

## Your response

## Question

Question 13b: On Topic L, what are your views on regulatory conditions for Telemetry, Tracking and Command (TT&C) for NGSO inorbit servicing?

## Your response

Astroscale Ltd appreciates very much the efforts of Ofcom within the CEPT ECC / CPG / CPG PTB context and also within ITU-R WP-4A context to raise awareness of this general issue and for submission of specific UK documents to CEPT ECC, CPG PTB and to ITU-R WP-WA to propose timely regulatory action at ITU WRC-2023.

ITU-R WP-4A at its May 2022 meeting had identified Topic L under WRC-2023 agenda item 7 which relates to developing regulatory provisions to enable TT&C frequencies for non-GSO In-Orbit-Service (IOS) space systems. Such non-GSO IOS space systems, which are being developed in Europe, North America and the Far East, would enable in the coming few years the de-orbit of LEO satellites at the end of their operational life or to deorbit other space debris objects in LEO orbits.

In the context of promoting innovative space solutions which would facilitate sustainable use of important LEO orbital resources, CEPT CPG PTB has at its June 2022 meeting developed a preliminary brief on this topic and some initial options to progress this matter were considered.

The UK then submitted an input document to the ITU-R WP-4A September 2022 meeting with a proposed method to be included under agenda item 7 Topic L for inclusion in the CPM Report for WRC-2023. The UK proposal was not supported at ITU-R WP4A. It is highly regrettable that the UK document was actually strongly opposed by some Administrations at this ITU-R WP-4A meeting. It is noted that dealing with in a timely manner the issue of space debris mitigation and remediation especially in Non-GEO orbits is one of the most urgent issues facing the global space industry as is also recognised by many of the governments of those countries represented in ITU-R WP-4A.

Some discussions then also took place with the BR Director during the timeframe of the September 2022 ITU-R WP-4A meeting this matter; the summary outcome of which should it is understood be

reflected in due course the ITU-R WP-4A Chairman's Report.

Astroscale proposes that Ofcom continue to engage on this matter with the ITU-R BR and with other relevant CEPT and other Administrations so that WRC-2023 would consider in an appropriate way under a relevant WRC-2023 agenda item to adopt new regulations or clarify existing regulations (which in either case should not entail new frequency allocations to be made in the RR Article 5) to facilitate use of TT&C frequencies for non-GSO IOS space systems in [relevant] FSS bands.

Such ITU WRC-2023 action will substantially enable investments in European Non-GSO IOS space system development and implementation and de-risk critical frequency access issues for the TT&C and other functions (e.g. sensors and sensor downlinks) of such IOS space systems.

Furthermore, such ITU / WRC-2023 activities should be consistent with the UK's overall National Space Strategy (NSS) goals to promote space sustainability goals and UK IOS space industry via relevant regulatory actions.