

# Global BWA Activities in ITU

**Moscow**  
**26-29 November 2007**

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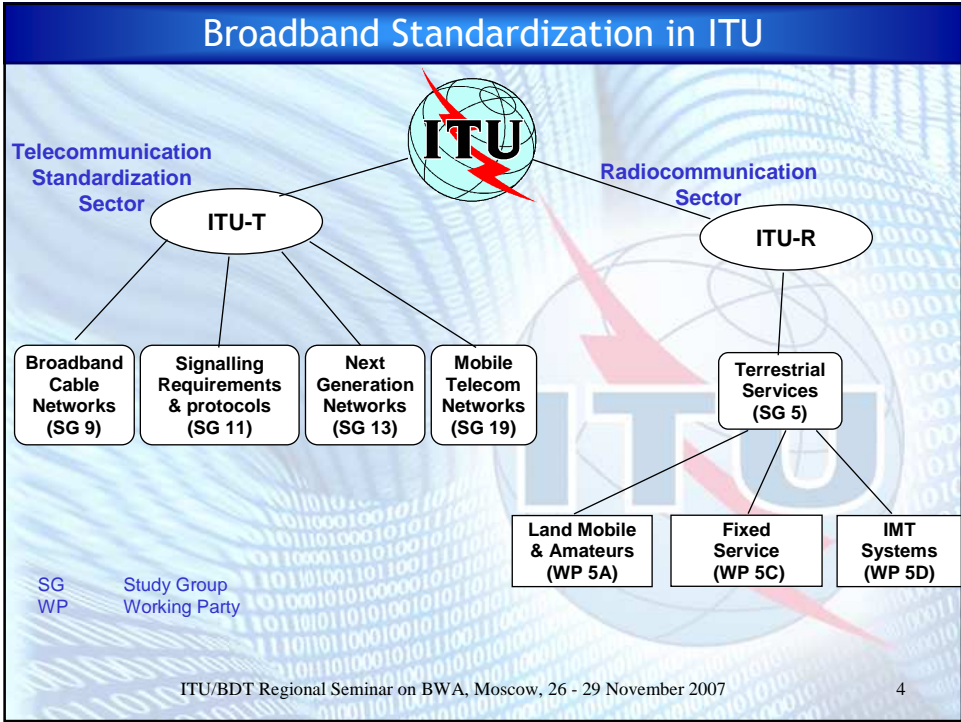
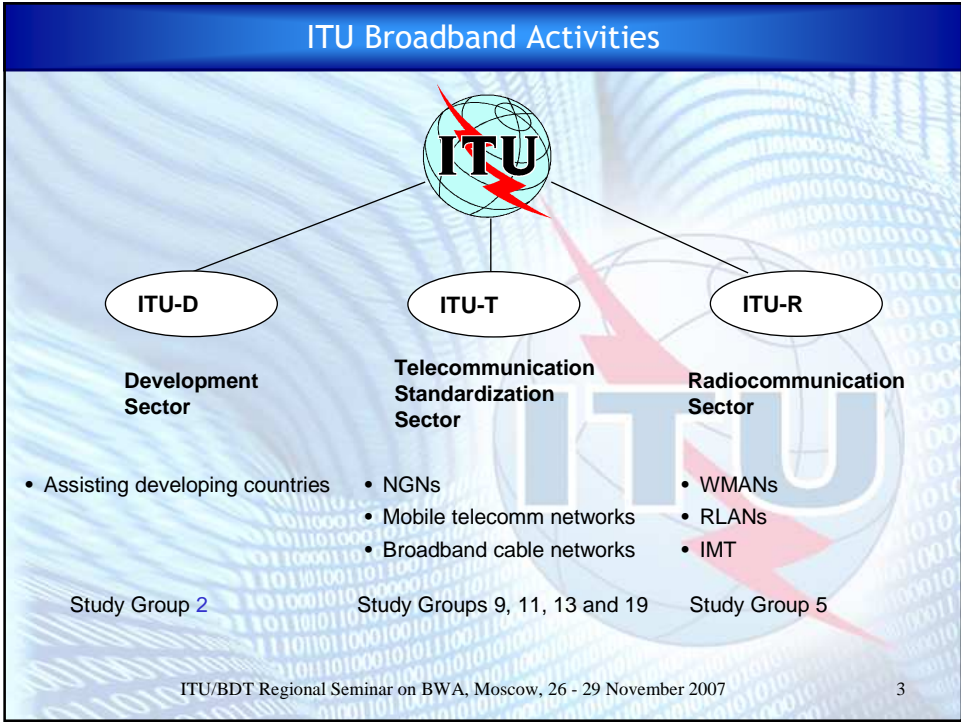
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## ITU & BWA

