Q1. What do you see as the most significant current threats or vulnerabilities to Ireland's maritime security

MRIA's response to this consultation focuses on Offshore Renewable Energy (ORE) i.e., wind farms (but also wave and tidal technology deployments, in the medium term), while taking cognisance of the vital importance of gas pipelines, international electricity interconnectors and data cables

Ireland is almost uniquely energy insecure. The EirGrid daily online 'Dashboard' reveals that, frequently, a significant share/majority share of the electricity demand is being met by gas (increasingly *imported* gas) powered sources and by electricity imports via interconnectors. This infrastructure is mostly, or will mostly be, located in the Irish Sea and off the south coast.

5GW of offshore wind will be under construction by 2030 ('Phases 1 and 2') with further ambitious targets to 2040 (20GW) and 2050 (37GW). The 5GW will be provided by six developments in the Irish Sea and at least one off the south coast. The bulk of the later targets (2040, 2050) will be met off the Atlantic coast.

The ORE industry is concerned about security on several levels. Financial institutions and, particularly, insurance companies will need to be satisfied about the 'regime' for ORE security both at national level and for each wind farm site. Second, the industry has an obvious concern for the safety of its staff– each wind farm will be supported by a standing mobile engineering team of c100 people based in a local operations centre. Third, ORE developers are concerned about accidents e.g., collisions of ships with turbines. Finally, and critically, the industry is concerned about deliberate, malicious interference in/destruction of offshore infrastructure ranging from minor damage by protestors to terrorist actions to deliberate sabotage by rogue state or 'shadow' state actors.

The Association notes the Department of Defence's recent comment about the '……recent increase in suspicious activity by foreign forces in Ireland's Exclusive Economic Zone' and is encouraged by the statement that '… the security of the (offshore) infrastructure is of paramount importance….in light of Ireland's island status and Ireland's plans for offshore renewable energy sources.'

Ireland's maritime domain is vast and involves many stakeholders. It ranks third in terms of size in the Atlantic/North Sea-facing EU members. A Maritime Security Strategy (MSS) must address many needs including maritime defence to deter aggressors and create a safe and secure environment for ORE as well as taking account of needs under the traditional 'constabulary' umbrella, notably fisheries protection and counter narcotics smuggling.

The need to develop and implement quickly an MSS to secure our Critical Maritime Infrastructure (CMI) is evident and must be given priority. MRIA recommends that the MSS

focuses on the security of CMI as a 'first chapter' and that the Department of Defence deal with other maritime security issues and areas at a later stage.

Q2. What do you foresee will be the biggest emerging threats/future challenges to Ireland's maritime security and how would you best prepare for them?

The emerging threats lie in the field of cyber attacks, drone and autonomous technologies. Artificial Intelligence is developing rapidly and it will enable both cyber and drones – air, surface and sub surface – to operate in ways which will be challenging to counter.

Cyber-attacks (whether by criminal gangs, states or state proxies), possibly in the form of hybrid or 'grey zone' activity, is an emerging and critical threat to all aspects of the maritime industry. Ireland requires the following key elements to be established:

- Integrated national policy – include maritime cyber security within Ireland's National Cyber Security Strategy with clear links to defence, transport and energy sectors.
- Designate CMI with identified sector protection obligations.
- Ensure compliance with IMO Resolution MSC.428(98) and EU NIS2 Directive across Irish ports, ferries, shipping lines, and offshore assets. May need to enhance maritime cybersecurity cooperation with EU agencies (ENISA, EMSA) and NATO's Centre for Excellence in Cyber Defence.
- Routine participation in multi-national joint exercises such as Cyber Europe and MARSEC.
- Develop a national maritime cyber threat assessment and include this in the national risk assessment. Would be useful to include real time sharing with the National Cyber Security Centre and national CIRT capability.
- Conduct annual maritime cyber threat exercises for national ports and associated maritime agencies (the National Maritime College of Ireland procured a Smart Maritime Exercise last year and will run another exercise in September 2025).

