

### The MAREANO Programme

**Background:** MAREANO is a multidisciplinary marine mapping and documentation programme aiming at providing the foundation for ecosystem based sustainable management of the Norwegian coastal and sea areas. The primary focus has been The Management plan for the Barents Sea. In 2012 MAREANO will also start mapping areas covered by the management plan for the Norwegian Sea (see figure 7 below). The aim is to bridge the knowledge gap in poorly mapped but very sensitive areas. High quality multibeam bathymetry is regarded as a premise for further geological and biological investigations. The NHS is responsible for bathymetric data acquisition (including backscatter and water column data), and effective data management and distribution of survey data, derived products and services. An important facet of the programme is the web-based geodata distribution, and distributed data management as part of a National Spatial Geodata Infrastructure (NSDI)

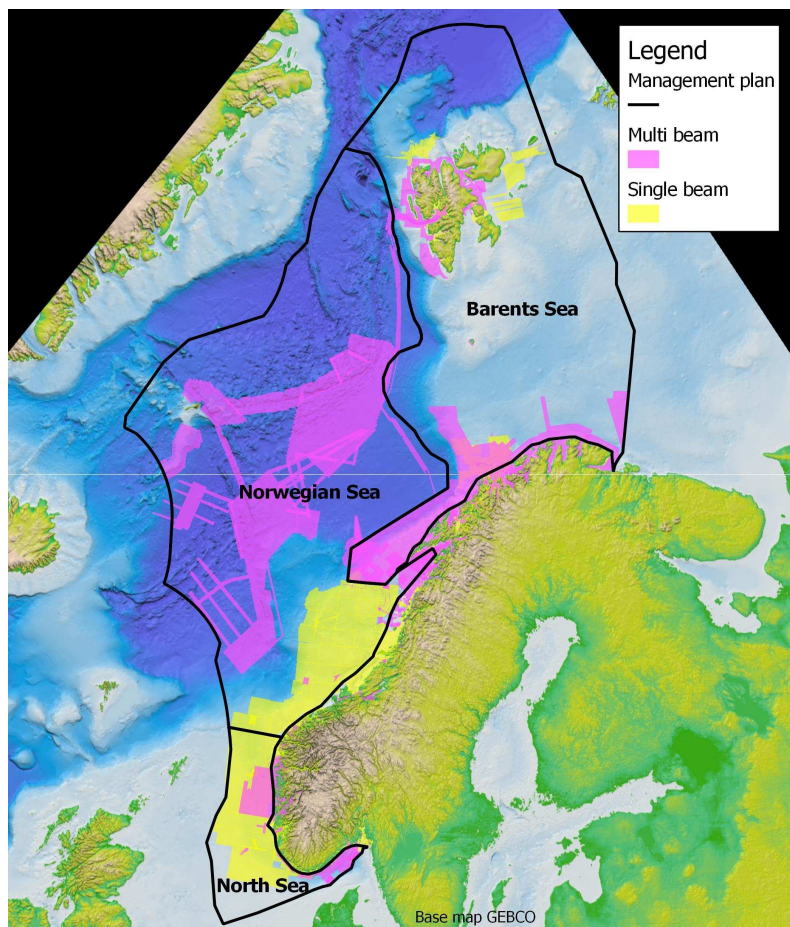


Figure 1. The Management plan areas and coverage of multi beam and single beam echo sounder data.

**Organization:** The Norwegian Hydrographic Service is a programme partner with the Institute of Marine Research (IMR, programme management) and the Geological Survey of Norway (NGU).

**Results 2011:** The MAREANO program received NOK 96.4 mill in total through earmarked funding. NHS received NOK 51.6 mill. 23 640 km<sup>2</sup> was surveyed in 2011 and 2 519 km<sup>2</sup> was received from University of Tromsø (measured in 2010). See overview of surveyed areas in figure 8 below.

