

# DriX operates 100 nautical miles from the shore to assess biomass.

DriX was used in a 20-day Over the Horizon campaign to perform a fish stock assessment survey and study the impact of acoustic devices on dolphins.

## CHALLENGE

DriX OTH operation far from shore in autonomy during several days, and handling rough weather.

## SOLUTION

DriX equipped with Simrad ES Single beam echosounders, communication Over The Horizon via Starlink.

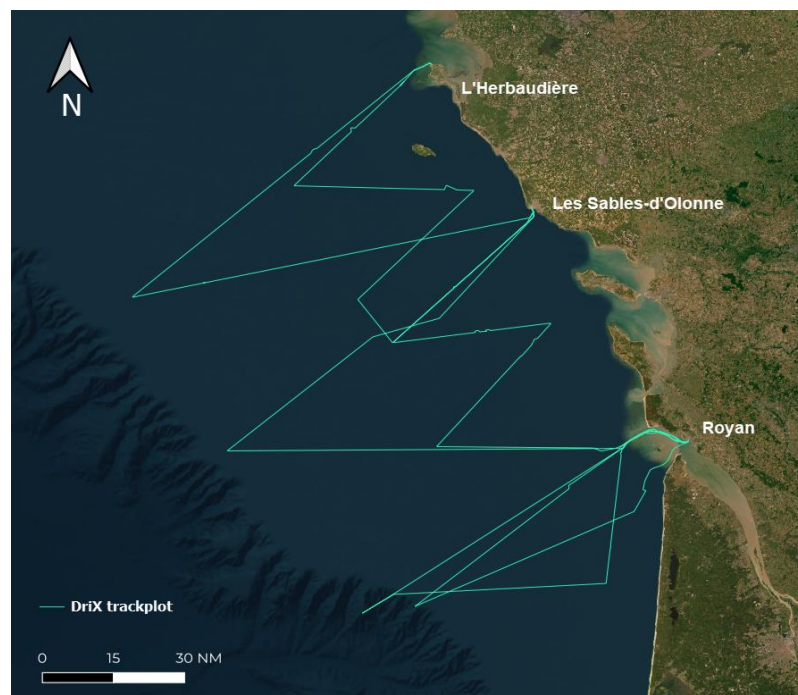
## RESULTS

Complete survey operations conducted from shore

## PARTNERS



In February 2023, DriX was equipped with multiple sensors to conduct a biomass assessment survey in the Bay of Biscay off the coasts of France. The operation was entirely remotely supervised from Exail's Remote Control Center in La Ciotat, 700 km away, using high bandwidth satellite communication Starlink.



▲ Transects performed by DriX for the operation.

During the month of February, a challenging time for navigating the Bay of Biscay, DriX surveyed an extensive area, collecting scientific data crucial for biomass assessment. DriX was equipped with multiple Simrad EK80 single-beam echosounders, hydrophones, and pingers to gather various types of acoustic data.

The transects and data acquisition were conducted during the day in conditions up to sea state 4, covering distances up to 85 nautical miles from the coast. At night, DriX navigated stand-by lines until sunrise, when the survey would resume. In total, 1,550 nautical miles were covered over seven days.

## CASE STUDY

Another objective of this campaign, in addition to fish stock assessment, was to study the impact of acoustic devices on marine mammals, specifically dolphins. Special attention was given to dolphin appearances around DriX, which were easily monitored using video streams and camera screenshots enabled by the high bandwidth provided by the Starlink system.



▲ One of the many dolphins that accompanied DriX during the operation.

The acquisition of DriX data was performed from several places in France, where scientists could connect remotely, modify parameters and visualize real-time data being collected.