

Underwater Noise Services

ITPenergised is a trusted advisor providing client-focused, reliable, commercially minded, environmental and energy consulting services.

We offer a full suite of underwater acoustic services, including baseline studies, numerical modelling, detailed impact assessments, monitoring and mitigation implementation.

We are an internationally based team of qualified environmental monitors who help our clients interpret underwater noise requirements and develop realistic mitigation, monitoring, and reporting methods to address the concerns of regulators and communities.

Practical Expertise

We offer a unique skill set that has been acquired by our team with over 30 years in underwater acoustics and signal processing:

- Expertise in deployment of acoustic instrumentation in challenging environments (deep-water, high current, cold water, coral reef, full or partial ice cover) and recovery
- Signal processing of acoustical and oceanographic data

- Propagation modelling of underwater noise and comprehensive environmental impact assessments
- In-house algorithms that can be customised for cetacean localisation and vessel or source noise analysis
- Passive Acoustic Monitoring (PAM) operator training (software and hardware)

Team Capabilities

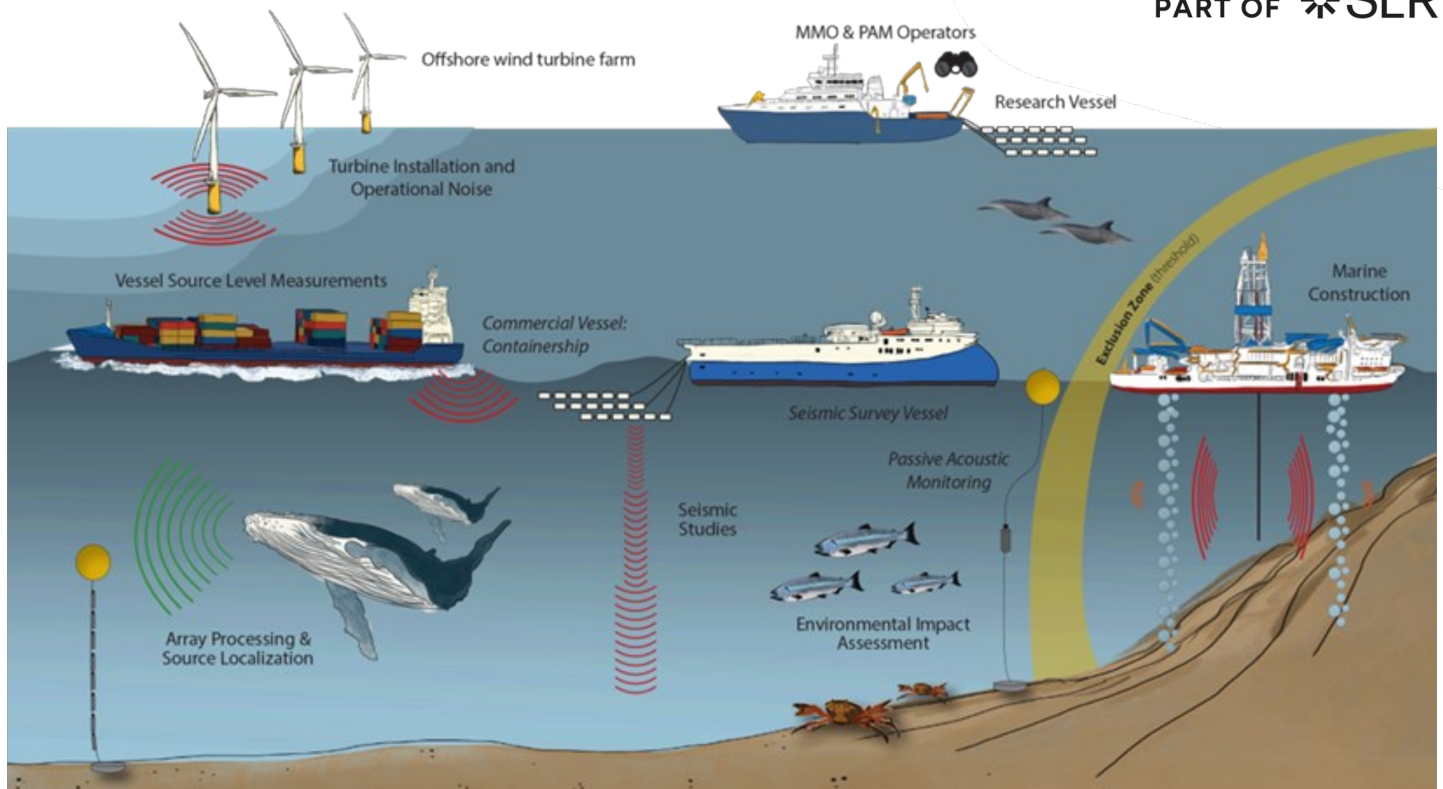
We have a team of qualified environmental monitors who all have the required project-tailored training as marine mammal observers (MMOs) and PAM operators.

We use a range of smart hydrophones suitable for sensitive monitoring of marine mammals and measurement of anthropogenic noise sources such as commercial vessels, seismic exploration, and marine construction.

Environmental sensors such as thermistors, depth sensors, and CTDs allow us to adaptively collect meta-data and fulfil project needs.

We implement a range of algorithms to model noise levels in three-dimensions at any location within the project area, incorporating in-house MATLAB scripts and the use of open and commercial software including dBSea, Gundalf and PAMGuard.





Additional Marine Science Services Provided

- Environmental and Regulatory Advice
- Environmental and Social Impact Assessments
- Ecological Risk Assessments
- Oceanographic Monitoring
- Underwater Noise Modelling and Monitoring
- Baseline Marine Ecological Data Collection
- Benthic Habitat Surveys and Mapping
- Water and Sediment Quality Monitoring
- Environmental Management Plans
- Offshore Environmental Plans (EPs)
- Oil Spill Response Planning
- Marine Fauna Surveys
- Dredging and Dredged Material Management Plans
- Approval / Consent Facilitation
- Stakeholder engagement

Our Industries

- Oil and Gas (exploration, production and decommissioning)
- Ports and Harbours
- Fisheries and Aquaculture
- Government (policy and regulatory)
- Renewable Energy (offshore wind)
- Pipeline and seabed cable operators

Key Contacts

Alasdair Baxter
alsadair.baxter@itpenergised.com

Simon Waddell
simon.waddell@itpenergised.com

