

**APPLICATION FOR THE CONSENT TO CONDUCT MARINE SCIENTIFIC
RESEARCH IN AREAS UNDER NATIONAL JURISDICTION OF THE UNITED
KINGDOM**

Date:

1. General information

1.1 Cruise name and/or number: CV06_MESH

1.2 Sponsoring institution:

Name: Marine Institute

Address: Rinvilla
Oranmore
Co. Galway
Ireland

Name of Chief Executive: Dr. Peter Heffernan

1.3 Scientist in charge of the project:

Name: Thomas Furey

Address: Marine Institute, Renville, Oranmore, Co. Galway, Ireland

Telephone: +353 91 387200

Telefax: +353 (0)91 387201

1.4 Scientist(s) from UNITED KINGDOM involved in the planning of the project

Name(s): Dr Dave Long

Address: British Geological Survey
Geophysics and Marine Geoscience
Murchison House,
West Mains Road
Edinburgh
EH9 3LA
UK
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1.5 Submitting officer:

Name and address: Caitriona Nic Aonghusa
Galway Technology Park
Parkmore
Galway

Country: Ireland

Telephone: 00 353 91 730400

Telefax: 00 353 91 730465

2. Description of project (Attach additional pages as necessary)

2.1 Nature of objectives of the project:

The survey is to form part of the field component to the MESH scientific research project, Mapping European Seabed Habitats, funded under INTERREGI IIIB. DARD Northern Ireland, British Geological Survey, British Geological Survey of Northern Ireland, and JNCC along with the Irish Marine Institute are some of the project partners. The objective of the survey is to gather further data in jointly selected sites, to contribute to the development and testing of protocols, and the mapping of seabed habitats in NW Europe.

The survey sites include:

- The Southern Sites (Pices Reef, Nephrops Burrows, Reef & Slope), which are all Northern Irish sites and only require multibeam and pinger data.
- The northern sites include: North Islay, Gyre Sands, Iceberg scour marks, Outer Shelf High¹, Stanton Banks 4 and South West Barra.

Please see attached document for survey plan.

Please see the project website for full project details: <http://www.searchmesh.net/>

2.2 Relevant previous or future research cruises:

The Marine Institutes R.V. Celtic Voyager surveyed some of the sites in 2005 acquiring Multibeam echo sounder and geophysical survey data. DARD Northern Ireland have carried out underwater video and sediment sampling surveys to contribute to the core scientific database upon which the research is focused.

2.3 Previously published research data relating to the project:

BGS hold a variety of archive seismic and sample data which is being reviewed and incorporated.

Data acquired directly under the MESH project is still being processed and compiled for future publication.

3. Methods and means to be used

3.1 Particulars of vessel

Name: R.V. Celtic Voyager

Nationality: Irish

Owner: Marine Institute

Overall length: 31.4 m
Maximum draught: 3.8 m
Net tonnage: 340
Propulsion: Wartsilla UD25m5 (626Kw)
Cruising speed: 9.5 Knots
Call sign: EIQN
Method and capability of communication –
 Standard GMDSS equipment weather fax NAV tex and mini/m
 Phone number: GSM fax= 0876519288
 Bridge phone 0872044837

Name of master: Denis Rowan/Fergus O'Hehir
Number of crew: 7
Number of scientists on board: 6

3.2 Aircraft or other craft to be used in the project: N/A

3.3 Particulars of methods and scientific instruments

Types of samples and data	Methods to be used	Instruments to be used
Sediment samples	Grain size analysis	Shipek grab
Biological samples	Laboratory analysis	Grabs / microscopes
Seabed imagery	Towed underwater video camera	Underwater camera
Bathymetry / Backscatter data	Survey sites with multibeam and single beam echosounders	EM1002 / EA400
Geophysical data	Sub bottom profiler and sidescan sonar survey	Coda DA200
Ground discrimination systems	Processing of single beam echosounder data	EchoPlus
Water salinity / temperature	Deployment of CTD to near seabed, and underway surface oceanographic data measurements.	Conductivity Temperature Depth probe

3.4 Indicate whether harmful substances will be used:

No

3.5 Indicate whether drilling will be carried out:

No

3.6 Indicate whether explosives will be used

No

4. Installations and equipment

Details of installations and equipment (dates of laying, servicing, recovery, exact locations and depth):

No equipment will be installed or temporarily left on the seabed.

