

Your response

Question	Your response
<p>Question 1: Do you anticipate this NGSO system will pose coexistence challenges to existing NGSO systems?</p>	<p>Eutelsat Group would like to note that the technical analysis presented by Kuiper on coexistence with other NGSO systems is based on several assumptions that may be misrepresenting the potential interference environment.</p> <p>In specific, results are shown for a co-located Kuiper Customer Terminal (CT) with a victim Earth stations. However, this analysis fails to address the question of aggregate interference involving multiple Kuiper CTs. The analysis presented by Kuiper assumes a single CT, with a Number of Co-frequency Antennas (NCO) of 1 (Table A-2). For a NGSO constellation with 3232 satellites, this appears to be a massive underutilization of Kuiper resources. If Amazon Kuiper intends to deliver their services to customers throughout the UK, it is logical to assume they will have a very large number of CTs. An aggregate interference study is thus needed to determine the potential impact not just of co-located CTs, but also including several CTs in the vicinity of the victim Earth station. Aggregate interference, even into the sidelobe of a victim, can have substantial impact on metrics such as throughput degradation. The Kuiper system description on page 2 of Annex 1 indicates that CTs will be deployed for residential, business, agriculture, transportation, telecom and infrastructure applications. This reinforces the idea of a large-scale deployment of CTs in the country, which is not aligned with the NCO=1, single CT case that they use for the coexistence analysis. Further considering that the other licensed NGSO network operators also use the Ka-band band for their customer terminal links, with customers throughout the UK, we anticipate that the coexistence between this NGSO system and existing NGSO systems is more complicated than what is presented by the applicant.</p> <p>Therefore, we believe that further analysis is needed to make a more accurate assessment of the interference environment.</p>
<p>Question 2: Are the measures set out by the applicant to enable coexistence with future NGSO systems reasonable?</p>	<p>As per the above, Eutelsat Group is of the view that the effectiveness of any mitigation measures cannot be properly evaluated at this point and until the interference environment is more accurately assessed.</p>

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<p>Question 3: Do you assess that the measures put forward will allow this NGSO system to coexist with other services?</p>	<p>To justify its compliance with GSO networks, Kuiper states in page 6 of Annex 1 to its application that <i>“its NGSO system meets the equivalent power flux density (EPFD) limits in the 17.7-18.6 GHz and 19.7-20.2 GHz bands to protect GSO services operating in those bands. In the 18.8-19.3 GHz band, Kuiper is coordinating with GSO systems to determine how each satellite system will operate.”</i></p> <p>However, Eutelsat Group has not received to this day any proposal from Kuiper to protect our GEO services already licensed in the UK and has not concluded any coordination agreement with Kuiper for compatibility between the respective systems in the concerned Ka bands. Eutelsat Group highlights also that the Kuiper system is composed of USASAT-NGSO-8A (1156 satellites), USASAT-NGSO-8B (1296 satellites), USASAT-NGSO-8C (784 satellites) ITU satellite networks, each of them claimed to respect art. 22 ITU RR single-entry EPFD limits. Nevertheless, Kuiper did not provide any evidence of compliance of their full system (3232 satellites) with such limits.</p> <p>We thus respectfully ask Ofcom to take the above into consideration when assessing Kuiper’s NGSO application and the potential for harmful interference with existing GSO services in the bands in question. We further note that the effectiveness of any mitigation measures cannot be discussed in detail until the interference environment is more accurately assessed.</p>
<p>Question 4 Do you believe the NGSO system in the application would benefit or harm future competition between NGSO services in the UK? Please provide details.</p>	<p>No comment.</p>
<p>Question 5: Do you have any additional concerns or comments regarding the application?</p>	<p>No additional comment.</p>
<p>Question 6: Do you agree with our assessment of the potential impact of our proposal on specific groups of persons?</p>	<p>No comment.</p>

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Question 7: Do you agree with our assessment of the potential impact of our proposal on the Welsh language?	No comment.

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