

# Mobile multimedia – regulatory issues

**Mobile TV Workshop 27 June 2005**

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# Ofcom's Spectrum Management Agenda

## **The Given: Fulfil our statutory duties**

Ensure optimal use of the spectrum

Take account of the needs of all spectrum users

Maximise economic benefits of the spectrum

## **The Ambition: Make the UK the leading country for wireless investment & innovation**

A better signposted approach to spectrum, giving more certainty in the market

A flexible approach to spectrum, providing opportunity for innovation

A competitive communications market, providing opportunity for returns on investment

## There are three possible ways to manage spectrum

### **Command & Control Zone**

Very prescriptive

Approach historically adopted for about 94% of the spectrum

### **Market Forces Zone**

Licensed with minimum necessary regulation

Approach advocated by Cave Review. Implemented by trading; liberalisation; and market-based awards

### **Licence-exempt Zone**

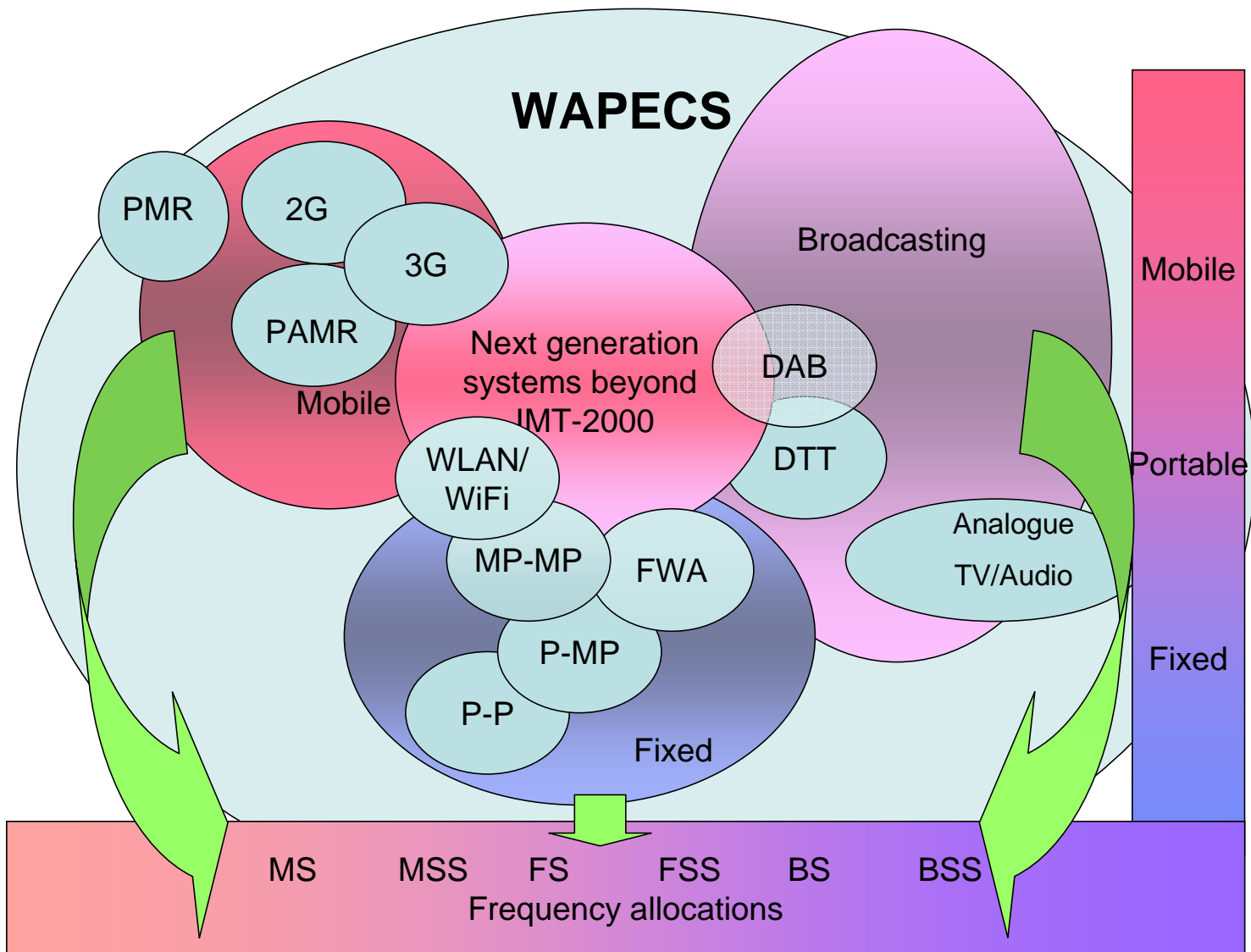
General permission + conditions

Approach currently adopted for 6% of spectrum

- Ofcom plans to shift the balance decisively towards the market forces zone.
- Limited increase in spectrum for licence-exempt devices.

## The Ofcom 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**



## Outlook for key spectrum bands - 1

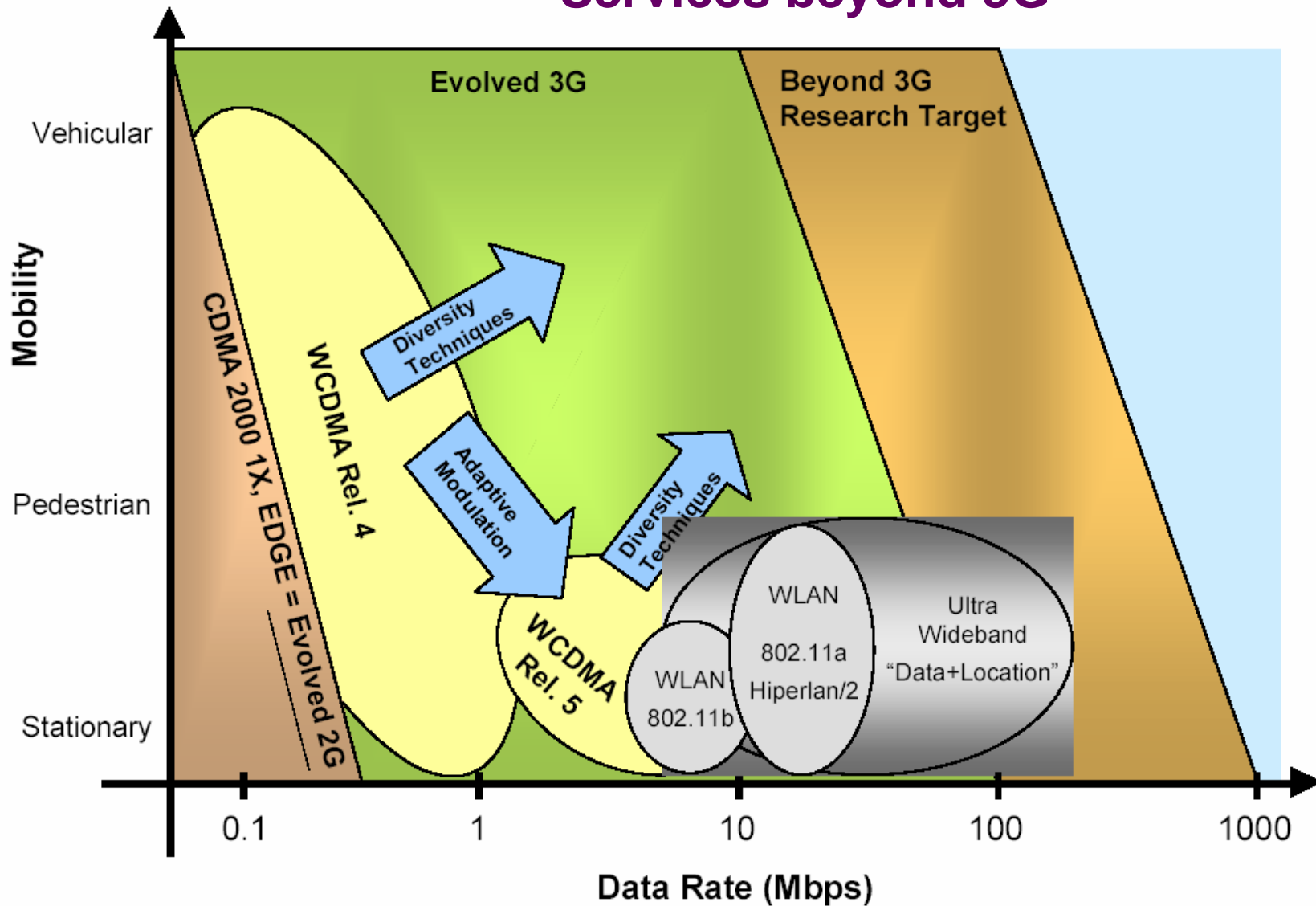
- Band III
  - Currently shared by PMR, PMSE and T-DAB
  - Current DAB muxes have 20% 'data' limit
  - Ofcom's Radio Review proposed completing the local DAB mux plan and licensing one or two further national DAB muxes
  - Potential for 'General Multiplex' licences
  - All proposals subject to consultation and outcome of RRC-06
- Bands IV/V
  - Currently used for 5 analogue and 6 digital terrestrial TV services
  - Current commercial digital muxes can carry 'TV' and up to 10% other services
  - Possible release of 14\*8MHz at switchover 2008-12
  - All plans for the released spectrum subject to outcome of RRC-06

