Radio Frequency Users Assn of NZ Inc
PO Box 40 525
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28 February 2022

Radio Spectrum Policy and Planning
Ministry of Business, Innovation and Employment,
P.O. Box 2847,
WELLINGTON 6140.

Dear….

After a due consultative process of RFUANZ members and guests, I enclose the RFUANZ submission on the RSM Draft Five Year Spectrum Outlook 2022.

RFUANZ Committee; John Laughton (Chairman), David Johnston (Vice Chairman), Corey Weir, Carl Garner, Dale Roberts, Justin Wonderlick, Steffen Kennerly, Mike Head, Steve Davis and Debby Morgan.

As the Voice for the commercial and critical communications sector in New Zealand we really appreciate the ongoing relationship that RSM have with RFUANZ and we look forward to the continuing growth of this relationship.

I thank you for the opportunity to provide feedback on the Draft Five Year Spectrum Outlook.

Yours sincerely

J Laughton
RFUANZ Chairman

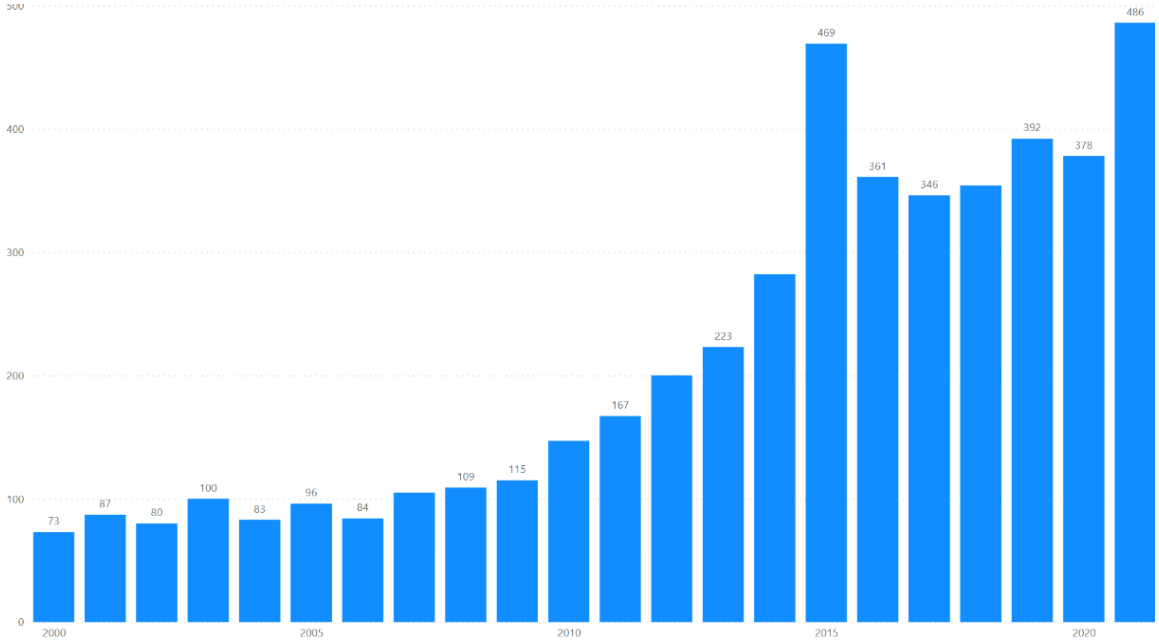
Draft Five Year Spectrum Outlook 2022 – Radio Spectrum Management

1. *Have we identified the range of technological advancements and probable new demands relevant to New Zealand?*

