

**MEMORANDUM OF UNDERSTANDING  
BETWEEN  
THE DEPARTMENT FOR TRANSPORT AND MARITIME AND COASTGUARD  
AGENCY OF THE UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN  
IRELAND,  
THE KINGDOM OF BELGIUM,  
THE DANISH MARITIME AUTHORITY,  
AND  
THE MINISTRY OF INFRASTRUCTURE AND WATER MANAGEMENT OF THE  
NETHERLANDS  
ON COOPERATION REGARDING THE INTERNATIONAL OPERATION<sup>1</sup> OF  
MARITIME AUTONOMOUS SURFACE SHIPS MASS<sup>2 3</sup>**

**Context**

Developments in smart shipping (automated, connected, autonomous, and unmanned technologies) call for action by Governments to make tests and trials possible, not only in territorial seas but also in exclusive economic zones and the high seas. Smart technologies and vessels with reduced or no crew, sailing autonomously or under remote operation, must have the opportunity to prove their capability to operate safely in different maritime environments. Intergovernmental collaboration in the North Sea can provide an opportunity to safely support this open-sea operation.

Whilst work to regulate autonomous technologies continues at the International Maritime Organization (IMO), collaboration between North Sea countries provides an opportunity to make operations more effective in the interim and build upon the IMO's work on Interim Guidelines for MASS Trials (MSC.1/Circ.1604) as published in 2019. There is a need for Governments to act to keep pace with commercial development: companies have already announced their plans to undertake operations in the North Sea, with concrete plans to sail commercial automated ships on the North Sea. Governments have started to develop and implement guidance and frameworks to address MASS operations domestically, but these vary between countries and require agreements to enable international operations. The European Commission has likewise developed the *EU Operational Guidelines for Safe, Secure and Sustainable Trials of Maritime Autonomous Surface Ships (MASS) (2020)* to aid and facilitate Member States of the European Union.

This Memorandum is intended to encourage and facilitate collaboration between the Signatories on the international operations of MASS and other autonomous vessels, including non-SOLAS size MASS in the North Sea. However, the memorandum does

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<sup>1</sup> The term 'Operation' is used and understood to encapsulate all trials, missions, commercial operations and further uses of MASS as agreed by the Signatories.

<sup>2</sup> The term MASS means 'Maritime Autonomous surface Ships' as used in the International Maritime Organization (IMO). The Signatories agree to use the term to ensure consistency but note that this definition may change in the future based on developments at the IMO and will amend the term if deemed necessary.

<sup>3</sup> The Signatories agree the application of the term MASS may differ depending on each operation and case as agreed by the Signatories.

not create, nor is it intended to create any legally binding rights and/or obligations under domestic or international law, and will not infringe on the signatories' right to decide on approval or non-approval of projects.

The current Signatories of this Memorandum, after due diligence and agreement, would welcome other North Sea countries to join as new Signatories.

This Memorandum came into effect on 27 November 2023.

### **Ambitions**

1. Facilitate at-sea operations of MASS technologies in the North Sea, taking a collaborative approach to ensuring that these new technologies can be operated safely under the different national frameworks and diverging requirements inherent to each Signatory's coastal waters applicable to each operation.
2. Share knowledge and information regarding operations being undertaken domestically in each participating Flag State to develop best practice<sup>4</sup>.
3. Make use, as appropriate, of the work carried out as part of this Memorandum to support regulatory developments for MASS both national as well as at the IMO.
4. Undertake, where feasible, a joint approach to international MASS operations to ensure a consistent policy and approach for operations. Any approach would need to be worked through together and agreed between the relevant states. When an operation goes beyond national borders, the Flag State that has the approval authority for the MASS operation would need to ensure a dialogue with the relevant coastal state(s).