## Outlook for key spectrum bands - 2

- L-Band
  - Fixed links in the band due to migrate by 2007
  - 40MHz identified across Europe for digital broadcasting
  - Ofcom proposal to award in 2006/2007: technology and application neutral
  - But separate awards of the 28 MHz and 12 MHz blocks would make it possible for satellite applications to compete
- 2.6GHz
  - ENG and OBs will migrate by 2007
  - 190 MHz identified for mobile communications in all European countries
  - Ofcom proposal to award on a technology and application neutral basis
  - Ofcom would like to make it available consistent with a UMTS band plan and emission mask



## Services beyond 3G





## ITU Regional Radiocommunications Conference, May/June 2006 (RRC-06)

- Aim: To establish an international agreement and associated frequency plan for digital broadcasting in Bands III, IV and V
  - RRC-06 will only consider higher power stations (>250W erp)
  - RRC-06 will cover digital radio and tv broadcasting, and the relationship with other radio services having international status
- In February 2005 we bid for:
  - 8 DVB-T networks with full national coverage to meet the public service broadcasting and commercial broadcasting requirements of the UK's "Digital Action Plan", plus the "released spectrum" \*
  - Continued protection of aeronautical radars (Ch 36) and radio astronomy (Ch38)
  - Additional T-DAB assignments
  - Continued use of Band III for mobile radio
- Further formal submission to the ITU in October 2005

\* Note: **no decision** has been taken about the application or technology which will be used in the released spectrum

## Ofcom approach to spectrum awards

- Objective: make spectrum available for use by the market, with the minimum constraints necessary, and as soon as reasonably practicable.
- Auctions are likely to be the efficient, robust and transparent way to assign spectrum:
  - First come, first served – fails to address excess demand
  - Beauty contest – involves subjective judgments
- NB: need to consider licence-exempt use *before* any licensing. Also, exceptionally, policy considerations may also justify more intervention.
- Ofcom obligations to promote most efficient use of spectrum, to promote competition, and other duties. These require:
  - an understanding of likely potential uses of any particular band
  - so that we can design *packaging* of spectrum and *award process* to facilitate efficient use – not to mandate a particular use

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