



IET/Cambridge Wireless Communications Event

# Proposals for the award of 800MHz and 2.6GHz spectrum

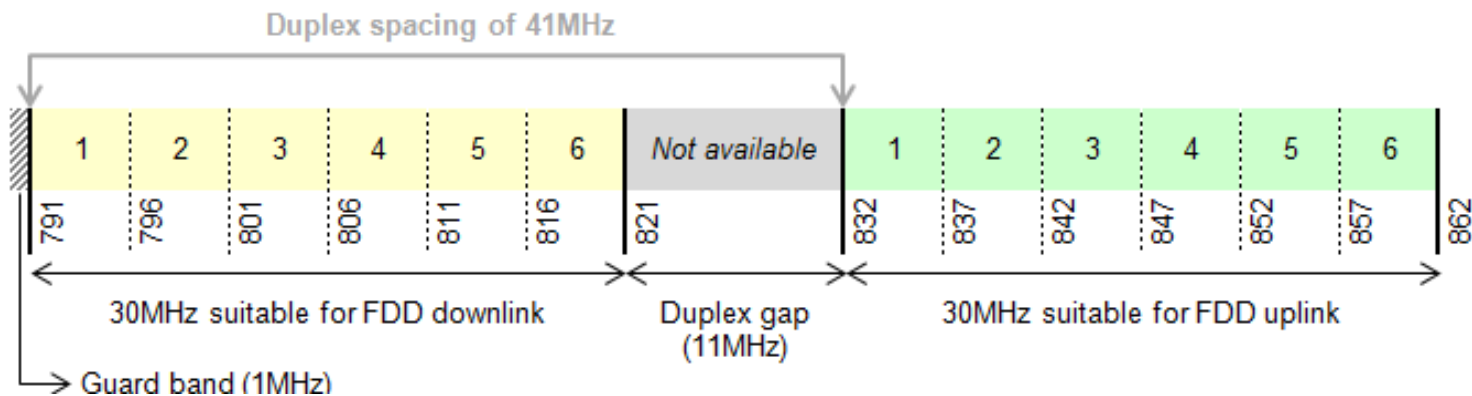
Graham Louth, Director of Spectrum Policy  
18 May 2011

## Timeline

- Government directed Ofcom to auction these bands in December 2010
- Proposals were published on 22 March for consultation
- Interested parties have until 31 May to respond with views and evidence
- Aim is to make decisions and publish statement in autumn, with auction itself starting in Q1 2012 (expected to complete in Q2 2012) with licences issued shortly thereafter
- Spectrum not available for new use until existing users cleared and potential interference into adjacent services appropriately mitigated
  - Not before beginning of 2013, and may not be until end of 2013 (or even later) for some frequencies in some parts of the country

