



Outcomes of ITU WRC-12 for IMT & other mobile broadband



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Roles of ITU



international **regulations**

global **standards**
& guidelines

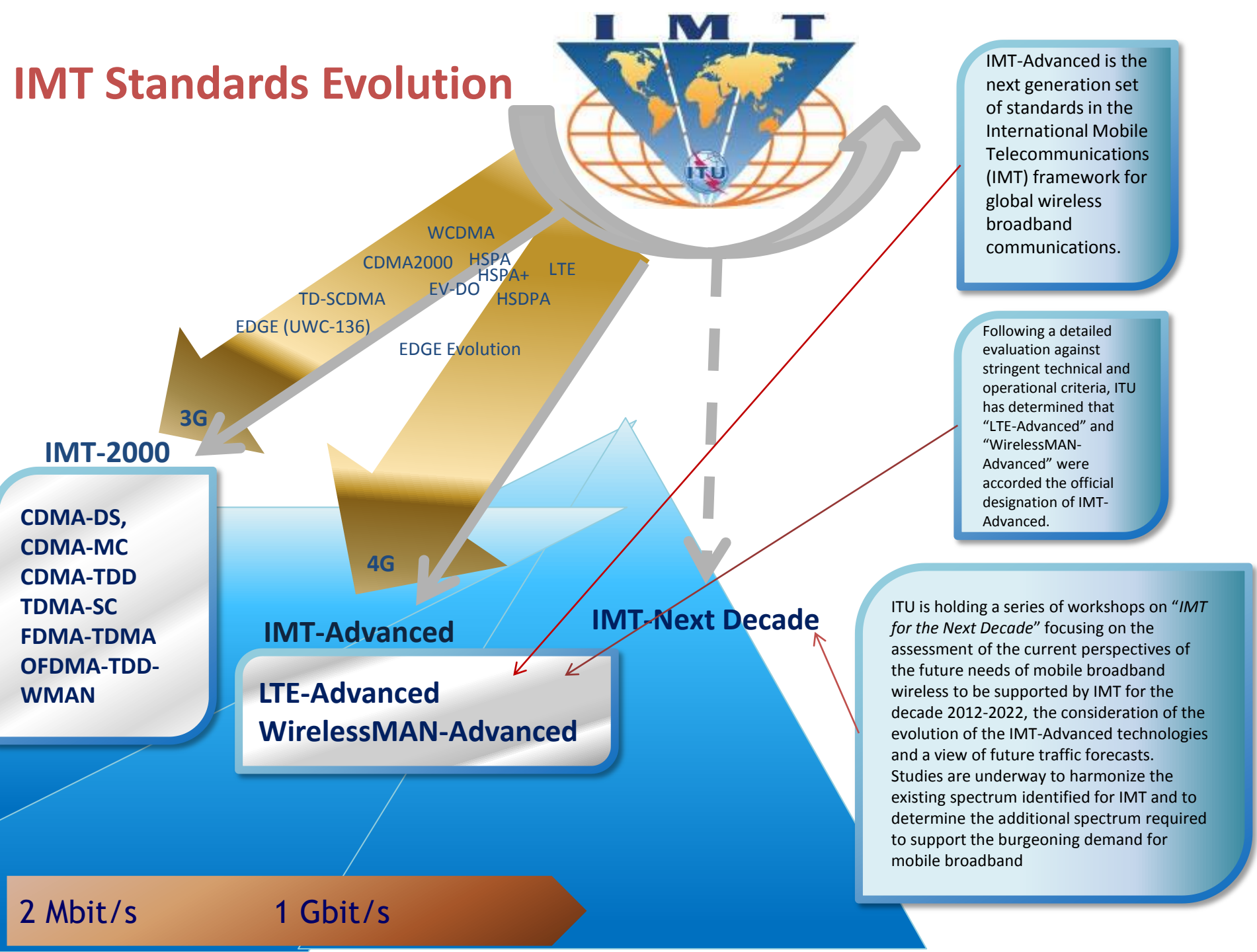
assistance to administrations

- ✓ Rights of access to the spectrum
- ✓ Efficient use of spectrum
- ✓ Operation free from interference
- ✓ Economies of scale
- ✓ Interoperability and roaming
- ✓ Global harmonization
- ✓ Guidelines for national & regional regulations

