

# DriX crosses the Mediterranean Sea to Corsica to study the mystery of the coral rings.

DriX was deployed to explore a mysterious area north of Corsica (Cap Corse), aiming to uncover features initially observed by the Andromede company's diving expedition.

## CHALLENGE

Transit from Marseille to Corsica fully remotely operated from shore

## SOLUTION

DriX equipped with Exail Phins C7, Kongsberg 2040C Multibeam echosounder, and Exail Echoes 3500 Sub-bottom profiler.

## RESULTS

Highly detailed bathymetric map, with high resolution substructure

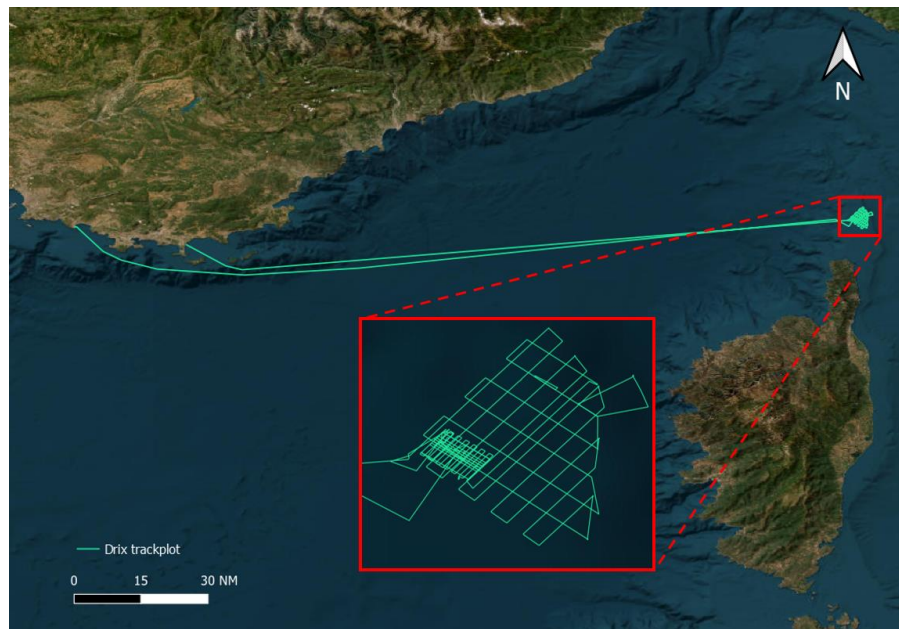
## PARTNERS



## DriX leaves from continent to perform Over the Horizon geophysical survey in Corsica

In the north of Corsica, approximately 120 meters deep around seamounts, hundreds of ring-shaped features can be found. A team of marine scientists has been studying these features for a few years and is trying to understand exactly what they are and what led to their formation.

To further understand these features, DriX departed from La Ciotat, France, in March 2023 to perform a geophysical survey using a Kongsberg EM2040C multibeam echosounder and Exail's Echoes 3500 sub-bottom profiler.