Artificial Intelligence is a key feature in the development of *drones* which have been such a feature, including at sea, of the Ukraine conflict. The potential impact on ORE is obvious: rogue 'actors' will in future be able to launch attacks on maritime installations, including ORE, with surprise and with significant kinetic effect. Any response will require real time intelligence, fast response protocols and investment in counter drone technology. A further challenge is that drone technology is evolving and changing rapidly while counter drone measures struggle to keep up – the CEO of a major Ukrainian drone firm stated recently that drone technology on the frontline of the Russia: Ukraine war has a product life cycle of just 3 months i.e., I has to be reinvented every 3 months!

A major challenge too going forward is climate change which is impacting on sea conditions – more frequent storms, higher waves etc. This will affect the Naval Service's capacity to operate at sea with current vessels and we note with approval the plan to acquire at least one large Multi Role Vessel for the Naval Service. This investment in ships must also be supported by investment in *onboard* capabilities to sense, scope, identify, target and, if necessary, remove threats to CMI across the domains.

Q3. Should the Strategy prioritise its focus on specific geographical areas in Ireland's maritime domain?

MRIA believes that the Maritime Security Strategy, 'chapter 1', should focus on specific geographical areas earmarked for ORE. We recognise that the MSS may also prioritise additional geographical areas specific to data and gas infrastructure.

The priority must be to develop an action plan for the Irish Sea, where all immediate wind farm projects and all gas and interconnector infrastructure is now, or to a large extent will in future be, located. A key action should be to establish quickly a Naval Base at Dun Laoghaire for the P70 Naval Service inshore patrol vessels, the P60 offshore patrol vessels and the future naval fleet – see also Q4 below.

Second, deal with the south coast where there is key energy infrastructure and new developments underway e.g., the Ireland-France Interconnector; the ORE Phase 2. The first stage of the Phase 2 wind farm will involve two offshore substations (uniquely, not required in the Irish Sea projects due to proximity to shore facilities).

The geographical priorities, from ORE's perspective, thereafter will have to await the final National DMAP (2027). This exercise will identify suitable zones or sites for ORE which can then be 'called off' for development by the Government as required.

The National DMAP will identify sites off the Atlantic coast which will be exploited largely by Floating Offshore Wind (FLOW) technology. Early ORE there is likely to be concentrated in the south west, off the Shannon Estuary and may in the first instance involve a FLOW demonstrator project while the ESB is currently advancing a pilot Wave Energy farm in the same area. The attraction of the south west Atlantic coast includes suitable seabed conditions, wind resources, access to the grid at Moneypoint and deepwater harbour facilities being actively planned at Moneypoint (ESB) and Foynes (Shannon Foynes Port). Deepwater facilities are vital to FLOW technology due to their scale and complexity.

The ESB facility at Moneypoint is among the most important elements on the national infrastructure map. It is being converted into the 'national generator of last resort' i.e., the station that can be turned on quickly in the event of a major outage on the grid. It is also the home to a major access point to the grid. It houses the national 'inverter' – one of the largest in the world which supports grid stability when the grid is dependent on renewables and a major outage occurs. The lack of inverter capacity was the probable reason for the recent grid collapse in Spain and Portugal. The ESB is planning a major development of the site to support ORE, including further shipping facilities. The MSS must give attention to a security action plan for Moneypoint (and the nearby power station at Tarbet). This plan lies outside of the normal industrial security already adequately provided for at these locations. Facilities on the coast, notably at Moneypoint, are part of the CMI network and their security should be addressed in the MSS.

Q4. To most effectively safeguard Ireland's maritime interests, what strategic investments in technology, infrastructure, or capabilities should be prioritised?

The key tasks, for a first 'chapter' in a Maritime Security Strategy focused on Critical Maritime Infrastructure, are:

- *Surveillance*: This is identified in the *Defence Policy Review* as a priority and involves radars etc to cover both our maritime and our air spaces. A project in this regard is underway in the Department of Defence and we endorse the priority being given to it.
- *Intervention*: provide a military capacity to intervene when a judgement is made that, for instance, a particular vessel is seeking to damage CMI. Alongside this, the Naval Service must be given powers of arrest out to the 200-mile limit and this requires amendment to the Maritime Security Act of 2004.
- *Remediation*: provide a capacity to deal with adverse scenarios ranging from an accidental collision between a vessel and an ORE device to being able to deal with explosive devices placed next to interconnectors, export cables etc

