

## Regional Marine Advisor - Engineering Report

**Application: Maritime Usage Licence (MUL) application for marine environmental surveys for the purposes of site investigation in support of proposed subsea fibre optic cable.**

**Applicant: Microsoft Ireland Operations Ltd.**

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[REDACTED]  
Consenting Unit,  
MARA,  
Drinagh,  
Wexford.

18/04/2024

**Re: Maritime Usage Licence (MUL) application for marine environmental surveys for the purposes of site investigation.**

## **Application Details**

**Applicant:** Microsoft Ireland Operations Ltd.

**Site Location:** Geophysical survey and site investigations for a proposed subsea fibre optic cable having a landfall in Dublin Port and traversing Dublin Bay, across the Irish Sea to Anglesey, Wales

### **Supporting information considered:**

- Completed Application Form dated 14/11/2023.
- AIMU Report, Issue 01 dated 16/11/2023
- Schedule of Works
- Works Methodology Report Dated, November 2023.

### **Project Overview and Background**

Microsoft Ireland Operations Ltd through their agent, McMahon Design and Management Ltd, has applied for Maritime Usage Licence for a site investigation for a proposed Fibre Optic Cable. The principal objective of the Marine Survey & Site Investigations is to ascertain a feasible and safe route for cable system design, deployment, survivability, and subsequent maintenance with due regard for environmental and ecological considerations. The survey will also enable decisions to be made on cable armouring and burial. The survey will identify the necessary water depths, route features, seabed obstructions, seabed geomorphology and cable hazards and will also provide detailed information on the seabed sediment, subsurface stratigraphy, and upper sediment layers to support cable route and installation engineering. The site investigations will provide “ground-truthing” of the geophysical data along the route.

The objectives of the marine geophysical survey shall be:

- To collect up to date high-resolution bathymetry along a 400 – 1500m wide cable corridor within the Licence Area.
- To obtain information on the seabed surface (type, texture, variability, etc.) and, to identify any seabed features that may be of interest.
- Identify any shallow geohazards and man-made hazards (including but not limited to outcropping, boulders, shallow gas, wrecks, debris etc.).

The proposed SI works will take place between the HWM and the Maritime Boundary with the UK in the Irish Sea. A cable route corridor of approx. 400-1500m width will be surveyed within the Licence Area. The site boundary for all proposed SI works is shown below in in Figure 1.

