



Vodafone Response to Ofcom  
Consultation:  
“Non-geostationary satellite systems  
Licensing updates”



# Non-geostationary satellite systems

Vodafone welcomes Ofcom's consultation on spectrum licensing arrangements for Non-GeoStationary Orbit (NGSO) satellite systems. We believe that such constellations offer the prospect of providing services where terrestrial coverage (mobile and fixed) is impracticable, and indeed could provide another mechanism to expand terrestrial mobile coverage where mast backhaul by conventional means renders mast deployment uneconomic. We are pleased that Ofcom wishes to enable multiple NGSO constellations to provide services and increase choice for people and businesses in the UK.

Whilst acknowledging that the ITU-R satellite filing mechanisms provide some assurance that licensees co-exist, we can understand that in its role as the UK communications competition regulator, Ofcom wishes to minimise the risk of spectrum being used as a tool to foreclose market entry. We agree that competition should be encouraged, for example in relation to allowing consumers a choice of NGSO systems. We therefore believe that the controls proposed by Ofcom, when applied to spectrum licences issued by Ofcom to NGSOs, are proportionate.

Vodafone is a licensee of spectrum in the 28GHz band, using this spectrum extensively for terrestrial fixed links. We understand that this band is of value for gateway links to NGSO satellites, and where this can coexist with our existing usage, we are open to approaches from NGSO satellite providers who may wish to lease the spectrum. We would be prepared to work with Ofcom to minimise the prospect of these leases being used as a tool to foreclose market entry (subject to recognition that our primary responsibility is to our own shareholders and customers).

As a 28GHz licensee, we welcome Ofcom's proposed changes to the licensing of user terminals in the Ka band, to require a network licence.

We note that the issues addressed in this consultation have parallels in other areas of spectrum administration, in particular the usage of mm-wave for terrestrial 5G services. For such services, the UK Spectrum Policy Forum (UKSPF) has proposed<sup>1</sup> that for the bulk of the UK, a first-come-first-served approach could be adopted, with an award mechanism being necessary only for a limited geographic scope. The nature of such an award is left for Ofcom's consideration, however we note that there are parallels between the award of terrestrial 5G mm-wave spectrum in these "high usage" areas and the NGSO situation set out in this consultation. Ofcom should examine whether, rather than adopting the usual auction mantra, it may be appropriate to adopt a "pay to play" approach whereby (like the NGSO proposals) in return for a fee, the terrestrial mobile operators are licensed to use mm-wave spectrum in the "high usage" areas subject to an obligation to cooperate and coexist with the other licensed operators.

**Vodafone UK**  
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<sup>1</sup> "UK SPF recommendations resulting from Real Wireless 26GHz study", <https://www.techuk.org/resource/a-new-approach-to-spectrum-licensing-the-26-ghz-band.html>