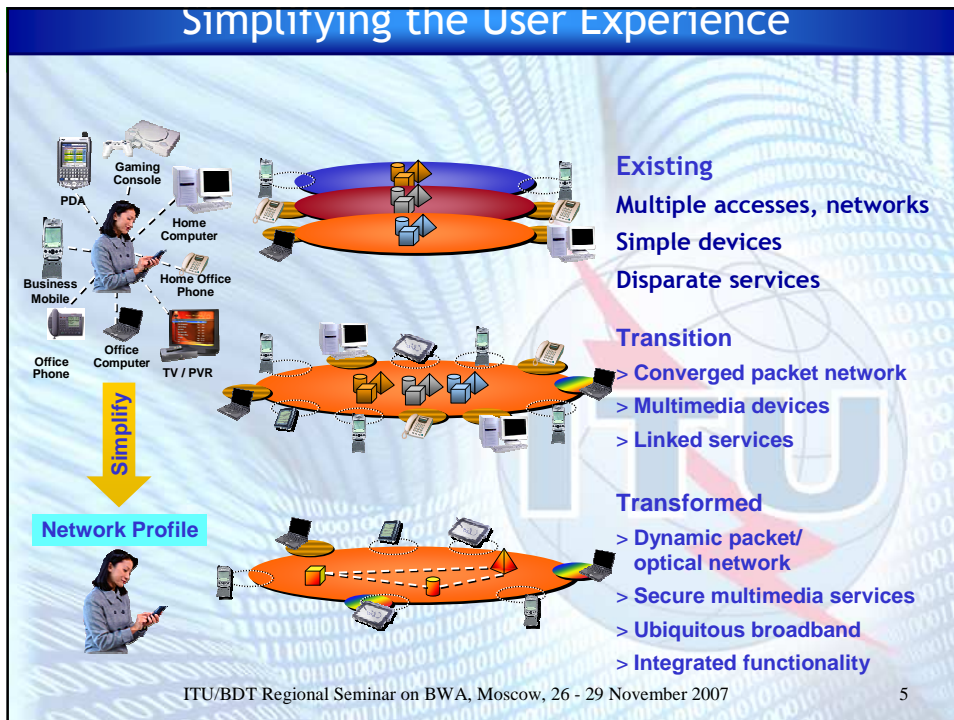
- **Radiocommunication Sector**
  - ✓ Frequency spectrum (harmonization) → RR
  - ✓ Radio interface specifications → ITU-R Recommendation  
Sharing and interworking studies
- **Standardization Sector**
  - ✓ Network aspects
- **Development Sector**
  - ✓ Broadband Technologies Report (ITU-D Q.20/2)
  - ✓ Seminars on BWA
  - ✓ Country case studies

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## Simplifying the User Experience



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## Next Generation Network (NGN)

- A packet-based network able to provide telecommunication services
- Able to make use of multiple broadband, QoS-enabled transport technologies
- Service-related functions are independent from underlying transport-related technologies
- Enables unfettered access for users to networks and to competing service providers and/or services of their choice
- Supports generalized mobility which will allow consistent and ubiquitous provision of services to users

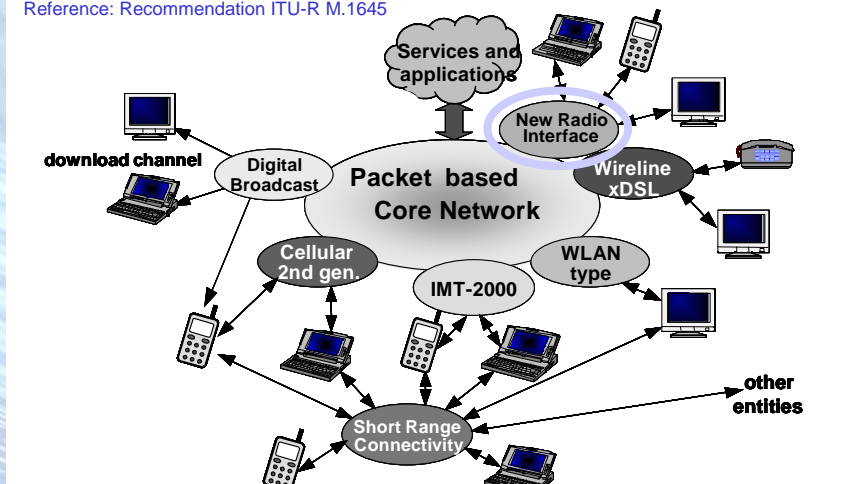
Ref.: ITU-T Recommendation Y.2001 (12/2004) "General overview of NGN"

