

Singapore, July 21, 2017

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**Consultation on the Proposed Approaches to Introduce the Next Generation of Mobile Services —  
5G Mobile Services and Networks**

Dear Ms. Chia,

Eutelsat Communications is one of the world's leading operators in the commercial satellite business. The company provides capacity on a fleet of 39 satellites in geostationary orbit serving broadcasters, video service providers, telecom operators, ISPs and government agencies operating in more than 150 countries across Europe, Africa, Asia and the Americas. Eutelsat's focus is on delivering the highest quality of service through technological performance, market expertise and innovation. With head offices in Paris, Eutelsat has a workforce of 1,000 commercial, technical and operational professionals of 37 nationalities, and sales offices in key markets around the world.

Based in Singapore, Eutelsat Asia Pte Ltd embodies Eutelsat long-term commitment to the Asia-Pacific region. Our commitment is to help our clients to grow their business in the Asia Pacific region and to connect them to the rest of the world.

Eutelsat has noted with great interest and attention the Infocomm Media Development Authority's ("IMDA") Consultation Paper on 5G Mobile Services and Networks, as many of the frequency bands considered are either currently used on our operational satellites and/or will be used in our future satellite, including many of which that are already under development. In this respect, Eutelsat supports the submission made by the Satellite Associations in the Consultation.

The recent years have witnessed the rapid expansion of Eutelsat in Asia-Pacific. In September 2012, Eutelsat bought the GE-23 satellite and the orbital rights at 172 degrees East from GE Capital. The satellite was later renamed EUTELSAT 172A and integrated into Eutelsat's global fleet. EUTELSAT 172A offers a unique coverage spanning the Pacific Ocean from Los Angeles to Beijing and from Anchorage to Perth in C-band and Ku-band and is an exceptional platform to serve the dynamic markets in Asia-Pacific. Eutelsat's development in Asia was then reinforced by the launch of EUTELSAT 70B satellite at 70.5 degrees East with a dedicated Asian coverage and cross straps capabilities between Europe, Africa and Asia. The combination of the two satellites' footprints provides a complete coverage of Asia-Pacific and both satellites are particularly solicited for data and mobility applications.

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In the context of an unprecedented growth of the mobility, cellular backhauling (especially in C-band) and governmental markets in Asia-Pacific, Eutelsat is leveraging its position at 172 degrees East even further with a new satellite that will provide continuity and expansion capacity at 172°E by replacing EUTELSAT 172A before its end of life. EUTELSAT 172B, a highly innovative high-performance (hosting a C-band, a Ku-band and a high throughput payload) telecommunications satellite, was launched on the 1st of June 2017 and it will enter into service before the end of this year, making it the first European satellite to demonstrate electric propulsion for orbit raising. As EUTELSAT 172A, EUTELSAT 172B will be an asset of Eutelsat Asia Pte Ltd and it will serve.

Eutelsat shares the view of others in the industry that satellite will continue to play a key role in the future telecommunications ecosystem including as a part of 5G. As such Eutelsat is confident that the IMDA will consider the spectrum needs of satellite alongside those of terrestrial mobile services.

In particular for C-band, taking into account not only Eutelsat's operations in the region, but also those of the many other operators which operate and continue to deploy in the C-band, it is essential that any conditions under which Singapore would decide to implement IMT services in the 3.4 - 3.6 GHz band should be compatible with the satellite use in these and adjacent bands in the region.

Eutelsat's interest is not limited to C and Ku band. Eutelsat is a pioneer in the use of the Ka band, which notably includes the 28 GHz uplink band, in the deployment of HTS (High Throughput Satellites). HTS have already demonstrated their role in providing ubiquitous broadband connectivity, including in remote and underserved areas. In this respect Eutelsat has firm ambitions to continue to deploy HTS systems across the globe, including in the region. Eutelsat is also participating in developments in Very High Throughput Satellites (VHTS) implement innovative technologies take this further with new systems that can provide up to a terabit of capacity per geostationary satellite.

Eutelsat trusts that Singapore will do their part to ensure continuing spectrum access to these systems in these higher frequency bands including Ka-band (18-30 GHz) and V/Q bands (37-52 GHz). There is ample spectrum to meet the needs of IMT in the bands being considered by the ITU under Agenda Item 1.13 of WRC-19. Notably Agenda Item 1.13 does not include consideration of the 28 GHz band, and Eutelsat notes that there is indeed ample spectrum to be made available for IMT without the need to consider this band. The 28 GHz band, heavily, and increasingly being used by satellite, is critical to the continued innovation and successful deployment of HTS and VHTS systems.

Eutelsat would like to take this opportunity to thank the IMDA for the opportunity to comment on the Consultation Paper.

Sincerely Yours,

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