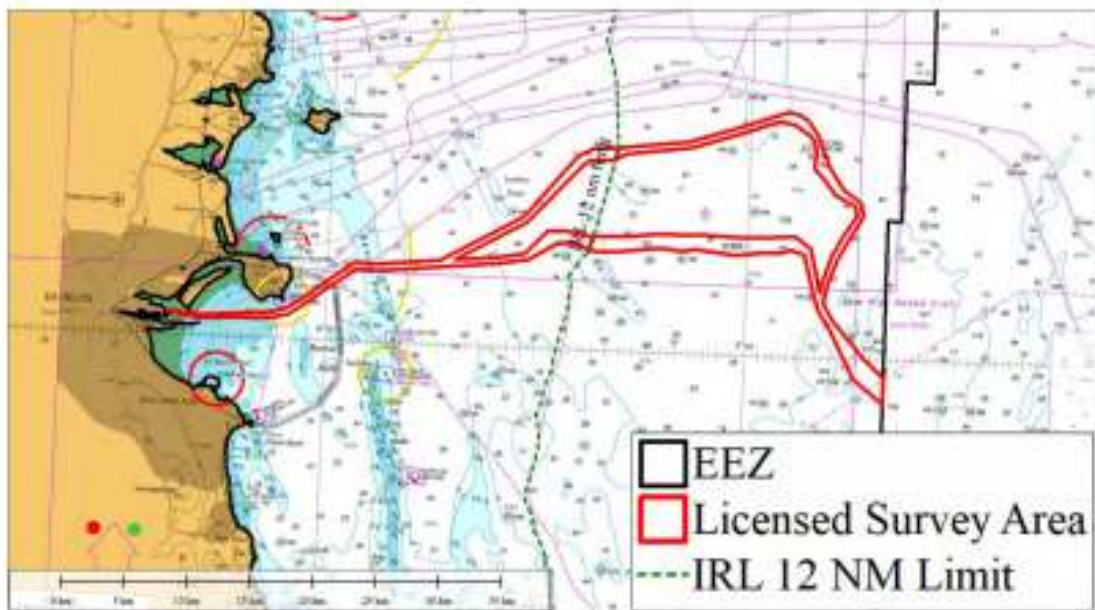


Figure 1. SI works site location (AIMU 16/11/23)

The proposed SI works comprises as follows;

**A: Geophysical Survey.**

**Side Scan Sonar.** Method: Vessel towing a submerged sonar towbody or fish. Line spacing: The sonar range is dependent on sonar frequency and is expected to vary between 50 - 75m with a 50% overlap between each swath and 100% ensonification in both directions. Location: Survey Area as shown on 1357-A-101 Licence Map

**Sub-Bottom Profiler.** Method: Hull mounted or Vessel towing a submerged SBP towbody or fish. Line spacing: The sub bottom profiler data will be collected concurrently with the sidescan sonar and magnetometer, therefore line spacing is expected to vary between 50 - 75m. Location: Survey Area as shown on 1357-A-101 Licence Map

**Marine Magnetometer.** Method: Vessel towing a submerged magnetometer towbody or fish. Line spacing: The magnetometer data will be collected concurrently with the sidescan sonar and sub bottom profiler, therefore line spacing is expected to vary between 50 - 75m. Location; Survey Area as shown on 1357-A-101 Licence Map

**Multibeam Echosounder.** Method: Hull mounted Line spacing: The swath width for multi-beam can vary between 4-6 times the water depth depending on the required bathymetry resolution. The estimated water depth in the survey area is between 4m and 110m, therefore the expected narrowest swath width is 12 to 18m. Location: Survey Area as shown on 1357-A-101 Licence Map

**B: Geotechnical and Sediment Sampling.**

**33 no. Gravity cores / Vibrocores.** Each core up to 3m depth, diameter 90 – 120mm. Location: Locations as indicated on 1357-A-102 Site Layout Map. Locations shown are indicative only, locations may vary. 19 no. Surface grab sample by day grab or similar; Location: Locations as indicated on 1357-A-102 Site Layout Map, Locations shown are indicative only, locations may vary.

**37 no. In situ Cone Penetration Test on sea bed frame.** Location: Locations as indicated on 1355-A-102 Site Layout Map, Locations shown are indicative only, locations may vary.

**20 no. Bar probes.** 2m depth Location: Between HWM and 3m water depth at Dublin Port.

**Marine Advisor Review and Assessment**

**Appropriate Consent Instrument**

Under the Foreshore Act the Minister for Agriculture, Food and the Marine (MAFM) retains the function for authorisations in relation to a fishery harbour centre, an activity which is wholly or

primarily for the use, development or support of aquaculture, or an activity which is wholly or primarily for the use, development or support of sea-fishing including the processing and sale of sea-fish and manufacture of products derived from sea-fish.

As the proposed Site Investigation works are **not in relation to a retained function of the MAFM** the appropriate instrument for authorisation is the MAP Act. More specifically, Schedule 7 (3) of the MAP Act 2021 includes “Marine environmental surveys for the purposes of site investigation”. The proposed Site Investigation works, the subject of this application, therefore requires a Maritime Usage Licence under Schedule 7(3) as applied for by the applicant.

### Site Inspection, Existing Use and Activities

I inspected the site in the past and am familiar with Dublin Port from other applications. The survey area covers a potential landfall at Dublin Port, on the eastern boundary of the port lands. The landfall location is adjacent to the Alexandra Road Extension and north of the Unified Ferry Terminal area (T5). There will be no requirement for vehicles to access the maritime area or intertidal zone at the landfall as part of the survey works. All surveys and site investigations will be undertaken from a suitable shallow draft vessel at high tide.