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## Future network of systems with a variety of access systems

Reference: Recommendation ITU-R M.1645

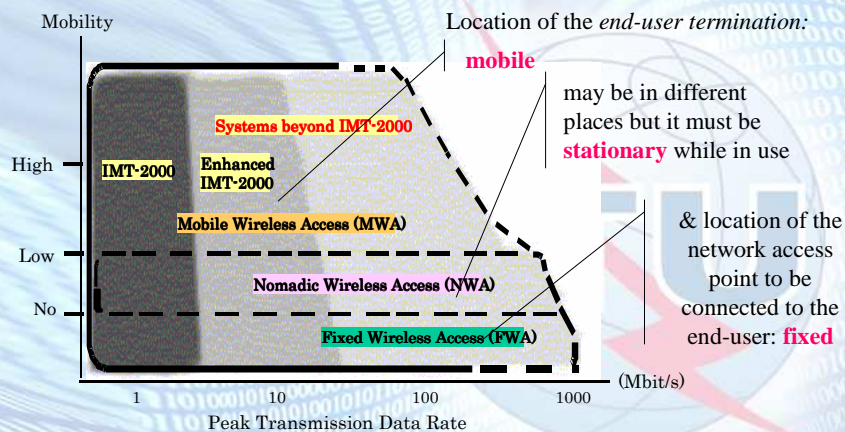


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## Mapping of Wireless Access

Mobility and capacity (bit rate) of 3 types of wireless access

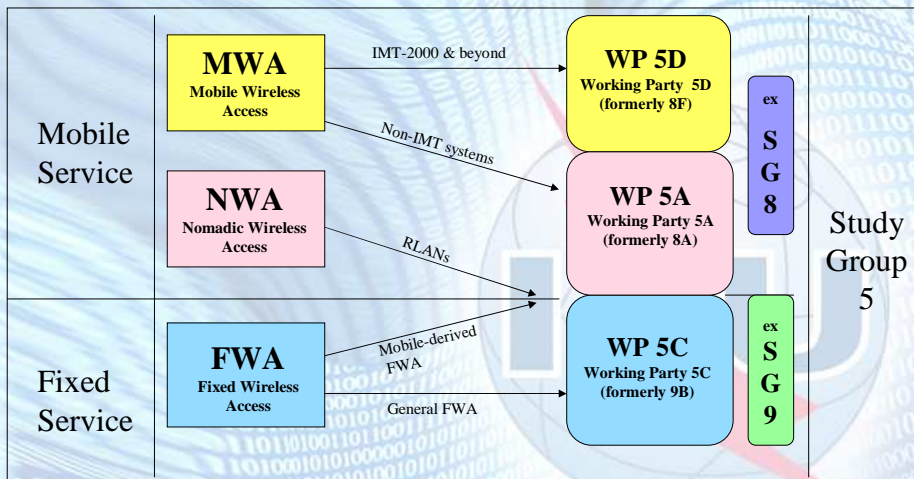


Source: Recommendation ITU-R M.1645.