We identify the following as key investments (in addition to the radar system referred to earlier and the recently ordered sonars for the Naval Service):

- A direct investment in well-established surveillance technologies such as the towed array sonars on order and the acquisition of further Remus remotely controlled vehicles already operated by the Naval Service
- In the first instance, perhaps trial advanced drone technologies such as advanced pipeline inspection systems, surface drones etc. This could be undertaken utilising a Contractor Owned Contractor Operated Naval Oversight (COCONO) model– see Q5.
- Develop immediately a Naval Base in Dun Laoghaire, to support the P70 inshore patrol and other vessels and with an immediate operational focus on ORE developments under Phase 1 and CMI generally in the Irish Sea.
- Upgrade the P60 class vessels to enable them to contribute effectively to Surveillance and contribute more credibly to Intervention and Remediation. The investment involved should prioritise the acquisition of naval surveillance radars and update other capabilities e.g., armament as necessary.
- Acquire platforms capable of undertaking multiple tasks e.g., deploying and supporting drones and doing so in Irish offshore weather conditions. We are aware that Defence is planning to acquire at least one Multi Role Vessel and we urge that this project be advanced quickly
- Acquire a capability to remove or destroy devices such as mines and improvised explosive devices placed in proximity to CMI. This element of drone technology is established and well proven and should be directly purchased and operated by the Naval Service
- Enhance the IT capacity at the Naval Service operational headquarters in Haulbowline capable of handling diverse streams of data arising from e.g. drone surveillance devices etc and turning them into actionable plans as required. Assign Garda/Customs/Coast Guard representatives as watchkeepers at NSHQ to facilitate coordination.

- **Q5. Should the National Maritime Security Strategy involve the private sector who may be owners or operators of critical maritime infrastructure? What role could they play?**

ORE pays substantial fees to the State in respect of consenting, seabed leasing etc. ORE will not pay any special subvention for the provision of security services and arrangements – these are a role proper to the State, supported by normal national tax provisions.

MRIA recommends that Defence should establish quickly (and chair) a *Critical Maritime Infrastructure Security Liaison and Advisory Group* with representatives of Defence, Naval Service, other State maritime agencies and ORE, data cable and gas pipeline industries. The purpose of the Group might include:

1. *Build relationships*: enable people in all areas of Critical Maritime Infrastructure to get to know each other, to build links and to grow a common understanding of CMI challenges and solutions
2. *Determine roles:* between ORE developers and Government agencies n.b., the Naval Service. E.g., agree responsibility for policing leisure craft sailing close to wind turbines; the provision of fixed monitoring devices at wind farms etc.
3. *Planning:* Enable industry to comment on and contribute to security scenario development, contingency planning etc
4. *Collaboration and response exercises*: enable collaboration and establishment of potential information sharing including development of guidance and coordination through "table top" exercises
5. *Crisis links:* Be a point of reference for those directly involved in crisis management in the event of a major security issue offshore.

Reference was made at Q4 to trialling drone technology and attention is drawn in this regard to the *Atlantic Net*[1] project underway (initially utilising a Contractor Owned Contractor Operated Naval Oversight model) in the UK to provide an unmanned 'surveillance barrier' to Russian submarines entering the Atlantic through the Greenland Iceland UK (GIUK) gap – see www.navylookout.com 24/6/2025 for details.

As suggested at Q4, a similar low-risk model could be adopted by Ireland with the possibility of transiting later if desired to a Naval Owned Naval Operated model as is planned by the UK in regard to Atlantic Net. The approach suggested points to utilising the world class Irish companies in maritime technology field: e.g., Green Rebel and TechWorks Marine in buoy based lidars; Green Rebel for additional inspection and geospatial analytical services; xOcean in surface drones; and Cathx in sub surface drones. Involving Irish companies in the trial period would have the benefits of ease of access, building local resilience etc.

Q6. What role do you think international cooperation should play in the new National Maritime Security Strategy? Should this increased cooperation include a focus on our partners in the EU, with neighbouring countries and through our Individually Tailored Partnership Programme with NATO or other international maritime organisations?

