



February 27th, 2006

UMTS Forum response to the German Federal Network Agency's

"Consultation on possible UMTS/IMT-2000 award scenarios" in regard to the radio frequency band 2500 – 2690 MHz

The UMTS Forum welcomes the Federal Network Agency's first assessments of the responses to the consultation opened on 4 May 2005 as a comprehensive and informative consultation document put up for discussion, in compliance with the requests of the participants in the hearing on 27 October 2005. Moreover, the UMTS Forum welcomes the opportunity to comment to the current consultation on possible UMTS/IMT-2000 award scenarios.

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.

General views

In the ITU-R Radio Regulations (RR) the band 2500 – 2690 MHz is identified for the use by IMT-2000 on a global basis. Based on this identification, CEPT/ECC has subsequently decided through its Decision ECC/DEC/(05)05 that the frequency band 2500 - 2690 MHz is designated for terrestrial IMT-2000/UMTS systems and that CEPT member Administrations shall make provisions to allow for the harmonised use for terrestrial UMTS/IMT-2000 in this frequency band and make it available by 1 January 2008. This ECC Decision was developed and approved based on the guidelines provided by Mandate from the European Commission. Furthermore, all interested stakeholders in the ICT industry have been participating in CEPT ECC PT1 creating related ECC Decisions. Concerning the 47 CEPT member states, the result is a sound compromise of a wide range of views evaluated and assessed.

The UMTS Forum fully supports ECC Decision ECC/DEC/(05)05, as the band 2500 – 2690 MHz indeed should be used for fully mobile radio systems as defined in ITU-R. UMTS Forum, based on good spectrum management practice and spectrum efficiency, is of the view that non-mobile usage is better served in other frequency ranges, such as 3400 - 3800 MHz and bands around 5.8 GHz. Therefore, non-mobile systems, such as fixed or nomadic broadband wireless access systems should not be subject to European-wide regulatory mechanisms in any parts of the mobile band 2500 - 2690 MHz.

UMTS/IMT-2000 evolutions, in particular the migration towards the new innovative developments of HSDPA which is commercially available, but also HSUPA and the Long Term Evolution (LTE), are being consolidated within ETSI and 3GPP. The objective is to provide high capacity systems with considerably improved performances for mobile broadband wireless services. In addition, the expected further improved capacity performance of LTE systems suggest that there will be a firm need to allocate, per operator, frequency blocks of 2 x 20 MHz to achieve the highest transmission rates, particularly, in the downlink direction.

The UMTS Forum's comments on possible UMTS/IMT-2000 award scenarios

The Forum supports the German Federal Network Agency's aims in awarding additional spectrum, including its policy of active spectrum management to avoid shortage of spectrum resources for the evolution of the current IMT-2000/UMTS public mobile communication networks, taking into account the justified interests of the consumers and the market players.

The Agency's considerations of the current UMTS/IMT-2000 network operations

The Forum supports the Agency's considerations regarding the interests of the current UMTS/IMT-2000 network operations and the services provided to consumers, in particular the considered provision of a package of 2 x 10 MHz of supplementary spectrum to each of the current operation by way of an application procedure, without the unnecessary need for special award proceedings. The Forum also supports the merits of the application procedure proposed by the Agency, and especially the possibility for the UMTS/IMT-2000 network operators to apply for the spectrum when demand manifests itself. Thus accommodating for the UMTS operators' different timescales, and at the same time providing for equal access conditions. UMTS/IMT-2000 evolutions and in particular the migration towards the new innovative developments of HSDPA, HSUPA and the Long Term Evolution (LTE) suggest that there will be a firm need to allocate wider spectrum blocks than 2 x 10 MHz (e.g. 2 x 20 MHz blocks) per operator to achieve the highest transmission rates, particularly, in the downlink direction.

In fact, these considerations are in line with the view of the CEPT/ECC and its Decision ECC/DEC/(05)05, as agreed by the European Administrations. In the ECC/DEC/(05)05, it is decided that the whole band 2500 – 2690 MHz should be available for use by UMTS/IMT-2000 in accordance with market requirements, to provide seamless access to mobile broadband services and applications for the benefit of European consumers.

