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# Spectrum Licensing in Australia

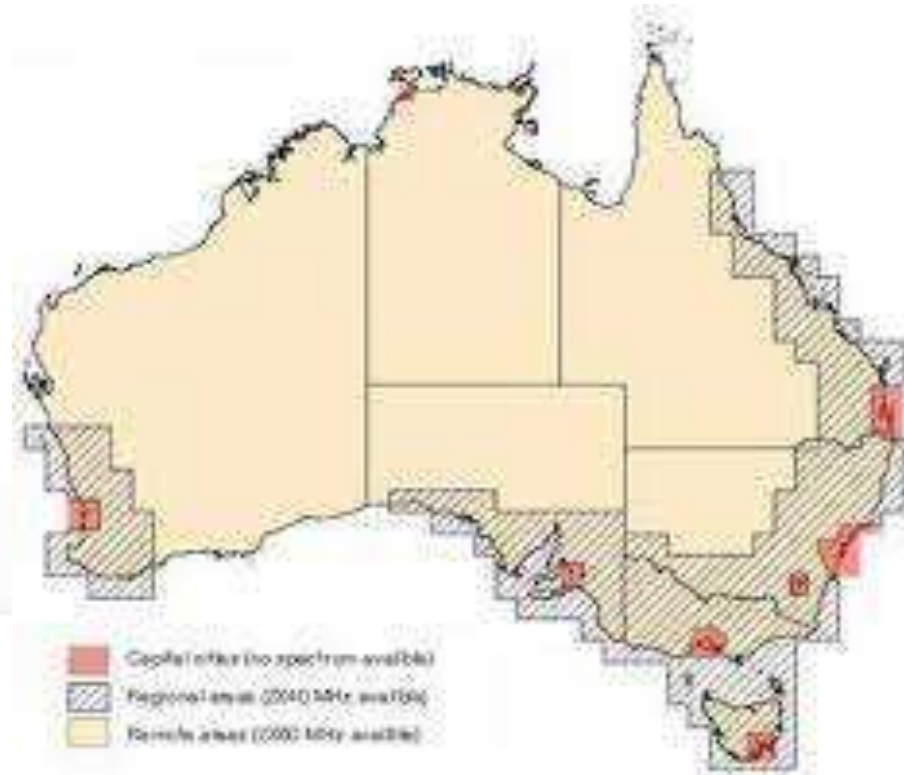
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LS Summit 2012

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## Agenda

- Background
- Reasons
- Objectives
- Development
- Process
- Framework
- Current Initiatives



## Spectrum Licensing


- Starts from the assumption that spectrum is a resource
- Authorises the use of spectrum itself  
(‘management rights’)
- Spectrum use under a spectrum licence is generally limited by:
  - bandwidth
  - geographical area
  - duration of licence

## Background to spectrum licensing in Australia

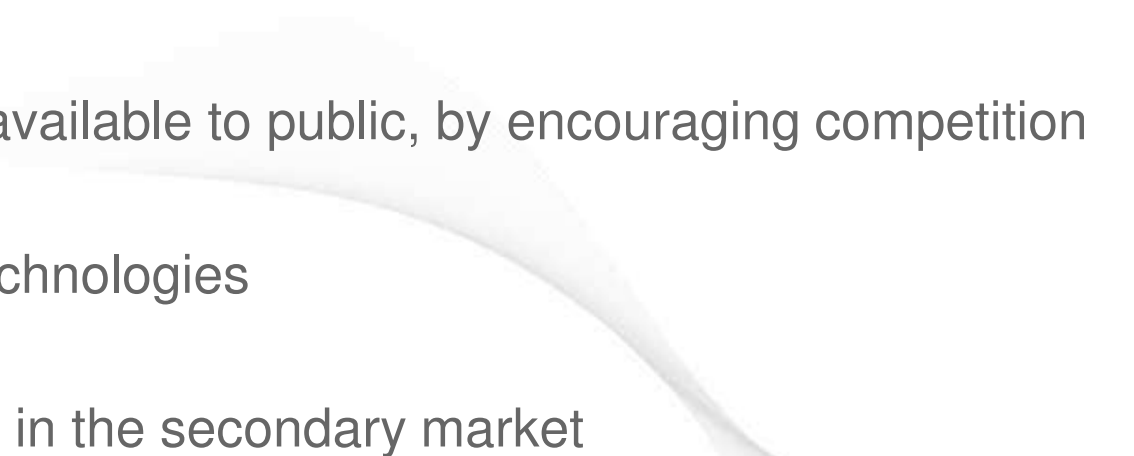
- A series of policy reviews in the communications sector in the late 1980s and early 1990
- Competition restriction
- The need for market based reforms
- Radiocommunications Act 1992
- Fully tradeable, technology neutral spectrum access right