Landfall at Dublin Port

### Existing Consents and Applications

The proposed licence area does not overlap with any existing or proposed Maritime Area Consents or Maritime Usage Licences. Based on DHLGH publically available information and the internal Foreshore Web Map viewer, this application overlaps quite a number of Foreshore Act applications and/or existing Foreshore Act consents as detailed in Table 1 below.

FS005167	Sub Sea Survey for Cable between Ireland and Wales	Works completed
FS006241	Site Investigation for Codling wind Park Extension	Works completed
FS004532	EirGrid East West interconnector - site investigation	Works completed
FS004587	BT Ireland - Submarine Communication Cable	Works completed
FS007134	ESB Wind Development Limited Site Investigations at Sea Stacks Offshore Wind off Dublin and Wicklow	Works completed
FS007472	LIR Offshore Array Ltd Site Investigations for proposed offshore windfarm	Proposed – application submitted 22/09/22
FS007635	MaresConnect Electricity Interconnector Site Investigation	Proposed – application submitted 03/03/23
FS007367	Greystones (OWL) Windfarm Ltd. proposing to develop windfarm off Dublin/Wicklow	Proposed – application submitted 29/06/22
FS007546	Site Investigations for proposed Offshore Wind Farm, off counties Wicklow and Dublin	Approved but not completed - licence granted 19/05/2022
FS007330	Site Investigations off the coasts of Wicklow and Dublin	Proposed – application submitted 21/03/21
FS007392	LIR Offshore Array Ltd Site Investigations for proposed offshore windfarm	Proposed–Foreshore licence submitted 22/07/22
FS007151	Proposed Sunrise Offshore Wind Farm, off Counties Dublin and Wicklow	Proposed–Foreshore licence submitted 23/12/21
FS007188	RWE Dublin Array Offshore Windfarm	Proposed–Foreshore licence submitted 01/10/21
FS007132	Dublin Port Maintenance Dredging	Approved but not completed - licence granted 19/05/2022
FS007164	Dublin Port Capital Dredging Project	Approved but not completed - licence granted 09/01/2024

**Table 1 – Existing Consents and Consent application overlain by current application.**

Section 120 Part 7 of the MAPA which relates to Conditions attached to a MUL states that *“It shall be deemed to be a condition of each licence that the part of the maritime area the subject of the licence is **not for the exclusive use** of the Schedule 7 usage the subject of the licence except where the licence expressly states that such part is for the exclusive use of such usage.”* Accordingly it is assumed that any MUL issued will not be for exclusive use. This non-exclusive element together with the nature and short duration of the works proposed means that any potential MUL issued can coexist with all existing Foreshore Consents. It is the responsibility of the applicant/MUL Holder to ensure all existing maritime infrastructure traversed in suitable protected and maintained during the course of the site investigation works. The site investigation works will not significantly injure the

public use of, access to or enjoyment of the maritime area in question. The total size of the maritime area, which is the subject of the application, is 8034ha.

### **Privately Owned Maritime Area**

This licence area is entirely within the Irelands Maritime Area. All maritime area is presumed state owned unless proven otherwise. From previous Foreshore Act cases/files within Dublin Port area it is accepted that Dublin Port Company have a historic claim to ownership of privately owned maritime area. The landward end of the current licence application area is within the historically claimed maritime area by Dublin Port Company. Dublin Ports Company's claim is not registered under the Registration of Title Act 1964 as required by Section 99 (2) of the MAPA. Accordingly, MARA is free to grant a licence for the entire application area, including the claimed private maritime area, without the expressed consent of Dublin Port Company. Notwithstanding this, and to ensure the unhindered progress of the licence activity and port operations, it is recommended that prior to the commencement of the works the applicant shall consult with Dublin Port Company.

### **Coastal and Seabed Morphology and Sediment Transport Processes**

Given the nature of the proposed works, and the limited range of potential disturbance impacts on seabed sedimentation, even in the absence of mitigation measures, the project will have no significant impact on Coastal and Seabed Morphology or Sediment Transport Processes.