▲ DriX track with transit from continent to site and survey lines

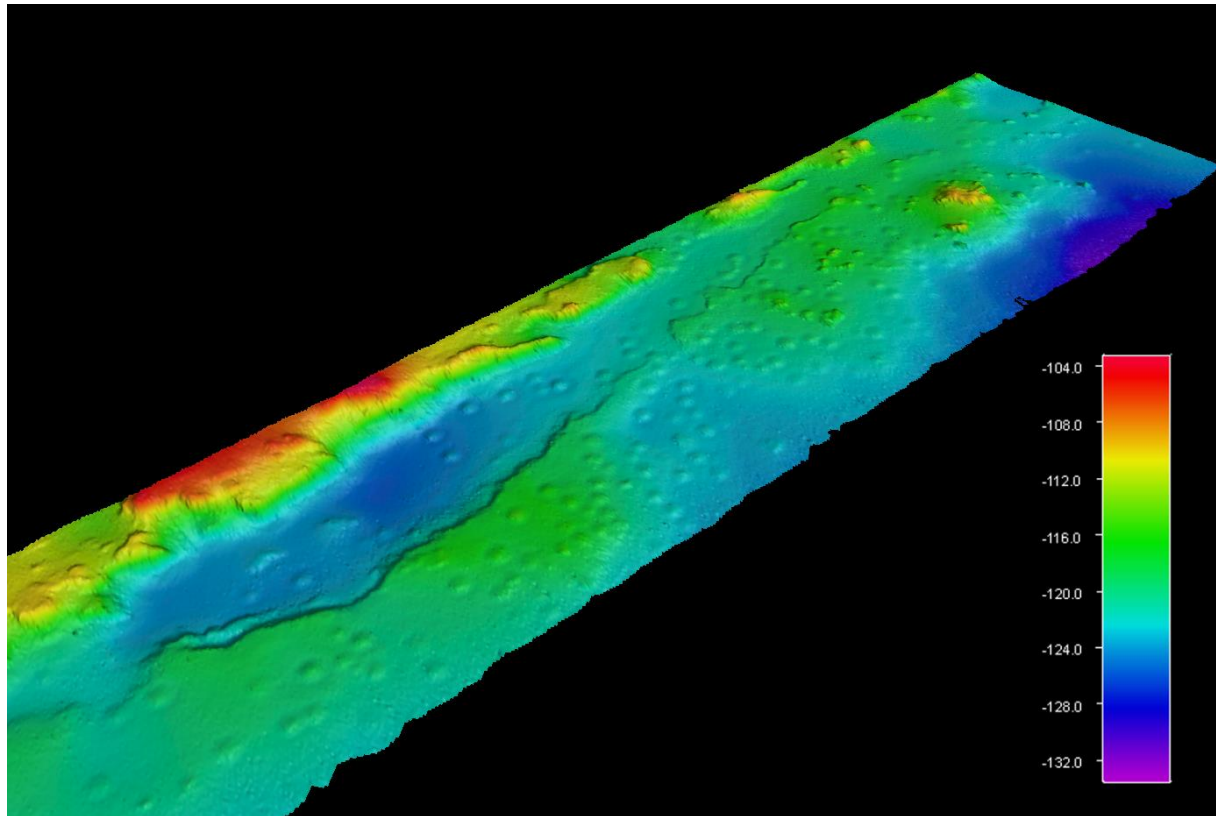
DriX crossed the 175 nautical miles from La Ciotat to the survey site at an average speed of 10 knots, under remote supervision from Exail's office using the Starlink system. The high-bandwidth capabilities of this system, combined with the optimized DriX HMI, enabled the remote supervisor to

## CASE STUDY

monitor the surroundings at all times using live camera streams and the radar display. In total, for this operation, DriX sailed 440 nautical miles over three days round-trip without refueling in Corsica.

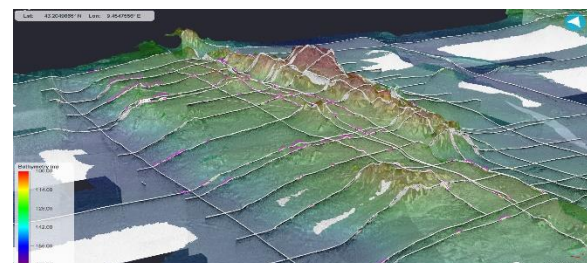
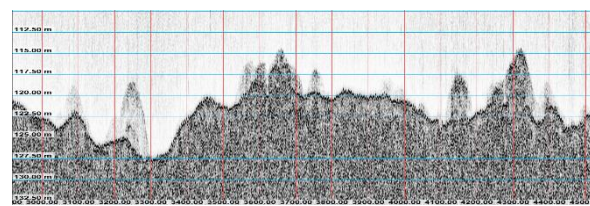
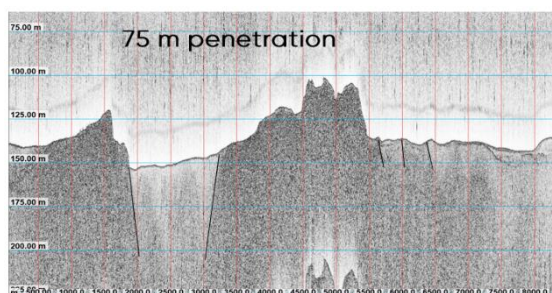
### Bathymetric and Seismic data to understand seabed features

A high-resolution bathymetric survey was performed on site to better understand the repartition of the coral rings' features around the mounts.



▲ Kongsberg EM2040C 2 meters bathymetric grid showing dozens of ring-shaped features

Besides, to study the possible geological origin of such features, high-resolution seismic data was acquired.



Situated atop the most elevated geological structures visible on the seismic profile (horsts), the Echoes 3500 delivered high-resolution seismic data showing no underlying origin of the coral rings (top left). A zoomed-in view of the coral rings (top right) highlights slight acoustic retrodiffusion on top of the coral dome, which is currently under further investigation using water column multibeam echosounding with the Exail SeapiX 3D multibeam echosounder.

A geophysical data fusion using the Exail Delph Geo roadmap allows for precise location determination and analysis of the geomorphological-related origins in the context of past sea level changes.