## Reasons for the adoption of spectrum licensing

- The existing approach was slow and cumbersome and was constraining the market place
  - The need to accommodate high demand and high levels of technology change
  - To allow spectrum users to respond to market conditions as they emerge
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## Objectives of spectrum licensing

- Allow market to determine best use of band, to promote economic efficiency
  - Encourage spectrum efficiency, to address increasing demand for spectrum
  - Improve services available to public, by encouraging competition
  - Encourage new technologies
  - Encourage trading in the secondary market
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## Development of spectrum licensing in Australia

- Legislative arrangements for clearing apparatus licenses and reallocating spectrum
- First allocation of spectrum licenses was in 1997
- Use of auctions for allocation of spectrum licenses
- License period of up to 15 years
- Requirement for device registration

## Bands that have been spectrum licensed

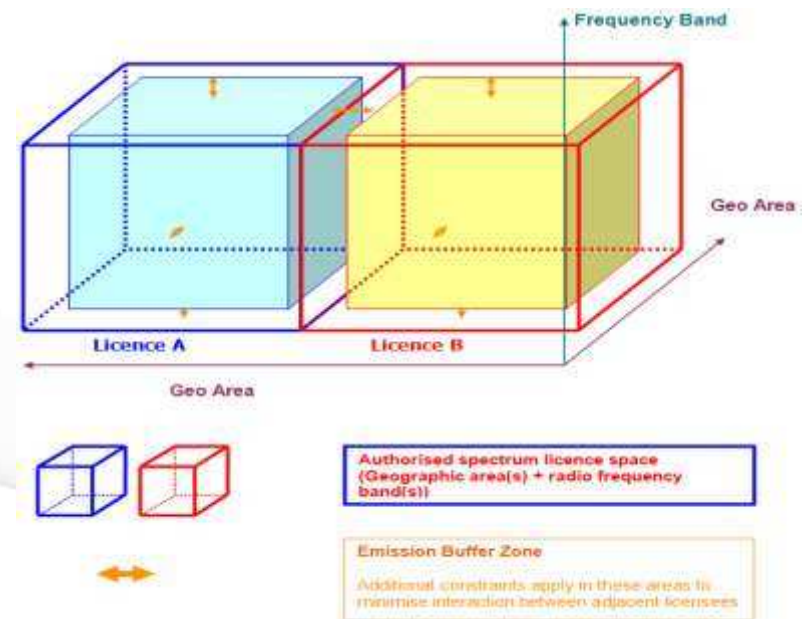
- 500MHz (since converted back to apparatus licensing)
- 800MHz
- 1.8GHz
- 2GHz
- 2.3GHz
- 3.4GHz
- 27GHz
- 28GHz
- 31GHz
- 20GHz (Defence Band)
- 30GHz (Defence Band)



