



Radiocommunication Bureau
(Direct Fax N°. +41 22 730 57 85)

Circular Letter
4/LCCE/102

24 November 2010

**To Administrations of Member States of the ITU,
Radiocommunication Sector Members and ITU-R Associates
participating in the work of Radiocommunication Study Group 4**

Subject: Invitation for submission of proposals for candidate radio interface technologies for the satellite component of the radio interface(s) for IMT-Advanced and invitation to participate in their subsequent evaluation

1 Introduction

ITU-R has commenced the process of developing ITU-R Recommendations for the satellite component of the IMT-Advanced radio interface(s). This work is guided by Resolution ITU-R 57 (see the Attachment to this Circular Letter).

Resolution ITU-R 57 on the “Principles for the process of development of IMT-Advanced” outlines the essential criteria and principles which will be used in the process of developing the Recommendations and Reports for IMT-Advanced, including Recommendation(s) for the radio interface specifications.

2 Purpose of this Circular Letter

The purpose of this Circular Letter is to invite the submission of proposals for candidate radio interface technologies (RITs) or a set of RITs (SRITs) for the satellite component of IMT-Advanced.

This Circular Letter also initiates an ongoing process to evaluate the candidate RITs or SRITs for the satellite component of IMT-Advanced, and invites the formation of independent evaluation groups and the subsequent submission of evaluation reports on these candidate RITs or SRITs.

Within the ITU-R, the work on the satellite component of IMT-Advanced will be conducted in ITU Radiocommunication Study Group 4 (SG 4). Working Party 4B (WP 4B) of SG 4 has been identified as the group responsible for this work.

3 Web page for the satellite component of IMT-Advanced

The Radiocommunication Bureau has established an “IMT-Advanced-Satellite” web page (<http://www.itu.int/ITU-R/go/rsg4-imt-adv-sat/>) to facilitate the development of proposals and the work of the evaluation groups. The IMT-Advanced-Satellite web page provides details of the process for the submission of proposals, and will include the RIT and SRIT submissions, evaluation group registration and contact information, evaluation reports and other relevant information on the development of the satellite component of IMT-Advanced.

4 Procedure for submitting candidate RITs or SRITs

The submission of proposals should be made in accordance with the submission process delineated on the IMT-Advanced-Satellite web page.

Proponents and IPR holders should indicate their compliance with the ITU policy on intellectual property rights (see Annex 1 of Resolution ITU-R 1-5), as specified in the Common Patent Policy for ITU-T/ITU-R/ISO/IEC available at <http://www.itu.int/ITU-T/dbase/patent/patent-policy.html>.

Submissions should be addressed to the Counsellor for ITU-R Study Group 4, Mr. Nelson Malaguti (nelson.malaguti@itu.int). These submissions will be prepared as inputs to Working Party 4B and will also be made available on the IMT-Advanced-Satellite web page. Receipt of submissions will be acknowledged by the Radiocommunication Bureau.

5 Evaluation of candidate RITs or SRITs

Candidate RITs or SRITs will be evaluated by the ITU membership, standards organisations and other independent evaluation groups. Evaluation groups are requested to register with ITU-R*, preferably by September 2011. The evaluation groups are kindly requested to submit evaluation reports to the ITU-R in accordance with the evaluation process delineated on the IMT-Advanced-Satellite web page. The evaluation reports will be considered in the development of the ITU-R Recommendation(s) describing the radio interface specifications.

The evaluation guidelines, including the criteria and methodology, are contained in [Report ITU-R M.2176](#) - Vision and requirements for the satellite radio interface(s) of IMT-Advanced.