### **Sea Fishing and Aquaculture**

Subject to the comments of the SFPA and relevant public submissions, it is my opinion that,

- Considering the scale and nature of the proposed maritime usage, there is no potential for significant negative impacts on the spawning and nursery grounds of commercial fish and shellfish species during the proposed Site Investigation works.
- During the completion of the proposed maritime usage there is no significant potential for impact upon legitimate fishers operating in the vicinity.
- There are no aquaculture sites in proximity to the proposed Site Investigation works and therefore no impact is envisaged.

### **Navigation**

Any vessels will be moving at slow speeds and will comply with the Convention on the International Regulations for Preventing Collisions at Sea (COLREGs). To mitigate any risk the licensee shall arrange for the publication of a Marine Notice through the Maritime Safety Policy Division of the MSO and consult with the Dublin Port prior to starting the works.

### **Cultural Heritage**

The National Monuments Service (NMS) is tasked with addressing the protection and preservation of our underwater cultural heritage and in this regard the Underwater Archaeology Unit (UAU) of NMS has a wide remit, including quantification of the record, research, underwater survey, excavation and regulation. The UAU also assesses potential development impacts on underwater archaeology by making recommendations to the relevant planning authorities and other regulatory bodies on developments which have the potential to impact on underwater archaeology.

The proposed Site Investigation works have a limited potential to impact underwater archaeology. To mitigate any risk the licensee shall, in advance of operations, consult and comply with the requirements of the Underwater Archaeology Unit of the National Monuments Service.

### **Water Framework Directive (WFD)**

Section 121 Part 2b (ii) of the MAP Act requires MARA to have regard to the WFD when considering a licence application. Council Directive 2000/60/EC (the WDF) on establishing a framework for community action in the field of water policy was adopted by all member states in October 2000. Since 2000, the WFD has been the main law for water protection in Europe. It applies to inland,

transitional and coastal surface waters out to 1nm as well as groundwater. It ensures an integrated approach to water management, respecting the integrity of whole ecosystems, including by regulating individual pollutants and setting corresponding regulatory standards. It is based on a river basin district approach to make sure that neighbouring countries cooperate to manage the rivers and other bodies of water they share.

The key objectives of the WFD are set out in Article 4. It requires Member States to use their River Basin Management Plans and Programmes of Measures to protect and, where necessary, restore water bodies in order to reach good status, and to prevent deterioration. Good status means both good chemical and good ecological status. The WFD is the primary legislation, which is supported by the Groundwater Directive, and other directives targeting the quality of surface waters.

There will be no planned release of potentially harmful substances from the survey vessels, however any accidental release of potentially harmful substances has the potential to negatively impact water quality in the survey area. The mitigation measures outlined in Section 8 (AIMU) will reduce or avoid the likelihood of these potential effects occurring. Given the large area over which the survey operations will be carried out and the type of equipment to be deployed, the relative area of the seabed which will be disturbed, will be very small and an increase in the suspended sediment concentration in the water column will be negligible.

Considering the scale and nature of the works and the mitigation measures outlined in Section 8 of the AIMU there is no significant risk of these works impacting the chemical or ecological status of inland, transitional, coastal surface waters and ground waters.

#### **National Marine Planning Framework (NMPF)**

The NMPF is a national plan for Ireland's maritime area. It sets out, over a 20-year horizon, how we want to use, protect and enjoy our marine area. The NMPF sits at the top of the hierarchy of plans and sectoral policies for the marine area and provides a coherent framework in which those sectoral policies and objectives can be realised. All decisions on individual applications determined under the MAP Act, must secure and be consistent with the objectives of the plan, similar to the way that terrestrial plans form part of the decision-making tool-kit in the on-land planning process. NMPF objectives are supported by specific policies that articulate factors that can form part of objective consideration.

