

# **ITU Regional Workshop on IMT**

**Da Nang, VietNam; 7-8 June 2010**

## **ITU-R Activities on Sharing Studies related to IMT**

**Michael Kraemer**

**Chairman Sub-Working Group Sharing Studies  
of ITU-R Working Party 5D**

# Structure of ITU-R Study Groups

- Study Group 1 (SG 1) - Spectrum management
- Study Group 3 (SG 3) - Radiowave propagation
- Study Group 4 (SG 4) - Satellite services
- **Study Group 5 (SG 5) - Terrestrial services**
  - Formed through the merger of former Study Groups 8 and 9
  - Scope:  
Systems and networks for fixed, mobile, radiodetermination, amateur and amateur-satellite services.
- Study Group 6 (SG 6) - Broadcasting service
- Study Group 7 (SG 7) - Science services

# Structure of ITU-R Study Group 5

Chairman: Dr A. HASHIMOTO (Japan)

Vice-Chairmen: Mr T.K.A. ALEGE (Nigeria)

Dr A. CHANDRA (India)  
Dr J. COSTA (Canada)  
Mr T. EWERS (Germany)  
Mr C.T. GLASS (United States)  
Dr A. JAMIESON (New Zealand)  
Mr A.I. KLYUCHAREV (Russia)  
Ms L. SOUSSI (Tunisia)  
Mr L. SUN (China)  
Dr K.-J. WEE (Korea (Rep. of))

Working Parties:

- WP 5A** Land mobile service above 30MHz (excluding IMT); wireless access in the fixed service; amateur and amateur-satellite services
- WP 5B** Maritime mobile service including the Global Maritime Distress and Safety System (GMDSS); the aeronautical mobile service and the radiodetermination service
- WP 5C** Fixed wireless systems; HF and other systems below 30 MHz in the fixed and land mobile services
- WP 5D** IMT systems
- JTG 5-6** Studies on the use of the 790-862 MHz band by mobile applications and by other services

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Details:

[www.itu.int/itu-r/go/rsg5/](http://www.itu.int/itu-r/go/rsg5/)

# Working Party 5D



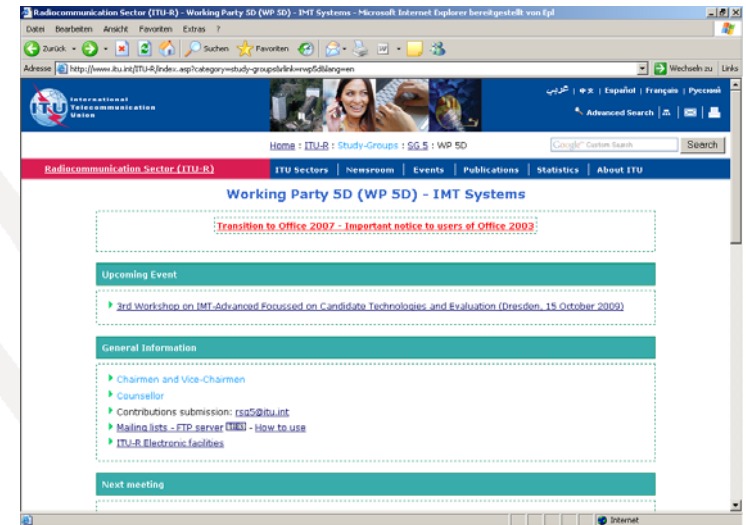
Chairman: Stephen BLUST

Vice-Chairmen: Kyu-Jin WEE  
Hakan OHLSEN

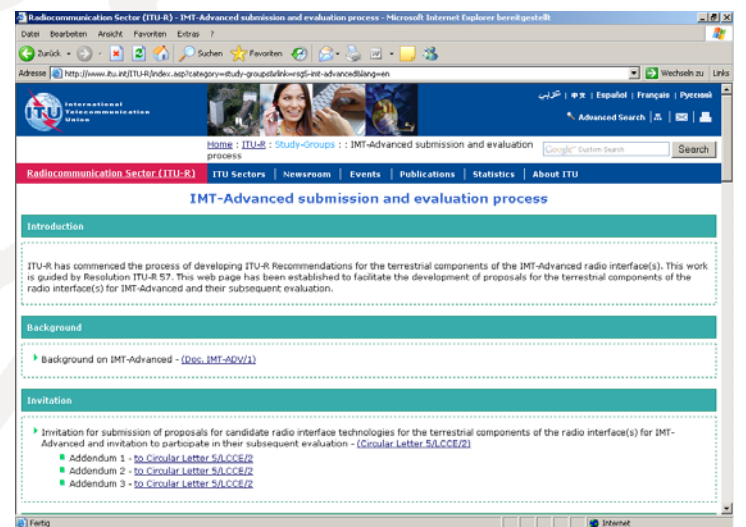
## The Working Party:

- is responsible for the overall system aspects of IMT;
- has the prime responsibility within ITU-R for issues related to the terrestrial component of IMT, including technical, operational and spectrum related issues to meet the objectives of future IMT systems;
- is the lead group for the overall maintenance of existing and the development of new Recommendations on IMT;
- is responsible for studies related aspects regarding the continued deployment of IMT-2000 and the success of IMT-Advanced, e.g. convergence impacts, regulatory aspects, etc.;
- will continue to work closely with Working Party 4C on issues related to the satellite component of IMT;
- will continue to work closely with other Working Parties on issues relevant for IMT systems.

