

Project	<b>IEEE 802.16 Broadband Wireless Access Working Group</b> < <a href="http://ieee802.org/16">http://ieee802.org/16</a> >	
Title	<b>Report of the meeting of the ITU ad hoc group during Session #44</b>	
Date Submitted	<b>2006-07-20</b>	
Source(s)	José M. Costa (ITU-R Liaison Official) NORTEL 3500 Carling Avenue Ottawa, Ontario CANADA K2H 8E9	Voice: +1 613 763-7574 Fax: +1 613 765-1225 <a href="mailto:costa@nortel.com">costa@nortel.com</a>
Re:	Preparation of liaison contributions to ITU-R.	
Abstract	<p>The activities of the ad hoc group cover four areas:</p> <ol style="list-style-type: none"> <li>1) ITU-R WP 8A on IEEE 802.16 in Mobile Service frequency bands.</li> <li>2) ITU-R WP 9B on IEEE 802.16 in Fixed Service frequency bands.</li> <li>3) ITU-R JTG 6-8-9 on sharing with satellites in the band 2500-2690 MHz.</li> <li>4) ITU-R WP 8F on IMT (including IMT-2000 and IMT-Advanced).</li> </ol>	
Purpose	Approve the proposed actions to contribute to ITU-R	
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Patent Policy and Procedures	<p>The contributor is familiar with the IEEE 802.16 Patent Policy and Procedures &lt;<a href="http://ieee802.org/16/ipr/patents/policy.html">http://ieee802.org/16/ipr/patents/policy.html</a>&gt;, including the statement "IEEE standards may include the known use of patent(s), including patent applications, provided the IEEE receives assurance from the patent holder or applicant with respect to patents essential for compliance with both mandatory and optional portions of the standard." Early disclosure to the Working Group of patent information that might be relevant to the standard is essential to reduce the possibility for delays in the development process and increase the likelihood that the draft publication will be approved for publication. Please notify the Chair &lt;<a href="mailto:chair@wirelessman.org">mailto:chair@wirelessman.org</a>&gt; as early as possible, in written or electronic form, if patented technology (or technology under patent application) might be incorporated into a draft standard being developed within the IEEE 802.16 Working Group. The Chair will disclose this notification via the IEEE 802.16 web site &lt;<a href="http://ieee802.org/16/ipr/patents/notices">http://ieee802.org/16/ipr/patents/notices</a>&gt;.</p>	

# Report of the meeting of the ITU liaison group during Session #44

*José Costa (ITU-R Liaison Official)*

## 1. Introduction

The ITU ad hoc group met from 13:00 to 14:30 hours on Tuesday, 18 July 2006, in San Diego, CA, USA, chaired by José Costa. About 25 people participated. The following agenda was adopted:

1. Introductions and approval of agenda
2. Adoption of report of the previous meeting ([IEEE L802.16-06/005](#))
3. Presentation of contributions to be considered:
  - [IEEE L802.16-06/010](#)  
Working Party 8A Liaison Statement on Radio Interface Standards for Broadband Wireless Access Systems, including Mobile and Nomadic Applications, in the Mobile Service Operating Below 6 GHz (2006-05-25)
  - [IEEE L802.16-06/011](#)  
Approval of New Recommendations from ITU-R SG9 (2006-05-10)
  - [IEEE L802.16-06/012](#) (Note: Consider Attachments B and C only)  
Liaison Statement from ETSI BRAN to ITU-R WP 8A re M.BWA standards (Bernd Friedrichs; 2006-07-10)
4. Preparation of liaison contribution to ITU-R WP 8A in response to [IEEE L802.16-06/010](#)
5. Discussion on the standardization process for IMT-Advanced
6. Discussion of upcoming relevant ITU-R meetings
7. Other business

## 2. Results

### 2.1 Adoption of report of the previous meeting

The report of the previous meeting was adopted: Document [IEEE L802.16-06/005](#).

### 2.2 Preparation of liaison contribution to ITU-R WP 8A

The main item of business for this meeting was the development of a response to a liaison statement from ITU-R WP 8A (on BWA):

**[IEEE L802.16-06/010](#):** The liaison statement from WP 8A was reviewed by the ITU ad hoc group together with the liaison contribution from ETSI BRAN (Doc. [IEEE L802.16-06/012](#)).

