Your response

Question	Your response
Questions for stakeholders that are interested in using 2 GHz MSS	
Question 1: Which service(s) do you wish to provide using 2 GHz MSS spectrum? When do you expect that you could provide these services, and what UK geography would these services cover? Where applicable, please provide evidence to support your response (including but not limited to): business plans, internal market forecasts, board papers, analyst reports, etc.	Confidential? – N Service Provision: Noting the relative scarcity of spectrum to support mobile satellite services (MSS), Space42 is of the view that the 2GHz MSS band should, as a short-term goal at least, support a wider range of mobile satellite services than are currently being provided by the incumbent operators. Space42 is concerned that the 2GHz MSS spectrum is not currently being used as fully and efficiently as it might be, which is to the detriment of UK (and EU) consumers and businesses. In the short-term, Space42 seeks to use the 2 GHz MSS spectrum to support services such as two-way voice, messaging, mobile broadband and other IP-based services. Such services should be supported both through direct-to-device (D2D) provision and via dedicated user terminals. In the longer term, Space42 seeks to use the band to support more deeply integrated terrestrial-satellite connectivity including integration with 5G and 6G networks (enabling the true NTN across the European region, especially to its less well-provisioned regions), providing direct-to-device MSS (to reduce the cost of access and to ensure ubiquitous communication coverage without the need to purchase dedicated MSS terminals), providing IoT and M2M services (to support industrial, transport, energy and environmental goals), and offering emergency and resilience communications (providing secure alternatives to traditional communications networks). Timing: Subject to a UK licensing regime to enable Space42 to provide services we would target UK trials within 36 months of licence award and with progressive commercial rollout through the short-term (to 2032). In the longer term, Space 42 would roll out services with deeper integration into the NTN/5G-6G ecosystems through to 2045.

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	UK Geographic Coverage: Space42 would target national UK coverage from the outset, to include population centres as well as rural/remote regions and UK coastal waters.
Question 2: Please explain any barriers to your deployment of a service and your plans to address them.	Confidential? – N Barriers: For Space42, key barriers to service deployment include: (a) the legacy duopoly band segmentation in the UK and EU for the 2GHz MSS; (b) the current absence of a clear regulatory access path in UK (and EU) for credible new 2 GHz MSS operators; (c) uncertainty about UK regulatory cross-border alignment with the EU post-2027; and, (d) the lack of a coordinated UK (and EU) sharing framework to ensure efficient and rational use of the 2 GHz MSS. Plans to Address: Space42 plans to address these barriers through: supporting spectrum access through a non-exclusive shared-pool arrangement using a coordinated access model (audited, justified use), periodic reviews and spectrum consolidation, technology neutral licensing, and a per-operator spectrum bandwidth cap. Space42 further supports harmonisation of these processes between the UK and EU, to ensure compatibility between UK and EU licenced operators.
Question 3: What benefits might be realised by enabling the service(s) you wish to provide through to 2032 (the short term)? Similarly, through to 2045 (the long term).	Confidential? – N Allowing new entrants such as Space42 to access the 2 GHz MSS band will increase competition, lower service costs, stimulate innovation, and enable business continuity and safety-of-life communications, especially in rural, maritime, and underserved areas. Current spectrum access in UK (and also EU) is limited to a duopoly, restricting service diversity and creating structural barriers to innovation. Adopting the spectrum licensing approach proposed by Space42 would ensure in the short term (to 2032) improved rural/remote coverage, lower prices to consumers through increased competition, the development of new MSS offerings (D2D voice and messaging, narrowband data and IoT), and enhanced emergency/resilience connectivity. In the longer term (to 2045) Space42's approach would see the integration of 2 GHz MSS into 5G/6G NTN, leading to broader IoT/logistics/industrial