**GOOD QUALITY
AND LESS COSTLY EQUIPMENT**

**MORE FAVORABLE INVESTMENT
ENVIRONMENT (CLEAR & STABLE)**

IMT Standards Evolution





IMT-Advanced standards announced for next-generation mobile technology

Specifications for ITU-R recommendation agreed by Radio Assembly

Geneva, 18 January 2012 – Specifications for next-generation mobile technologies – IMT-Advanced – were agreed today at the ITU Radiocommunication Assembly currently meeting in Geneva.



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News and Views

ITU approves IMT-Advanced

Tuesday, January 24, 2012

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LEAD

P Factor
PCRF for Profitability and

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ITU approves IMT-Advanced standard, a new milestone in mobile broadband

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UN Approves Super Fast Mobile Technology

wcainternational

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ITU Adopts IMT-Advanced Standard for Next-Generation Wireless Services

January 20th 2012

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dailywireless.org

« PROXIM WIRELESS: 60GHz, 2 GBPS BACKHAUL

WiFi SD CAR

IMT-Advanced: Now Official ITU Standard



Standards



LTE-Advanced



and

WirelessMAN-Advanced technologies were each determined to have successfully met all of the criteria established by ITU-R for the first release of IMT-Advanced.





IMT Spectrum

Band (MHz)	ITU Radio Regulations footnotes identifying the band for IMT
450-470	5.286AA
698-960	5.313A, 5.317A
1710-2025	5.384A, 5.388
2110-2200	5.388
2300-2400	5.384A
2500-2690	5.384A
3400-3600	5.430A, 5.432A, 5.432B, 5.433A

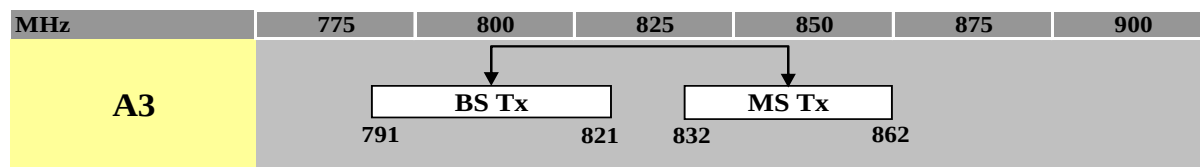
Region 1
715 MHz (global)
170 MHz (regional)

Country-based
200 MHz

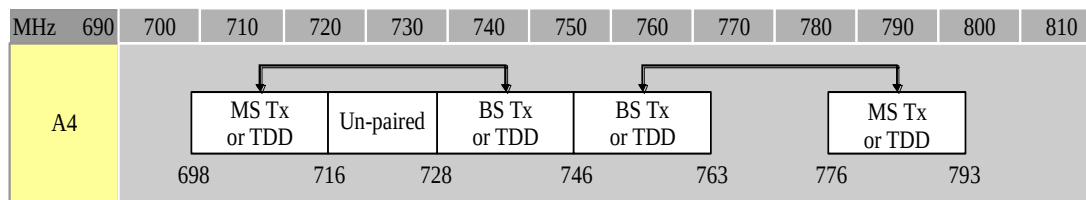
Region 2&3
715 MHz (global)
262 MHz (regional)