[1] https://www.navylookout.com June 24, 2025

Ireland's enormous national maritime territory cannot be walled in! Ships, drones etc can move in and out of it without facing physical obstacles and can do so with freedom of navigation under international law.

Nations already exchange information and cooperate about some aspects to maritime security. A notable example is the counter narcotics body *Maritime Analysis and Operations Centre (Narcotics)* located in Lisbon in which Ireland plays an important role and another is the CISE programme referred to earlier.

This co-operative approach must be extended to the Maritime Security Strategy focused on Critical Maritime Infrastructure. It should involve at least three components. First, joint contingency planning in regard to ORE. Second, real time information exchanges about maritime activity, particularly with our immediate neighbours, the UK and France. Third, agreement, within boundaries posed by law and by the requirements of Ireland's military neutrality, on joint support in the event of serious incidents.

Moreover, Ireland should draw on the expertise in the NATO team charged with developing CMI protection policy. Ireland should enhance and leverage its NATO Partnership for Peace membership in order to ensure international best practice is applied to our national capabilities and procedures. In addition, Ireland should promote an EU wide, co-ordinated approach to CMI security. This is particularly justified by the Union's plans for an EU wide electricity network with an emphasis in western member states in particular on an underwater grid which will involve Ireland.

Ireland is a leading member of the North Seas Energy Cooperation (NSEC) which '… supports and facilitates the development of the offshore grid development and the large renewable energy potential in the region'. There are eight members plus the European Commission and the UK. Associated with the NESC is the *North Sea Security Pact* which Ireland did not sign. The key feature of the Pact is *NorthSeal* which enables the maritime information bodies of the participating countries to monitor suspicious ship movements in real time, exchange information and quickly analyse threats. In light of the deteriorating security situation in Irish waters, it would be worthwhile to investigate the value and practicality of extending the 'reach' of NorthSeal into Ireland's maritime territory.

Q7. Do you think the National Maritime Security Strategy should be accompanied by an Action Plan that will detail how the strategy will be implemented? What do you think the key elements of this Action Plan should be?

The Maritime Security Strategy should be a high-level guiding framework to achieve the goal of a secure Irish maritime area with a focus in the first instance on energy and data infrastructure. It should contain a clear statement of what the end goal(s) is; diagnose the maritime security environment for Ireland; identify the key challenges to overcome; and set out the means by which policy will be kept up to date as well as identifying key steps to achieving the goal(s). It is appreciated that the Strategy may cover some of the ground already dealt with in the *Defence Policy Review*.

The Action Plan should be a separate document, or an appendix to the Strategy, which identifies the actions required to fulfil the MSS; identifies the resources required; sets timelines etc; and allocates responsibility for delivery to specific elements of the Defence Organisation and elsewhere. It should be published alongside the MSS or as soon as possible thereafter.

The key actions for MRIA in the Maritime Security Strategy, in no order of priority (with one exception), arise from answers to the preceding questions:

1. Establish a naval base in Dun Laoghaire – this is the immediate priority in light of the development of Phase I ORE etc with Dun Laoghaire providing a "single footprint" for military operations in the Irish Sea
2. Establish a *Critical Maritime Infrastructure Security Liaison and Advisory Group* and, in general, involve the ORE industry in assisting and advising on policy implementation
3. Recover and regenerate the Naval Service. It is the primary maritime agency of the State and the national response capacity to the majority of maritime security risks, threat and challenges. A key task is to build up the Service's staff numbers and every possible initiative should be pursued in this regard e.g., recruitment of civilian staff as cooks etc; secondments from other navies seeking to learn from the unmatched experience of the Naval Service in demanding security etc operations
4. Amend the Maritime Security Act
5. Advance the investments recommended at Q4 above

8. If there is anything additional you would like to propose or any general thoughts you have on maritime security, please let us know

MRIA appreciates the opportunity to contribute to the preparation of the Maritime Security Strategy and commends the Department of Defence for taking charge of this area and providing leadership. We want to see this position continued with Department of Defence robustly leading the Maritime Security policy function and wish to see the Department playing an active role in the Offshore Wind Delivery Task Force which brings together officials in all Departments and agencies under the chairmanship of Minister Darragh O'Brien. By decision of the Minister, MRIA now attends all of the Task Force meetings.