

To: Radio.Spectrum@mbie.govt.nz

Ref: "3.3 GHz use in New Zealand"

Motorola Solutions is pleased to provide feedback on the consultation on the future use of the 3.3-3.41 GHz band Radio Spectrum Management New Zealand (RSM).

MSI is a global leader in mission-critical communications, software, video security and analytics, and managed and support services. We serve more than 100,000 customers in more than 100 countries, with an installed base of more than 13,000 systems worldwide.

Please feel free to contact us with any questions.

Sincerely,



Krishna Formiga

Government Affairs Regional Director

Motorola Solutions

+55 61 99982-9889

Considerations

1. 5G technology will support the next generation of enterprise and industrial users to leverage the success of “Industry 4.0”. This next generation of broadband wireless technology will be critical to secure significant growth in manufacturing, trading, and services industries at competitive levels.
2. 5G calls for a new regulatory environment where innovation can thrive. We believe that the accelerated adoption of 5G will be based on industries and enterprises through the deployment of private networks which will benefit from more flexible licensing rules under regional, local and indoor use within the same geographic area. New rules are essential to support this new technology.
3. Industry members are tailoring their 5G solutions to meet the new and growing needs of industrial and other verticals such as oil & gas, mining, utilities, industry 4.0. To support these solutions, we recommend that regulators encourage third-party industrial and enterprise users to build their captive and dedicated 5G networks which will ensure an array of 5G services instead of limiting usage to existing mobile operators that may not emphasize providing a diverse array of specialized services.
4. We are witnessing global developments that designate spectrum in the mid-bands (3.5GHz) to meet the needs of dedicated private broadband LTE/5G networks. The concept of private LTE/5G networks has been well accepted and is supported in many countries, such as Germany, Canada, U.S.A, Brazil. Major telecommunications equipment vendors have indicated their ability to supply equipment utilizing 3GPP 5G standards in the mid-band range, 3.3-3.8GHz, to serve different business models.
5. While network slicing technology using networks operated by commercial service providers can meet some industrial needs, there is a growing need for small, localized, independent, private broadband networks for specialized users, including critical infrastructure, industrial, utilities, and enterprises.
6. New regulations encouraging the use of mobile technology across vertical market segments are necessary to spark innovation and digital transformation across industries. We encourage a licensing framework that enables enterprises to access



mobile spectrum and a licensing framework to allow local licensing of mobile spectrum vs. national allotments only. We encourage regulators to designate a part of the 3.3-3.8 GHz (commonly known as the mid-band) for private licensing in localized geographic areas. In addition, we encourage the adoption of rules to allow access to shared spectrum on technology-neutral requirements. We recommend a spectrum split between carriers and specific verticals in critical bands where 5G is expected to be deployed similar to international developments such as in Germany, Brazil or planned for Sweden.

7. This is an appropriate time to consider sharing to allow more entrants and thus more competition in the telecommunications market. Motorola Solutions supports developing and deploying spectrum sharing technologies for both 4G and 5G networks in New Zealand where dedicated spectrum for private networks is not an alternative and incumbents are protected from interference.

8. The adoption of technology-neutral rules and inclusive licensing will enable all parts of the 5G ecosystem to be supported (including satellite systems, mobile broadband systems) and will also contribute to economies of scale and the reduction of costs in network deployments.

9. We fully support RSM's proposal to designate the band 3.3-3.4GHz for localized private broadband network licensing for small geographic areas.