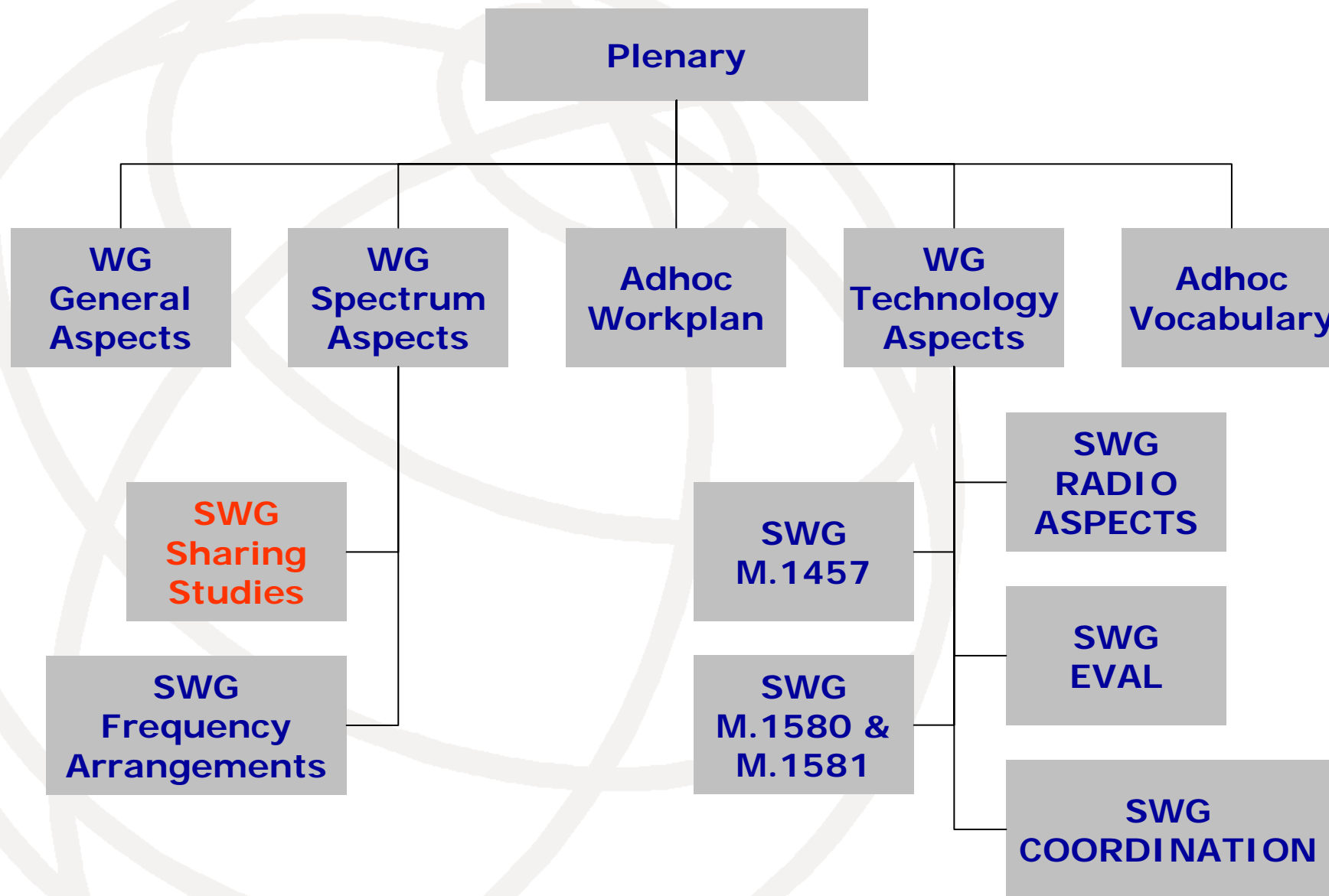
Details on Working Party 5D:  
[www.itu.int/itu-r/go/rwp5d/](http://www.itu.int/itu-r/go/rwp5d/)



Details on IMT-Advanced:  
[www.itu.int/itu-r/go/rsg5-imt-advanced/](http://www.itu.int/itu-r/go/rsg5-imt-advanced/)



