Barnacle probe: low-cost, robust turbulence data

Measure pressure difference between slanted faces and centre

75 mm head diameter

Power Spectral Density

-5/3 decay

Vector reaches noise floor

Vector (ADV)

Barnacle Probe

Agreement at low frequency

Barnacle captures high frequencies
Next steps: demonstration and production

Feb-June: Follow-on project (University of Bath Impact Acceleration)
- Design for production device
- Demonstration at different facilities including yours?

NERC-GW4+ project with BAS and NOC (applications being assessed):
- Autonomous underwater probe for ocean turbulence measurements to understand climate change.

A1: measurement techniques for forecasting and characterisation
A2: improved modelling for resource/load assessment