**[IEEE L802.16-06/012](#):** The ITU ad hoc group reviewed and agreed with the ETSI proposal with respect to Attachments B and C only; Attachment A on HiperLAN was considered outside the scope of IEEE 802.16.

It was suggested that the IEEE response could simply endorse the ETSI text, but showing the change marks to facilitate the work in WP 8A. The proposed contribution to ITU-R WP 8A is in Doc. [IEEE L802.16-06/015](#).

*Note for information (not part of the ITU Ad Hoc meeting): The ITU-R Liaison Official presented to the IEEE 802.18 WG, at their meeting on Thursday morning, the results of the ITU Ad Hoc meeting pertaining to the proposed draft liaison to ITU-R WP 8A. Some editorial improvements were made to the draft and IEEE 802.18 WG also added information about 802.11. IEEE 802.18 WG approved Document 18-06/0050R0 (L802.16-06/015d0) for submission to the IEEE 802 EC.*

**Motion: "To approve IEEE L802.16-06/015d0 and authorize the WG Chair to submit it to the IEEE 802 Executive Committee for approval, with the intent to submit to ITU-R as an IEEE contribution."**

### 2.3 Discussion on the standardization process for IMT-Advanced

Based on the discussion that took place at the opening plenary of IEEE 802.16 about future activities and potential contributions to IMT-Advanced, there was some discussion within the ITU Ad Hoc group about the standardization process in ITU-R WP 8F for IMT-Advanced, with a view to future potential contributions by IEEE to that process. The ITU-R liaison official presented the following overview charts for information:



IMT-Advanced  
process

### 2.4 Discussion of relevant ITU-R meetings

Document [IEEE L802.16-06/011](#) was noted for information. It announces the approval of Recommendation ITU-R F.1763, "Radio interface standards for broadband wireless access systems in the fixed service operating below 66 GHz", which includes the harmonized IEEE WirelessMAN standard (IEEE 802.16) and ETSI HiperMAN standards (ETSI BRAN).

The meeting concluded with a brief overview of future relevant ITU-R meetings, including ITU-R JTG 6-8-9 (spectrum sharing in 2500-2690 MHz by space and terrestrial services), 24-28 July 2006, Geneva, Switzerland; WP 8F (IMT-2000/IMT-Advanced), 23-30 August 2006, Denver, CO, USA; and WP 8A (Land Mobile except IMT-2000), 6-14 September 2006, Geneva, Switzerland. Remi Chayer gave a brief overview of the results of the recent meeting of WP 9B (fixed service), 27 June-7 July 2006, Kobe, Japan.

### 2.5 Other business

There was no other business.