The Agency's considerations on opening up new ways to enter the market in the FDD bands for UMTS/IMT-2000 extension bands 2500 – 2570 MHz and 2620 – 2690 MHz

The UMTS Forum appreciates the Agency's efforts to offer fair competition with the minimum technical package of 2 x 10 MHz in the UMTS Core Band plus 2 x 10 MHz in the UMTS extension band for the potential new UMTS/IMT-2000 operator.

The Forum would like to reiterate its position on preferred minimum paired spectrum per operator¹ in the initial phase which results directly in the optimum number of UMTS operators in the 2 GHz "Core" band. The UMTS Forum considers that the question on the number of operators should be reconsidered according to today's situation and information available, and that the conclusion may prove to be less than six, as envisaged earlier. Therefore, the Forum supports the priority award of supplementary spectrum from the UMTS "Core" band for the established UMTS operators. Also, UMTS evolutions and in particular the migration towards the new innovative developments of HSDPA, HSUPA and the Long Term Evolution (LTE) suggest that there will be a firm need to allocate wider spectrum blocks than 2 x 10 MHz (e.g. 2 x 20 MHz blocks) per operator to achieve the highest transmission rates, particularly, in the downlink direction.

The Agency's considerations on opening up new ways of entering the market in the TDD part of the UMTS/IMT-2000 extension band 2570 – 2620 MHz

The Forum does not support the Agency's considerations for using the TDD spectrum for mobile broadband wireless access with systems not being fully mobile systems, and further not being member of the UMTS/IMT-2000 family which certainly need the whole band for its future evolutions into LTE, as described above.

Therefore, the Forum would like to draw the Federal Network Agency's attention to the fact that the TDD part of the UMTS/IMT-2000 extension band is already, or soon, needed to be used for the expansion of existing UMTS/IMT-2000 networks. In addition, it is optionally planned to pair TDD spectrum from different frequency ranges allowing additional FDD usage. In fact, 3GPP is formally requested by ECC PT1² to develop specifications for FDD uplink use in the bands 2010 – 2025 MHz and/or 1900 – 1920 MHz paired with a potential downlink in the band 2570 – 2620 MHz.

UMTS evolutions and in particular the migration towards the new innovative developments of HSDPA, HSUPA and the Long Term Evolution (LTE) are being consolidated within ETSI and 3GPP to provide higher capacity with improved performances for mobile broadband services. The expected capacity performance of LTE systems suggest that there will be a firm need to assign 2 x 20 MHz blocks per operator to achieve the highest transmission rates, particularly, in the downlink direction.

¹ 2x15MHz, see: UMTS Forum Report 5: "Minimum Spectrum Demand per Public Terrestrial Operator in the Initial Phase"

² see doc. ECC PT1(06)053 ANNEX 13

Conclusion

The UMTS Forum requests the German Federal Agency to implement a UMTS/IMT-2000 award scenario that take into account the future market requirements and long term evolutions of UMTS/IMT-2000.

As explained in the corresponding paragraphs above, this would lead to the conclusion that, for the good of consumers, the established UMTS/IMT-2000 operators should

1. have access to sufficient supplementary UMTS/IMT-2000 spectrum by way of application, without the need for special award proceedings ,
2. get priority in the award of currently unused spectrum in the UMTS/IMT-2000 “Core” band ,
3. have the option to benefit from the development of UMTS/IMT-2000 equipment allowing FDD uplink use in the bands 2010 – 2025 MHz and/or 1900 – 1920 MHz paired with a potential downlink in the band 2570 – 2620 MHz ,
4. have access to the unpaired band 2570 – 2620 MHz to be used for the expansion of UMTS/IMT-2000 networks providing asymmetrical services in the downlink direction .

This award scenario would allow the assignment of 2 x 20 MHz blocks to the established UMTS/IMT-2000 operators which then could provide their customers with the highest transmission rates expected from LTE systems.