Valery Timofeev
Director, Radiocommunication Bureau

Attachment: 1

Distribution:

- Administrations of Members of the ITU and Radiocommunication Sector participating in the work of Radiocommunication Study Group 4
- ITU-R Associates participating in the work of Radiocommunication Study Group 4
- Chairman and Vice-Chairmen of Radiocommunication Study Group 4
- Secretary General of the ITU, Director of the Telecommunication Standardization Bureau, Director of the Telecommunication Development Bureau

* Evaluation group registration forms are available at: <http://www.itu.int/ITU-R/go/rsg4-imt-advanced-satellite/>

ATTACHMENT

RESOLUTION ITU-R 57

Principles for the process of development of IMT-Advanced

(2007)

The ITU Radiocommunication Assembly,

considering

- a) that Resolution 228 (Rev.WRC-03) invites ITU-R to further study technical and operational issues relating to the future development of IMT-2000 and IMT-Advanced, and develop Recommendations and Reports as required;
- b) that Question ITU-R 229/8 addresses the future development of IMT-2000 and IMT-Advanced;
- c) that Recommendation ITU-R M.1645 defines the framework and overall objectives of the future development of IMT-2000 and systems beyond IMT-2000 for the radio access network based on the global user and technology trends, and the needs of developing countries;
- d) that Resolution ITU-R 56 specifies the nomenclature for the future development of IMT-2000 and systems beyond IMT-2000 through names uniquely associated with the advancement and continuation of International Mobile Telecommunications (IMT);
- e) that the future development of IMT-2000 and IMT-Advanced is foreseen to address the need for higher data rates than those of currently deployed IMT-2000 systems;
- f) that, for global operation and economy of scale, which are key requirements for the success of mobile telecommunication systems, it is desirable to agree on a harmonized time-frame for developing common technical, operational and spectrum-related parameters of systems, taking account of relevant IMT-2000 and other experience;
- g) that maximizing the commonality between IMT-Advanced air interfaces may lead to reduced complexity and a lower incremental cost of multi-mode terminals;
- h) that consensus-building is used to facilitate agreements within ITU-R,

noting

- a) that pursuant to Article 44 of the ITU Constitution, Member States shall endeavour to apply the latest technical advances as soon as possible;
- b) that globally harmonized spectrum for IMT-Advanced is desirable;
- c) that the ITU process for IMT-2000 standardization has been essentially beneficial to the development of mobile telecommunications,

recognizing

- a) that ITU-R has policies regarding Intellectual Property Rights (IPR) as expressed in Resolution ITU-R 1 as well as in Administrative Circular CA/148 (dated 15 April 2005), in which “attention is drawn to the importance of early disclosure and declaration of patents in order to avoid potential problems in the approval and eventual application of ITU-R Recommendations”;

- b) that a consensus-building process should ensure the potential for wide industry support of the radio interfaces that are developed for IMT-Advanced and that there is an expectation that the development of candidate radio interface technologies will take into account the objectives recommended in Recommendation ITU-R M.1645;
- c) the importance of facilitating global circulation;
- d) that the IMT-Advanced standardization process should be streamlined to incorporate the latest technology innovations to address user needs;
- e) that the term “IMT-Advanced” be applied to those systems, system components, and related aspects that include new radio interface(s) that support the new capabilities of systems beyond IMT-2000¹;
- f) that ITU is the internationally recognized organization that has sole responsibility to define and to recommend the standards and frequency arrangements for IMT systems, with the collaboration of other relevant organizations such as standard development organizations, universities, industry organizations and with partnership projects, forums, consortia and research collaborations;
- g) that wireless access technologies that may address some of the capabilities of systems beyond IMT-2000 have been or are being developed for deployment within or prior to the time-frames expressed in Recommendation ITU-R M.1645;
- h) that adequate spectrum identification on a global basis is a prerequisite for the success of the future development of IMT-2000 and systems beyond IMT-2000, although new technologies might assist in this task;
- j) that the details related to IMT-2000, future development of IMT-2000 and systems beyond IMT-2000 will be specified in Recommendations and Reports to be developed taking into account the framework established in Recommendation ITU-R M.1645, “Framework and overall objectives of the future development of IMT-2000 and systems beyond IMT-2000”;
- k) that particular needs of developing countries must be considered with the aim of bridging the existing digital divide, with the objective of facilitating interoperability of different radio interfaces,

