

Spectrum Framework Review: Implementation Plan

***Seminar in cooperation with
Intellect***

16 March 2005 – 10am – 12.30pm

Richard Marsden

DotEcon

- Economic consultancy specialising in network industries
- Areas of expertise include:
 - Economics of radio spectrum
 - Auctions
- Involved with many spectrum auctions:
 - Supporting bidders in 3G and FWA auctions worldwide
 - Auction design and implementation
 - e.g. Last year's 3.5GHz auction in Norway
- Currently working with Ofcom on award option for selected bands from SFRIP, for example:
 - Ex-Dolphin spectrum at 410 and 872 MHz
 - 2010-2015 & 2290-2302MHz
 - DECT guard bands

- Ofcom believes auctions are normally the best mechanism for award of spectrum when there is excess demand
- Why?
- Two broad reasons:
 - General efficiency benefits
 - Speed and practicality

- Alternatives to auctions have problems:
 - FCFS inappropriate if excess demand for spectrum at zero price
 - Beauty parades fail to give incentives to reveal the true strength of their business case
- Auctions encourage economically efficient allocation:
 - Incentives to reveal true valuation
 - Licence winners are those with greatest willingness to pay
 - Willingness to pay is normally best proxy for value to society

- Some circumstances where auctions may not deliver efficient outcome:
 - Bidder asymmetries / competition problems
 - High transaction costs – many small users
 - Social externalities – willingness to pay does not reflect true value
- Often these issues can be addressed through good auction design or other policy intervention:
 - Use sealed bids or adjust transparency to level playing field
 - Band managers to represent small users

- Experience suggests that auctions less likely to be subject to dispute than beauty contests
 - e.g. Irish 3G beauty contest
- Avoids unnecessary delay (and large costs)
- Considerable experience has now been built up in use of various auction formats appropriate to different types of allocation problem:
 - Many future spectrum auctions may use simple formats e.g. sealed bids
 - Even relatively complex SMRAs can be deployed quickly and reliably
 - e.g. Norway 3.5GHz with 6 regions and 125 lots ready in 3 months

- Benefits of auctions are particularly important going forward
- Liberalisation means that many new technologies may be vying for same spectrum
- Also many potential players (including non-traditional ones)
 - e.g. 2010-2025MHz band – suitable for MNOs, wireless broadband or video channels for programme makers
 - technologies include TDD (IP Wireless, Arraycomm) or FDD (Flarion, WCDMA)
- Difficult to see how these competing demands could be resolved without auctions

- Presence of secondary trading does not mean that primary assignment mechanism should not be as efficient as possible:
 - Auction allocation is starting point for future trading
 - Secondary trading can make auction design easier – resolve residual efficiency issues
 - Auctions alongside trading avoid random windfall gains