




Australian Government

A large, decorative graphic consisting of numerous thin, parallel grey lines that curve and flow across the page, creating a sense of movement and depth. The lines are denser in some areas and more sparse in others, creating a gradient effect.

# **International Training Program 2014**

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## **Radiocommunications Licensing in Australia**

David Brumfield

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# Overview

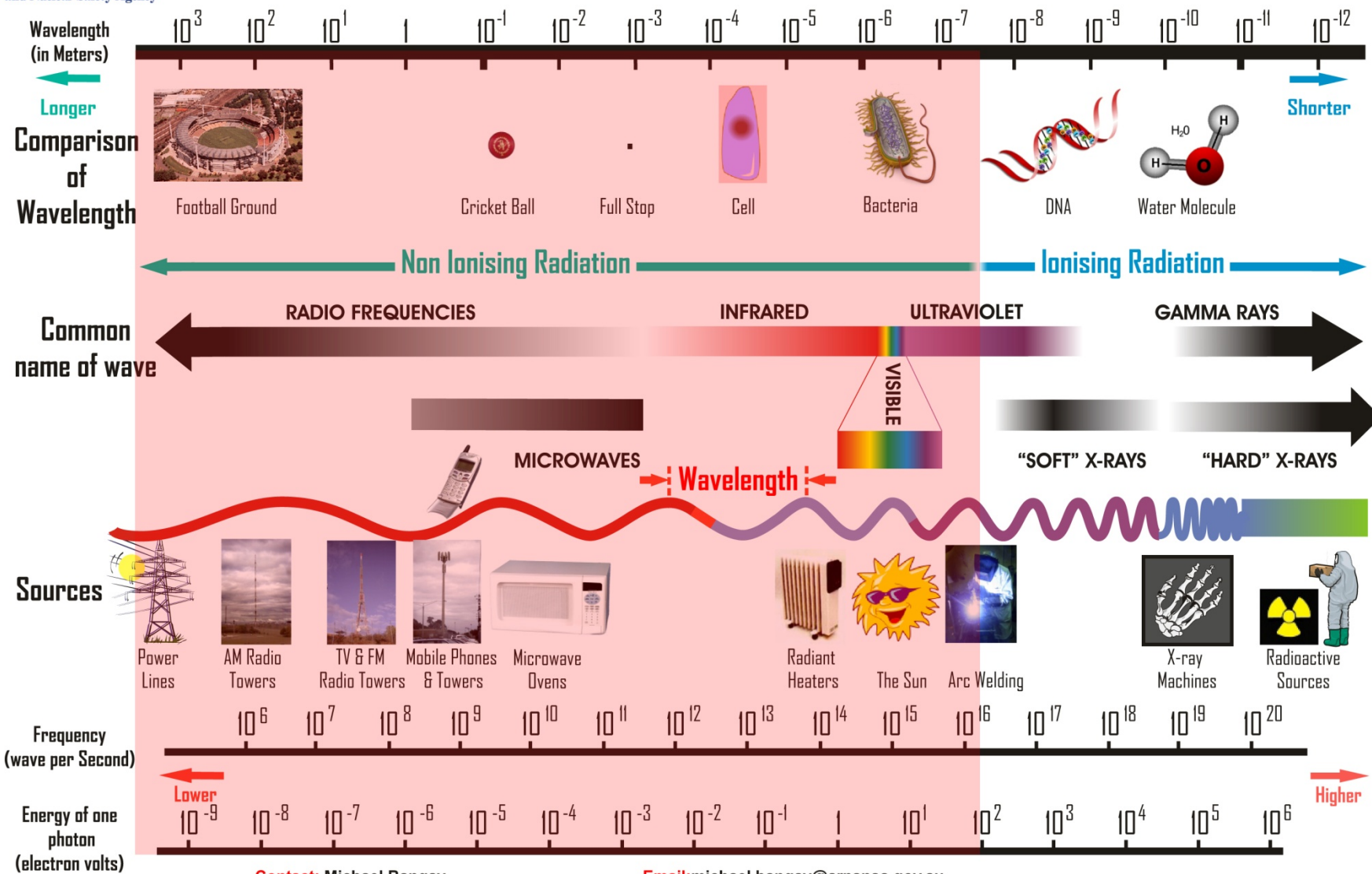
- > Spectrum fundamentals
- > Spectrum management framework
- > Licensing and pricing
- > Generic pressures/challenges and ACMA decision making framework