resolves

- 1** to develop the Recommendations and Reports for IMT-Advanced, including Recommendation(s) for radio interface specifications;
- 2** that the development of Recommendations and Reports for IMT-Advanced shall be an ongoing and timely process with defined outputs that take into account developments external to ITU-R;
- 3** that radio interface technologies that are proposed to be considered for IMT-Advanced shall be developed based on submissions from Member States, Sector Members and Associates of relevant ITU-R study groups, and may additionally be based on submissions invited from external organizations, in accordance with the principles set out in Resolution ITU-R 9-3;

¹ As described in Recommendation ITU-R M.1645, systems beyond IMT-2000 will encompass the capabilities of previous systems, and the enhancement and future developments of IMT-2000 that fulfil the criteria in *resolves* 2 of Resolution ITU-R 56 may also be part of IMT-Advanced.

- 4 that the process for developing Recommendations and Reports for IMT-Advanced shall give equal opportunity to all proposed technologies to be evaluated against the requirements for IMT-Advanced;
- 5 that new radio interfaces that are developed over time should be considered for inclusion in IMT-Advanced in a timely fashion, and, if appropriate, that the relevant Recommendations be revised;
- 6 that, in light of the above *resolves*, this process shall include:
- a) the definition of minimum technical requirements and evaluation criteria, based on the framework and overall objectives of IMT-Advanced, that support the new capabilities expressed in Recommendation ITU-R M.1645, taking into account end-user requirements and without unnecessary legacy requirements;
 - b) an invitation for Members of ITU-R, through a circular letter, to propose candidate radio interface technologies for IMT-Advanced;
 - c) additionally, an invitation to other organizations to propose candidate radio interface technologies for IMT-Advanced, under the scope of liaison and collaboration with such other organizations through Resolution ITU-R 9-3. In such invitations the attention of these organizations shall be drawn to the current ITU-R Intellectual Property Rights (IPR) policies;
 - d) an evaluation by ITU-R of the radio interface technologies proposed for IMT-Advanced to ensure that they meet the requirements and criteria defined in 6 a) above. Such an evaluation may utilize the principles for interaction of ITU-R with other organizations as detailed in Resolution ITU-R 9-3;
 - e) consensus-building with the objective of achieving harmonization in response to the *considering* and *recognizing* paragraphs of this Resolution and which would have the potential for wide industry support of the radio interfaces that are developed for IMT-Advanced;
 - f) a standardization phase where ITU-R develops the IMT-Advanced radio interface specification Recommendation(s) based on the results of an evaluation report (defined in *resolves* 6 d)) and of consensus-building (defined in *resolves* 6 e)) ensuring that the specifications meet the technical requirements and evaluation criteria as defined in 6 a) or 6 g). In such a standardization phase, work may proceed in cooperation with relevant organizations external to ITU in order to complement the work within ITU-R, using the principles set out in Resolution ITU-R 9-3;
 - g) reviews of the minimum technical requirements and evaluation criteria defined in 6 a), taking into account technology advances and end-user requirements changing with time. As the minimum technical requirements and evaluation criteria are changed, these will be designated as separately identifiable versions for IMT-Advanced. The process will include review of existing versions to determine whether they should remain in force;
 - h) an ongoing and timely process where new radio interface technology proposals may be submitted and existing radio interface specifications can be updated. The process should have flexibility to allow proponents to seek evaluation against any version of the approved criteria currently in force,

instructs the Director of the Radiocommunication Bureau

1 to ensure that proponents of IMT-Advanced radio interface technologies and standards are aware of ITU-R IPR policy pursuant to Resolution ITU-R 1-5;

2 to provide the necessary support and to implement suitable procedures to meet the requirements of the *resolves* above, including the sending of a circular letter calling for radio interface technologies proposals.
