

**UMTS Forum Response**  
**To the OFCOM Consultation**  
**Spectrum Framework Review: Implementation Plan**

The UMTS Forum congratulates OFCOM for the comprehensive and informative consultation document.

The Forum represents a significant group of spectrum users, which are directly interested in the development of public mobile networks, including UMTS/IMT-2000 and, especially, the related spectrum topics. The UMTS Forum gathers all the kinds of players involved in third generation mobile systems, including equipment manufacturers, operators, administrations, service providers and software developers.

The UMTS Forum welcomes the opportunity to comment to the OFCOM consultation concerning the spectrum related issues of public mobile networks in response to the following questions:

**Section 4 - Policy on release of spectrum**

***Question 4.1 Do you see scope for using simpler auction formats in the future than used in the UK in the past?***

***Question 4.2 Do you agree future auctioned licences be for a minimum fixed term with a rolling extension?***

***Question 4.3 If licences with minimum fixed terms followed by rolling terms are introduced, do you agree that AIP should be payable during the rolling term of a licence?***

***Question 4.4 What should Ofcom do to ensure that bidders are well informed and well prepared to participate in an auction?***

***Question 4.5 Do you agree these are relevant consideration which Ofcom should take into account in devising its programme of spectrum awards?***

***Question 4.6 Do you believe that the proposed award programme is appropriate?***

UMTS-F opinion on Questions 4.1 – 4.6

UMTS Forum does not support auctions because their financial benefits are transferred to government, and not to the player, nor the customers, nor to the information society sector. It means when the information society is prosperous, that would give several benefits indirectly to government.

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## **Section 5 - Potential spectrum awards up to 3GHz**

### ***Part of VHF Band III (174 – 230 MHz)***

#### ***Question 5.1 Do you agree with these proposals for the award of Band III?***

The UMTS Forum appreciates Ofcom's efforts to make available those unused bands, but this spectrum will be constrained by the still unknown RRC06 outcome, and seems too fragmented to be of immediate interest to 3G mass market services. Therefore the UMTS Forum has no precise opinion on the OFCOM proposal for the time being.

However, the Forum would like to draw Ofcom's attention to the fact that, from an EU regulatory point of view, PAMR -and probably PMR also- cannot constitute a type of licence really separate from cellular 2G or 3G licences. After lengthy investigations by CEPT, and then RSCOM<sup>1</sup>, the agreed conclusion has been that all the candidate regulatory tools proposed for preventing a PAMR and or PMR license holder from migrating to a "general purpose" public mobile service (typically 2G or IMT2000) were going against EU law (see document RSCOM04-02). Only insufficient spectrum, technical and costs constraints would prevent such a migration if the licence holder wishes to change its network purpose or commercial strategy.

Furthermore, regarding the first of those three elements, insufficient spectrum, there is always the potential solution for the licence holder to acquire more spectrum in its adjacent/nearby bands.

Therefore, the Forum doubts that there are viable purely regulatory means, i.e. provisions one can include in a license (or "attach to spectrum rights"), which will be able to force indefinitely a licensee to limit its service to what people call "PMR" or "PAMR" today, if this licensee has the technical and financial means to evolve towards 3G public service.

The above is one of the mechanisms which underpins the WAPECS concept (Wireless Access Platforms for Electronic Communications Services") currently investigated by RSPG (the EU Radio Spectrum Policy Group) and it applies to all the PAMR and PMR licences envisaged in this Ofcom consultation.

This remark applies to all the bands, which in this consultation are foreseen for PMR or PAMR.

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### ***Part of 410 – 425 MHz (410 -415 MHz paired with 420-425 MHz)***

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<sup>1</sup> Radio Spectrum COMMittee of the Spectrum Decision 2002/676.



**Question 5.2 Do you agree Ofcom should award a national licence on a technology and service neutral basis by auction or is there another option for award that is more likely to meet users' requirements?**

**Question 5.3 Do you think that spectrum in the band should be allocated for emergency services and business radio use?**

To the UMTS Forum those 2x5MHz seem too restricted to be of immediate interest to 3G mass market services on an international scale. Therefore the UMTS Forum has no precise opinion on the OFCOM proposal for the time being.

