

# Spectrum management in Ofcom

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## Context: EU

- Framework Directive 2002/21/EC as amended in 2009
  - Article 8. The national regulatory authorities shall promote competition in the provision of electronic communications networks and services by . . . encouraging efficient use and ensuring the effective management of radio frequencies . . .
  - Article 9. Member States... shall ensure that spectrum allocation used for electronic communications services and issuing general authorisations or individual rights of use of such radio frequencies by competent national authorities are based on objective, transparent, non-discriminatory and proportionate criteria ...

## Context: UK

- Communications Act 2003
  - Section 3(1). It shall be the principal duty of OFCOM, in carrying out their functions—(a) to further the interests of citizens in relation to communications matters; and (b) to further the interests of consumers in relevant markets, where appropriate by promoting competition
  - Section 3(2). The things which, by virtue of subsection (1), OFCOM are required to secure in the carrying out of their functions include, in particular, each of the following—(a) the optimal use for wireless telegraphy of the electro-magnetic spectrum; . . .

## Ofcom's spectrum vision

- **Spectrum should be free of technology, policy and usage constraints as far as possible**
- **It should be simple and transparent for licence holders to change the ownership and use of spectrum**
- **Rights of spectrum users should be clearly defined and users should feel comfortable that they will not be changed without good cause**

*Spectrum Framework Review, June 2005*

## How to achieve – what mechanisms?

- Trading
  - Processes?
  - Leasing?
- Liberalisation
  - To what extent?
  - Licence exemption
- Auctions
  - Design?
  - Broader social value?
  - Public-sector participation?
- Pricing
  - Necessary if all the above?
  - How to calculate?
  - Ability to respond?
- Security of tenure
  - Tension with flexibility?
  - Benefits of harmonisation
- Information
  - Inventory?
  - Confidentiality?

## What have we done?

- Trading
  - Extended widely (e.g. business radio)
  - Auctioned licences
- Liberalisation
  - Extended widely
  - Auctioned licences
  - UWB regulations
- Auctions
  - GSM/DECT guard bands
  - 412-414/422-424 MHz
  - 1785-1805 MHz (Northern Ireland)
  - 10-40 GHz
  - L-Band (1452-1492 MHz)
  - Interleaved (Manchester and Cardiff)
- Pricing
  - Promotes efficient use of spectrum
  - Started to extend more widely
  - Public sector
- Security of tenure
  - Most auctioned licences 15-20 years
  - Rolling notice periods
  - EC decisions
- Information
  - Environmental Information Regulations

# Public sector spectrum

- **30% of all spectrum is held by the public sector**
- **Government policy to apply market-based disciplines to the public sector**
  - proper definition of public bodies' rights to use spectrum
  - trading enabled
  - incentives to release spectrum
- **Proposals for how the management of public service spectrum holdings should change**



Aeronautical and maritime



Defence & security



Emergency services



Astronomy

## Next steps

- Continue with Digital Switchover
- Award of 800 MHz band and 2.6 GHz
  - Implementation of relevant EC Decisions
  - Clearing the 800 MHz band of DTT and PMSE
  - Risk of interference to radars at 2.7 GHz
  - Expect to auction in Q1 2012
- Streamline trading and introduce leasing
- More releases to the market
  - Civil and public sector
- Conclude strategic review of spectrum pricing
  - Extend pricing and review existing fees where appropriate
- UK spectrum inventory
- Contribute to European thinking on white-space devices

**Thank you**

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