# IMT-Advanced Standardization Process

José M. Costa

IEEE 802.16 ITU-R Liaison Official

**IEEE 802.16 Meeting**

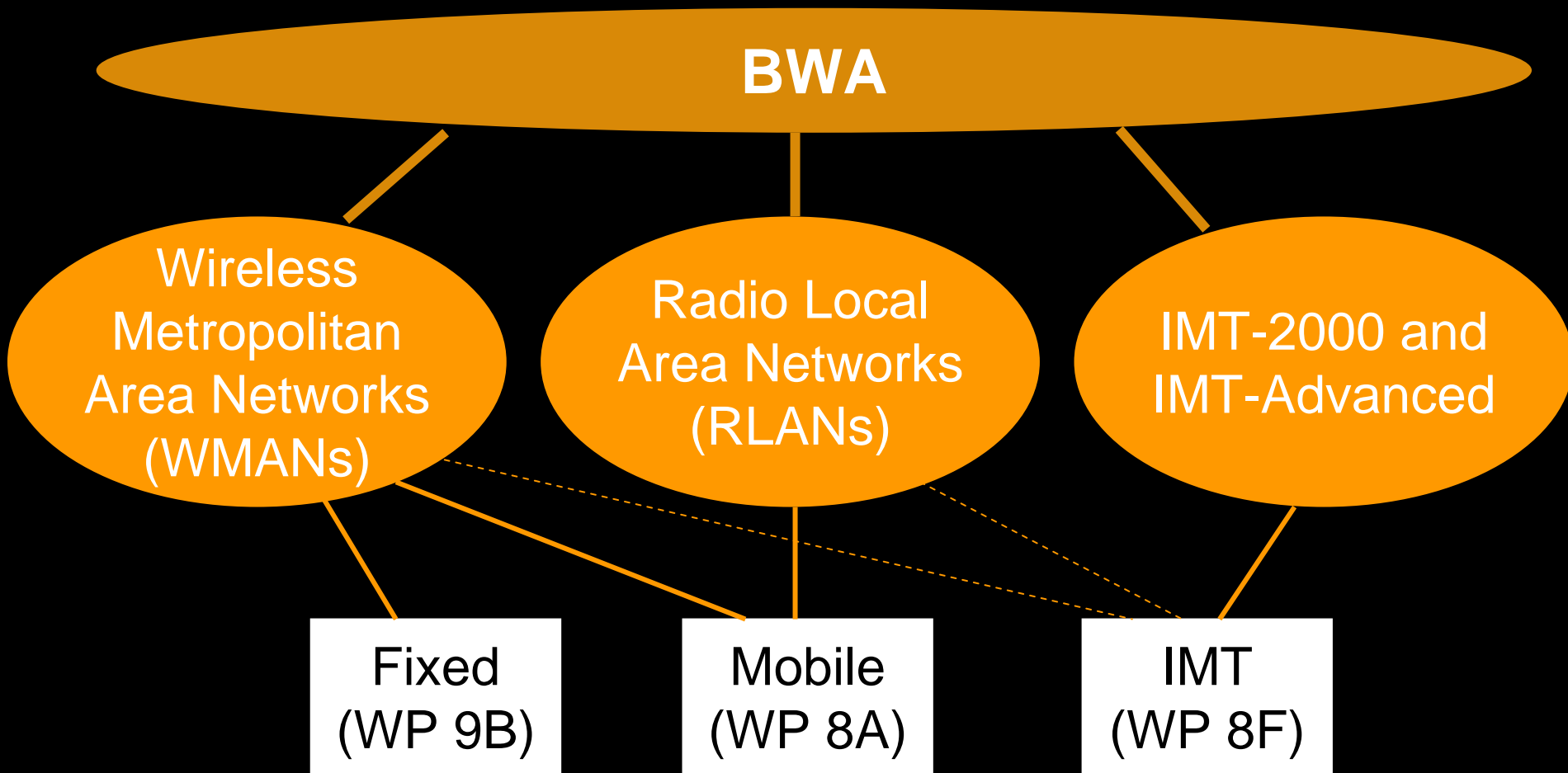
***San Diego, CA, USA***

***17-20 July 2006***

# Outline

- > Broadband Wireless Access (BWA) activities in ITU-R
- > IEEE 802.16 in ITU-R
- > Systems beyond IMT-2000 (IMT-Advanced)
- > Preliminary timeline for IMT-Advanced Process
- > Summary