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	use cases, as well as strengthened communications resilience. Space42 believes that moving from the current static spectrum segmentation towards coordinated sharing amongst multiple operators will materially increase spectrum efficiency and consumer choice.
Question 4: Please explain what you consider would be the appropriate licence period for the service(s) you wish to provide? Please explain why, including providing evidence, such as asset use life, where applicable.	Confidential? – N Noting the typical satellite spacecraft assets life and investment cycles, Space42 believes that the licence period should be for a minimum of 15 years, in order to allow satellite operators to have confidence in making the substantial investments needed to procure and deploy MSS satellites and ground infrastructure to implement the services. Longer licence terms could be considered, as Space42's proposed spectrum usage reporting and "use-it-or-lose-it" spectrum assignment planning would mitigate against users monopolising spectrum which is unused or underused.
Question 5: What is the minimum amount of spectrum you would need to provide your service(s) to deliver a basic service to customers? What additional service features and/or customer numbers could you meet with a larger allocation (please specify the amount of spectrum)? Please include details of any guard bands that you would consider necessary within this spectrum for coexistence purposes.	Confidential? – N Space42 is of the view that the minimum spectrum for a basic service, providing the core MSS voice/messaging and narrowband data services can be supported with about 2x5 MHz, scaling to about 2x10 MHz for services with enhanced throughput/features and/or larger customer bases, which aligns with point 1.17 d) of Ofcom's "Call for Input" document, referencing the conclusions of the Detecon Study. However, Space42 advocates a shared spectrum pool model under which existing and new satellite operators would be subject to periodic spectrum usage reviews and audited spectrum use and efficiency justification. They would be required to return unused spectrum to the dynamically-managed shared pool and, importantly, to consolidate inefficiently utilised spectrum thus freeing up additional spectrum to the shared pool (this step is necessary to avoid the possibility of an operator configuring its spectrum use inefficiently in order to avoid having any spectrum "unused"). The intention is that no operator is able to "freeze" its spectrum assignment if it is not using it efficiently.

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	The shared pool would be available to all credible, qualified operators, including incumbents, through a transparent and non-discriminatory assignment process, subject to coordination and technical compatibility, a bandwidth cap, and a requirement to return or consolidate unused or inefficiently used spectrum. This prevents spectrum monopolisation whilst maintaining consumer choice. Even within the proposed pooling arrangement, in principle, Space42 argues that no single operator should be assigned more than 2x10 MHz of the 2 GHz MSS, in order to maintain consumer choice.
Question 6: For each service, please explain why you wish to use 2 GHz MSS. Please explain why this is a more suitable frequency compared to alternatives.	Confidential? – N Space42 is an established satellite operator in the MSS L-Band spectrum, providing services across most of ITU Regions 1 and 3. It is generally acknowledged that the MSS L-Band is near to or has reached capacity and offers little or no scope for growth to satellite operators, since only very limited opportunities now exist for them to access more L-Band spectrum. The 2 GHz MSS, being the next frequency band available for global MSS use after the L-Band is the natural band of choice for operators like Space42 who are seeking to deploy new and enhanced services to a growing customer base. Additionally, the 2 GHz MSS combines favourable propagation for small terminal links and is adjacent to terrestrial mobile bands, thus enabling D2D form-factors and NTN evolution. This makes the 2GHz MSS a strong contender for the provision of handheld and D2D service offerings across UK (and EU).
Question 7: To what extent are there economies of scale across the UK and the EU for each service you wish to provide? What is the minimum number of users/devices you would need for each service to be economically viable?	Confidential? – N Space42 is clear in its view that a UK-only regulatory regime that differs materially from the EU risks fragmenting the market and slowing uptake of devices and services. Economies of scale through alignment with the EU regulatory regime could be significant for chipsets/devices, payload designs and standards. The number of users/devices needed to achieve economic viability of services is commercially sensitive and depends very much on the mix of services offered. Nonetheless, it is clear that an alignment of the UK approach

