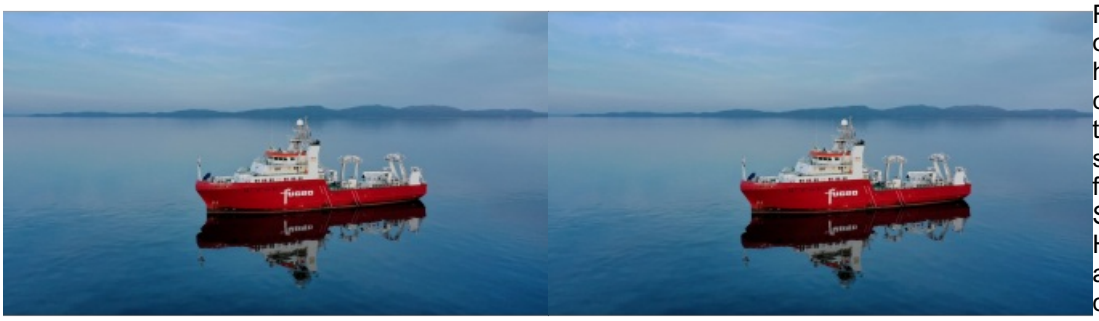
Cable Route Survey to Give Scottish Islanders Access to Faster Broadband



Fugro has completed the offshore fieldwork phase of a high-profile multidisciplinary contract for Global Marine that will help determine subsea routes for 16 new fibre-optic cables in the Scottish archipelago of the Hebrides and the Orkney and Shetland Islands. The diverse survey elements have acquired essential geospatial data by air and by sea that will support the Scottish government's Reaching 100% (R100) programme.

Delivered by Openreach on behalf of BT, the R100 programme is set to have a positive impact on the remote island communities and businesses, with 100% superfast broadband ultimately made available across the country.

Bathymetric Lidar Data Acquisition

Using their innovative RAMMS (Rapid Airborne Multibeam Mapping System) solution, Fugro completed airborne bathymetric data acquisition of the cable landing sites in nearshore areas considered too hazardous, even for small vessels. The resulting high-resolution Lidar data and imagery will be used to create a 3D model of the area to facilitate the cable route design and support mission planning. At sea, three specialist survey vessels from Fugro's fleet performed geophysical and geotechnical surveys of the nearshore and deepwater areas, including 31 landing sites across the remote island network. The project also comprises unidentified ordnance (UXO) hazard surveys, sub-bottom data collection and land-based sediment sampling. This unique combination of geodata acquisition systems and expertise will ensure fast delivery of accurate integrated survey results by mid-October.

Complex Underwater and Overhead Surveys

Clive Downing, R100 programme director, Scottish government, said: "Digital connectivity has proven to be vital throughout the pandemic and this is something that will make a huge difference to both residents and businesses as we continue to work, learn and access public services remotely. Global Marine and Fugro have successfully mapped out the subsea routes through complex underwater and overhead surveys and this work is the first step in connecting islanders to faster broadband as part of the Scottish government's R100 programme for the North Lot contract area."

Robert Thorburn, Openreach's partnership director for Scotland, said: "The subsea element of the R100 build is both complex and sensitive. That's why we're so pleased to be working with industry specialists Fugro and Global Marine, who are using innovation and technology – in the air, on land and at sea – to gather the in-depth knowledge we need to design the full fibre network to more islands."

Fugroâ€™s specialist survey vessels, including the Fugro Venturer (pictured), have performed geophysical and geotechnical surveys to help determine subsea routes for new fibre optic cables in the Hebrides, and Orkney and Shetland Islands.