

ITU workshop on Ubiquitous Network Societies



IMT-2000 and systems beyond

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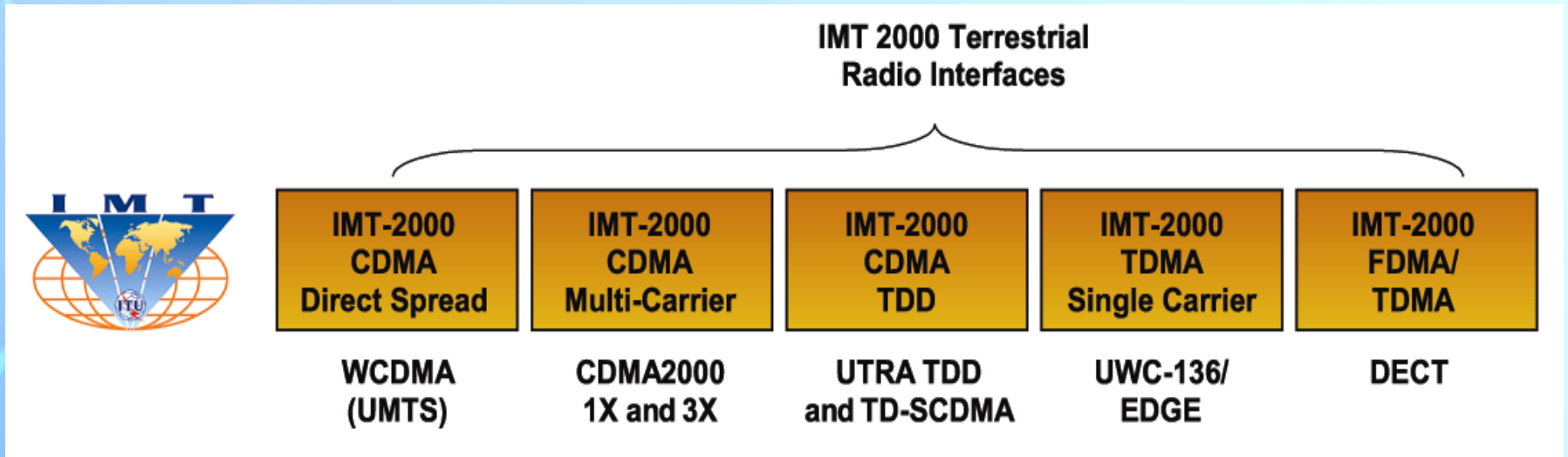
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- **IMT-2000 radio access standards**
- **Three phases**
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IMT-2000 Radio Access Standards