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#### **470 – 854 MHz Broadcast Dividend**

**Question 5.4 Do you believe it is appropriate wait until after the RRC in 2006 before developing policy proposals?**

The Forum agrees that it is appropriate to wait until after RRC-06 before developing policy proposals.

However, the Forum notes that the spectrum, which has been assigned once to broadcasting should not automatically remain assigned to broadcasting. This kind of “automatic assignment” is not the way the Forum understands the current EU regulatory framework.

The Forum thinks that in most, if not all, EU countries, the national circumstances combined with the need for spectrum efficiency (directives 2002/20, 2002/21 and 2002/77), the disappearance of exclusive rights for spectrum use (directive 2002/77), and the procedure for limiting the number of rights of use (directive 2002/20) make mandatory to envisage more possible uses of the digital dividend than just digital broadcasting.

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#### **872 – 876 MHz paired with 917-921 MHz**

**Question 5.5 Do you agree Ofcom should award a UK licence on a technology and service neutral basis by auction?**

This rather limited amount of spectrum could eventually be included in the scope of the UK refarming of GSM900 into 3G. We do not agree with awarding a UK licence on a technology and service neutral basis by auction since it may cause difficulties to treat fairly and equally the incumbent GSM spectrum users and potential future market entrants. It can be an opportunity to extend that band with frequencies mentioned above. However such extension should follow international coordinated rules for avoiding of interference and coordination problems, occurring when for example the duplex gap is not standardised. The standardised approach would increase the efficiency of spectrum allocation.

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#### **L-Band (1452 -1492 MHz)**

**Question 5.6 Do you think Ofcom's proposal is appropriate?**

The UMTS Forum has no opinion on this OFCOM proposal.

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**1781.7 – 1785 MHz paired with 1876.7 – 1880 MHz (GSM/DECT Guard Bands)**

**Question 5.7 Is the award of a small number of concurrent UK low power licences (on the basis described) the right approach?**

The Forum considers that only existing GSM operators (or maybe WCDMA ones, plus possibly BT) still have a reasonable chance to draw a benefit from those very peculiar bands. The network(s) will conceivably be some extensions of existing ones, and the business case of these bands is very specific, especially because of the unusual low power conditions. This is why, , the Forum is not in a position to confirm that the proposed approach is the proper one. Generally, the future solutions should not cause interference to DECT.

**Question 5.8 What, in your opinion is the optimum number of low power licences?**

For the reasons exposed just above this question is very specific to the UK. The low power option is rather unexplored by the Forum, which is not really in a position to answer your question.

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**1790 – 1798 MHz**

**Question 5.9 Do you believe the release of this band is a priority?**

Those bands seem too restricted to the UMTS Forum to be of immediate interest to 3G mass market services on an international scale. Therefore the UMTS Forum has no precise opinion on the OFCOM proposal for the time being.

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**2010 – 2025 MHz**

**Question 5.10 Is a technology neutral UK licence or licences the right approach?**

The band 2010-2020 MHz should be changed to be a licensed UMTS/IMT-2000 band. UMTS Forum preference is to have this band as a licensed UMTS/IMT-2000 band. The licensed use of this band would be most beneficial for users, operators and manufacturers in Europe.

The whole 2010-2025 MHz band should be considered together. The common approach for this whole 15 MHz band would enable better market creation than if there would be a separate spectrum solutions for 10MHz and 5MHz.

**Question 5.11 Do you think it useful to run the awards for 2010 – 2025 MHz and 2290 – 2302 MHz bands at the same time to facilitate the option of creating potential FDD pairings? How important do you think this is, compared to say the risk of extra complexity?**

Since it favours an EU harmonised band plan described in its response to the previous Question, the UMTS Forum recommends not to make a link between the 2010 – 2025 MHz and the 2290 – 2302 MHz bands, since the latter is a purely UK national band, and operators would run a serious risk not to find any manufacturers, or to have to live with expensive as well as incompatible UK-specific terminals. However the harmonisation could be achieved by aligning FDD pairing with the appropriate CEPT decisions.

