

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

Date: 09/12/10

**1. General information**

**1.1 Cruise name and/or number:** CV1101

**1.2 Sponsoring institution:** Marine Institute

**Name:** Marine Institute

**Address:** Rinville  
Oranmore  
Co. Galway  
Ireland

**Name of Chief Executive:** Dr. Peter Heffernan

**1.3 Scientist in charge of the project:**

Name: Dr. Evin McGovern

Address: Marine Institute  
Rinville  
Oranmore  
Co. Galway  
Ireland

**Telephone:** +353 (0) 91-387200

**Telefax:** +353 (0) 91-387201

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

Name(s):

Address:

**1.4 Submitting officer: Aodhan Fitzgerald**

**Name and address:**

Marine Institute  
Rinville  
Oranmore  
Co. Galway  
Ireland

**Country:** Ireland

**Telephone:** +353 (0) 91-387200

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

### **2.1 Nature of objectives of the project:**

The survey aims to fulfill Ireland's requirements under the Joint Assessment and Monitoring Programme (JAMP) of the 1992 'Oslo Paris Convention for the Protection of the North East Atlantic' (OSPAR), to fulfil some of the monitoring requirements for the WFD and to provide information on nutrient levels and processes on Irish Shelf waters.

This requires the answering of 3 key questions:

1. What is the spatial distribution of nutrients?
2. Are nutrient concentrations changing over time (trends)?
3. Are nutrient concentrations significantly elevated (>50%) above salinity related and/or regionally specific background levels?

Question number 3 requires that we know what the 'background levels' are. This is why we would like to extend the scope of our sampling to include more samples in the Celtic Sea and one transect across St. George's Channel. Allowing us to make an assessment of the nutrient inputs to the Irish Sea.

### **2.2 Relevant previous or future research cruises:**

The proposed work in UK waters is a repeat of what was done in the last six years. The Marine Institute has been carrying out a winter nutrients survey in the Irish Sea since 1990 and plans to continue the annual surveys for the foreseeable future.

### **2.3 Previously published research data relating to the project:**

McGovern, E.; Monaghan, E.; Bloxham, M.; Rowe, A.; Duffy, C.; Quinn, A.; McHugh, B.; McMahon, T.; Smyth, M.; Naughton, M.; McManus, M. and Nixon, E. *Winter Nutrient Monitoring of the Western Irish Sea – 1990 to 2000*. Marine Institute Marine Environment and Health Series, No. 4, 2002.

## **3. Methods and means to be used**

### **3.1 Particulars of vessel**

**Name:** 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 –**

**Name of master:** Phillip Baugh/Colin McBrearrty

**Number of crew:** 7

**Number of scientists on board:** maximum of 5 at any one time

**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           |
|--------------------------------------------|-------------------------------------------------------|----------------------------------|
| Water samples for nutrients                | Samples filtered and frozen for analysis in the lab   | CTD rosette for water collection |
| Water samples for phytoplankton speciation | Samples preserved with Lugols for analysis in the lab | CTD rosette for water collection |
|                                            |                                                       |                                  |
|                                            |                                                       |                                  |

