



# JRC Response to the Radiocommunications Agency consultation on Implementing Spectrum Trading

## Key Points

- ❑ In implementing Spectrum Trading, the utilities will expect Government to honour the commitment given when the 1998 Wireless Telegraphy Act passed through Parliament, namely “that the utilities, emergency services and the Environment Agency ... should continue to have access to the frequencies that they need to carry out their functions ... the introduction of spectrum pricing should not affect the access of essential services to the radio spectrum they require.” [Hansard November 1997].
- ❑ Where existing services are required to move in the interests of overall improvements in spectrum management efficiency, those organisations should not suffer the economic consequences of the changes and should be fully compensated for any mandated changes.
- ❑ In order to facilitate the rapid and successful introduction of spectrum trading, the Government should be willing to consider requests from existing spectrum users to enter into trading arrangements immediately where there is mutual agreement between the parties and a net gain in overall spectrum efficiency.

## Replies to specific Questions

**1. Modes of Trade:** The modes of trading outlined in the document make a good starting point, although there is a danger that they may become too prescriptive. In terms of reconfiguration and permitted use, the proposals tend to rely on historic patterns which are no longer appropriate. For example, boundaries between voice and data, fixed and mobile, simplex and duplex, and service bandwidths are much less rigid than in the past. It is important that the spectrum trading regime is designed to embrace changes which are already occurring in the market place.

**2. Interference Disputes:** The manager of a block of spectrum will inevitably be the first point of resolution of any interference dispute. A band manager needs to ensure that the source of any interference is not caused by equipment under their own control, and the non-emergency service response time from the RIS is not adequate for commercial services. However, where an interference case involves a third party outside of the band manager or their customers, the RIS [Ofcom] will need to be involved as the band manager is unlikely to possess the legal authority to collect the information necessary to resolve the dispute. A determination by Ofcom through non-binding arbitration is likely to offer a more satisfactory alternative than legal remedies in the case of complex technical issues.

**3. Scope of Trades – time periods:** The scope of trading should be as wide as possible. As outlined in the consultation document, time limited leasing is likely, at least initially, to be a prime feature as it benefits both parties without prejudicing longer term options.

**4. Scope of Trades – transfer of rights and obligations:** This should also be permitted on a widescale basis. For example, users may have extensive but geographically limited requirements and could seek to trade with partners with complementary geographical constraints.

**5. First Wave components:** Subject to the views of the sectors concerned, it would appear more logical to include “programme making and special events” and “aeronautical and maritime” in the first wave since they arguably have greater synergy with mobile services than public broadcasting. With regard to including third generation mobile licences in the first wave, JRC does have any particular interest in this sector, but considers it might be unwise to seek to include 3G services in proposals for the first wave. The sums of money involved in the 3G auctions and the consequences of permitting trading in this sector would dominate any discussion, with the result that the process would prejudice the interests of the other sectors involved.

**6. Second Wave components:** As outlined above, public broadcasting (and public cellular) would best be handled independently from other services as the policy implications and sums of money involved would again overshadow other services.

**7. More Complex Forms of Trading:** It would seem unwise for the regulator to seek to define too closely the forms of trade to be permitted as this is likely to restrict innovation and restrain the market. The regulator should concentrate on the boundary conditions, leaving commercial organisations unfettered in devising the most appropriate means to manage the spectrum within their control.

**8. Timing for the introduction of spectrum trading:** Spectrum trading should be permitted on the fastest possible timescale. If as has been argued to the Cave Review, that there is no overall shortage of spectrum, the resource simply needs more effective management, then the rapid introduction of spectrum pricing will lead to a net public benefit with the potential for prices to FALL as well as rise.

**9. Volume of Trading:** One would expect the volume of trading to grow slowly as organisations would be likely to be cautious at first, learning from experience on small deals before considering major activities. Trading is likely to commence in marginal areas where the added value is correspondingly low.

**10. Change of use or reconfiguration for the first wave:** As indicated earlier, the approach to the question is predicated on historic rigid service definitions and boundaries. Licensees are seeking increased flexibility in the manner in which spectrum can be exploited, which implies that change of use and reconfiguration should be permitted from the outset.

**11. Change of use or reconfiguration for the second wave:** If as indicated above, the second wave were to become public broadcasting only, then the opportunities to be flexible are more limited because of the large and varied number of radio receivers already in the market. Options for spectrum managers under these circumstances become much more limited. [Regulators should bear in mind that utilities have bitter experience of sharing VHF band II with Public Sound Broadcasting in the period 1960-1980.]

