0. EXECUTIVE SUMMARY

This Report gives the results of the work on extension bands that has been done within the Spectrum Aspect Group (SAG) of UMTS Forum providing an industry view on the suitability of these candidate bands for UMTS/IMT-2000 terrestrial component. It takes into account the interim results of the ongoing work in the relevant ERC [1] and ITU-R [2] groups.

In their efforts to identify additional spectrum for the UMTS/IMT-2000 terrestrial applications, Administrations call for justification and evidence to support the preparatory work for the ITU WRC-2000. As an European industry response, this Report summarises the relevant information on spectrum issues, lists the candidate extension bands and gives information on their current usage and benefits for 3rd generation applications. The report also explores examples of allocation scenarios in order to support the WRC-2000 decisions on the agenda item 1.6.

The UMTS Forum believes that:

- Extension Bands must be allocated on a primary basis to the Mobile Service in Article S5 of the ITU Radio Regulations, preferably in all three ITU Regions.
  Action would be necessary at WRC-2000 to modify allocations with the aim to allow mobile services in these bands, where these do not currently exist.

- Extension Bands must be identified clearly for IMT-2000 applications, following the approach of the existing IMT-2000 "core bands" which are identified in Footnote S5.388. This approach allows a measure of flexibility for administrations.
  Action would be necessary at WRC-2000 to identify Extension bands for IMT-2000 terrestrial applications in a Footnote to Article S5.

- Extension Bands should need to be made available from year 2005 or later subject to market demand.

The timing of the requirement for additional spectrum within individual countries may differ and will depend on the development of the market in those countries. It has been calculated that administrations will need the full additional spectrum between 2005 and 2010.

- That not all countries will be able to offer access to all identified bands, or parts of such bands;
- That both additional paired bands and additional unpaired bands will be required.

UMTS Forum Recommendations:

Recommendation N°1: The objectives at WRC-2000 should be:

- **to identify relatively large blocks of a minimum block size of 40 MHz, contiguous or as close as possible to the Core Band spectrum for IMT-2000 extension bands and**
- **to ensure these have primary Mobile Service allocation in all 3 ITU Regions and are identified for IMT-2000 applications on a similar basis to footnote S5.388[1].**

Recommendation N°2:

- **The amount of additional spectrum to be identified for IMT-2000 should have the potential to satisfy needs of 187 MHz for areas with high traffic demand according to the current estimates.**

- **Both, paired and unpaired arrangements should be made possible.**

Recommendation N°3:

The recommended additional IMT-2000 spectrum cannot be found in any single one of the candidate bands discussed in this report.

- **The band 2520-2670 MHz should be identified globally for the terrestrial component of IMT-2000.**

- **The additional spectrum should be found preferably in only one other band, identified according to the principles discussed in this report. The identification of this band needs to be subject of additional studies.**

Recommendation N°4:

- **In addition to these new IMT-2000 bands, the UMTS Forum recommends to identify existing 2nd generation bands for IMT-2000 (880-915/925-960 MHz, 1710-1785/1805-1885 MHz). These bands could only be available for UMTS/IMT-2000 services in the longer term according to the market evolution.**

[1] S5.388: The bands 1885-2025 MHz and 2110-2200 MHz are intended for use, on a world-wide basis, by administrations wishing to implement the future public land mobile telecommunication systems (FPLMTS). Such use does not preclude the use of these bands by other services to which the bands are allocated. The bands should be made available to FPLMTS in accordance with resolution 212 (Rev WRC-95).