Australian Government

Australian Radiation Protection and Nuclear Safety Agency

# THE ELECTROMAGNETIC SPECTRUM

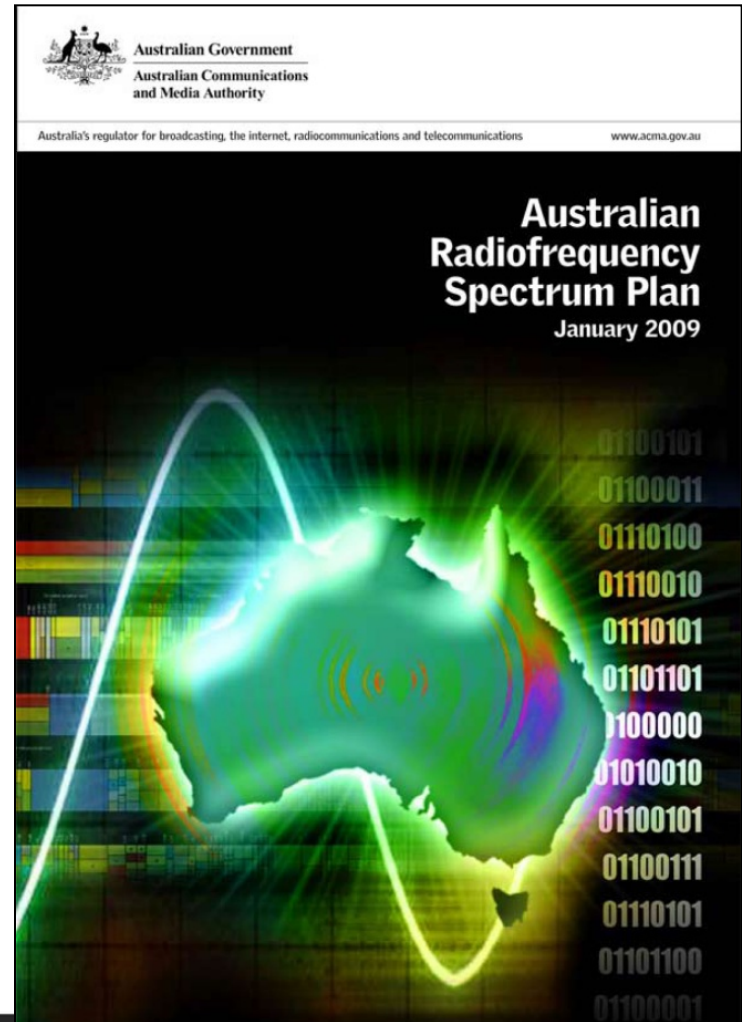


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# Spectrum management framework

- > Legislative basis
  - > Radiocommunications & Broadcasting Service Acts
- > Spectrum Planning
  - > International & Domestic
- > Licensing
- > Charging
- > Standards
- > Compliance



# Spectrum Licences

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## Radiocommunications Licensing

- > **Class**
  - > 'public park', 'spectrum commons'
- > **Apparatus**
  - > 'command & control'
- > **Spectrum**
  - > 'private spectrum'



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# Spectrum Licences

technology-neutral spectrum access right issued for up to 15 years

must be allocated by price-based processes

Licences are fully tradable

Licences can be traded in whole, or in part, either by bandwidth or geography

Spectrum licensees can authorise other parties to use the spectrum covered by a license

licensing concerned with use of spectrum space, rather than devices, their sites and emissions



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# Spectrum pricing

- > Class licensing — no charge.
- > Apparatus licensing — cost per device based on spectrum location, geographical location, amount of spectrum occupied and coverage area.
- > Spectrum licensing — cost for a ‘slice’ of spectrum in an area, generally auctioned like the digital dividend spectrum but the expiring spectrum licence process will see reissue of licences worth approximately \$3.2 billion.



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# Analysis and decision making framework (1)

- > Legislation and government policy
- > Principles of spectrum management
- > Five year spectrum outlook
  - > Spectrum demand analysis and strategic direction

## Principles of Spectrum Management

1. Allocate spectrum to the highest value use or uses.
2. Enable and encourage spectrum to move to its highest value use of uses.
3. Use the least cost and least restrictive approach to achieving policy objectives.
4. To the extent possible, promote both certainty and flexibility.
5. Balance the cost of interference and the benefits of greater spectrum utilisation.



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# Generic spectrum management challenges/opportunities

- > Spectrum demand v supply pressures
- > Incumbency issues
- > Standardisation choices — particularly between US & EU, however Asia is also emerging
- > New/emerging technology developments
- > Community/stakeholder expectations
- > Government spectrum user requirements
- > Convergence and stakeholder awareness