



UMTS  
Forum

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## **Award of available spectrum: 2500-2690 MHz and 2010-2025 MHz**

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### **CONFIDENTIALITY**

Nothing

### **DECLARATION**

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The UMTS Forum welcomes the opportunity to respond to Ofcom discussion document related to the award of the frequency bands 2500-2690 and 2010-2025 MHz.

The UMTS Forum represents a significant group of spectrum users, who are interested in the development of public mobile communication networks including UMTS/IMT-2000 and, especially, its related spectrum topics. UMTS Forum is a cross sector group with many different players involved in third generation (3G) mobile communication systems, including equipment manufacturers, operators, administrations, service providers and software developers.

UMTS Forum is restricting its comments to the market impact and the consequence of envisaged flexibility added to the agreed CEPT band plan.

In line with its previous comments submitted in December 07, the UMTS Forum would like to reiterate its great concerns with regards to Ofcom plans to divert from the harmonised European band plan as defined in CEPT Decision ECC DEC(05)05. Ofcom's approach to implement a specific national FDD/TDD band plan, without any coordination at CEPT level, will fragment the European market for mobile broadband services and will create technical and investment uncertainties in the marketplace. The UMTS Forum considers that the 2.6 GHz band is the only band that will be available prior to 2015 for the extension of UMTS/IMT-2000 capacity and for the deployment of UMTS LTE in a 20 MHz FDD channel configuration.

A flexible band plan in terms of TDD and FDD spectrum arrangements would lead to a less efficient use of spectrum (significant amount of spectrum is wasted in guard bands) and ultimately impact consumers' benefits. A national band plan would lead to country specific equipment that will be more costly and with reduced roaming capabilities with other European countries. The timely availability of suitable equipment would then be questionable.

Moreover, the deviation from the harmonised band plan will rise cross border coordination issues and will lead to areas around the borders where it will be impossible to deploy any network or service. Therefore, the UMTS Forum strongly advocates the view that the bands 2500 – 2570 MHz and 2620 – 2690 MHz should be reserved for the FDD usage, in line with ECC/DEC/(05)05.

UMTS/IMT-2000 is based on 3GPP standards, which take into account the general (i.e. regional) regulations for the spectrum use. Open standards and economies of scale are important features in UMTS/IMT-2000, which have facilitated timely availability of complex equipment at reasonable cost. National requirements will work to the opposite direction, minimizing the equipment availability and making available equipment more costly. This kind of development will make the networks less attractive from user point of view.



**Question 1: Do stakeholders agree with Ofcom's assessment of the blocking effect and of its implications for spectrum packaging?**

The UMTS Forum continues to believe that the deviation from the CEPT harmonized band plan and the implementation of a flexible FDD/TDD scheme will lead to significant blocking due to interference from TDD into FDD terminals. Ofcom analysis on the blocking effect assumed a 15 MHz carrier separation between the FDD victim receiver and the TDD interferer. The results of this analysis are not sufficiently representative to conclude that the blocking effect is negligible. Indeed, this would mean that 10 MHz between an FDD operator and TDD operator remain unused which is will never be the case. The UMTS Forum therefore recommends Ofcom to redo the analysis while assuming that the TDD carrier is next to the FDD carrier (carrier separation of 5 MHz).

In addition, the UMTS Forum notes that Ofcom considered that a number of potential mitigation techniques can overcome the blocking of FDD devices when TDD devices are in close proximity. The mitigation techniques proposed by Ofcom included the potential availability of alternative methods of service provision for UMTS operators in the case of interference from WiMAX and the relative impact of blocking on the quality of service of voice communications and data communications. The UMTS Forum considers that those mitigation techniques are neither commercially nor technically viable. Indeed, the 2.6 GHz band is of particular interest for the deployment of FDD LTE in a 20 MHz configuration which enable high data rates services. If a user is blocked at 2.6 GHz, he will not be able to use equivalent service in any other band. Furthermore, the UMTS Forum disagrees with Ofcom assumption that the 2.6 GHz will be used for bursty packet data services that would less suffer from the blocking effect. The Forum considers that the 2.6 GHz band will be used for a variety of real time packed data services and that the blocking effect will very negatively impact consumers' experience in this band.

**Question 2: Do stakeholders agree with Ofcom's analysis of interference conditions that are relevant to the use of generic lots?**

The UMTS Forum does not share Ofcom conclusions and believes that the deviation from the harmonized CEPT band plan will lead to severe inference from TDD into FDD mobile devices. Furthermore, the UMTS Forum considers that European common approach and consensus are needed for the 2.6 GHz band and that standalone national decisions will lead to the fragmentation of the European market and will jeopardize economies of scale.

If other European countries were to follow Ofcom's FDD/TDD flexibility approach, this will also to severe constraints at the borders between neighboring countries due to the interference between base stations at the two sides of the borders. The UMTS Forum reiterates its position that sharing studies should be undertaken at CEPT level and encourages Ofcom to pursue and contribute to this way forward.



**Question 3: Do stakeholders agree with Ofcom's updated proposals for technical conditions or have views on the possibility of**

- **Extending the out-of-block masks out to an offset of  $\pm 20$  MHz from assigned blocks**  
The UMTS Forum notes that there are two valuable ECC groups that are studying the different frequency arrangements constraints in this band and UMTS Forum urges Ofcom to wait for the outcomes of the CEPT studies that should be issued in few months time from now.

- **Placing additional restrictions on the use of restricted blocks between the FDD uplink and TDD**

The UMTS Forum believes that guard bands are needed between FDD and TDD blocks.

- **A reduction in mobile station in-band power to 18 dBm/MHz EIRP**

The UMTS Forum considers that there a need to address further the impact of such reduction on LTE.

**Question 4: Do stakeholders agree with the proposed changes to the auction design set out in the December 2006 consultation?**

UMTS Forum does not intend making comment on the auction process.

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