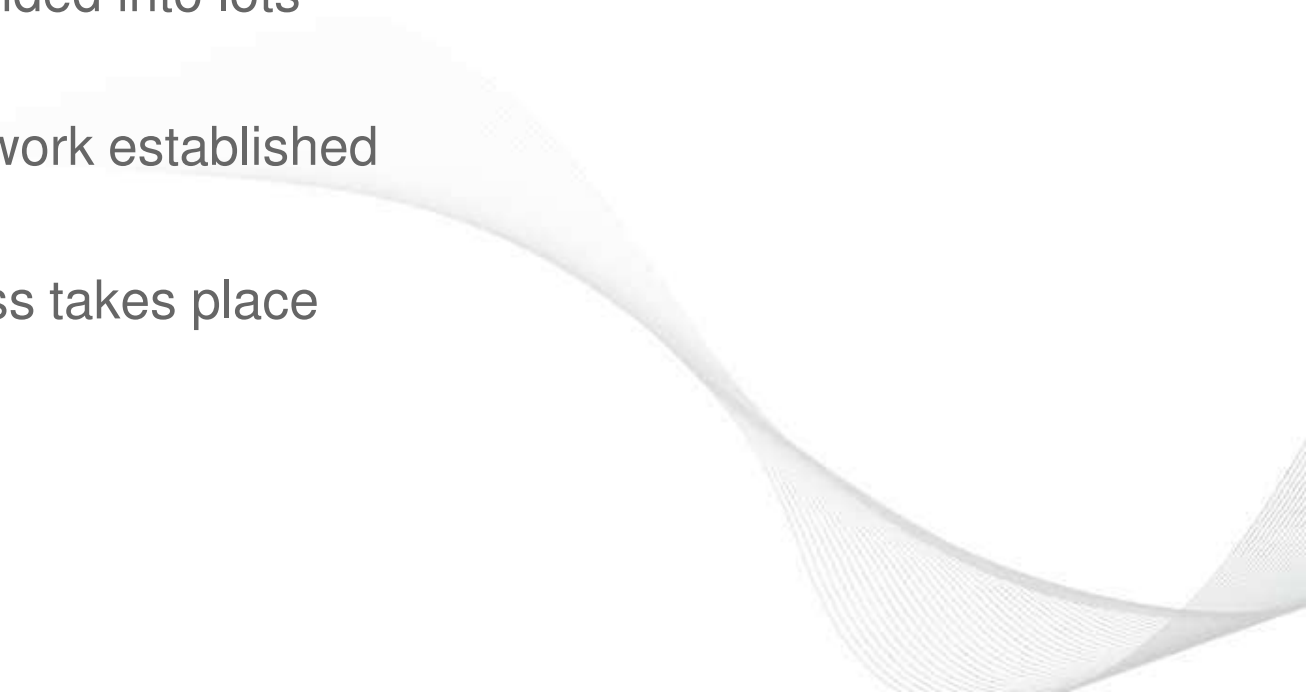


## Framework for spectrum licensing

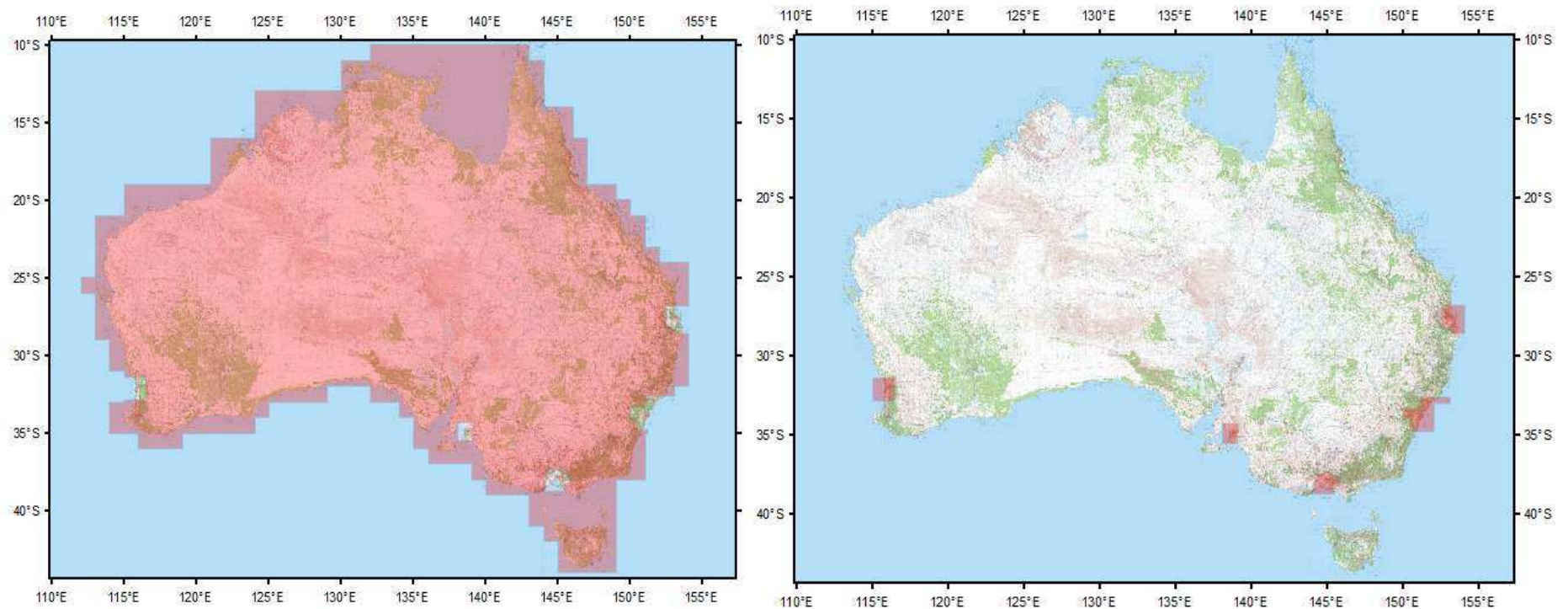
- Defined by geographical area and frequency
- Price based allocation
- Industry consultation
- Licenses can be traded/leased
- Management of interference across frequency and geographic boundaries



## The Process

- Designation of area for spectrum licensing
  - Designated area divided into Market Areas
  - Market Areas divided into lots
  - Technical framework established
  - Allocation process takes place
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## The process – example of typical market areas




## Technical framework

- Has the following elements, for interference management:
  - Out-of-area emission limits
  - Out-of-band emission limits
  - Area boundary management arrangements
  - Guidelines for further managing interference to and from other services

## Current initiatives

- Reissue of expiring spectrum licenses in the 800MHz and 1.8GHz bands
  - Reallocation of the 700MHz (digital dividend) spectrum
  - New arrangements for the 2.5GHz band
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## Summary

- > Successful means of allocating spectrum usage rights
  - > Increased competition
  - > Increased flexibility
  - > Encourages trading
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# Thank You

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