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	with the EU would result in leveraging a UK/EU-wide device ecosystem, which could be key to rapidly achieving the viability threshold for users/devices.
Question 8: For the service(s) you wish to provide in the UK, what is the extent and nature of potential technical coexistence issues with other jurisdictions, particularly the EU? What are minimum satellite beam footprint sizes that you consider feasible, and what cross-border sharing conditions do these facilitate?	Confidential? – N Space42 supports a multilateral, coordinated spectrum sharing regime (similar to the L-Band MLM MoU approach) with spectrum use justified and audited, and spectrum allocations being made to qualified operators thus being periodically reviewed and revised. Such approaches, if aligned between UK and the EU, naturally and automatically support and facilitate cross-border coexistence through the spectrum sharing plans developed under this multilateral arrangement. Modern GEO MSS payloads can support country-scale, and sub-country-scale, spot beam sizes, which naturally facilitate spectrally-efficient frequency reuse, as well as sharing across and between regions through the proposed multilateral spectrum-sharing approach favoured by Space42.
Questions for stakeholders not interested in using 2 GHz MSS	
Question 9: What service(s) do you think could use 2 GHz MSS in the UK? What benefits do you think these services could provide, and how much spectrum do you consider these services require to (i) deliver basic services, and (ii) to deliver more advanced services?	N/A – Space42 is interested in using 2 GHz MSS
Questions for all stakeholders	
Question 10: Overall, to what extent does demand for 2 GHz MSS spectrum to provide services in the UK relate to demand for spectrum to provide 2 GHz MSS services in the EU (and vice versa)?	Confidential? – N Space42 believes that it is not possible, nor sensible, to treat the UK MSS market separately from the EU market. Satellite services, especially mobile satellite services, are by their nature regional, and operators will inevitably build platforms which can support both the UK and the EU markets. Moreover, demand for 2 GHz MSS spectrum

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	in UK is strongly interdependent with EU demand, since devices are likely to be common across the wider European region and regional network implementations will support and facilitate seamless roaming and service continuity. Aligning the UK regulatory regime with the EU regime will thus maximise the benefits to UK consumers and time-to-market, even if regulatory mechanics differ. However, an alignment of regulatory regimes between UK and EU would achieve the optimum maximisation of these benefits.
Question 11: Do you consider there would be any benefits or risks from aligning with the EU regarding the types of 2 GHz MSS services being authorised, as well as the specific operators licensed to operate?	Confidential? – N As indicated in the responses to other questions in this consultation, Space42 believes that there are significant benefits to consumers if the types of services, the regulatory regime, and the specific licensed operators are aligned between the UK and the EU. Alignment will ensure significant benefits of scale for devices and chipsets, and will facilitate easier roaming, service continuity and cross-border coordination. A UK regime that diverges significantly from the EU regime risks over-constraining UK consumer choice (e.g. by locking in a static two-operator segmentation) and is likely to impose serious challenges to satellite operators whose satellites are designed and optimised for regional coverages.
Question 12: Do you have any other points that we should consider for our consultation on future proposals?	Confidential? – N Space42's preferred approach to the licensing of the 2 GHz MSS spectrum in the UK is through shared multilateral access to a common spectrum pool, ideally aligned with a similar EU regulatory regime, which would facilitate enhanced spectrum use efficiency, support service innovation, and critically will promote fairer market access for credible new operators. Therefore, Space42 recommends that Ofcom consult on a non-exclusive, shared-pool access model for the full 2x30 MHz of the 2 GHz MSS band, with (i) technology-neutral licensing; (ii) audited usage reporting and periodic efficiency reviews; (iii) regular review and revision of spectrum assignments to operators to maximise reuse and to ensure that operators only maintain assignments which they can demonstrate that they use; (iv) a per-operator cap of $\leq$2x10 MHz; and (v) governance via an open

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	multilateral MoU (modelled on Regions 1/3 L-Band MSS) or a UK/EU coordination mechanism. This approach unlocks competition, innovation and efficient spectrum use, and is consistent with Space42's EU consultation position.