

# Ofcom consultation

## Increasing use of the 27.5 – 30 GHz

Improving spectrum access for satellite gateways and enabling other users



### Response from Methera Global Communications Limited

30<sup>th</sup> May 2024

#### Question 1:

Do you agree with our analysis of the case for regulatory intervention and our proposal to license satellite gateways to access 28 GHz spectrum in portions of the band not currently available for satellite gateways? If not, please provide reasons/evidence for your response.

*Methera: YES, we agree with this proposal by Ofcom. As we understand it, the spectrum under consideration includes (a) the 2 x 224 MHz spectrum now returned by Arqiva (except at three geographic locations) and (b) the 4 x 28 MHz guard bands currently separating the bands allocated to Three/VM02/Vodafone on a regional basis.*

#### Question 2:

If we decide to proceed with this proposal to license satellite gateways to access 28 GHz spectrum in portions of the band not currently available for satellite gateways, do you agree with our proposal not to adjust Spectrum Access licence fees to reflect locations where we authorise future satellite gateways? If not, please provide reasons/evidence for your response.

*Methera: YES, we agree.*

#### Question 3:

Do you have any further views / comments on our proposal to license satellite gateways to access 28 GHz spectrum in portions of the band not currently available for satellite gateways?

*Methera: Whilst the Ofcom proposal makes an extra 560 MHz of capacity available to satellite operators and is a positive step and to be welcomed, Methera would ask Ofcom to look again at the three matching pairs of spectrum operated by Three/VM02/Vodafone to consider whether sharing*

*may be possible with satellite uplinks in these bands, even if this would require gateways to operate with constraints such as higher minimum elevation angles, or site screening, as is the case in Ku-band between 12.75 and 13.25 GHz. We would also note that whilst allowing the four guard-bands to be used at gateways, each band, at only 28 MHz, is relatively narrow compared to the bandwidths foreseen by operators, which using DVB-S2X or other technology may be in excess of 100MHz. These bands however are highly applicable for use by user-terminals.*

**Question 4:**

Have we correctly identified the possible uses of the returned spectrum? If not, what other potential uses should we consider?

*Methera: We believe that Ofcom has correctly identified the possible, and most appropriate uses for the returned spectrum.*

**Question 5:**

As a satellite operator, are you currently constrained by the amount of spectrum available in the 28 GHz uplink and 18 GHz downlink to provide your planned and or existing satellite services to UK consumers and citizens? If so, please explain what constraints exist in each band.

*Methera: As yet, Methera is not operating any of its own satellites, but expects to provide services from 2026. Methera considers satellite as complimentary to other technologies such as fibre and 5G, - it has the opportunity to fill gaps, provide quick starts and emergency restoration, and is equally applicable in developed, developing and underdeveloped areas. However, it cannot do so if the cost of entry is unattractive, and with limited spectrum availability, to serve densely populated areas or areas with high Gbps/km demand, the only solution becomes to deploy service from other orbital locations. This is undesirable all round – for the user, the satellite operator’s overhead of having to deploying two or more satellites will push up the end user cost; for the community, overlaying two or more beams onto each geographic area raise epfd levels overall.*

**Question 6:**

Do you agree with our initial view that alternative use of the returned spectrum would be an allocation decision for either point-to-point fixed links or land-based satellite terminal use because it is unlikely both services can share and auctioning the spectrum is unlikely to secure optimal use? If not, please provide evidence to support your response.

*Methera: We feel strongly that an auction will not secure an optimal outcome. Whilst sharing between fixed links and gateways is feasible, we share the concern about sharing spectrum between land-based user terminals and fixed links.*

**Question 7:**

Do you agree with our initial view to make 112 MHz at 28.8365 – 28.9485 GHz available for land-based satellite terminal use, 2 x 112 MHz for point-to-point fixed links at 27.9405 - 28.0525 GHz and

28.9485 - 29.0605 GHz and defer allocating the remaining 112 MHz of spectrum? If not, what alternative suggestions do you have?

*Methera: Given the overall shortage of spectrum for satellite as Methera has outlined in its answer to Question 5 and given the Ka-band spectrum available at 26 GHz, Methera would encourage Ofcom to consider allocating 26 GHz band spectrum to point-to-point links, in order to make both of the 112 MHz bands returned by Arqiva to satellite usage.*

**Question 8:**

Do you agree with our assessment of how the returned spectrum may be authorised for fixed links and GSO and NGSO land-based satellite terminals? If not, please provide evidence to support your response.

*Methera: Yes, we agree.*

**Question 9:**

Do you have a view on demand for point-to-point fixed links in Northern Ireland and London in the frequency range 28.1925 – 28.3045 GHz paired with 29.2005 – 29.3125 GHz and our proposed approach that, if we were to decide to make this spectrum available for fixed links, would be to authorise this as Ofcom managed spectrum licensed on a first come first served basis?

*Methera has no view on this.*

**Question 10:**

Do you have further views / comments that you wish to make in respect of this consultation?

*Methera thanks Ofcom for this initiative and the work which has gone into it and into the creation of this consultation. Methera sometimes uses the phrases “sterilisation of...” and notes that there are several contributory factors to this. Methera additionally feels that coordination on the ground between satellite operators is also a key issue to be addressed, and operation without degradation (i.e. not without interferences, but with tolerable interference) at and around gateway locations is crucial if the UK is to be a welcoming home to multiple satellite operators, given the limited numbers of gateway locations, and given the absolute guarantee of occurrence of inline events between NGSO and GSO and between NGSO and other NGSO systems.*

Methera Global Communications Ltd.

May 2024