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## **Mapping the seafloor of the UK, Europe and the North Atlantic Ocean: Sharing Information to Deliver New Marine Geological Products.**

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The UK's marine area is three times the landmass. The pressures on the use of our seas and the seafloor are complex and require detailed planning to ensure that the balance is maintained between its use in contributing to our energy, food and other resources, and the need to conserve areas that are important to maintaining healthy and biologically diverse seas. Mapping the seafloor around the UK is essential to inform the decisions that are taken about how to manage our marine activities.

Much of the UK's seafloor is still unmapped using high-resolution technologies and continues to be a major undertaking that involves many organisations. The UK's public sector organisations are working together to formalise the ways in which planning for marine surveys is co-ordinated to avoid duplication of effort, and to store, share and make use of the information that is available. The use of multibeam echosounder systems to map the sea floor by many research organisations has provided a source of information that is delivering a new generation of geological maps and science outputs. The UK Marine Environment Mapping Programme (MAREMAP) is an initiative that brings together organisations with a common interest in marine geoscience to achieve this aim.

In addition to working closely to align marine geological and habitat mapping programmes in the UK, the MAREMAP partners also participate in the European Marine Observation and Data Network (EMODnet), a programme funded by the European Commission to assemble marine data, products and metadata to make these fragmented resources more available to public and private users relying on quality-assured, standardised and harmonised marine data for all of Europe's seas, which are interoperable and free of restrictions on use. EMODnet is currently in its second development phase with the target to be fully deployed by 2020.

At the trans-Atlantic scale, the governments of Europe, the USA and Canada have signed the Galway Statement on Atlantic Ocean Co-operation, with the intention to increase our knowledge of the Atlantic Ocean and its dynamic system, including the co-ordination of seabed and habitat mapping activities.