# Structure of Working Party 5D

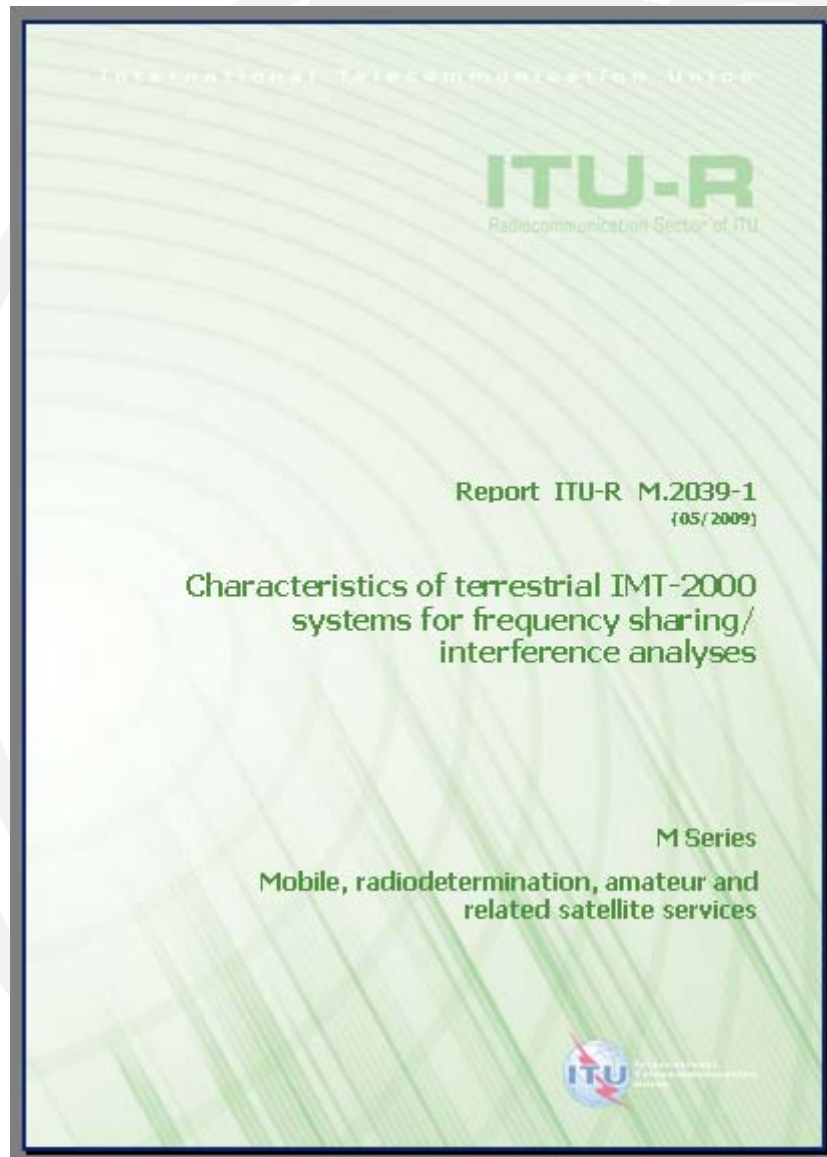


# Work areas of SWG Sharing Studies

- Coexistence between IMT-2000 TDD and FDD in the 2.6 GHz band
- Mitigating techniques for IMT-2000 TDD and FDD in the 2.6 GHz band
- Coexistence between IMT-2000 and fixed BWA systems in the 2.6 GHz band
- Coexistence between IMT-2000 and mobile BWA systems in the 2.6 GHz band
  
- Coexistence between IMT and FSS in the 3.5 GHz band (with WP4A)
- Mitigation techniques for IMT and FSS in the 3.5 GHz band (with WP4A)
  
- IMT-specific information for the work of Joint Task Group 5-6 (sharing studies for the 790-862 MHz band)
- Sharing and compatibility studies in the UHF band relevant to the provisions of Resolution 224 (Rev.WRC-07) and not addressed by JTG 5-6
  
- Characteristics of terrestrial IMT-2000 systems to be used in sharing studies
- Isolation between co-located antennas of IMT systems
- Liaison with other ITU-R groups on various sharing and compatibility topics related to WRC-12 agenda items

# Examples of recently published reports developed in SWG Sharing Studies

Technical parameters for sharing studies for the following IMT technologies:



Full name	Common names
IMT-2000 CDMA Direct Spread	UTRA FDD WCDMA UMTS HSPA, HSPA+ E-UTRA FDD (LTE FDD)
IMT-2000 CDMA Multi-Carrier	CDMA2000 1X and 3X CDMA2000 1xEV-DO CDMA2000 1xEV-DV CDMA2000, HRPD and UMB
IMT-2000 CDMA TDD	UTRA TDD 3.84 Mchip/s high chip rate UTRA TDD 1.28 Mchip/s low chip rate (TD-SCDMA) UMTS E-UTRA TDD (LTE TDD)
IMT-2000 TDMA Single-Carrier	UWC-136 EDGE
IMT-2000 FDMA/TDMA	DECT
IMT-2000 OFDMA TDD WMAN	Mobile WiMAX

# Examples of recently published reports developed in SWG Sharing Studies

- Study on coexistence between UMTS and WiMAX
- Additional isolation requirements and system capacity loss for cases with and without a 5 MHz guardband

