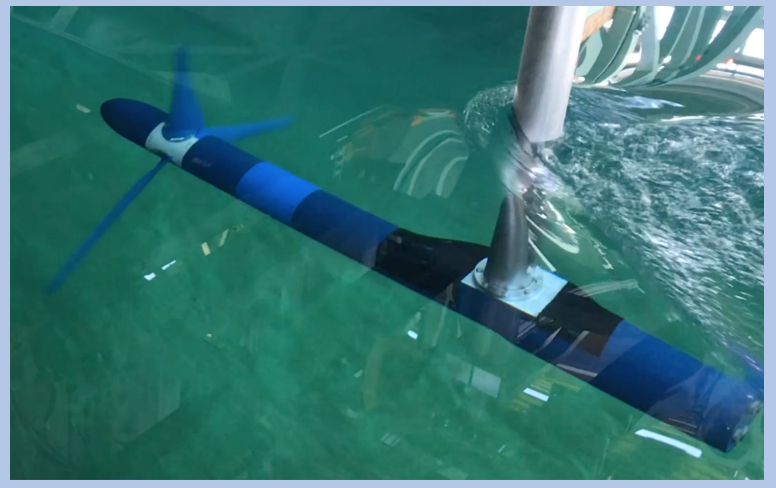
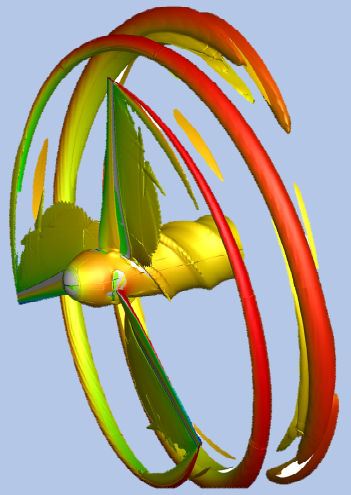
Tidal Benchmarking Project: Workshop I – Modelling Kick Off

Project Overview

- Community engagement project to **benchmark and improve engineering models for tidal turbines in highly complex flow environments.**
- **April 2022 experimental campaign** – Conducted detailed experiments of a highly instrumented 1.6m diameter rotor, with in-blade measurements, in characterised turbulence and wave conditions.
- Blind prediction exercises of specified cases and workshops followed by staged release of experimental data sets.
- Participation expected with a range of methodologies including **BEM**, **Actuator Line**, **lifting line** and **blade resolved CFD** methods.





Workshop

- The workshop will release the **geometry data and the test conditions** and provide instructions on how to participate including the **data deliverables** for participation in the blind prediction exercises.
- **30th June 11:00 – 13:00**
- Please email richard.willden@eng.ox.ac.uk to book and receive a meeting invite. Early indication of attendance would be appreciated
- Further details can be found at https://supergen-ore.net/projects/tidal-turbine-benchmarking

Supergen Offshore Renewable Energy | University of Oxford | University of Hull | The University of Manchester | University of Bath | UKRI Engineering and Physical Sciences Research Council

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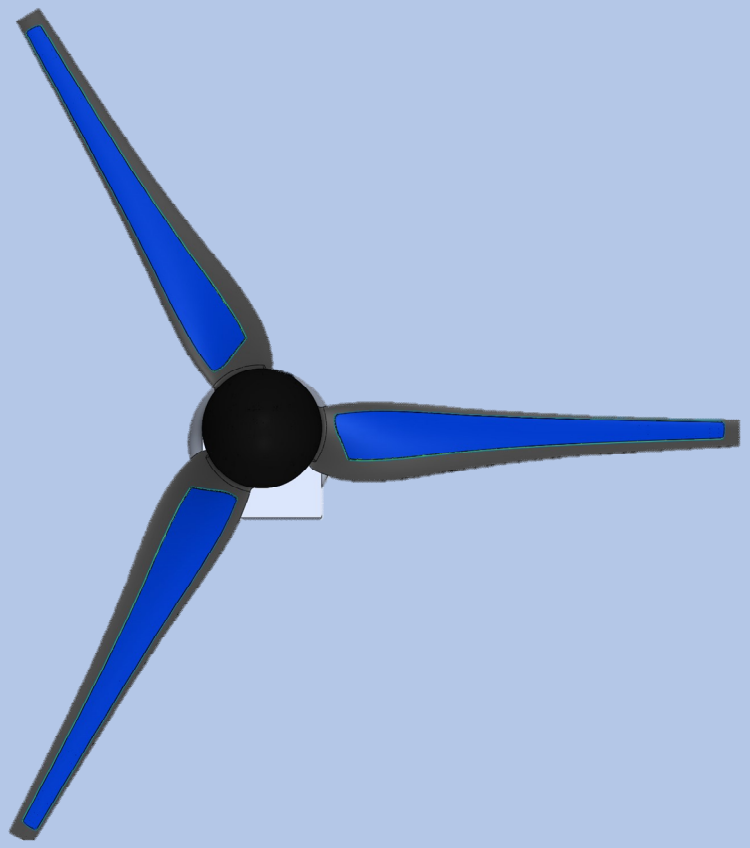
Agenda

1. Introduction and overview of tidal benchmarking project
2. Turbine hydrodynamic design
3. Turbine mechanical design and instrumentation
4. Description of experiments and test conditions
5. Overview of geometry data, benchmarking cases and advice for modellers
6. How to participate
7. Questions and open discussion



Supergen Offshore Renewable Energy
University of Oxford
University of Hull
Manchester 1824 The University of Manchester
University of Bath
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