Developing and testing models of fish behaviour around tidal turbines

Knowledge Gap

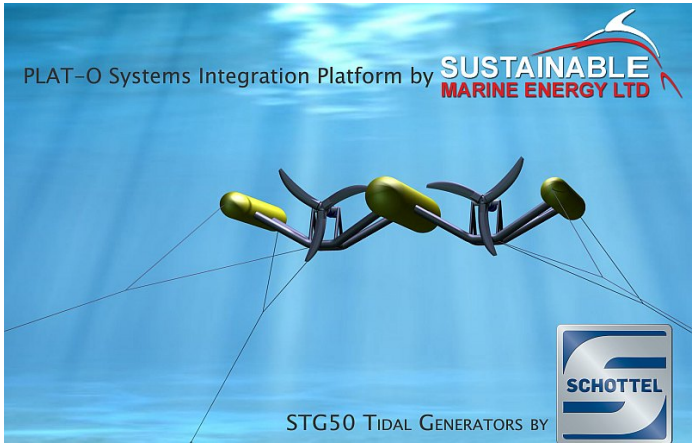
Impact of noise on marine environment from MRE

Sustainable Marine Energy (SME) & Plat-O

Noise emission level and kind from tidal device

HR Wallingford HAMMER model for noise propagation and fish behaviour

Exeter University aquarium facilities for fish experiments



Aims of MREKE

1) Use HAMMER to inform SME on noise emission & fish dose-response

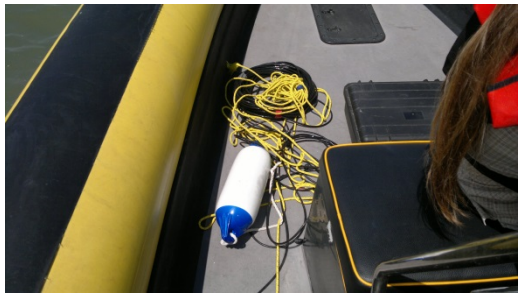
2) Develop HAMMER with behavioural data – Exeter University

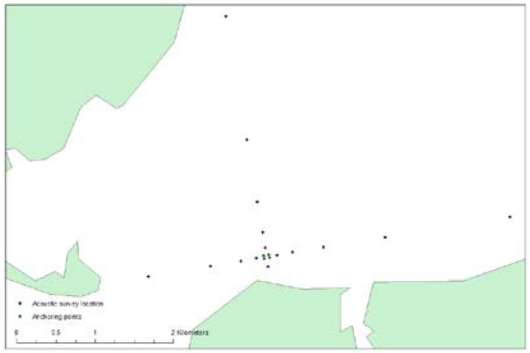
3) Review modelling techniques – Natural England

Work during Internship

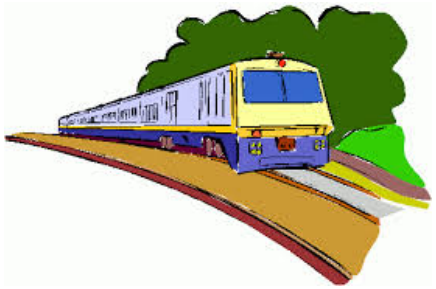
Acoustic survey of background noise

Acoustic emission of installation phase





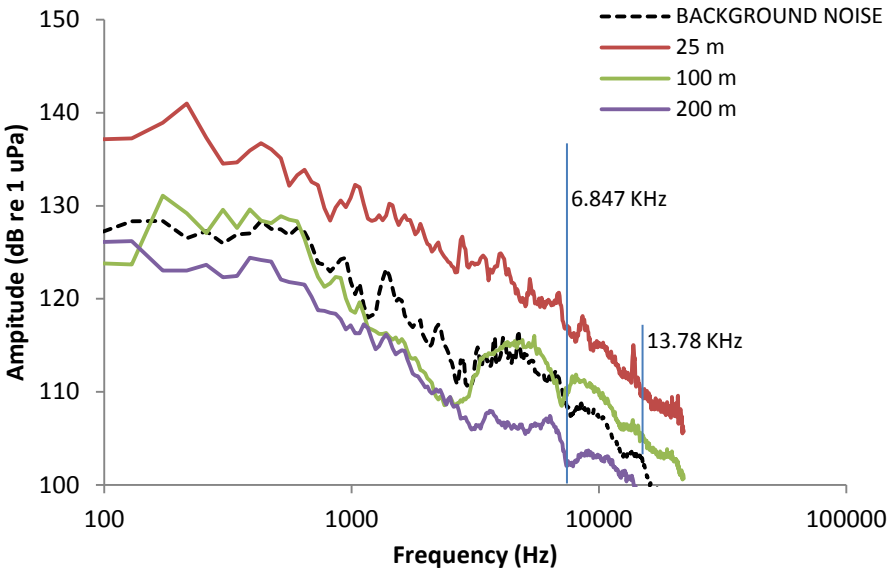
Trained on HAMMER & modelling technique

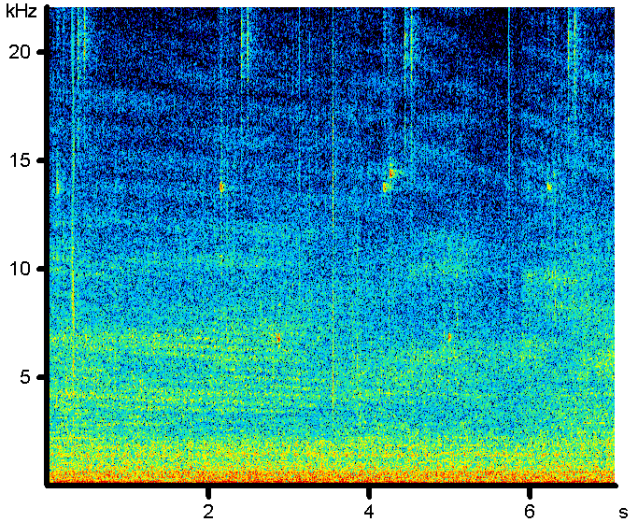


Relationship

building

Preliminary results





Benefits MREKE

SME – Outputs on noise emission for EIA

HRW – Improve HAMMER model

Exeter University – Behavioural studies

Me – Six months research

- Insight of MRE Industry & ecological consultancies
- Networking
- Publication

Present & Future

Setting-up fish experiments

Recording operational noise from tidal turbine
(SME Phase 2 and 3)

Expose fish to operational noise

Considering a KTP

Acknowledgments

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