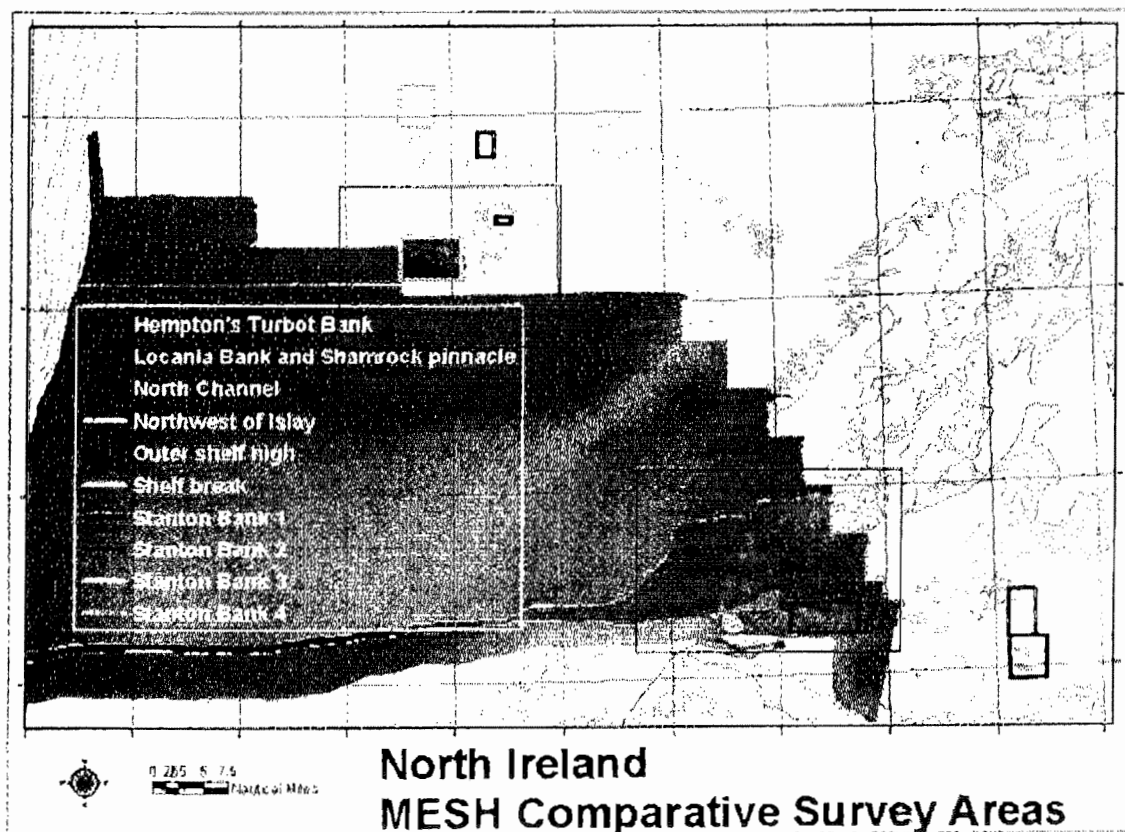
5. Geographical areas

5.1 Indicate geographical areas in which the project is to be conducted (with reference in latitude and longitude):

1. North Islay 55.9° N 6.9° W
2. Gyre sands 56.0° N 7.8° W
3. Stanton Bank 4 56.3° N 8.1° W
4. Shelf Break ° N ° W
5. Outer shelf high 56.1° N 8.9° W
6. Iceberg scours 55.9° N 9.4° W
7. Northern Irish sites Sand waves / Pices reef / Slope areas - awaiting confirmed latitude & longitude from project partner.