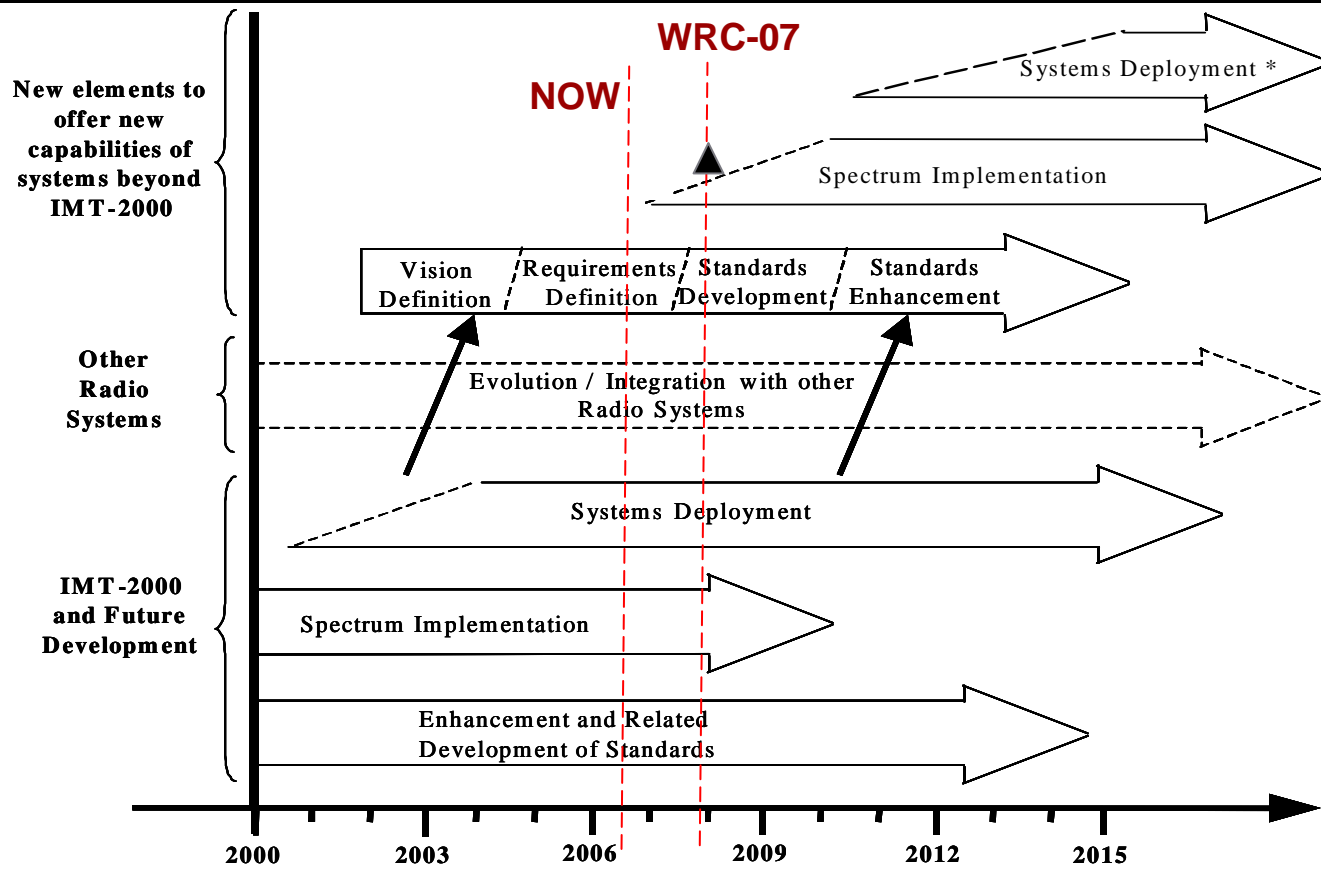
# Broadband Wireless Access (BWA) Systems and Standards in ITU-R



# IEEE 802.16 in ITU-R

- > Recommendation ITU-R [F.1763](#) “Radio interface standards for broadband wireless access systems in the **fixed service** operating below 66 GHz”
  - Includes the harmonized IEEE WirelessMAN standard (IEEE 802.16) and ETSI HiperMAN standards (ETSI BRAN).
- > Preliminary draft new Recommendation “Radio interface standards for broadband wireless access systems, including mobile and nomadic applications, in the **mobile service** operating below 6 GHz” ([Annex 17](#) to [Doc. 8A/376](#))
- > Potential future contributions to the development of a handbook on Broadband Wireless Access (BWA) – Volume 5 of the Handbook on Land Mobile (including Wireless Access).
- > Potential future contributions to IMT-Advanced standards.

# IMT deployment & development timelines



The sloped dotted lines indicate that the exact starting point of the particular subject can not yet be fixed.