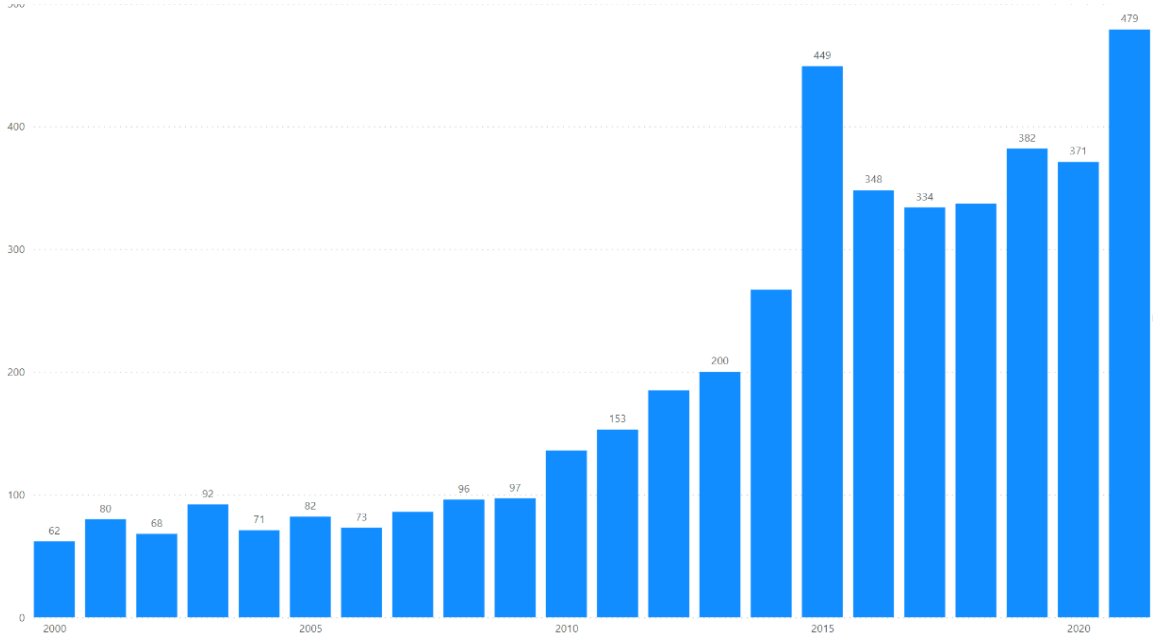
- RFUANZ agrees with the technologies that have been identified. However, Land Mobile Radio (LMR) technologies have not been mentioned. The LMR industry is a strong and vital part of the communications industry in New Zealand, comprising many users and businesses. The LMR industry needs to be recognised in the 5-year outlook so that it is considered and it's spectrum is protected.

- The example given, concerning KiwiRail, and the reference to the broader radio sector trending towards cellular based systems, is a concerning statement. We believe there is a genuine requirement for high bandwidth applications in metro areas, which doesn't lessen the reliability and capability to provide voice and data using LMR systems for larger swaths of the country.

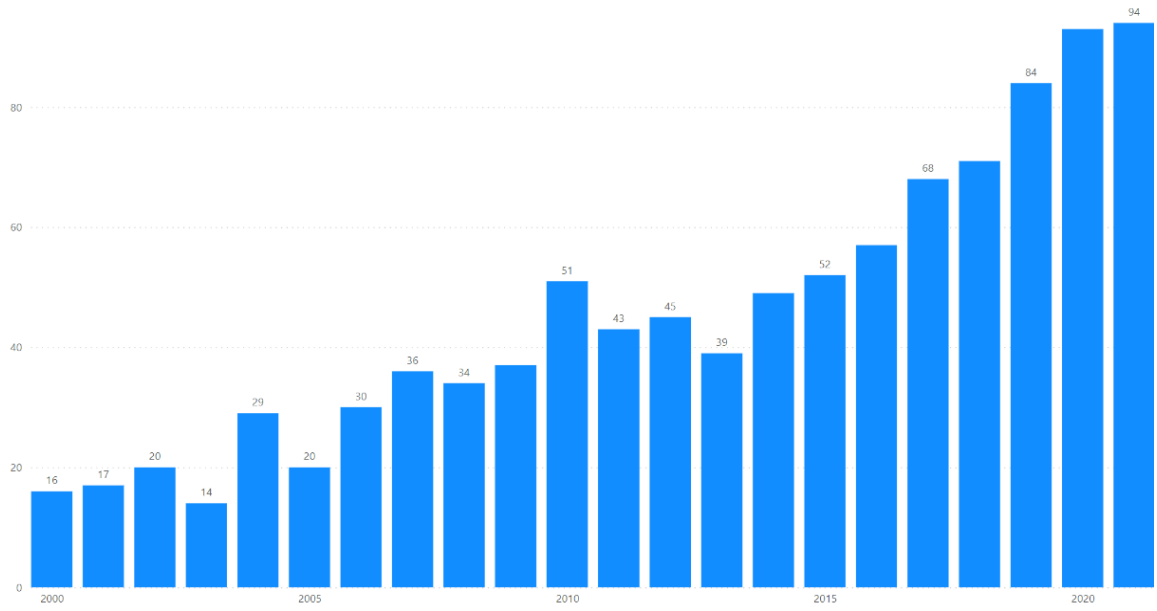
- The telecommunications industry continues to grow, with new licences continually being engineered. The following graphs depict the momentum of clients who every year continue to add to the VHF, UHF and Microwave spectrum. This is an increase of use by many users and businesses with technologies that are not specifically high bandwidth LTE and 5G/New Radio.



