Strategic Opportunity Fund – Tidal Turbine Benchmarking project

- Community engagement project to improve engineering models for turbines in highly complex flow environments.
- Conducting detailed high quality experiments of a highly instrumented rotor.
- Towed through a 270m water tank in turbulence and wave conditions.
- Blind prediction exercises and workshops followed by staged release of data sets.

![Diagram of turbine and instrumentation](image)

- FBG electronics
- Hub with Integrated Root Bending Sensors
- Strain Gauge Amplifiers
- Slip Ring
- Shaft Coupler
- Torque / Thrust Transducer
- Rotary Encoder
- Motor

Strain gauges Fibre Bragg gratings

0.225 r/R 0.3 r/R 0.6 r/R 0.8 r/R 0.9 r/R