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Introducing INFOMAR, Irelands national seabed mapping programme

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Ireland's national seabed mapping programme, INTeGrated mapping FOr the sustainable development of Ireland's MARine resource (INFOMAR) [1], has completed the first ten year phase of its ambitious seabed mapping programme. Spanning some 125,000 km² of Ireland's most commercially valuable inshore waters, the programme continues to build on progress in marine mapping, made by its precursor programme the Irish National Seabed Survey (INSS) which mapped the deep-water extent of Ireland's designated continental shelf. To date INFOMAR has successfully mapped 26 bays and 3 priority shallow water areas using high resolution multibeam sonar. Now entering its second phase, and anticipated to run until 2026; the programme is set to consolidate expertise generated through its previous inceptions, while addressing the challenges posed by a continuously evolving technological and regulatory landscape throughout the next decade.

INFOMAR provides pivotal seabed mapping data, charts and geological maps that support the governments Integrated Marine Plan [2] for Irelands infrastructural, research and educational developments. Funded by the Irish Department of Communications, Energy and Natural Resources, INFOMAR is jointly coordinated by the Geological Survey of Ireland and Irelands Marine Institute. The success of the programme has gained Ireland a world class reputation for developing seabed mapping technologies, infrastructure and expertise.

Here we present the ongoing evolution of the INFOMAR programme and how we address the scientific and technological challenges associated with seabed mapping, referencing key developments and knowledge gains related to mapping efforts across a range of water depths and a multitude of platforms. In particular, we focus on knowledge gains associated with mapping inshore and shallow water mapping, which present significant challenges. We will describe how the data converts to bathymetric and geological maps detailing seabed characteristics, which are incorporated into

collaborative marine data aggregation projects such as EMODnet, commercialised to identify marine resources and used as marine decision support tools that drive policy and promote protection of the vastly under discovered marine area. Finally, we present an overview of the challenges presented by the next phase of the INFOMAR programme and discuss technological advances that will be harnessed to ensure the continued success of INFOMAR over the next ten years.

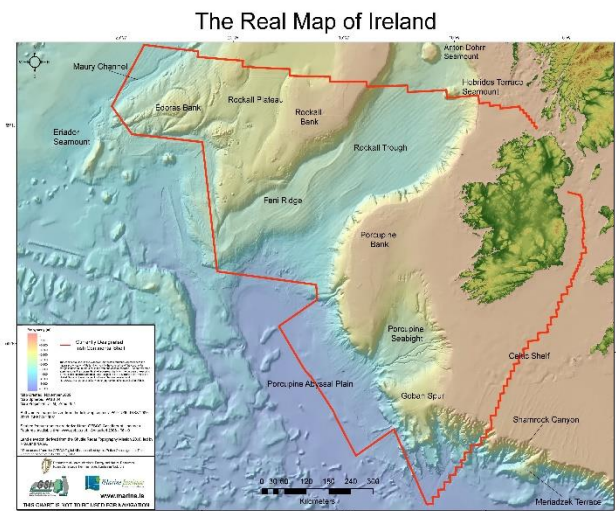


Figure 1: Irelands marine territory

References:

[1] INFOMAR data is freely available to view and download online via web viewers and an interactive web data delivery system (<http://www.infomar.ie>).

[2] Harnessing our Ocean Wealth, an Integrated Marine Plan for Ireland. July 2012.
<http://www.ouroceanwealth.ie/publications>