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## Studies on terrestrial wireless access in ITU-R



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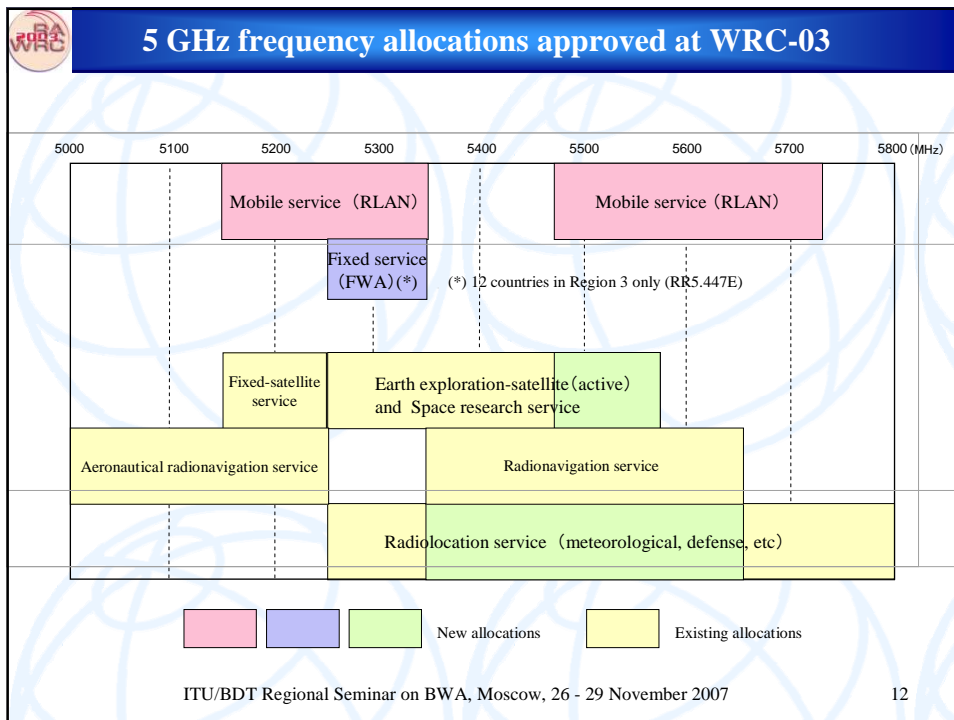
## Studies on satellite wireless access in ITU-R



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ITU-R Studies on BWA				
Service	Fixed	Mobile		Satellite
Study Question	236/9 (Fixed wireless systems for BWA)	212/8 (Nomadic wireless including RLAN)	229/8 (IMT-2000) and systems beyond	269/4 (Global broadband satellite)
Scope	•Specifications	•Specifications •Sharing •Spectrum	•Objectives •Specifications •Spectrum •Migration •Global circulation	•Specifications •Spectrum
ITU-R Rec.	F.1763	M.1450 (RLANs) M.1801	M.1457, (IMT-2000) M.1645 (vision)	S.1709
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## Requirements for RLANs specified in Resolution 229 (WRC-03)

Frequency band	Maximum Equivalent Isotropically Radiated Power (EIRP)	Operational restriction	Mitigation measures
5 150-5 250 MHz	200 mW (10 mW/MHz, 0.25 mW/25 kHz)	Indoor use only	No specification
5 250-5 350 MHz	200 mW (10 mW/MHz ) or subject to the elevation angle mask specified in Rec.ITU-R M.1653	Basically indoor use* <sup>1</sup> EIRP must be in accordance with the mask for outdoor use	TPC* <sup>2</sup> and DFS are required
	2W for FWA* <sup>3</sup>	Deployment restriction is subject to Rec. ITU-R F.1613	
5 470-5 725 MHz	1W ( 50 mW/MHz )	Indoor / outdoor use	

\*1 Each country is requested to take appropriate measures so that the predominant number of RLAN terminals are used indoors.

\*2 EIRP is reduced by 3 dB if not equipped with TPC.

\*3 12 countries in Region 3  
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## BWA & ITU World Radiocommunication Conference 2007

### Agenda Item 1.4:

*To consider frequency-related matters for the future development of IMT-2000 and systems beyond IMT-2000 taking into account the results of ITU-R studies ...;*

### Agenda Item 1.19:

*To consider the results of the ITU-R studies regarding spectrum requirement for global broadband satellite systems in order to identify possible global harmonized FSS frequency bands for the use of Internet applications, and consider the appropriate regulatory/technical provisions, ....*

**WRC-07 IS STILL CONSIDERING THE FREQUENCY ALLOCATIONS  
AT THE TIME OF THE PREPARATION OF THESE SLIDES**

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## Conclusion

- Have presented overview of activities in the ITU related to BWA
- Other presentations will provide details on work ongoing in ITU-R on BWA



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