**12. Different Trading Rules for Different Sectors?** It may be wise to restrict the ability of service providers with a large customer base from disadvantaging consumers by changing

spectrum usage pre-emptively and without warning; otherwise, there seems little justification for applying different rules to different sectors,

- 13. Application of Competition rules:** At this stage, JRC does not see areas where existing competition law is inadequate to control potential dominance by vested interests.
- 14. Structure of tradable licences:** It is difficult to conceive of a global approach able to support a regime which would suit end users holding individual site licences. A more successful approach is likely to be built around intermediary organisations which will have the flexibility to exploit the use of the spectrum more effectively than a large central agency.
- 15. Predefined Frequency Trading Units:** The concept of Frequency Trading Units appears complex, bureaucratic and unnecessarily burdensome. In introducing a new concept, it would appear advisable to at least start with a simpler approach.
- 16. User negotiable boundaries:** There are already areas where users are practised in negotiating boundary conditions, namely the self-management spectrum organisations. There would be practical gains in the efficiency of spectrum use if the existing informal arrangements brokered by RA were formalised and developed into a full trading regime as an early pilot project.
- 17. Spectrum Reconfiguration on demand:** It is likely that successful implementation of this mode of trading would be user led with subsequent endorsement by the regulatory organisation.
- 18. Licence Terms and Security of Tenure:** The terms and conditions of any licence would be a complex arrangement depending on the mode of trading and the surrounding licensees. Increasing the granularity of the trading regime could result in large variety of licences with varying terms and conditions which could prejudice long term replanning of bands.
- 19. Continuation of Annual Licence Fees:** Whilst at the larger end of the market, there will be intense negotiation of terms and conditions for licences, towards the smaller end, the benefits from trading will be marginal and a fixed pricing structure is likely to offer the most efficient option.
- 20. Provision of information by Ofcom:** On first examination, it appears likely that the provision of basic information by Ofcom will be sufficient. Contact information and basic technical details are important. It appears unnecessary to compel disclosure of market information. If a licensee is willing to trade, it will be important to have details publicly accessible; if a user is unwilling to trade, there seems little merit in publishing any details if they are not necessary to facilitate other trades to take place.
- 21. Prior publication of trades by Ofcom:** Unless third parties are likely to challenge trades in order to seek to block them, there seems little merit in applying a prior publication requirement.
- 22. Topic listed in table 2 of paragraph 17.1:** The table looks sufficiently comprehensive at this stage.

**23. Start of Trading:** On the basis of starting with the simplest first and moving on towards the more complex and risky, permitting existing licence holders to trade those licenses at the margin is likely to provide an initial launch platform from which more complex rules can be developed. At the present stage in the market, running further auctions is likely to result in spectrum being left fallow as is the case with the 28 GHz Fixed Wireless Access band.

**24. Dealing with Capital Gains:** Professor Cave argued that unless business sees potential for making profits, it will not engage in uncertain business activities. With the current state of the markets, and it being unlikely that conditions will have markedly improved by the time spectrum pricing is introduced, it is perhaps more important to encourage prospective players into the market rather than create barriers to entry.

**25. Facilitating the start of spectrum trading:** The greatest contribution that Ofcom can make to developing the market is to ensure that the process is not unnecessarily burdensome. It is our view that intermediaries are likely to emerge. Ofcom can assist this process by ensuring that large players are not allowed to assume a dominant position, and that organisations cannot acquire spectrum rights in order to favour a particular proprietary technology or service to the detriment of actual or potential competitors.

**26. Regulatory Impact Assessment:** In section A1-4.1 quantifying the benefits, given the current state of the world telecoms markets the lack of any prospect of return to the growth seen in past years, the estimate of a potential benefit which may run the “several billions of £s a year” looks rather optimistic.

## **Background**

A. JRC Ltd is a wholly owned joint venture between the UK electricity and gas industries specifically created to manage the radio spectrum allocations for these industries used to support emergency and safety critical operations. JRC also represents gas and electricity interests to government on radio issues.

B. JRC manages 4 MHz of spectrum, of which 2.8 MHz is for PMR applications and 1.2 MHz for telemetry and telecontrol services. JRC created and manages a national cellular plan for co-ordinating frequency assignments for some of the largest PMR networks in the UK.

C. JRC manages VHF and UHF allocations. These networks keep the electricity and gas industries in touch with their field engineers throughout the country. The networks provide comprehensive geographical coverage to support the installation, maintenance and repair of plant in all weather conditions on a 24 hour/365 days per year basis.

D. The Scanning Telemetry Band is used by radio based System Control and Data Acquisition (SCADA) networks which control and monitor safety critical gas and electricity industry plant and equipment throughout the country. These networks provide reliable communications to unmanned sites and plant in remote locations.

***Adrian Grilli***  
Managing Director  
JRC Ltd  
7 October 2002