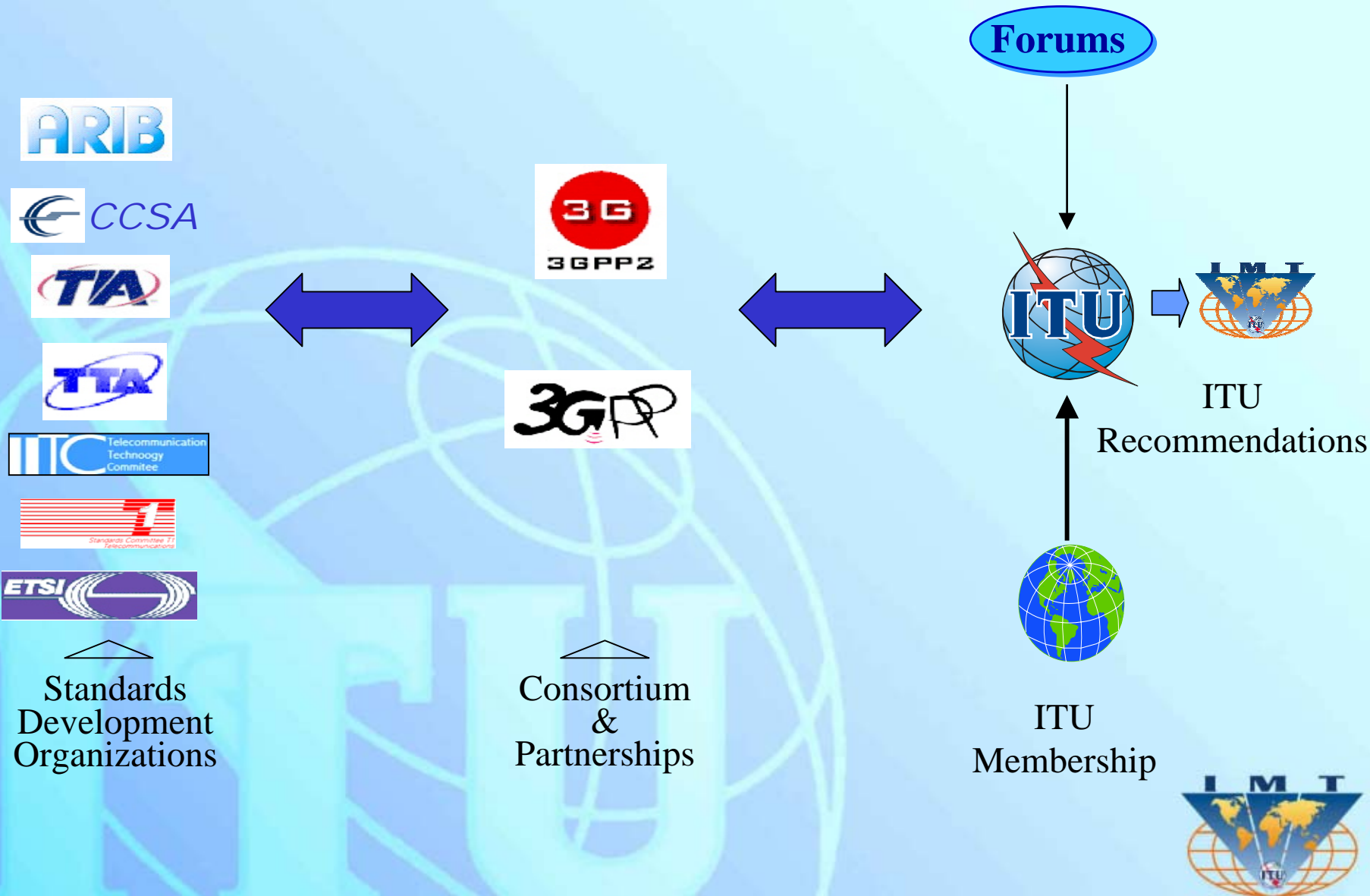
- A reminder



- Designed mainly in response to market, technology & regulatory opportunities & segments
- Many of these standards are already being enhanced



IMT-2000 Standards Development

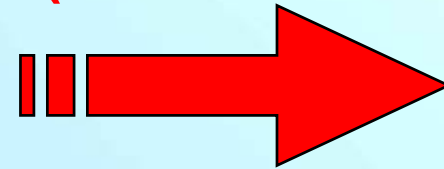


Radio Access - Three Main Phases



New radio interface(s)

i.e. research target 100 – 1000 Mbit/s (full to low mobility)

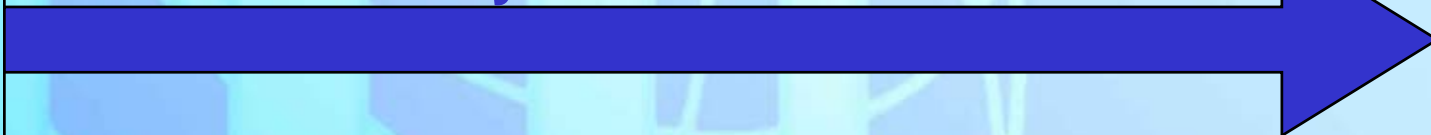


Relationship with other radio systems
e.g. Digital broadcast, RLAN, etc.



Enhancing IMT-2000

i.e. “fast packet” up to 10 Mbit/s,
30 Mbit/s by 2005 ?