**Question 5.12 Do you have any comments on how the auctions might be linked?**

Not applicable to the Forum, since it is of the opinion that the two bands should not be linked.

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## **2290 – 2302 MHz**

**Question 5.13 Is a technology neutral UK licence or licences the right approach?**

**Question 5.14 Do you think it useful to run the awards for 2010 – 2025 MHz and 2290 – 2302 MHz bands at the same time to facilitate the option of creating potential FDD pairings? How important do you think this is, compared to say the risk of extra complexity?**

**Question 5.15 Do you have any comments on how the auctions might be linked?**

UMTS-F comment on questions 5.13 - 5.15

The band 2290 – 2302 MHz is a UK-specific and therefore in not of immediate interest to 3G mass market services on an international scale. Therefore the UMTS Forum has no precise opinion on the OFCOM proposal for the time being.

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## **2500 – 2690 MHz**

**Question 5.16 Is a technology neutral award the right approach for the award of 2500 – 2690 MHz?**

Technological neutrality is only one of desirable goals<sup>2</sup>, and can sometimes be counteracted by other duly justified objectives<sup>3</sup>, such as “user freedom of choice” and “interoperability”<sup>4</sup>.

Specifically for this band, to day and not for other spectrum in general, the Forum is of the opinion that the technologically neutral approach inside the IMT2000 family is the solution.

The UMTS Forum supports the use of the band 2500 – 2690 MHz exclusively for IMT-2000/UMTS systems, since it favours the global harmonisation of the band 2500-2690 MHz, ensuring global benefits for UMTS users, operators and manufactures, taking advantage of economies of scale, global roaming, open standards and network and services interoperability.

The work for the global harmonisation of the extension band started in 1997. In 2000, WRC-00 identified the band 2500 – 2690 MHz for IMT-2000 on a world-wide level in order to fulfil the additional capacity needs of terrestrial IMT-2000/UMTS. In March 2001 the European Commission issued Mandate 4 to CEPT on “*Frequency Usage to Facilitate a Co-ordinated Implementation in the Community of Third Generation Mobile and Wireless Communication Systems Operating in Additional Frequency Bands as Identified by the WRC-2000 for IMT-2000 Systems*”.

In response to Mandate 4, CEPT adopted an ECC DEC(02)06 that designate the whole 2500 – 2690 MHz band for UMTS/IMT-2000 systems. The Licensing Committee adopted the CEPT deliverables through a written procedure that opened on 5 December 2002 and ended on 19 December 2002. The Decision DEC(05)05 therefore confirms what has already been decided in Decision Dec(02)06.

**Question 5.17 Do you consider an auction in 2006/7 appropriate?**

As said above, UMTS-Forum does not support auctions. Concerning the timing of IMT-2000 licensing of this band, UMTS-Forum's opinion is that it should be aligned with the EU and CEPT decisions requesting the band's availability by the year 2008 subject to market demand.

Since things are interrelated, the spectrum allocations should take place when all decisive commercial and technical information and options are all available for all the parts of those extension bands. While the technical information possibly can be available in 2007 for the 2 x 70MHz part, this will not be the case for the remaining 50MHz.

**Question 5.18 Do you have any views on the relevance of encouraging new entry through the auction design, and if so how this might be effected?**

**Question 5.19 What do you consider is the right approach to packaging this spectrum?**

No UMTS-F comment on questions 5.18 - 5.19

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<sup>2</sup> Framework Directive 2002/21, Article 8.1

<sup>3</sup> Section 4, 5<sup>th</sup> Para. of the Commission's First annual Report on the Spectrum Policy (COM(2004)507)

<sup>4</sup> See Article 17 of Framework Directive 2002/21.

