International Standardization for 3G

IMT-2000

Ref: www.nmscommunications.com

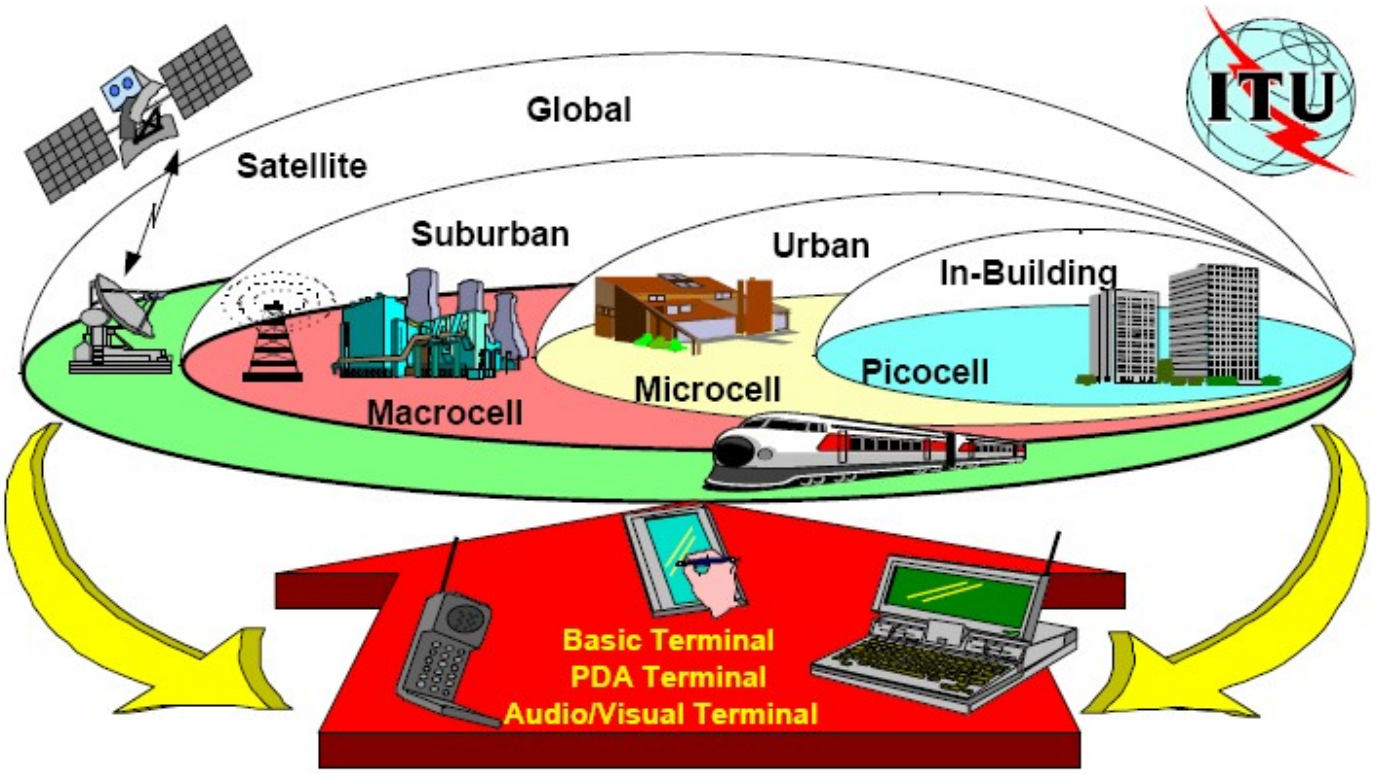
International Standardization





- ITU (International Telecommunication Union)
  - Radio standards and spectrum
- IMT-2000
  - ITU's umbrella name for 3G which stands for International Mobile Telecommunications 2000
- National and regional standards bodies are collaborating in 3G partnership projects
  - ARIB, TIA, TTA, TTC, CWTS. T1, ETSI - refer to reference slides at the end for names and links
- 3G Partnership Projects (3GPP & 3GPP2)
  - Focused on evolution of access and core networks

IMT-2000 Vision Includes LAN, WAN and Satellite Services



IMT-2000 Radio Standards

- IMT-SC* Single Carrier (UWC-136): EDGE
  - GSM evolution (TDMA); 200 KHz channels; sometimes called "2.75G"
- IMT-MC* Multi Carrier CDMA: CDMA2000
  - Evolution of IS-95 CDMA, i.e. cdmaOne
- IMT-DS* Direct Spread CDMA: W-CDMA
  - New from 3GPP; UTRAN FDD
- IMT-TC** Time Code CDMA
  - New from 3GPP; UTRAN TDD
  - New from China; TD-SCDMA
- IMT-FT** FDMA/TDMA (DECT legacy)

* Paired spectrum; ** Unpaired spectrum

W-CDMA is an FDD technique (i.e., it requires **paired spectrum**) whereas TD-CDMA is a TDD technique (i.e., it can use **unpaired spectrum**).

paired spectrum :
All FDD, FDMA,TDMA radio air interfaces rely on a go and a return radio channel .
These channels are assembled into two paired bands commonly referred to as paired spectrum. (UMTS Forum)

Ref: http://www.umts-forum.org/glossary.asp