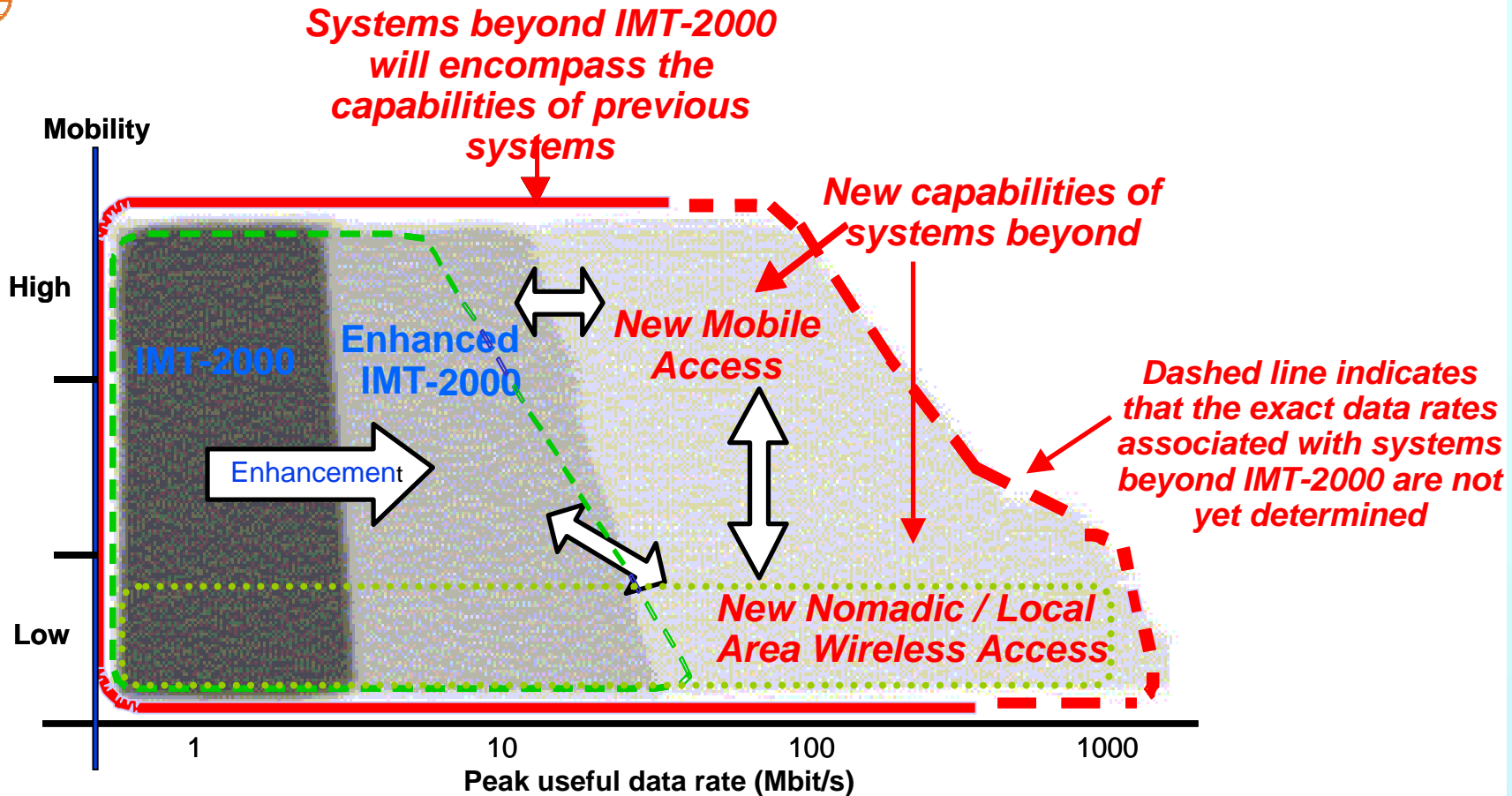


2001

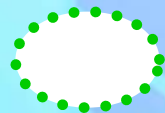
2010



Capabilities ('The Van')



