

Your response

Question	Your response
Question 1: Are there other trends in the space sector (or the broader spectrum environment) that we should monitor and/or take account of in our strategy?	Confidential? – N ManSat is pleased to respond to Ofcom’s Space Spectrum Strategy consultation in its role as the organisation responsible for carrying our satellite regulatory work on behalf of the Isle of Man Government. ManSat is also an associate member of the Global Satellite Operator’s Association and as such supports its response to this consultation.

Isle of Man operators cover a wide range of applications and hence frequency bands, so ManSat has been close at hand to observe the development of the trends identified by Ofcom in previous consultations and in this 2022 Strategy.

In addition to the trends identified by GSOA in its response, ManSat suggests that another trend that Ofcom should monitor is the increasing commercial activity in lunar and deep space missions.

The consultation refers to the use of spectrum by “space organisations like NASA and the European Space Agency ... to communicate with the International Space Station, missions to the moon and in future missions further afield in our solar system”. ManSat notes that such missions are no longer solely the domain of government agencies, and that those organisations routinely partner with commercial companies to enable scientific breakthroughs, technological innovation, and commercial development.

For example, the NASA Commercial Lunar Payload Services ([CLPS](#)) solicits proposals from commercial vendors for lunar transportation in support of the Artemis program, and the [LunaNet](#) concept describes a potential architecture for lunar communications and navigation. ManSat notes that the [Isle of Man is also a signatory to the Artemis Accords](#).

A related effort is ESA’s [Project Moonlight](#) to enable interoperability, and hence more productive and cost effective lunar missions.

UK companies and academic institutions are heavily involved in these efforts, so Ofcom’s support to date of spectrum requirements for commercial lunar missions is very welcome. The discussion of protection of downlink sites for Earth observation data (5.29 and 5.30 of the consultation document) could also be pertinent to lunar and deep space exploration.

ManSat encourages Ofcom to monitor this trend of commercial involvement in space exploration and support ensuing discussions

	<p>between government, scientific, and commercial players on emerging regulatory issues, including any potential agenda items at a future World Radiocommunication Conference.</p>
<p>Question 2: Do you agree with the broad areas we have prioritised for our work?</p>	<p>ManSat generally agrees with the broad areas of <i>communications, Earth observation and navigation, and understanding and enabling access to space</i> that Ofcom has prioritised for its work. We would assume that the trend of commercialisation in lunar and deep space exploration we have identified in our previous response would come under <i>understanding and enabling access to space</i>.</p> <p>As for <i>broadcasting and emergency and disaster relief</i>, while it may be the case that they have “no demand for additional spectrum” or “already have the spectrum needed for their operation” as Ofcom states, these services could still require action from Ofcom to ensure they are protected from harmful interference from other services. These services must have the ability to operate long-term with the certainty that they will not suffer harmful interference from other users.</p>
<p>Question 3: Are there other issues and actions that are likely to be important over the next 2 – 4 years?</p>	<p>ManSat is pleased to see the discussion of “spectrum for space pioneers” in 5.68 and 5.69 of the consultation document in reference to small satellite and cubesat operators. We have argued in previous consultation responses (e.g. 2018 Satellite Filings Cost Recovery) for a separate regime for such operators that reflects their ability to progress from concept to launch on timescales of several months as opposed to many years. The importance of a simplified approach was recognised by WRC-19 in its adoption of Resolution 32 on regulatory procedures for frequency assignments to NGSO short-duration missions not subject to the application of Section II of Article 9 of the ITU Radio Regulations.</p> <p>We welcome Ofcom’s proposed identification of frequency and authorisation options for these projects as soon as possible as such streamlined procedures will surely enable more rapid innovation.</p>

<p>Question 4: Do you have any evidence on whether specific actions should be a high priority?</p>	<p>No comment.</p>
<p>Question 5: Do you have any other issues you wish to comment on?</p>	<p>Ofcom states that an aim of this strategy is the efficient use of spectrum by the space sector so as to “not create undue constraints on the growth of other users” (4.3). However, the strategy does not explicitly state that this would also be the aim for other sectors and that their use in turn should not constrain the space sector.</p> <p>We note the specific reference to ITU Working Party 4A discussions on FSS protection criteria, but we would expect an overarching objective of the strategy to also be the adequate protection of satellite services from harmful interference by other users. We would like to see this be explicitly stated as policy in the strategy, rather than merely implied.</p>
<p>Question 6: Are there other issues and actions specifically relating to NGSO communication systems that are likely to be important over the next 2 – 4 years?</p>	<p>No comment.</p>
<p>Question 7: Do you have any evidence on whether specific actions relating to NGSO communication systems should be a high priority?</p>	<p>No comment.</p>
<p>Question 8: Do you have any other comments relating to NGSO systems?</p>	<p>No comment.</p>