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## **Section 6 - Potential spectrum awards over 3GHz**

### **3.6 – 4.2 GHz (3695-3875 MHz paired with 4015 – 4195 MHz)**

**Question 6.1 Do you agree that the band should be open for further terrestrial applications once Ofcom has clarified and regularised current usage in the band?**

The frequency range 3.6–4.2 GHz should be open for terrestrial mobile applications. The band 3.6–4.2 GHz should be considered in a context of the ITU-R discussions on spectrum for future terrestrial mobile technologies and its fragmentation should be avoided. Therefore UMTS-F suggests Ofcom to participate in, and contribute to, the ITU-R process.

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### **10 GHz (10.125-10.225 GHz paired with 10.475 – 10.575 MHz)**

**Question 6.2 Do you agree with the proposal to award a single UK licence on a service and technology neutral basis?**

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### **28 GHz (28.0525 to 29.4525 GHz)**

**Question 6.3 Do you agree with the proposal to open an award process for the remaining regional licences on the lines suggested?**

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### **32 GHz Band (31.8 – 33.1 GHz)**

**Question 6.4 Do you agree with the proposal to award one or more UK licences on a service and technology neutral basis?**

**Question 6.5 How many licences should be offered?**

**Question 6.6 Do you agree that the award process should be on the lines proposed?**

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### **40 GHz (40.5 to 43.5 GHz)**

**Question 6.7 Do you agree with the proposal to license part of the 40 GHz band to encourage its use for the development of innovative services and technologies?**

**Question 6.8 How much of the band should be opened for this purposes and what technical conditions should be imposed?**

**Question 6.9 Within what timescale should this licensing process be opened, in particular is the suggestion of the end of 2005/06 appropriate?**



*Question 6.10 Do you agree that point to point links should be licensed in part of this band on a location specific assigned basis, in the same way the existing point to point bands are licensed. If so how much spectrum do you consider would be appropriate for this?*

No UMTS-F comments on questions 6.2 – 6.10

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## **8 - Removing restrictions on the use of spectrum for mobile services**

### ***Removal of restrictions on providing mobile services other than 3G (pages 84 to 88)***

*Question 8.1 Do you have any views on the approach that Ofcom should take to restrictions that prevent the use of spectrum for mobile services other than 3G?*

*Question 8.2 Do you have a view on whether Ofcom should impose restrictions on new spectrum licences to prevent use of the spectrum for mobile services other than 3G?*

*Question 8.3 Do you agree that it may be appropriate to allow a period of time to elapse following an auction before extending liberalisation to auctioned licences, through the removal of restrictions as to type of use and technology? Please comment on this issue either as a general matter, or in relation to particular classes of auctioned licences, such as the 3.4 GHz licences, or both.*

*Question 8.4 If your answer to question 8.3 is affirmative, do you have a view on the period that might be allowed to elapse before removing restrictions on the 3.4 GHz licences? We would also be interested in your views on whether we need to seek to resolve this issue at any particular time.*

### ***Removal of restrictions on providing 3G mobile services (pages 89 to 100)***

#### ***Options for general approach – existing licences***

*Question 8.5 Do you consider that the criteria used above are the most relevant considerations in relation to the potential removal of restrictions on offering 3G mobile services? Do you have any views on the approach that Ofcom should take towards removing restrictions in existing spectrum licences that prevent use of the spectrum to provide 3G mobile services? Which of options 1-4 above do you think offers an appropriate balance between those considerations that are relevant?*

### ***Options for general approach – new licence awards***

***Question 8.6 Do you consider that the criteria used above are the most relevant considerations in relation to the application of liberalisation to the award of new licences and the opportunity to offer 3G services?***

***Question 8.7 Ofcom seeks views from interested parties on the approach that it should take to the award of new licences (other than in the 2010-2025 MHz and 2500-2690 MHz bands), and whether these should contain any restrictions as to use of the spectrum to offer 3G services. Do you have any views on which of the options discussed offers the most appropriate balance between relevant considerations?***

***Question 8.8 Do you have a view on whether it is useful to have a working definition of the term “3G services”? If so, do you agree with the definition set out for illustrative purposes above?***

UMTS-F comments on questions 8.1-8.8

The UMTS Forum thinks that 3G/IMT-2000/UMTS policy in general is an ITU-R/CEPT/EU matter, which probably leaves some margin of manoeuvre to Member States, but which is mainly a central piece of the EU policy for ICT and Information Society, and thus is an important element of the Lisbon Strategy.

