Your response

Question	Your response
We invite interested parties to consider the initial analysis we set out in this document and to let us know their own views.	Confidential? –N The Ofcom document primarily focuses on satisfying the increasing demand for data on land. There is also potential for new demands in coastal and inland waters of the UK and where mobile networks could be one means of provision. The International Maritime Organization (IMO) is presently revising international conventions to reflect the development of remote-controlled and autonomous surface vessels. Such vessels will likely make new demands on data communications in both. For economies of scale and for international going vessels this would look towards harmonized communications technology. Within the UK, work is also underway to remove blockers from domestic regulation to engage the use of maritime autonomy and remote operations. The Future of Transport regulatory review is working to amend primary legislation to allow autonomous and remotely operate ships to be UK flagged and operate in UK waters. The Workboat Code which regulates vessels less than 24m in length is being updated to include an Annex on Remotely Operated Unmanned Vessels intended to come into force in 2023. The introduction of these regulations is likely to increase the use of these vessel types and the demands on mobile data networks in coastal areas and ports. There is an increasing demand for mobile data bandwidth to support ongoing coastal SAR operations. Additionally, there are increasing

	demands for online applications, certification, and inspections; these stakeholders are often coast based. Crew welfare on vessels at anchor off UK ports is also adding demand for mobile data bandwidth. IMO continues to work on E-navigation which is intended to meet present and future user needs of shipping through harmonization of marine navigation systems and supporting shore services. It is expected to provide digital information and infrastructure for the benefit of maritime safety, security and protection of the marine environment, reducing the administrative burden and increasing the efficiency of maritime trade and transport. The IMO is in the early stages of considering delivery of coastal services via mobile phone technology. The International Association of Marine Aids to Navigation and Lighthouse Authorities has identified typical uses of IMT (International Mobile Telecommunications), including: .1 monitoring of marine aids to navigation (AtoN) – where IMT provides a communications channel for remote Internet of Things (IoT) devices for monitoring a wide range of peripheral AtoN and their supporting sub-systems; .2 collection and dissemination of meteorological and hydrographic sensor data; .3 connection of multiple, remote, high bandwidth and low latency sensors, such as remote CCTV cameras, VHF voice coast stations, AIS AtoN and base stations; and .4 dissemination of IHO S-100 Series of services, these are services for hydrographic, maritime and GIS communities. Within the UK, there are companies exploring extending the mobile network coverage offshore using 5G buoys at

	sea. There are also references to installing mobile data infrastructure in offshore wind farms to support monitoring of the offshore wind farms and operations in the local areas.

Please complete this form in full and return to MobileSpectrumDemand@ofcom.org.uk.

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