**3.4 Indicate whether harmful substances will be used:**

none to be used

**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):

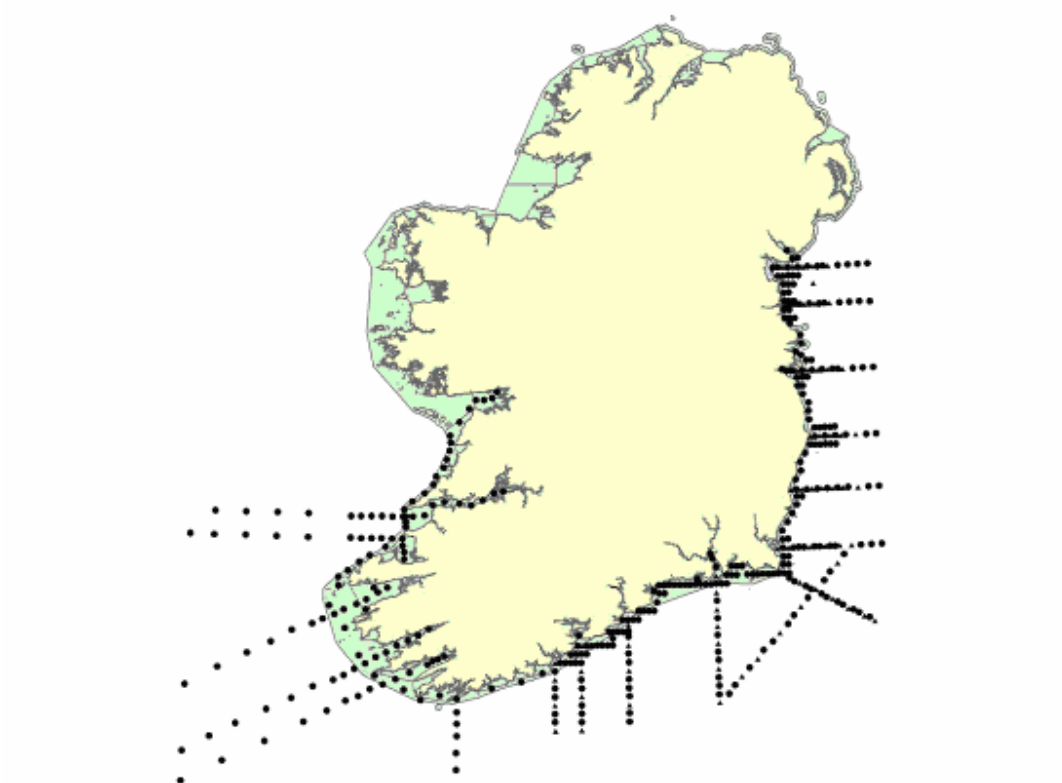
#### **5. Geographical areas**

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

Carlingford Lough (54.0500°N -6.1500°W),

Irish and Celtic Seas as far south as (51.4000°N) and east as -5.4500°W.

**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 :** 24-Jan-11 to 13-Feb-11

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

24-Jan-11 to 13-Feb-11. The exact dates of entry in UK waters will be operationally defined in response to e.g. weather

**6.2 Indicate if multiple entry is expected:** yes

**7. Port calls** none

**7.1 Dates and names of intended ports of calls in UNITED KINGDOM:** N/A

**7.2 Any special logistical at ports of call:** N/A

**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:

### **8.2 Proposed dates and ports for embarkation / disembarkation:**

Embarkation port: Howth Jan 24th

Disembarkation: Galway Feb 13th

## **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 cruise report will be available upon request to the chief scientist from March 1<sup>st</sup>. Final results will be submitted to ICES at the end of 2011.

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

All data will be submitted to ICES and can be accessed through the ICES database.  
Access to samples (if available) can be attained by contacting Evin McGovern at the Marine Institute (evin.mcgovern@marine.ie).

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

Requirements for assistance can be accommodated through contact with Evin McGovern at the Marine Institute (evin.mcgovern@marine.ie).

### **9.4 Proposed means of making research results internationally available:**

Data will be submitted to ICES/OSPAR and onward to EEA.

## 10. Scientific Equipment

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

INDICATE YES OR NO

| LIST SCIENTIFIC<br>WORK BY<br>FUNCTION Eg:<br>MAGNETOMETRY:<br>GRAVITY<br>DIVING<br>SEISMICS<br>BATHYMETRY<br>SEABED<br>SAMPLING<br>TRAWLING<br>ECHO SOUNDING<br>WATER SAMPLING<br>U/W TV<br>MOORED<br>INSTRUMENTS<br>TRAWLING<br>ECHO SOUNDING<br>WATER SAMPLING | Water<br>column<br>includin<br>g<br>sedimen<br>t<br>samplin<br>g of the<br>Seabed | Fisheri<br>es<br>research<br>h<br>within<br>fishing<br>limits | Research<br>concerni<br>ng the<br>natural<br>resource<br>s of the<br>continen<br>tal shelf<br>or its<br>physical<br>character<br>i-stics | DISTANCE FROM COAST |                      |                                                                                                       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------------|-------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                   |                                                                                   |                                                               |                                                                                                                                          | Within<br>12nms     | Between<br>12-200nms | (Continental<br>shelf work<br>only)<br><br>Beyond<br>200nm but<br>within the<br>continental<br>margin |
| WATER SAMPLING                                                                                                                                                                                                                                                    | Y                                                                                 | N                                                             | Y                                                                                                                                        | Y                   | Y                    | N                                                                                                     |
| PROFILING<br>INSTRUMENTS                                                                                                                                                                                                                                          | Y                                                                                 | N                                                             | Y                                                                                                                                        | Y                   | Y                    | <u>N</u>                                                                                              |
| ABOVE WATER<br>OPTICS AND<br>PHOTOGRAPHY                                                                                                                                                                                                                          | N                                                                                 | N                                                             | N                                                                                                                                        | N                   | N                    | <u>N</u>                                                                                              |

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(On behalf of the Principle Scientist)

Dated -----