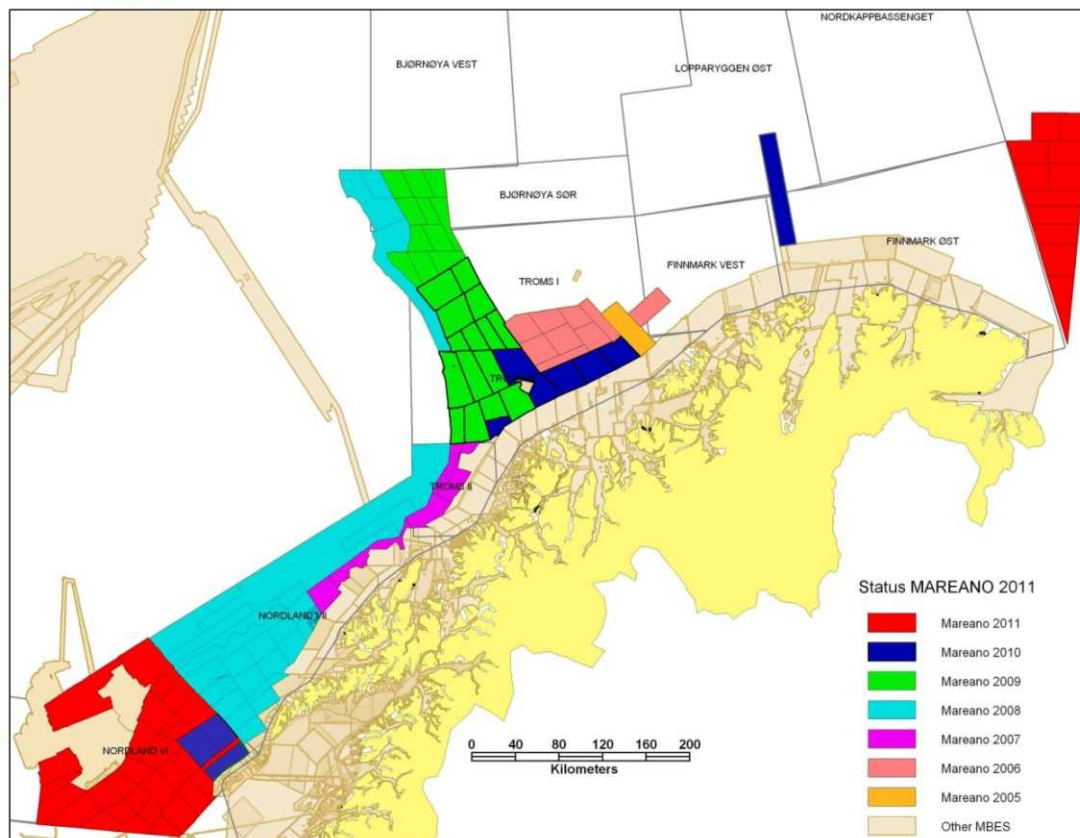


Figure 2. An overview of the surveyed area each year for the period 2005 - 2011

**Data distribution:** All our multibeam data north of Lofoten has been modeled in grids of various resolutions, and visualized through shaded relief maps as a Web Map Service included in the map services on the MAREANO webpage. Further overview bathymetry map services have been produced, also showing the coverage of all surveys in the NHS data management system. Further information and results is available on [www.mareno.no](http://www.mareno.no). This website is a portal for knowledge dissemination mainly through effective map services and documentation aimed at both government decision-makers and the general public. The web service is a joint effort among the program partners, but the project is managed by the Institute of Marine Research.

**NSDI:** According to the MAREANO data policy all geodata from the MAREANO programme will be published in the Norwegian spatial data infrastructure; *Norge Digitalt*.

MAREANO will be a major undertaking for the NHS in the years to come, and is mainly aimed at non-navigational purposes.

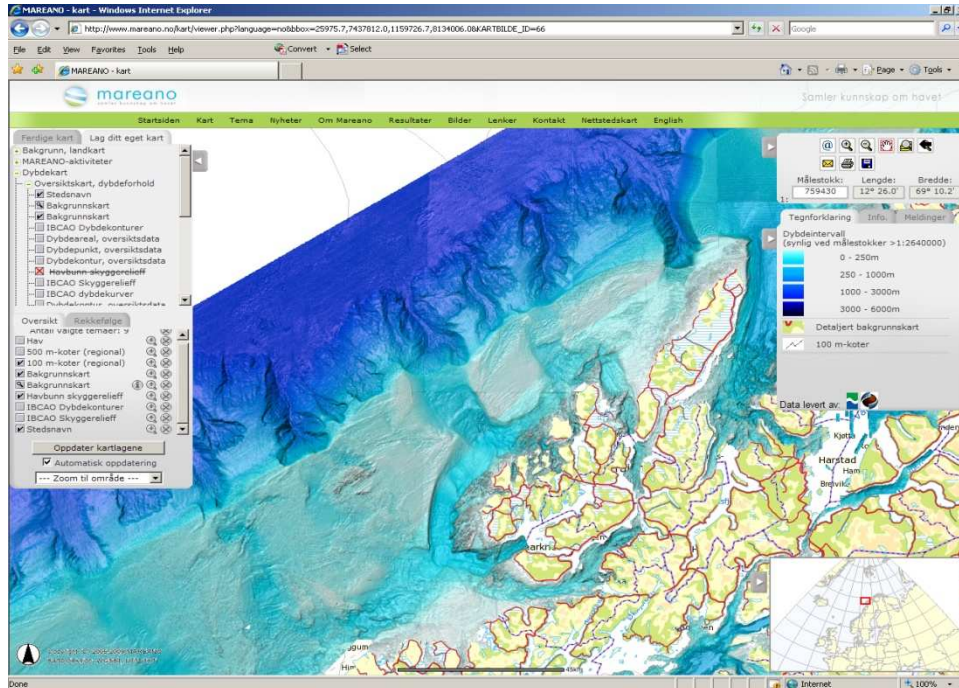


Figure 3. An example from the WMS shadow relief map service showing spectacular submarine canyons and slide scars on the edge of the most narrow part of the Norwegian shelf north of Lofoten and west of Andøya (screendump from map service on [www.mareano.no](http://www.mareano.no) )

**Actions required from the NSHC 30th Conference:**  
The Conference is invited to take note of the information