Count of Clients Commissioning VHF Licenses every year



Count of Clients Commissioning UHF Licenses every year



Count of Clients Commissioning Microwave Licenses every year

- Internet of Things (IOT) – This is a big development which is in both the private sector and with large Telcos, IOT should be recognised in its own right, with all sizes of network operators, and shouldn't be only considered under the cellular/mobile banner. Traditional radio data services such as SCADA systems have been employed using VHF/UHF radio systems for over 60 years and are afforded greater coverage than newer technologies for similar capacity standards.

- Natural disasters – Emergency Responders can't rely on only one form of technology or even high bandwidth technologies in the event of emergencies that may disrupt infrastructure that high bandwidth technologies may be dependent on. This has been proven in several recent events, such as the Christchurch and Kaikoura earthquakes.

"Land Mobile Radio (LMR) is the communication backbone of New Zealand's rural and remote industry. LMR is utilized every day by every infrastructure project, no matter how big or small, from traffic control and road management operations, to the biggest infrastructure upgrades the country is undergoing. Downer New Zealand's ambition is to build a better New Zealand and our crews deliver essential Transport, Utilities and Facilities solutions and services right across the country. The primary form of field communication is LMR for the one-to-many experience. During times of emergency LMR is the only form of communication that can handle the volumetric response required, being flexible, cost effective and robust enough to be reliably deployed in a short time frame. Downer sees LMR as the cornerstone of critical communication systems; infrastructure projects could just not function safely without it."

"Hamish Morton - National Automation Manager - Downer New Zealand"

- RFUANZ have been following technology developments off shore and due to the established reliability and capability of LMR networks, there is still precedent and confidence in LMR networks rather than newer less mature technologies such as MCPTT. Therefore, the omission of these facts are concerning to us.

"The United States has people once again discussing the migration of LMR systems to FirstNet-only systems and doing away with LMR. As far as I am concerned, these discussions are premature. We have a very long way to go before LMR systems are no longer needed by the public-safety community, if ever."

https://allthingsfirstnet.com/public-safety-advocate-lmr-and-firstnet-not-lmr-migrating-to-firstnet-only-anytime-soon/

2. *Have we prioritised the right issues that we will need to actively manage through our work programme (to the extent this is possible to predict now)?*

We support the RSM Work Plan Priorities, however RFUANZ believes the following items should also be considered:

- Training needs, in our view, should be of highest priority. It is good having new technology, but we need the people developing alongside it. We need ARC/ARE's but we also need competent technicians and engineers being developed within New Zealand.

- RFUANZ agrees in general with the RSM prioritised issues. RFUANZ believes that the traditional LMR spectrum does not in general require any active management

or changes at the present time, however there is a high demand for additional licenses/frequencies for all bands.

- The 64 to 66 GHZ band segment (CH 4) appears to have been overlooked. Other countries (Australia, US, UK etc) have already released this channel for public use. For technical reasons this is the spectrum that the NZ market requires, but unfortunately RSM is yet to align itself with international allocations, including in Region 3.

- With emerging technologies, SME network providers require the resources to grow without financial hurdles and roadblocks to spectrum access, which is often entirely consumed by larger entities.

- RFUANZ hope that any potential changes to the fees regime are provided with adequate consultation and time in order to provide our members the capability to address any concerns and work with RSM.

3. Are there other matters that we should cover?

Clarification Please:

The RFUANZ committee observed a change to the acronym 'GURL' to now be known as 'GUL' in this document. We assume that by removing the 'R', for radio, this in no way lessens the importance of radio in the licensing regime, industry, or in Radio Spectrum Management. We are curious as to the intention here?