Please see attached survey plan for further details.

5.2 Attach chart(s) at an appropriate scale showing the geographical areas of the intended work and, as far as practicable, the positions of intended stations, the tracks of survey lines, and the locations of installations and equipment.



6. Dates

6.1 Expected dates of first entry into final departure from research area of the research vessel:

Entry date: 15th August
Departure date: late 26th or early 27th August

6.2 Indicate if multiple entry is expected: No

7. Port calls

7.1 Dates and names of intended ports of calls in UNITED KINGDOM:

None

7.2 Any special logistical at ports of call:

7.3 Names/ Address / Telephone of shipping agent (if available)

8. Participation

8.1 Extent to which UNITED KINGDOM will be enable to participate to be represented in research project:

JNCC are lead partners in the project, with Dave Connor possibly joining the vessel (david.connor@jncc.gov.uk - unconfirmed as of 02/08/06). UK project partners will have access to the data and contribute to the processing and interpretation. Scientific berths are limited to 7 on the Celtic Voyager, and due to the extensive equipment payload, priority will be given to the technical survey team to ensure safe operation of equipment, and to maximise data quality. UK project partner scientific personnel are on standby should further berths become available.

8.2 Proposed dates and ports for embarkation / disembarkation:

Embark – Galway, Ireland on 14th August
Disembark – Howth, Ireland on 27th August

9. Access to data, samples and research results

9.1 Expected dates of submission to UNITED KINGDOM preliminary reports which should include the expected dates of submission of the final results:

A preliminary report should be completed and submitted by 11th September

9.2 Proposed means for access by UNITED KINGDOM to data and samples:

All raw and processed data acquired during the survey will held by the Marine Institute under MESH data management license agreement. Data can be distributed with permission from the project partners, all of whom will have direct access to the data. BGS, DARD NI, and JNCC may also be able to channel data requests.

9.3 Proposed means to provide UNITED KINGDOM with assessment of data, samples and research results or provide assistance in their assessment or interpretation:

Project progress to date can be viewed through the MESH website (<http://www.searchmesh.net>). A meta-database has been compiled enabling the source, type and format of data incorporate to the project to be reviewed.

A GIS map portal is under development which will enable users to browse maps and results produced during the project.

Users can subscribe to a mailing list which will provide updates on the MESH project.

9.4 Proposed means of making research results internationally available:

Maps will be generated and available for NW Europe for spatial planning and environmental management purposes. Techniques and protocols will be standardised and promoted for best practice Habitat Mapping. Results will be available through the website enabling an international audience to benefit.

10. Scientific Equipment

**COMPLETE THE FOLLOWING TABLE-
SEPARATE PAGE FOR EACH COSTAL STATE:**

INDICATE YES OR NO

LIST SCIENTIFIC WORK BY FUNCTION Eg:	Water column includin g sedimen t samplin g of the Seabed	Fisheri es researc h within fishing limits	Research concerni ng the natural resource s of the continen tal shelf or its physical character istics	DISTANCE FROM COAST		
				Within 12nms	Between 12-200nms	(Continental shelf work only) Beyond 200nm but within the continental margin
BATHYMETRY	YES	NO	YES	YES	YES	NO

ECHO SOUNDING	YES	NO	YES	YES	YES	NO
GEOPHYSICAL SUB BOTTOM PROFILE / SIDESCAN SONAR	NO	NO	YES	YES	YES	NO
SEABED SAMPLING	YES	NO	YES	YES	YES	NO
U/W TV	YES	NO	YES	YES	YES	NO
PROFILING INSTRUMENTS	YES	NO	NO	YES	YES	NO

(On behalf of the Principle Scientist)

Dated -----