

Your response

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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?	<p>Confidential? – N</p> <p>Eutelsat would like to first thank Ofcom for continuously engaging with stakeholders when defining their strategies and regulations. Eutelsat is especially pleased to be able to comment on Ofcom’s Space Spectrum Strategy</p> <p>Eutelsat’s views on the future trends of the space sector are aligned with the ones</p>

	<p>described in the Strategy. The main ones identified in the area of communication include technology innovations for geostationary orbit (GSO) satellites to obtain more capacity and more flexibility, and the deployment of non-geostationary orbit (NGSO) constellations to enable new uses thanks to low latency. The rise of demand for satellite based IoT solutions to transmit data everywhere, and the expecting convergence of terrestrial and satellite networks are also key trends to be followed.</p> <p>These trends will lead to new uses and new needs for spectrum, which might require updates of the current regulation.</p>
<p>Question 2: Do you agree with the broad areas we have prioritised for our work?</p>	<p>Confidential? – N</p> <p>Eutelsat agrees with the three broad areas that Ofcom has prioritized for their work, namely Communications, Earth observation and navigation, and Understanding and enabling access to space. As a satellite operator in the Communication sector, Eutelsat will pay particular attention to the work of Ofcom on this area.</p> <p>Eutelsat would like to comment on the two objectives that are guiding Ofcom for the Strategy and are presented in paragraph 4.3. Eutelsat is fully supportive of the first objective (4.3.a) which “aim[s] for spectrum to enable growth in the benefits that the space sector delivers for people and businesses in the UK”. Eutelsat is however concerned about the elements outlined in paragraph 4.3.b), aiming “for spectrum to be used efficiently by the space sector and not create undue constraint on the growth of other users”.</p> <p>Eutelsat would like to highlight that if space spectrum users should not create undue constraint on the growth of other spectrum users, the reciprocity is also true, where other spectrum users as well should not create undue constraint on the development of the space and satellite industry. And as Ofcom correctly states in paragraph 3.21, space activity is increasing.</p>

	<p>Therefore, Eutelsat is surprised to read that Ofcom “do[es] not generally expect to act on interference if is a result of the poor performance of receivers or wider systems if they are impacted by signals outside the band in which they are receiving”. Receivers can by nature only be victims of interference, and it should be noted that out of band emissions of adjacent spectrum users, that falls within earth stations receiving frequencies, are the root cause of interference. They can even seriously disrupt the received satellite signal and cannot be mitigated through band-pass filters at the earth station level.</p> <p>Eutelsat also wants to highlight that the design installation of very resilient equipment can result in significant costs. Eutelsat would welcome more elements from Ofcom on its expectations on this topic.</p> <p>Ofcom states that it will “place particular emphasis on promoting spectrum sharing”.</p> <p>With this in mind, Eutelsat invites Ofcom to balance the needs of all spectrum users and to take into account in their work and studies the protection and the development of existing and future satellite services.</p>
<p>Question 3: Are there other issues and actions that are likely to be important over the next 2 – 4 years?</p>	
<p>Question 4: Do you have any evidence on whether specific actions should be a high priority?</p>	<p>Confidential? – N</p> <p>COMMUNICATIONS</p> <p>Eutelsat agrees with Ofcom that examining the options for additional access to the 14.25-14.50 GHz frequency band for satellite user terminals, fixed or in motion, should be a high priority action. It can be a crucial asset to develop connectivity services for people and businesses in the United Kingdom, including in flight and at sea. Eutelsat is looking forward to being able to contribute to the public consultation Ofcom will publish on this matter.</p> <p>Eutelsat believes that developing an approach to licensing gateway earth stations in Q/V bands should be a high priority for Ofcom. Eutelsat would like to thank Ofcom for</p>

	<p>including this issue in the Strategy. This band has gained interest because of the large bandwidth it can offer. The satellite industry is starting to launch satellites with feeder links in Q/V bands. ITU WRC-19 identified the band 51.4-52.4GHz as a new allocation for Fixed-Satellite Service (Earth-to-space), and Eutelsat would invite Ofcom to consider adding this band into the Frequency Allocation Table. A regulatory ecosystem facilitating the access to the Q/V band is essential for the new generation of high throughput satellites.</p> <p>The development of satellite based IoT applications could become a major game changer to connect devices even in remote or underserved areas. Eutelsat therefore strongly supports Ofcom’s action to monitor the developments of satellite role in connecting low data rates terrestrial devices, in licensed and license-exempt bands. Eutelsat also encourages Ofcom to follow the discussions on global Mobile Satellite Service (MSS) allocations for the future development of narrow-band mobile-satellite systems which could be used for IoT solutions.</p>
<p>Question 5: Do you have any other issues you wish to comment on?</p>	<p>Confidential? – N</p> <p>COMMUNICATIONS</p> <p>Eutelsat views cooperation between Ofcom and space sector stakeholders as essential in the preparation of their support of the work in ITU Working Party 4A on Fixed Satellite Service (FSS) protection criteria, to “ensure the continued provision of FSS while not constraining unnecessarily the introduction of new services in the same band” (5.23).</p> <p>Ofcom is asking for the views of stakeholders on a few other matters, and Eutelsat would like to address them in this section.</p> <ul style="list-style-type: none"> • Although there are currently no large-scale satellite network operations in the 70/80 GHz band, it is worth noting the interest of satellite operators in making wider use of this band in the future, particularly thanks to the high bandwidth available.

	<ul style="list-style-type: none"> To support the rapid development of Ka-band satellite services, improved access to the four guard bands of 28 MHz between 28 GHz and 29.5 GHz could be beneficial and could lead to a full implementation of ECC Decision (05)01. <p>CROSS-CUTTING ACTIONS</p> <p>Eutelsat will follow closely the work of Ofcom on a potential greater use of network licenses, presented as a solution to better resolve interference without creating significant barrier to use, and will be happy to contribute to a future consultation on this topic.</p> <p>The objective behind this action being the promotion of spectrum sharing, Eutelsat would like to underline the need to include in the proposed changes the protection of existing satellite services, but also their future evolution and development. In this sense, Eutelsat appreciates that Ofcom states its willingness to “provide appropriate assurances for continued use of spectrum” (§5.70).</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>Question 7: Do you have any evidence on whether specific actions relating to NGSO communication systems should be a high priority?</p>	
<p>Question 8: Do you have any other comments relating to NGSO systems?</p>	