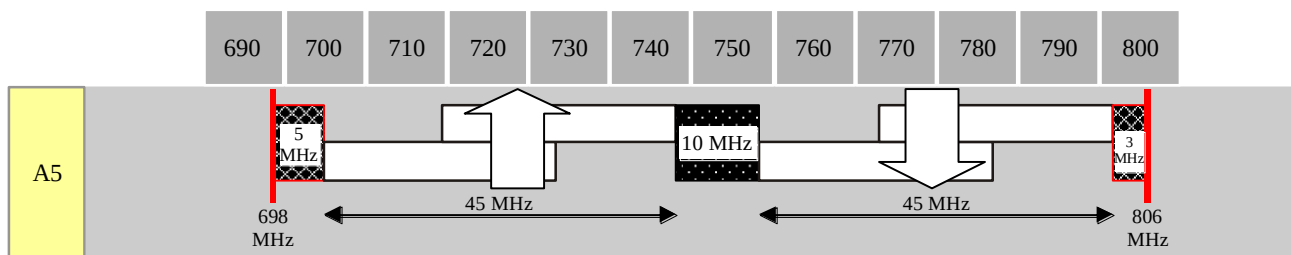
CEPT band plan (FDD)



USA band plan (FDD & TDD)



M.1036-03-Ann2



M.1036-04-Ann2

Ref.: Recommendation ITU-R M.1036-4



Participants:	3042
Countries:	163
Companies:	101



The three good news from WRC-12

Mobile broadband/IMT spectrum

- ✓ **800 MHz:** sharing problems resolved
- ✓ **700 MHz:** allocation to mobile service globally available from 2015
- ✓ **Additional spectrum:** to be considered by WRC-15





ITU-R Studies for WRC-15

Agenda items for WRC-15 (ResCOM6/6):

- 1.1 to consider additional spectrum allocations to the mobile service on a primary basis and identification of additional frequency bands for International Mobile Telecommunications (IMT) and related regulatory provisions, to facilitate the development of **terrestrial mobile broadband applications**, in accordance with Resolution **COM6/8 (WRC-12)**;
- 1.2 to examine the results of ITU-R studies, in accordance with Resolution **COM5/10 (WRC-12)**, on the **use of the frequency band 694-790 MHz by the mobile**, except aeronautical mobile, service in Region 1 and take the appropriate measures;

Spectrum requirements for the mobile service

including suitable frequency ranges, and other specific requirements
(WP5D)

Spectrum sharing and compatibility with other services

including consolidation of draft CPM text
(JTG 4-5-6-7)

In summary...

ITU

- ✓ Allocation of spectrum for mobile service
- ✓ Identification of spectrum to mobile broadband/IMT
- ✓ Harmonization of frequency arrangements in different bands
- ✓ Establishment of standards for IMT

Administrations

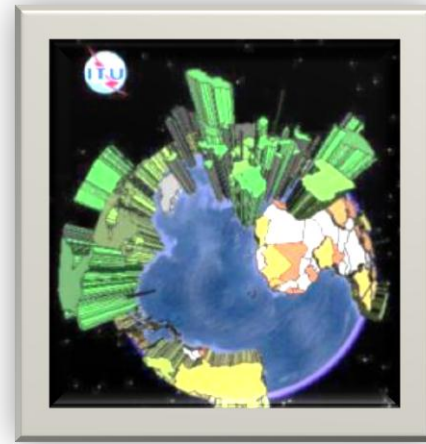
- ✓ HOW MUCH spectrum for mobile broadband/IMT
- ✓ WHEN spectrum will be made available
- ✓ WHAT will be the transition plans



Conclusions

What is the added value by the ITU standards development and spectrum allocation processes, including the assistance role, for mobile broadband?

- ✓ Add authoritative findings and legitimacy as provided by governments
- ✓ Creates synergies between government/regulators and industry
- ✓ Provides global harmonization of technical specifications, including frequency arrangements
- ✓ Enables administrations to use internationally agreed criteria to assess their national requirements for spectrum and to manage the transition
- ✓ Provides for global circulation of equipment



ITU in brief

- ✓ **Founded on 17 May 1865**



5 Elected Officials

- ✓ **193 Member States**
- ✓ **750 Sector Members, Associates & Academia**
- ✓ **750 staff & 70 nationalities**
- ✓ **Annual budget = US\$ 180,000,000**



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