

**To**

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**Your details**

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**Spectrum Trading Associates**

Spectrum Trading Associates has been set up to provide a ready source of information, consultation and guidance for those interested in spectrum trading matters. The background of its founders, and their network of associates, covers the key aspects for this new approach to radio spectrum management, in particular in understanding the business, technical and regulatory issues.

We are pleased to be able to respond to this RSPG consultation.

**General questions**

1) Do you consider secondary trading of rights to use radio spectrum to be beneficial to consumers, businesses and radio users? why/why not?

Yes, it can be expected that a more dynamic trading environment will lead to new spectrum owners who will increase usage levels and spectrum is less likely to be left unused as it is by certain licensees today.

2) What types of transfer of rights to use radio spectrum (full, leasing, partial etc.) do you consider can be beneficial to consumers, businesses and radio users? why/why not?

All types of transfer of rights could be beneficial, the objective is to make the most effective use of radio spectrum through appropriate ownership.

3) What rights and associated obligations do you consider should be within the scope of secondary trading of rights to use radio spectrum?

It is essential that new users of spectrum operate the same standards of interference management etc as the original licensees

4) Would you want to see secondary trading of rights to use radio spectrum introduced in your country or in the countries of interest to you?

Yes

a) If yes – why, to what extent? when? frequency bands/services?

A phased introduction based on an assessment of band suitability, meeting needs of legacy agreements and established competitive positions, and completing the necessary licence amendments for trading to be permitted.

b) If no – why not, are there other tools that better suit your needs?

5) What information and electronic communication facilities should be made available to facilitate implementation of secondary trading of rights to use radio spectrum?

Readily accessible electronic records of previous trades and new proposals plus licencing conditions and the process for the resolution of disputes

### **Scope of trading – change of use, reconfiguration**

6) Is the possibility to reconfigure rights important? If yes, what kinds of reconfiguration do you consider would benefit consumers, businesses and users of spectrum? (geography, frequency, time, other)

Yes, all forms of reconfiguration should be considered based on circumstance and practicality

7) Is the possibility to use the spectrum in a flexible way important? If yes, what kinds of flexibility do you consider would benefit consumers, business and users of spectrum (service, technical constraints, other)

Yes, subject to interference limitations and ITU service designation, flexibility should be encouraged

8) To what extent is the tenure an important issue in assessing secondary trading? (indefinite, rolling, fixed, annual, other)

Regard needs to be given to engineering issues pertinent to the band. For example, reasonable tenure must be given if the radio systems take several years to rollout and the equipment has a life expectancy of over ten years. In all cases tenure should at least be commensurate with the depreciation period of capital equipment used for the particular purpose of the application

9) Should the same rules and regulations apply for the whole of the spectrum?

a) Is there a need for different rules and regulations for different frequency bands? geographical areas? services? users?

Yes, but only the minimum necessary

b) If you see a need for different rules and regulations in question 8a above, please give examples

There are many possible examples and differences, but one significant consideration is related to the grade of service required for the particular use of the spectrum. For example, point-to-point links that are part of a national telecommunications infrastructure may require greater certainty that interference will be maintained at a low (and known) level than would some other services

### **Competition aspects**

10) Should there be specific competition rules in relation to implementing secondary trading of rights to use radio spectrum, or is general competition law enough?

General competition law may be enough, but this aspect should be kept under review in the early years of trading.

### **The role of the spectrum management authority**

11) What do you see as the main responsibilities for a spectrum management authority in regards to secondary trading of rights to use radio spectrum?

To ensure that spectrum is fit for purpose whether used by the primary or a secondary licensee. If spectrum is to be traded as a commodity the amount of policing and enforcement of illegal or accidental polluting of spectrum needs improvement from today's standard.

12) To what extent is spectrum management authority approval of trades a benefit or an impediment to the development of a market for secondary trading of rights to use radio spectrum? Under what circumstances do you consider it would be necessary for a spectrum management authority to refuse a trade?

Today's licensees must meet certain standards regarding their ability to use spectrum on a proper and non-interfering basis. Any secondary user must also be of a fit standard. The spectrum management authority should police these issues in the same way as before trading was introduced

13) What specific measures could a spectrum management authority take to handle the issues if secondary trading is introduced? (ex ante approval procedures, ex post notification, competition aspects, limit change of use, interference aspects, other)

The key issue is interference. The rights of other users of radio bands must be assured.

Competition law should prevent anti-competitive practices concerning excessive spectrum ownership, hoarding to deny others access, etc.

The ready availability of information is also important.

14) To what extent should the national spectrum management authority actively facilitate secondary trading of rights to use radio spectrum?

National authorities should actively secondary trading as the current regimes are unnecessarily restrictive to the development of the radio spectrum market.

### **Community aspects**

15) Do you consider that adoption of individual regimes by EU member states will cause problems for consumers, businesses and radio users? If yes, in what ways and to what extent?

Not significantly, the market forces for new radio base systems are more significant than whether the implementation regime does or does not permit secondary trading.

16) Do you consider that the EU should take measures to facilitate the implementation of secondary trading of rights to use radio spectrum? If so, in what areas and to what extent? The EU should not stand in the way of secondary trading.

17) To what extent is European harmonisation of frequencies an important issue in regards to secondary trading of rights to use radio spectrum?

Harmonisation can help minimise cross border interference problems. However the advantages of spectrum trading and liberalisation could be lost if there were excessive restrictions and Europe moved at the pace of the slowest. On the other hand, we recognise that when appropriate, benefits arise from the larger markets for equipment and international standards etc.

### **Related experiences and examples of secondary trading**

18) What are your experiences with the current spectrum management regimes?

Current spectrum management regimes involve licencees acquiring spectrum through various allocation policies. There are some economic incentives to encourage spectrum to be used efficiently but unused or underused spectrum is quite often retained. This can be due to an unwillingness to see it re-assigned to competitors, 'hoarding' such that the spectrum is still available when it might be needed in future, or an insufficient financial incentive to return spectrum.

19) What are your experiences of secondary trading of rights to use radio spectrum?

Experience of secondary trading worldwide is limited and in this regard we consider that trading should be introduced gradually and carefully. Sharing of networks has occurred between 2G cellular operators, and similar interactions have taken place in other areas, however in these cases significant delays and costs were involved due to the activities of the spectrum management authority in having to approve all such changes to licence use. In these examples spectrum ownership has not changed but the spectrum has conveyed the service of others.

20) Please describe specific scenarios in which you consider that the introduction of secondary trading of rights to use radio spectrum would be beneficial

Spectrum trading will put the responsibility for the commercial and technical exploitation of blocks of radio frequencies firmly in the hands of the licensed owners of that spectrum. They will have the freedom to sell on their licences and that will, in itself, allow new modes of business operation, for example a joint venture could combine the allocations of two operators such that economies of scale and simplification of their networks could be achieved.

If change of use is also allowed this opens up the possibility of new applications and new revenue streams occupying spare spectrum.

#### 21) Any other comments

It is important to consider both secondary trading and liberalisation (change of use, reconfiguration, etc). These two measures will be used together but their characteristics are distinct. With secondary trading alone, the way in which spectrum is used may not alter in engineering terms other than alternative owners hopefully increasing usage levels. It is unclear how rapidly and to what extent liberalisation will occur but secondary trading while not essential, opens up greater commercial opportunity for new usage techniques and services. In such cases however the owners will have to show that the new use still meets the particular regulations and technical requirements for the allocation