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### Introduction

At its meeting in Edinburgh on 22-24, ERC TG1 approved a liaison statement to several working groups in 3GPP. This liaison statement is addressed to TSG RAN Working Group 4, but is copied to the Plenaries of TSG RAN and TSG T. This is presented to this meeting as:

TSGR#2 (99) 120, and

TSGT #2 (99) 035.

As the liaison statement is quite lengthy, this paper has been prepared to assist delegates in identifying those parts which are most relevant to TSG RAN and TSG T.

### Background

Within Europe, there are three main bodies which have responsibilities related to the introduction of 3G mobile services:

- ETSI develops standards in the field of telecommunications; for UTRA, these will be based on specifications developed in 3GPP
- The European Commission is the "civil service" of the European Community. In conjunction with the European Parliament and the Council of Ministers, it develops Directives, Decisions and Recommendations where co-ordinated action is required throughout the 15 member states of the European Community.
- The European Radiocommunications Committee (ERC) is a body of CEPT. The ERC is responsible for coordinating radio issues throughout Europe (about 40 countries are members, comprising almost every country in Europe).

The main working groups of the ERC are:

- Spectrum Engineering
- Frequency Management
- Radio Regulatory

However, for UMTS, the ERC decided to form a Task Group, TG1, which could work on all of these areas as they related to UMTS.

### Content of the Liaison statement

The liaison statement relates to three aspects of the work of ERC TG1:

- Compatibility between UMTS and other services in the 2GHz band, in particular the minimum carrier spacing between UMTS and adjacent services.
- Essential technical and operational requirements for mobile stations, necessary to ensure radio compatibility of IMT 2000 systems for worldwide use.
- Requirements to enable operation in frequency assignments deployed in Europe.

The Liaison statement will need to be considered in detail by several 3GPP Working Groups, and especially TSG RAN WG4. The following sections identify those parts of the liaison statement which are most important to the Plenary meetings.

### Matters of special interest to TSG RAN

- 1) Section 3 of the liaison statement points out that the ERC studies of adjacent band compatibility have used information supplied by SMG 2 over the last year. It appears from the information about UTRA supplied to ITU/R TG 8/1 (Contribution to R.KEY) that the 3GPP working assumption for some of the parameters might have changed. It is important that the compatibility studies use (as far as possible) the latest assumptions for UTRA.
- 2) The compatibility studies have considered compatibility between:
  - DECT and UTRA at about 1900MHz
  - UTRA (FDD and TDD) and MSS (Mobile Satellite Service) at about 1980MHz
  - UTRA (TDD) and MSS at about 2010MHz
  - UTRA (TDD) and FS/SSS (Fixed Service/Space Science Service) at about 2015MHz
  - UTRA (FDD) and FS/SSS at about 2110MHz
  - UTRA (FDD) and MSS at about 2170MHz

With the exception of DECT, all of these coexistence scenarios apply to systems are based on ITU/R recommendations (for acceptable levels of interference), or apply to systems which are deployed globally.

- 3) The report concludes that a guard band is usually required within the IMT 2000 band to protect the services in neighbouring bands. It will be necessary to ensure that the channel spacing for UTRA channels can accommodate this guard band within the IMT 2000 bands (this is more severe for TDD because the unpaired bands are narrower).
- 4) It was noted during the meeting that there is not much margin in fitting in the maximum number of channels into the IMT 2000 bands. The use of a 200kHz raster may place additional constraints in fitting these channels into the available spectrum.
- 5) This report will now undergo a period of consultation within ERC, and then a period of public consultation. Once it is approved, it will be used as the basis for regulatory action by member Administrations of the ERC. If the assumptions currently used in the report are inconsistent with the current assumptions in TSG RAN, it is important that the report is revised to reflect these assumptions, before it is finally approved.
- 6) Section 3.3 of the liaison statement gives some information on possible requirements for Variable Duplex Spacing for European applications.
- 7) Table 2 of Attachment 2 of the LS (Draft input to ITU/R IMT.TERM) contains a spectrum mask for unwanted emissions to be used as an essential technical requirement for IMT-2000 terminals. Section 3.4 of the LS discusses how this information could be included in ITU/R recommendations. TSG RAN WG4 is requested to comment on this, and on the content of the table.

### Matters of special interest to TSG T

- 1) Essential technical requirements. The requirements in Section 4 of Annex 1 of the proposed draft text of IMT.TERM (Annex 1 of Attachment 2 of the liaison statement) may have an impact on TSG-T.
- 2) Variable duplex spacing. Section 3.3 of the liaison statement gives some information on possible requirements for European applications.