▲ : Expected spectrum identification at WRC07

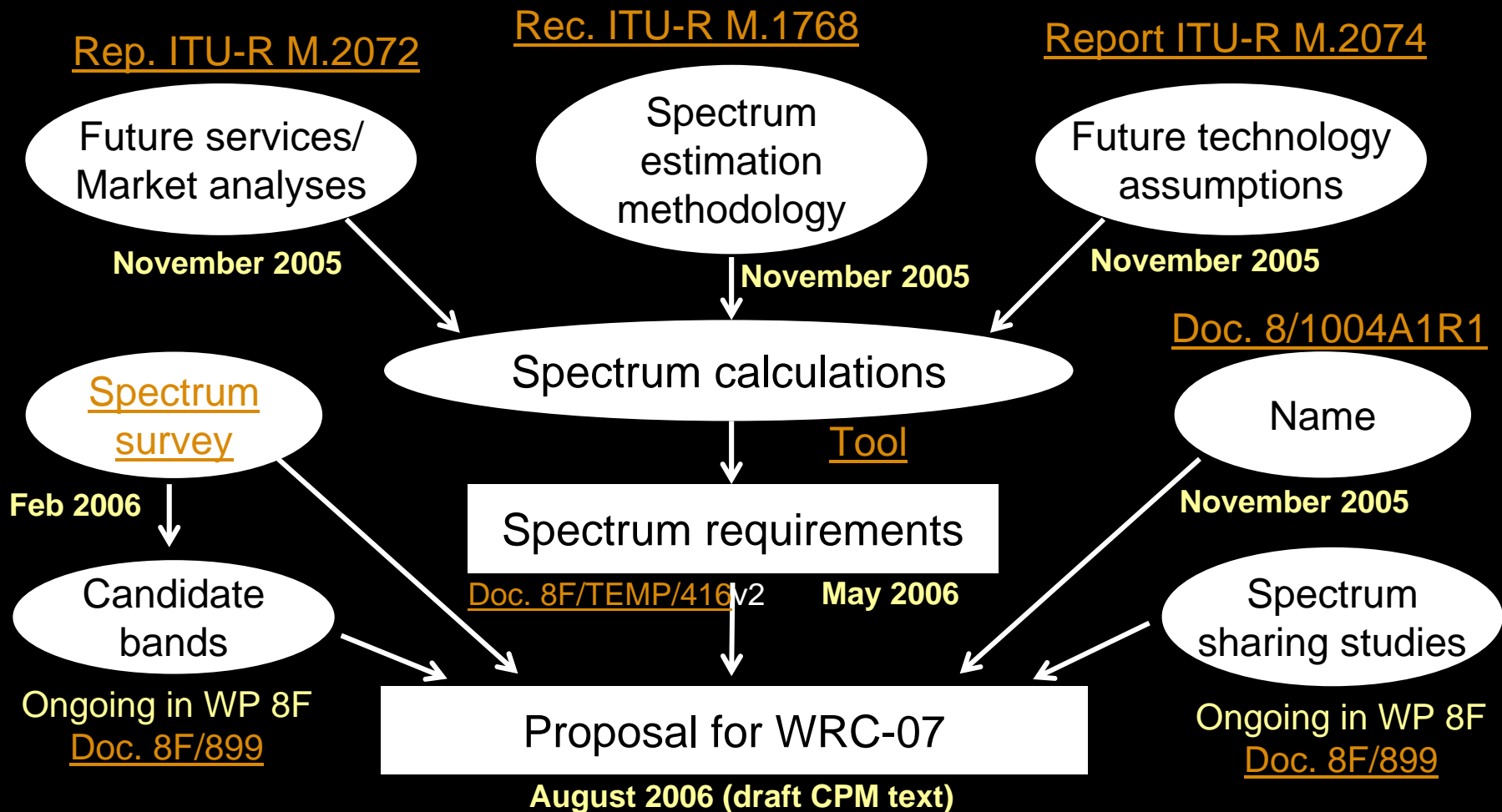
\* : possible wide deployment around the year 2015 in some countries



# Future Spectrum Requirements

- > WP 8F has completed a Draft ITU-R Report “Spectrum requirements for the future development of IMT-2000 and IMT-Advanced”.
  - Provides results of technical studies on spectrum requirements, in accordance with Resolution 228 (Rev. WRC-03).
  - Uses market data from the year 2010 onwards provided by external organizations outside ITU, which are addressed in [Report ITU-R M.2072](#), uses technical aspects in [Report ITU-R M.2074](#), and uses the methodology in [Recommendation ITU-R M.1768](#).
  - The predicted total spectrum bandwidth requirement for the year 2020 is calculated to be 1 280 MHz (including spectrum already in use, or planned to be used, which may amount up to 749 MHz).
- > Work is in progress on candidate bands to be considered at WRC-07.
- > Next meeting of WP 8F: 23-30 August 2006, Denver, USA.

# Summary of activities in ITU-R WP 8F and results to-date



**2007-2010: Development of standards for IMT-Advanced**

# Preliminary time schedule: IMT-Advanced process