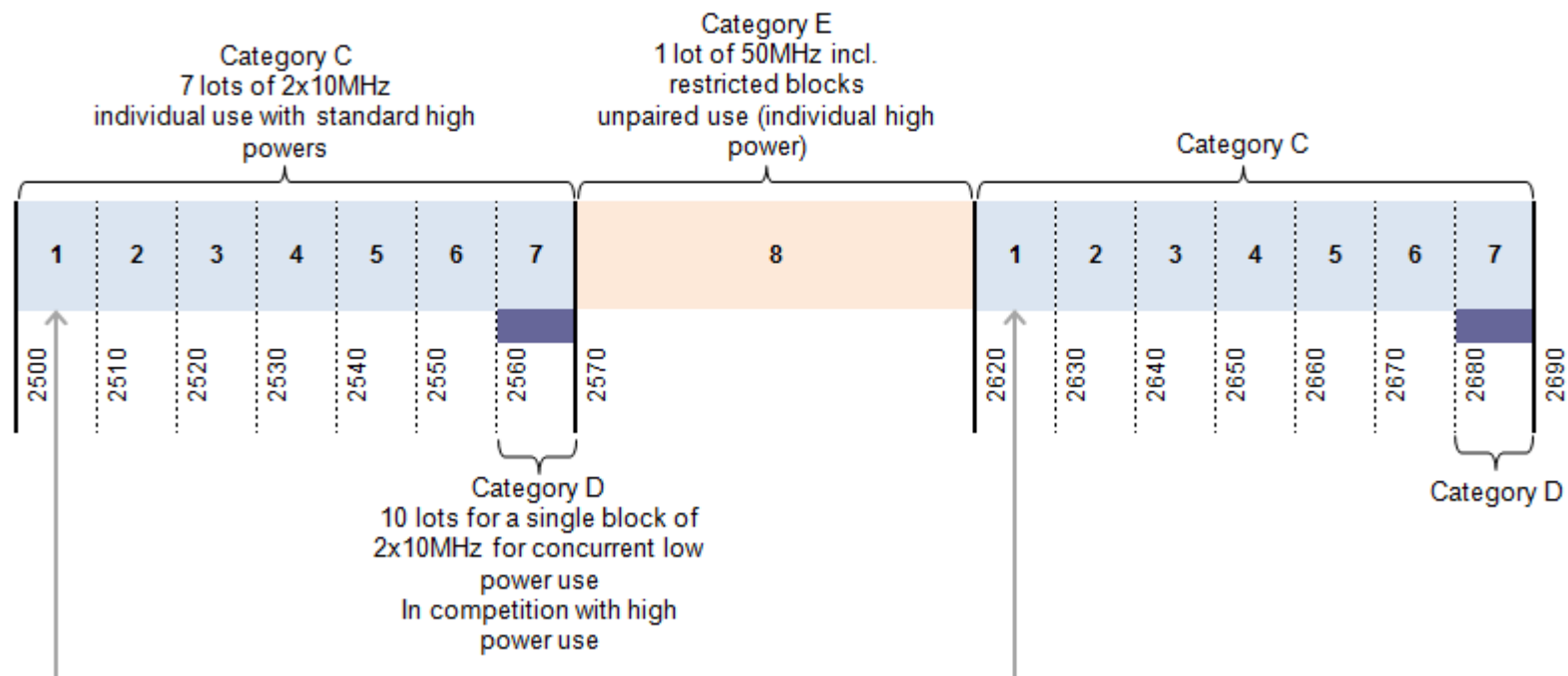
## Available spectrum: 800 MHz band

- 2 x 30 MHz of paired spectrum with 41 MHz duplex spacing
  - Propose to auction in lots of 2 x 5MHz (but bidders can bid for more than one lot)



## Available spectrum: 2.6 GHz band

- 2 x 70 MHz of paired spectrum with 120 MHz duplex spacing
  - Propose to auction in lots of 2 x 10MHz (but bidders can bid for more than one lot)
- 50 MHz unpaired spectrum in centre gap
  - Propose to auction as a single lot (but bidders can combine with other lots)



## Shared low power use of part of 2.6GHz band

- Understand interest in using part of the 2.6GHz band on a shared low power basis (for pico or femtocells)
- Propose at a minimum to design the auction in such a way that parties interested in such use can bid for a part of the 2.6GHz paired spectrum against those interested in using that spectrum on an individual high power basis
  - Low power bidders would win the spectrum if collectively they outbid the marginal bidder for high power use of the same spectrum
- Consultation proposal is for **2x10MHz** of 2.6GHz spectrum to be shared by up to **10 licensees**

## Shared low power use of part of 2.6GHz band

- Willing to consider increasing amount of spectrum available for low power use (e.g. to **2x20MHz**); possible option that some could be shared with high power use
- Willing to consider option of **reserving** part of the 2.6GHz spectrum for this purpose if evidence indicates that this would be best for consumers overall
- Willing to consider option of making low power use **licence exempt** if evidence indicates that this would be best for consumers overall (but technical advice to date has been that inter-operator coordination is likely to be required, and hence that some form of registration if not licensing is likely to be beneficial)
- Understand now that there may also be interest in using some or all of the centre gap for **TDD femtocells** – how do the two options compare?

## Other proposals

- **Rules to promote competition in future mobile markets**
  - At least four separate parties to hold sufficient spectrum after the auction to be credible national wholesalers
  - Spectrum caps to mitigate risks of particularly asymmetric outcomes
- **A coverage obligation on one 800MHz licensee**
  - Min 2Mbps indoor mobile broadband service covering 95% of UK population by end 2017
  - (NB All licensees have option of bidding for funding from e.g. BDUK to provide broadband services in rural areas)
- **Possible power to partially revoke 800MHz licences in specific circumstances**
  - If spectrum needed to deliver specific public policy goal and existing licensees are unable or unwilling to deliver the required service even when offered suitable funding



# Questions?