

Radiocommunications in “commons” bands (general user licensing)

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Quick overview – Principles for “commons” approach

- Individual licensing is impractical
- Low power – ubiquitous use
- Does not receive interference protection
- Must not cause interference
- Shared use of the band – parties cannot claim ownership

Examples:

Wi-fi

Bluetooth

Short range devices

VSAT dishes





The “licensed vs unlicensed” conversation

- Spectrum is a public asset
- Access: economic value, efficiency and equity
- Incumbent interests & newcomers
- Investment certainty, security of tenure
- Ability to reallocate spectrum assets if required
- Flexibility to trade access rights
- Minimise harmful interference





Clear policy objectives

- **Connectivity objectives: targets, programmes, initiatives**
- **Contending commercial interests**
- **Make space for high economic value use as well as experimental use**
- **Long-term planning**
- **Ongoing spectrum assets review as technology evolves**
- **International trade, partnerships & economies of scale**





Policy outcomes

- Economic and social benefit
- Efficient use of the resource
- Access to international markets
- Affordable devices, systems and services
- Spectrum harmonised regionally and globally
- Resilient, scalable and reliable communications infrastructure





Striking the balance – regulatory avenues

- Licensed services (e.g. land mobile)
- General User Licensing (commons) (e.g. wi-fi)
- Flexible exclusive rights (e.g. cellular, broadcasting, FWA)
- Hybrid: commons/ flexible rights (e.g. local FWA, managed parks)
- Shared licensing (e.g. LSA, secondary users)
- Test & experimentation licenses





Example – regulatory avenues

- UHF Band used by broadcasting, cellular, short-range devices
- NZ replanned UHF TV band to accommodate Digital Dividend
- Emerging shared spectrum applications
- Test licences issued to explore technical capabilities
- Ensuring coherence with long term plans
- Assess economies of scale and scalability





THANK YOU

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RADIO SPECTRUM MANAGEMENT

Region 3 use:

Fixed, Mobile, Broadcasting

Currently for terrestrial TV

Proposed band for IMT (WRC-15 footnote)

Fixed, Mobile, Broadcasting

Traditionally for terrestrial TV* but not in use in New Zealand

Guard band

4G/LTE 700 MHz

Mid-band gap

FDD

FDD

Option 1

Possible band-plans

FDD

FDD

Option 2

502 510

610

617

622

652

663

668

698

MHz