This is why the Forum suggests that the 3G/IMT-2000/UMTS related elements of Ofcom's consultation and its results should be fed into a wider ITU-R/CEPT/EU reflection before Ofcom makes any decision.

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## **Section 9 - Trading and liberalisation in existing 2G and 3G bands** (pages 101 to 112)

### ***Liberalisation of 2G spectrum***

***Question 9.1 Do you have a view on the appropriate timing for seeking to resolve the issues discussed in this Section?***

***Question 9.2 Do you consider that there should, in principle, be benefits from extending liberalisation to the spectrum presently used for 2G services, so that there is greater flexibility for the market to determine optimum use?***

***Question 9.3 Do you have any comments on the significance of the constraints on liberalisation of 2G spectrum that are likely to flow from (a) technical constraints, to avoid undue interference, or (b) international obligations? What approach should Ofcom take to the liberalisation of the 2G spectrum, given the international obligations? And what approach should Ofcom take to those harmonisation measures that are relevant to the existing 2G spectrum?***

***Question 9.4 In your view, how relevant is the structure of competition in 3G services established by the 3G auction to considering the potential extension of liberalisation to the existing 2G bands?***

***Question 9.5 – Do you have any views on how Ofcom should analyse the potential effects of liberalisation of the existing 2G bands? Which aspects of the analysis do you think will be particularly important?***

***Question 9.6 – Do you have any comments on the options for giving effect to liberalisation of the existing 2G spectrum?***

UMTS-F comments on questions 9.1-9.6

The liberalisation in the sense of abandoning harmonisation in bands designated by ITU-R for 3G and covered by CEPT/EU harmonisation, is clearly an European issue if not a global one, and consequently not really a national issue.

The Forum thinks that liberalisation in the sense of allowing services other than GSM/GPRS/UMTS in 2G bands is not desirable for the years to come. When time has arrived the Forum thinks that this issue is to dealt at CEPT/EU level.

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### **Next steps**

#### **Extension of trading to existing 2G licences**

#### **Extension of trading and liberalisation to existing 3G licences**

***Question 9.7 – Do you have any comments on the extension of trading to the existing 2G licences, or on the extension of trading and liberalisation to the existing 3G licences?***

Spectrum trading should be considered separately from spectrum liberalisation. While spectrum trading may offer some positive market influence, the spectrum liberalisation can lead to chaotic spectrum allocation and use, losing the effects of economics of scale, transparency, roaming etc. etc.

Therefore the spectrum liberalisation should be avoided and spectrum trading issue should be considered in harmonised way at European level.

Regarding liberalisation in the existing 3G licences, the UMTS Forum reiterates its response to Question 5.16: a firm EU and CEPT harmonisation must be maintained

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## **Section 10 - 3G Operators roll out obligations – draft guidance -**

(pages 113 to 116)

***Question 10.1 Do you agree that guidance from Ofcom on its approach to enforcement of the 3G roll out obligations would be helpful?***

***Question 10.2 What are your views on Ofcom's proposed guidance on enforcement action?***

Based on other EU Member States experience, where rollout obligations had timescales starting in the region of 2002-2004, earlier than in the UK, and where authorities have been wisely willing to take into account the evolved economical and technical 3G availability, it seems obvious that no penalty should be imposed.

This being said, the slow rollout mentioned in Section 8.42, which indicates that in January 2005 some UK operators had not started 3G operations yet, shows how little incentives auctions can contribute to efficient spectrum use.

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