

Special EU Programmes Body

Project Case Study

Programme:
INTERREG IVA

Theme:
2.2 Environment

Funding:
€3,961,978

Lead Partner:
**Maritime and Coastguard
Agency**

Website:
www.inis-hydro.eu

Project contact:
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Geographical area:
**Dundalk Bay, Mourne
Coast, Carlingford Lough,
Dundrum Bay, the Firth of
Lorn and the Kintyre
Renewables Area.**

INIS Hydro - Mapping the Seabed

Have you ever wondered how the data for the navigational charts of the seabed is obtained? Mapping the land is a difficult and cumbersome task, but what about mapping the seabed, when everything is concealed under water? High-quality bathymetric information is essential for producing accurate navigational charts and for the effective management and conservation of the marine environment. Despite recent technological advances, some 'current' nautical charts still include data from the mid-19th century when depth was measured by lowering lead lines to the seabed at wide intervals.

The INIS Hydro project, led by the UK's Maritime and Coastguard Agency, has received £3.2 million to produce a standardised hydrographic survey specification and accurate high-resolution bathymetric datasets, for seven important seabed areas to the east of Ireland/Northern Ireland and off

the west coast of Scotland. A total of 1400 km² will be surveyed by the research vessels fitted with multi-beam sonar technology.

Multi-beam sonar is a technology used by hydrographic surveyors to determine the depth of water and the nature of the seabed. It can be mounted onto the hull of survey vessels and works by sending broad acoustic pulses to the seabed which 'bounce back' - the travel time and angle of the return beams provide information about the depth and type of the seabed.

The INIS Hydro project brings together seven partners from the Republic of Ireland and the United Kingdom to generate high-resolution bathymetric charts of 1400 km² of key coastal seabed areas. Using a fleet of coastal survey vessels and multibeam sonar technology, our scientists produce and apply a standardised specification and survey seven seabed areas that are currently poorly charted but important navigation channels, have high environmental significance or are candidate areas for marine renewables development. On completion of survey operations, the data will be made freely available.



The NLV POLE STAR, at the service of the Northern Lighthouse Board since 2000, is one of the ships taking part in the project.