### **Operational goals**

1. Enable MASS with varying modes of operation to safely operate on the North Sea, these may include but are not limited to remotely operated, autonomous, and unmanned vessels.
2. Understand the operational and regulatory challenges to allow operations and commercial smart shipping to take place.
3. Collaborate to explore a potential smart North Sea programme for operations, which supports safe operation and use of smart shipping applications and taking into account the different national frameworks and compliance requirements.
4. Develop a mutual understanding and consistent policy, where feasible, to undertake a joint approach to address key overarching issues for MASS operations, such as Remote Operation Centres, Jurisdiction, and Liability.

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<sup>4</sup> Signatories intend to hold review process/meetings at least twice a year to facilitate MASS knowledge sharing.

### **Key Actions**

In delivering on the ambitions and operational goals of this Memorandum, the Signatories indicate an intent to:

1. Provide early engagement and communication about international trials, tests, and operations with other Signatories in the programme.
2. Provide clarity and transparency regarding local and domestic requirements (including certification and operational) prior to international operations of MASS between the countries involved.
3. Participate in bi-annual and post-operation meetings between Signatories to review regulatory developments and issues regarding MASS and their operations.
4. Aspire to efficient communication and each Signatory to have a central MASS contact point for the purpose of this Memorandum to be listed in an annex.

A structure for sharing information and regular engagement will be developed by the Signatories of this Memorandum.

### **Legal Status**

The provisions of this Memorandum do not create, nor are they intended to create, any legally binding rights and/or obligations under domestic or international law.

This Memorandum shall fully respect Signatories' national obligations, including those as EU Member States, and does not contravene any other guidelines, treaties or conventions Signatories are party to.

### **Protection of information**

1. The Signatories will use the information and knowledge obtained under this Memorandum solely for the purpose of implementing the same.
2. The Signatories will not provide information obtained in the course of their cooperation to a third party without the written consent of the Signatory that provided the respective information.
3. This Memorandum does not impose any stronger and/or weaker requirements on each Signatory than already specified under their respective domestic laws and international law.

### **Settlement of Disputes**

Any differences and disputes that may arise from the interpretation or implementation of this Memorandum will be settled amicably through direct consultations and/or negotiations between the Signatories.

### **Final provisions and Termination**

1. Cooperation regarding commercial operations apply to all Signatories unless a Signatory decides otherwise. The relevant Signatory will give written notice to the other Signatories.
2. This Memorandum will come into effect on signature and will continue in effect for each Signatory until terminated by giving three months' written notice to the other Signatories.
3. The termination and withdrawal from this Memorandum by a Signatory will not result in the termination of the Memorandum between all remaining Signatories.
4. This Memorandum may be amended at any time with the mutual written consent of the Signatories. The amendments will come into effect in accordance with subparagraph 2 of this Paragraph and will form an inseparable part of the Memorandum.
5. The termination of this Memorandum will not affect any ongoing projects, programmes, or activities, unless the Signatories decide otherwise.
6. This Memorandum supersedes the Memorandum signed by the Department for Transport and Maritime and Coastguard Agency of the United Kingdom of Great Britain and Northern Ireland, the Kingdom of Belgium and the Danish Maritime Authority on 13 September 2023.

The foregoing record represents the understandings reached between the Department for Transport and Maritime and Coastguard Agency of the United Kingdom of Great Britain and Northern Ireland, the Kingdom of Belgium, the Danish Maritime Authority, and the Ministry of Infrastructure and Water Management of the Netherlands upon the matters referred to therein.

Signed on 27 November 2023 in the English language.

**For the United Kingdom of Great Britain and Northern Ireland**

**The Parliamentary Under-Secretary of State for Aviation, Maritime and Security  
of the United Kingdom of Great Britain and Northern Ireland**

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**The Department for Transport and Maritime and Coastguard Agency of the  
United Kingdom of Great Britain and Northern Ireland**

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**For Belgium**

**The Deputy Prime Minister and Minister of Justice and the North Sea of the  
Kingdom of Belgium**

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**For the Danish Maritime Authority**

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**For the Netherlands,**

**The Minister of Infrastructure and Water Management of the Netherlands**

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