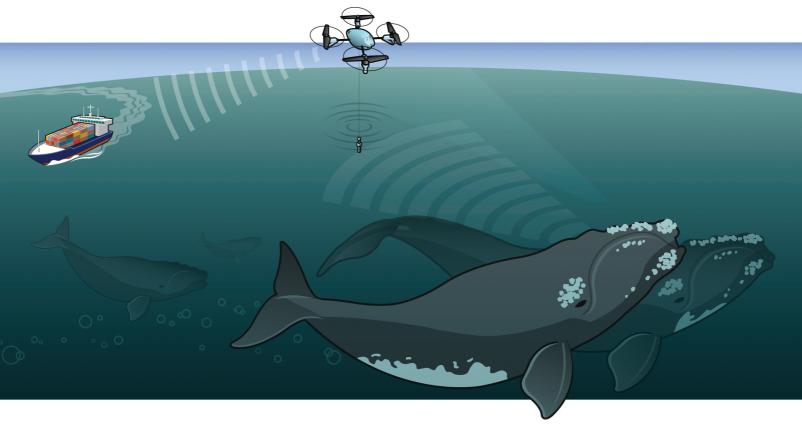
Whale Localization & Avoidance

Spiri





SENSE





HARDWARE

- Spiri Mu
- Hydrophone Pack
- Spiri Server

OVERVIEW

Large vessels pose a significant mortality risk to whales, many species of which are already under threat. Current prevention methods, including 24/7 on deck lookouts, do not provide adequate warning to prevent deadly collisions.

Our solution is to approach the issue systematically, by detecting whale groups and their probable future course before ships are in their vicinity, and to warn vessels well in advance of a risk of collision.

LOCALIZATION

A distributed team of Spiri Mu, equipped with hydrophone packs and on-board intelligence, are deployed from shore and from vessels to listen for whale vocalizations. These are conveyed to Spiri servers for analysis to triangulate the whales.

PREDICTION

Through simulation, inference based on historical records and behaviour models, and supervised machine learning, we develop and apply predictive models to make an informed guess as to where the whales are likely to travel.

AVOIDANCE

This prediction is used to inform the relevant authorities and vessel operators and to provide them with lower risk alternatives to their planned course, decreasing the probability of a collision.