Having reviewed and assessed the information on file for this application to complete site investigations works against the objectives of the NMPF, and subject to any comments by Department of Environment, Climate and Communications, I am satisfied the proposed works are consistent with the objectives of the NMPF. In particular the proposed usage is consistent with Telecommunications objectives and Telecommunications Policy 1 of the NMPF which states *Proposals that guarantee existing and future international telecommunications connectivity which is critically important to support the future needs of society, Government, the provision of Public Services and enterprise in Ireland, should be supported.*

#### **Licence Term**

Following an RFI request the applicant has confirmed by correspondence dated 19<sup>th</sup> of April 2024 that a licence term of 24 months is required in order to undertake the surveys. Considering the programming of the survey activities around plant availability and suitable weather windows, I have no objection to the granting of a licence of up to 24 months in duration to ensure that the works are safely completed within the term of any licence issued.

### **Licence Map**

The applicant submitted a map entitled "Licence Map Ref 230016" dated 02/11/2023 and shapefiles for the application area. This map and the shapefiles were used as the basis for MARA to draft "**Maritime Usage Licence Map LIC230016**" **Dated: 16/04/2024 Drg. No.:MUL230016-001** which should be attached to any licence issued. The total size of the maritime area, which is the subject of the application, is 8034ha.

### **Assessment & Conclusion**

If completed as proposed and in accordance with the conditions below, in my opinion, the works proposed will not have significant adverse impacts on the public use of, access to and enjoyment of the maritime area, to navigation or to sea fishing or aquaculture. The works are aligned with Telecommunications Policy 1 of the NMPP.

### **Recommendation**

I have no objection to the granting of a Maritime Usage Licence under Section 119 of the MAP Act for this application subject to the following general and specific conditions:-

#### **General Conditions**

1. The Holder shall use that part of the Maritime Area labelled Area A and shown outlined red on the attached Drawing titled: "**Maritime Usage Licence Map LIC230016**" **Dated: 16/04/2024** with a **Drg. No.:MUL230016-001** the subject matter of this licence, for the purposes as outlined in the application documentation except as may otherwise be required in order to comply with the following conditions.  
**Reason:** In the interest of clarity.
2. The Holder shall notify the Grantor 14 days prior to the commencement of the Permitted Maritime Usage or any subsequent part or phase of the Permitted Maritime Usage. This notification shall include an up to date Programme of Works for the completion of the Permitted Maritime Usage.  
**Reason:** To ensure the orderly undertaking of the proposed maritime usage.
3. The licence shall be for a duration of 24 months from the Commencement Date.  
**Reason:** To ensure the orderly administration of licenced usages in the maritime area.
4. The Holder shall ensure that contractors, and their subcontractors, are made aware of all conditions and project specific requirements and they are required to have briefings on these to ensure all parties are fully aware of these requirements.  
**Reason:** In the interest of orderly administration of the maritime area.

#### **Specific Conditions:**

1. Prior to the commencement of the Permitted Maritime Usage the Holder shall consult and comply with the requirements of the Underwater Archaeology Unit of the Department of Housing Local Government and Heritage. National Monuments Service, G37, Custom House, Custom House Quay, Dublin 1, D01 W6X0.  
**Reason:** To ensure the continued preservation of objects of archaeological interest.
2. Prior to the commencement of the Permitted Maritime Usage the Holder shall, through consultation and agreement with the Department of Transport, Marine Survey Office and Commissioners of Irish Lights, arrange for the publication of a Marine Notice through the



Maritime Safety Policy Division. Navtext and radio broadcast warnings frequency to be agreed with the Irish Coast Guard.

**Reason:** In the interest of navigational safety.

3. On completion of the Permitted Maritime Usage, the Holder shall submit to MARA a statement from a suitably qualified Chartered Engineer confirming that works are completed in accordance with the documents submitted and the Maritime Area has been restored to the typical natural condition of the surrounding area.

**Reason:** In the interest of orderly administration of the maritime area.

4. Prior to the commencement of the Permitted Maritime Usage the Holder shall consult with Dublin Port Company.

**Reason:** In the interest of orderly administration of the maritime area and to ensure safety of navigation.