 Interconnection

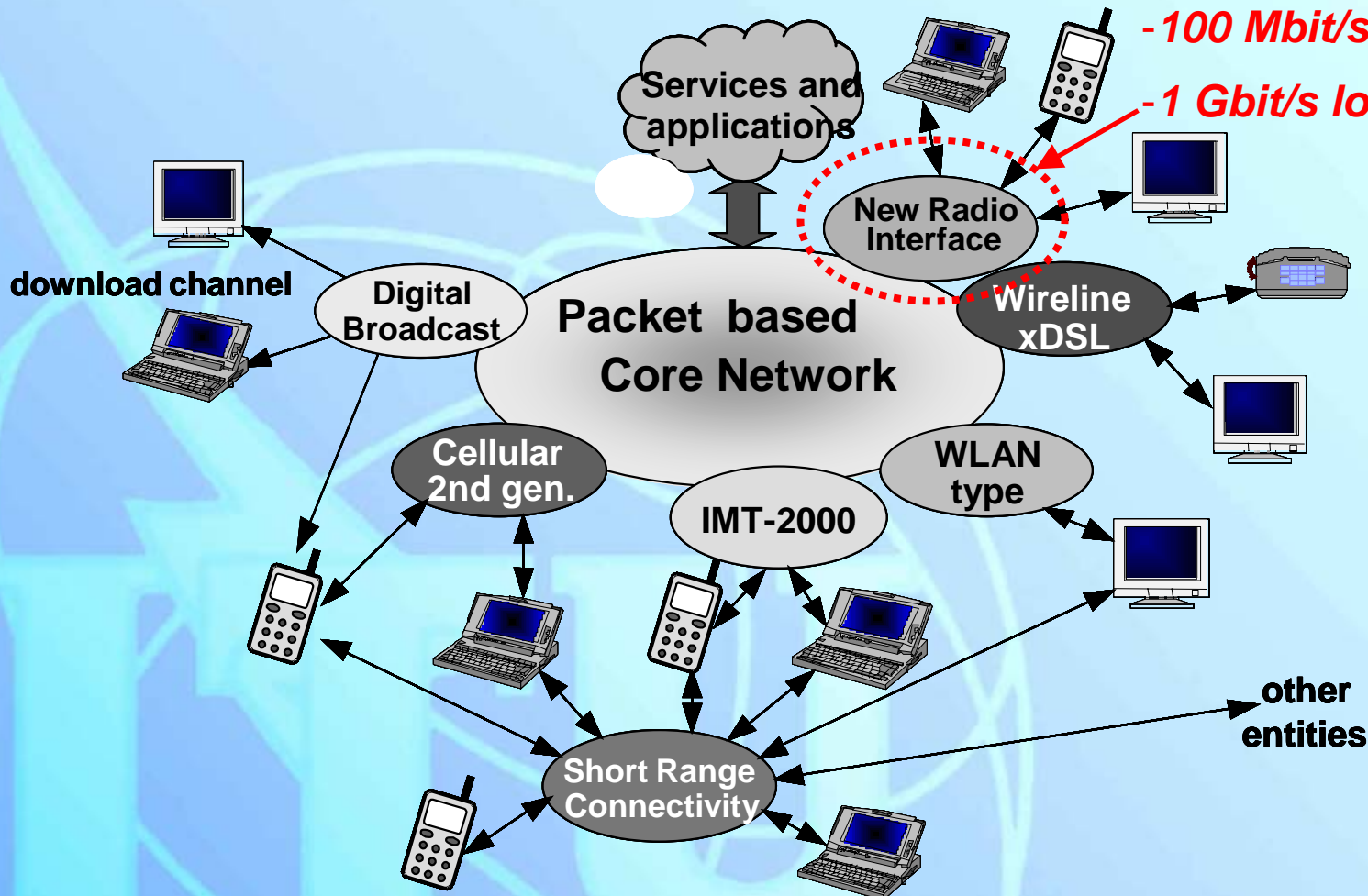


Nomadic / Local Area Access Systems



Digital Broadcast Systems

Variety of Access Networks



New radio interface(s)

Research Goals:

-100 Mbit/s full mobility

-1 Gbit/s low mobility

Domains

Personal Area



Immediate Area



Wide Area



Fusion

Recommendation ITU-R M.1645

"Systems beyond IMT-2000 will be realized by functional fusion of existing, enhanced and newly developed elements of IMT-2000, nomadic wireless access systems and other wireless systems, with high commonality and seamless interworking"



Spectrum

- **Need to secure appropriate spectrum to accommodate future requirements**

This will be considered at WRC-07

- **Resolution 802 (WRC-03)**
- **Resolution 228 (Rev.WRC-03)**



Resolution 228 (Rev.WRC-03)

resolves

- 1 to further study technical and operational issues ...;
- 2 to report to WRC-07 on the spectrum requirements and potential frequency ranges ...;
- 3 to conduct regulatory and technical studies on the usage of frequencies below those identified for IMT-2000 ...;
- 4 to take into consideration the particular needs of developing countries including use of the satellite component of IMT-2000 ...;
- 5 to include sharing and compatibility studies with services already having allocations in potential spectrum ...;
- 6 that WRC-07 should consider frequency-related matters for the future development of IMT-2000 and systems beyond IMT-2000.



