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Manager, Spectrum Licensing Policy
Australian Communications and Media Authority
PO Box 13112 Law Courts, Melbourne Vic 8010

Dear Sir/Madam

Re: 'Trials of RNSS Repeater Devices in Road Tunnels – IFC 15/2020'

The Transurban team is pleased to respond to ACMA's Consultation Paper: 'Trials of RNSS Repeater Devices in Road Tunnels – IFC 15/2020'.

We are pleased to see the considerable effort has been put to provide certainty about the future status of RNSS repeaters and a pathway for road operators to trial the RNSS Repeater Devices in Road Tunnels. We fully support the development of a pragmatic approach that removes restrictions and enables deployment of the devices and encourages market competition so that road operators can determine optimal devices and operational requirements.

Transurban's mission is to strengthen communities through transport and we do this by anticipating, listening and responding to community needs.

Transurban operates seven road tunnels and just opened an additional twin lane M8 tunnel as part of the second stage of the WestConnex project in Sydney. The WestConnex tunnels are some of the most navigationally complex systems in the world and rely on positioning technology to provide road user wayfinding and navigational guidance.

Tunnel positioning technologies such as GPS provide greater wayfinding services for the general public, commercial vehicles and ridesharing services. They support emergency services by optimising emergency fleet management and situational awareness inside the tunnels.

Internal studies have also identified that positioning technologies decrease the cognitive load on drivers and reduce driver stress when navigating through road tunnels. This reduction in driver stress improves awareness and reaction time decreasing the likelihood of an accident and improving safety on our roads.

Connected and Automated Vehicles (CAVs) rely on high accuracy positioning systems such as GPS augmented with the CAVs sensors to operate effectively especially when driving in tunnels.

Transurban are constantly looking at ways to improve wayfinding and positioning technologies in our road tunnels to meet our customer's expectations about the technological capability of our assets.

Transurban's investment in the tunnel positioning technology as part of the build indicates our willingness and capacity to participate in GPS repeater trials on our assets. Our interest in potential larger scale deployments would require greater understanding of the technology and its operational requirements and additional consultation with the State Governments to ensure the end product meets the needs of all parties.

Hence, Transurban would like to offer the following comments:

- 1) The process from acquiring a scientific license, conducting the trial and then informing the longer-term policy design is a lengthy process, which hinders investment and will encourage deployment of less-than-ideal short to mid-term solutions. It is proposed that ACMA outlines the specifics of trial requirements and the pathway for road operators from trials to the long-term policy design.
- 2) As outlined by the paper "*ACMA is aiming to capitalise on the trial deployments under scientific licensing to gather technical data, such as spectrum requirements and number of frequency bands used for the devices. Trials would also help ACMA identify any unintended consequences and gather other information necessary to inform the development of a long-term licensing solution*". Considering that much of the above-mentioned information is already available from the industry and international RNSS repeater deployments, we recommend an evidence gathering exercise to fast-track the longer-term policy design. Especially Federal Communications Commission (FCC) in the USA has a very similar approach to the one that is proposed by ACMA.
- 3) ACMA proposes to impose technical and operational conditions on the licensees to manage the risk of trials. We recommend that ACMA publishes the technical guidelines, operational conditions and associated fees for road operators to explore the viable technology solutions, prepare for the trials and inform longer term investment and operational requirements.
- 4) Other situations such as urban canyons and complex transport network interchanges - that RNSS receivers lose signals - will benefit from complimentary positioning technologies. It is understood that the operational environment for above-mentioned situations will be very different to the confined environments such as road tunnels. Having said that, recognition of these situations will inform and shape the technical guidelines to be adhered to by the licensees. Hence it is recommended that ACMA provides guidance on these situations.

We emphasise the point that we do support the removal of restrictions for the trial and deployment of RNSS repeaters in the road tunnels and are keen to explore opportunities to conduct trials of such technologies. We would like the opportunity to be included in the relevant future developments of the regulatory frameworks, and the pertinent technical and operational guidelines.

I hope these comments are helpful and I would be happy to arrange a discussion on the points raised if you would like any further clarification.

Yours sincerely

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Principle ITS Domain Lead

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