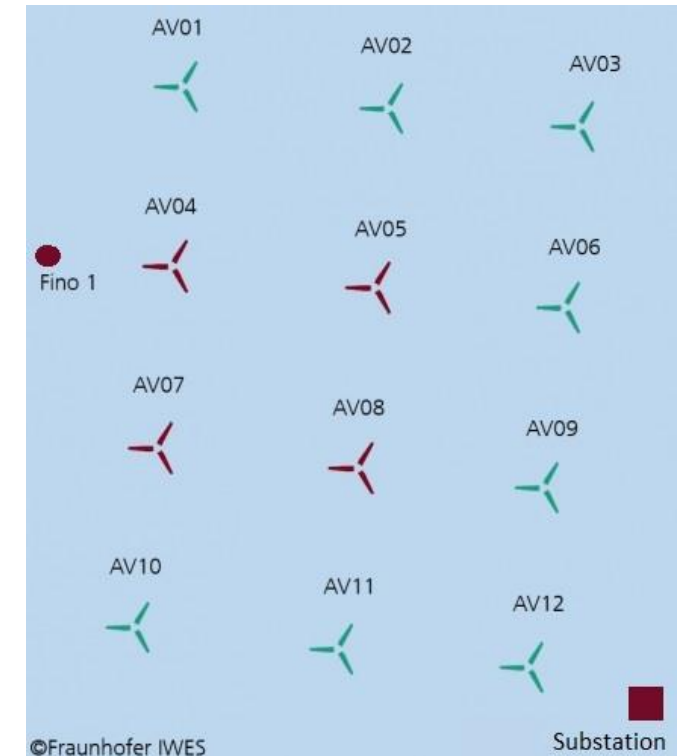
- Accompanying research at the alpha ventus test field
- Funded by the Federal Ministry for Economic Affairs and Climate Action (BMWK)
- Running since 2008
- > 35 R&D projects
- > 60 project partners
- > 120 million € research funding



RAVE measurement program

- 4 turbines instrumented
- 100m met mast FINO 1 in direct vicinity
- Oceanographic measurements at different locations
- Electrical measurements on offshore and onshore substations
- SCADA and turbine controller data
- Special measurements (noise, water pressure, Lidar,...)

Long-term time series of up to 12 years, up to 1400 data channels ... ongoing



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Example: AV07

- strain gauges
- acceleration
- acoustic sensors
- hydrographic sensors
- met data (sonic, lidar)
- sonars
- water pressure sensors
- SCADA
- corrosion
- 👁 video cam, radar

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Data access

- RAVE is funded by the German government with the aim of supporting the development of offshore wind energy through research
- Data is stored in the [RAVE data base](#) hosted by BSH
- Easy to use plot and download features, *CSV* or *NetCDF* formats supported
- Data is confidential but available for research with a standard data usage agreement
- For more information, see: www.rave-offshore.de
- Contact and Support: rave-forschungsarchiv@bsh.de

Aim of the workshop

- Presentation of results with RAVE data or relevant for RAVE
- Exchange between researchers working with RAVE data



Virtual participation - Workshop organisation

Questions and answers

- Please post your questions during or after each talk in the chat
- No oral interaction is possible

Discussion

- Please post your questions and comments during or after each talk in the chat

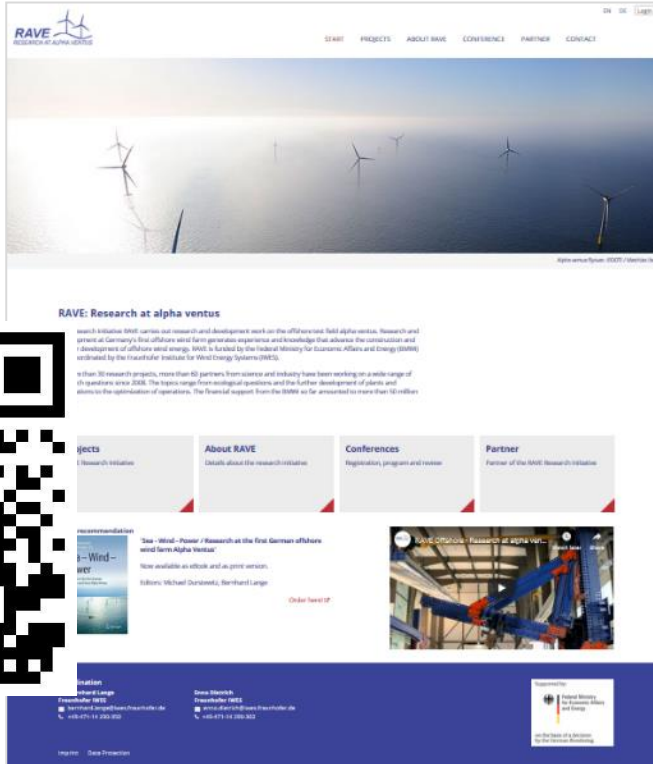
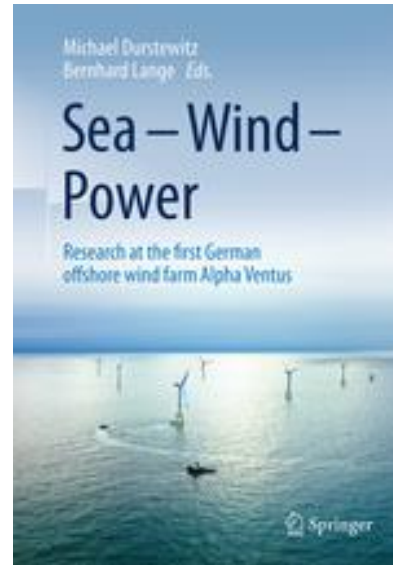
Slides will be available after the workshop published asap on the RAVE Homepage, but no video recordings

More information about RAVE...

RAVE Homepage:
www.rave-offshore.de

[RAVE video:](#)
DVD and youtube

RAVE book (Springer):
Sea – Wind - Power



Offshore wind R&D conferences 2012, 2015 and 2018 and workshops 2020, 2021, 2022 and 2023

Thank you...

...to the BMWK for the funding of RAVE:

Supported by:



on the basis of a decision
by the German Bundestag

... and to you for your attention!

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