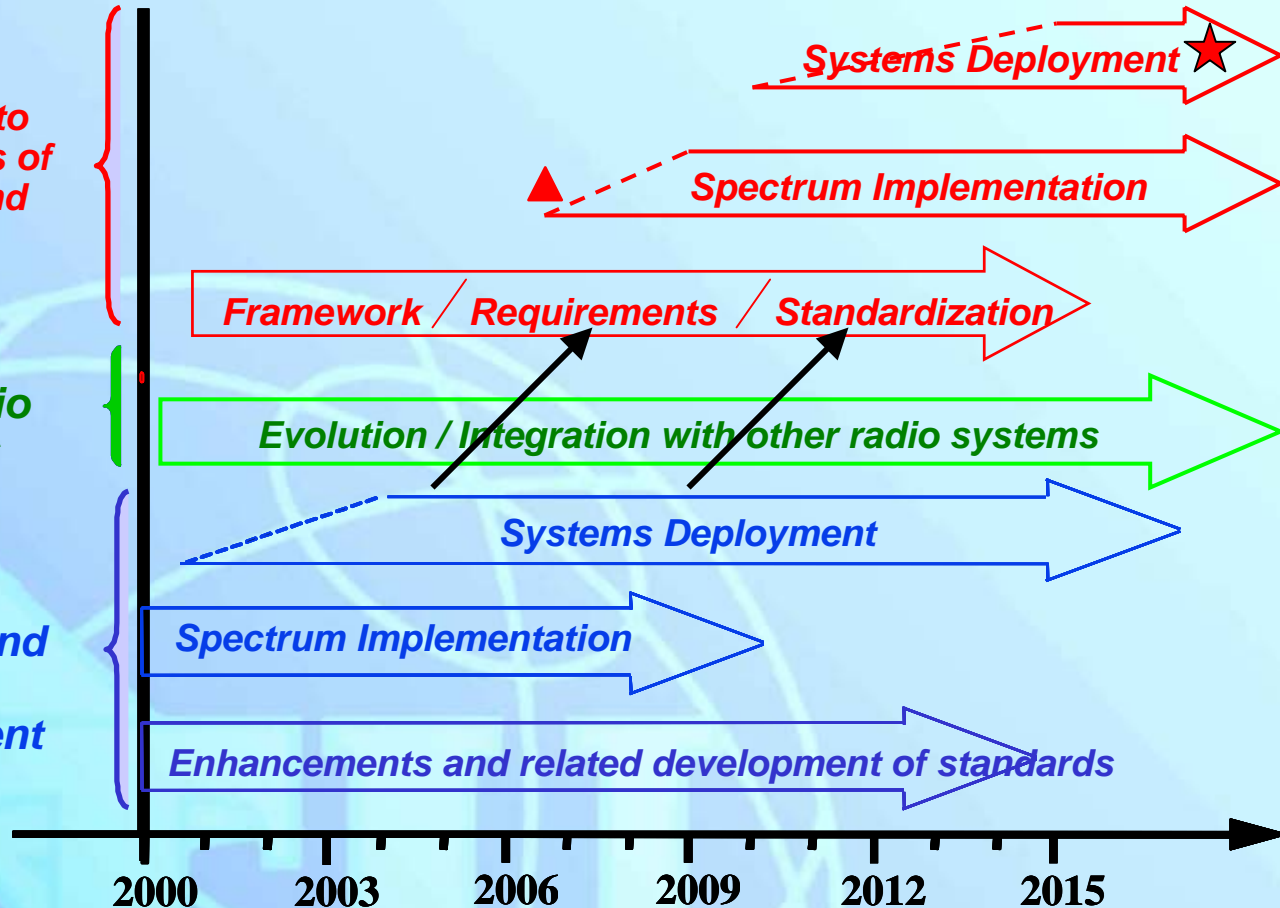
The Plan



New elements to offer capabilities of systems beyond IMT-2000

Other radio systems

IMT-2000 and future development

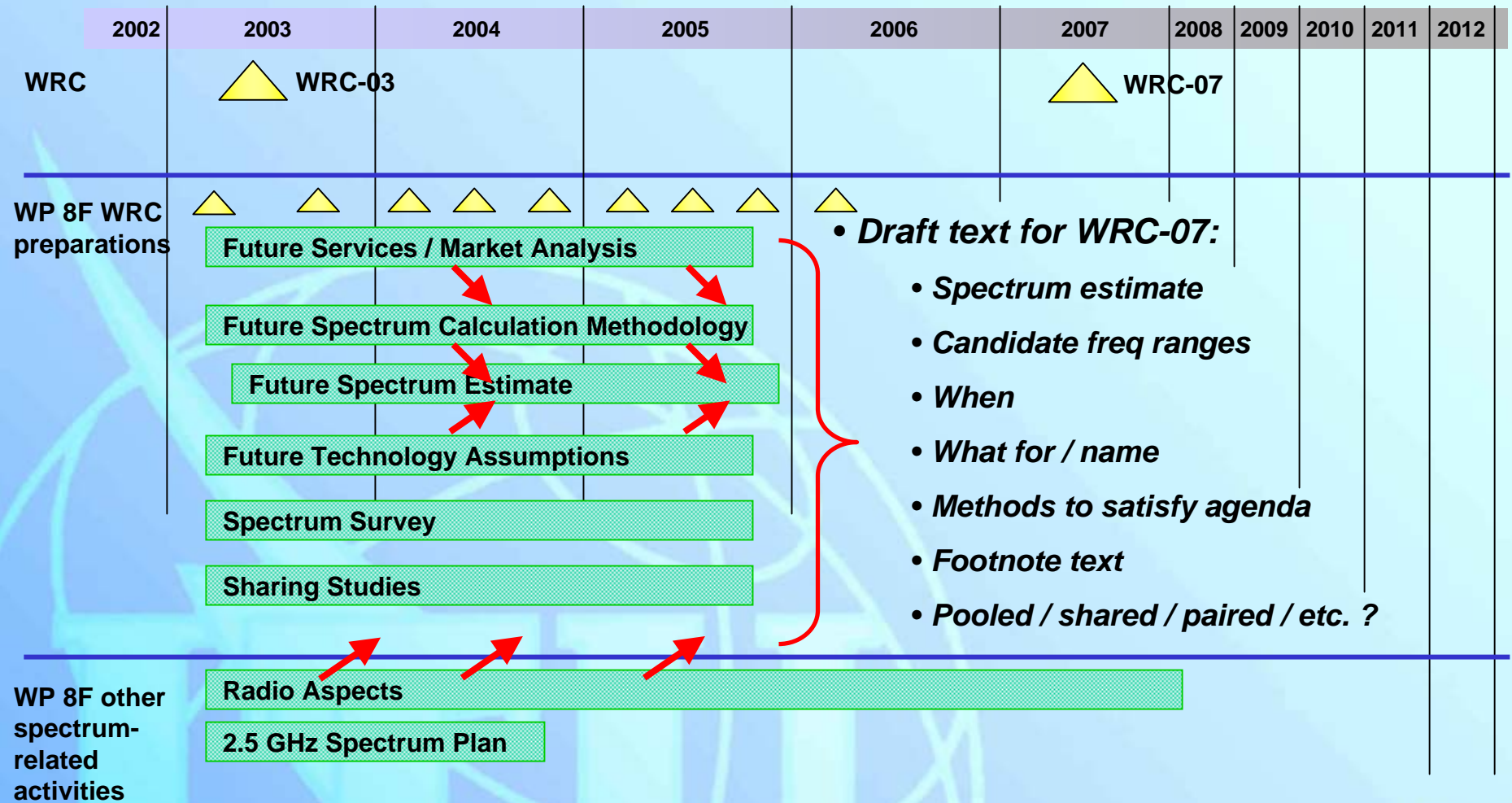


— / — Indicates that the exact starting point is not yet fixed

▲ Possible spectrum identification at the WRC-07

★ Possible wide deployment around the year 2015 in some countries

WP 8F Workplan



Summary

- **A coordinated process for standards development is proven (ITU, PPs, SDOs, Forums, etc.)**
- **Flexibility is “designed in” from the outset**
- **Enhancements already being standardized and will evolve considerably over next 10-15 years – open and market led process**
- **Relationship with other radio systems will take place on a market led basis**
- **New radio interface(s) are expected to be required sometime between 2010-2015**
- **Spectrum aspects will be considered at WRC-07**



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Thank you

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