

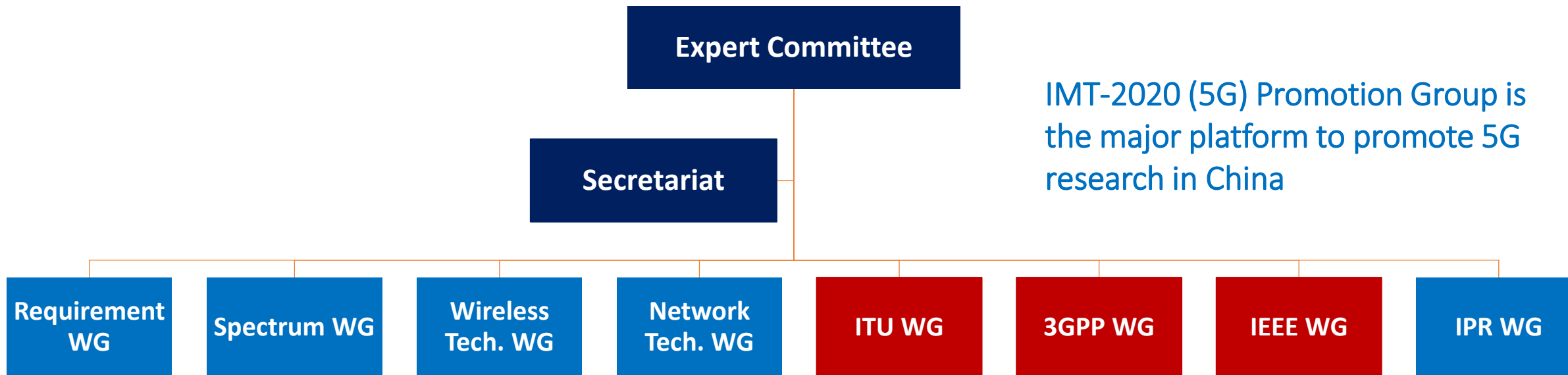


5G Standard Research Status in China

IMT-2020 (5G) Promotion Group

Oct. 20th, 2015

IMT-2020 (5G) Promotion Group Structure



IMT-2020 (5G) Promotion Group is the major platform to promote 5G research in China

- The Group has 50+ members including the main operators, vendors, universities, and research institutes in China.

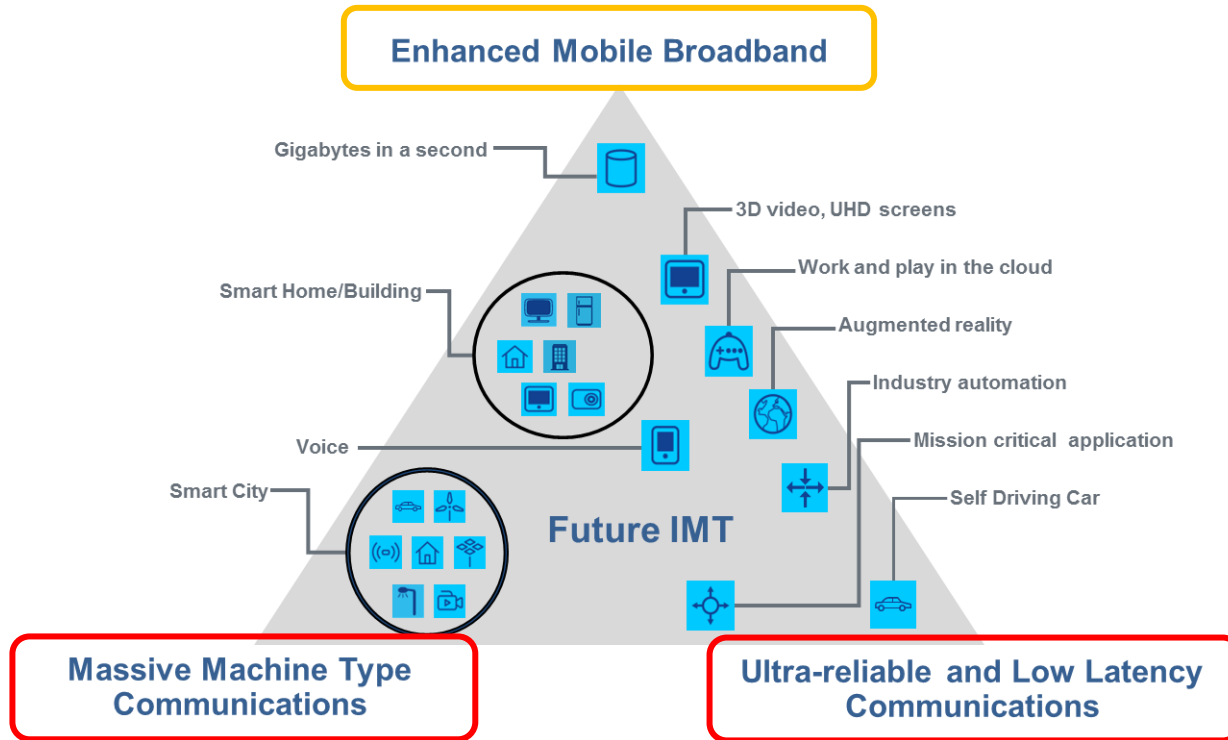


- Official website: www.IMT-2020.cn



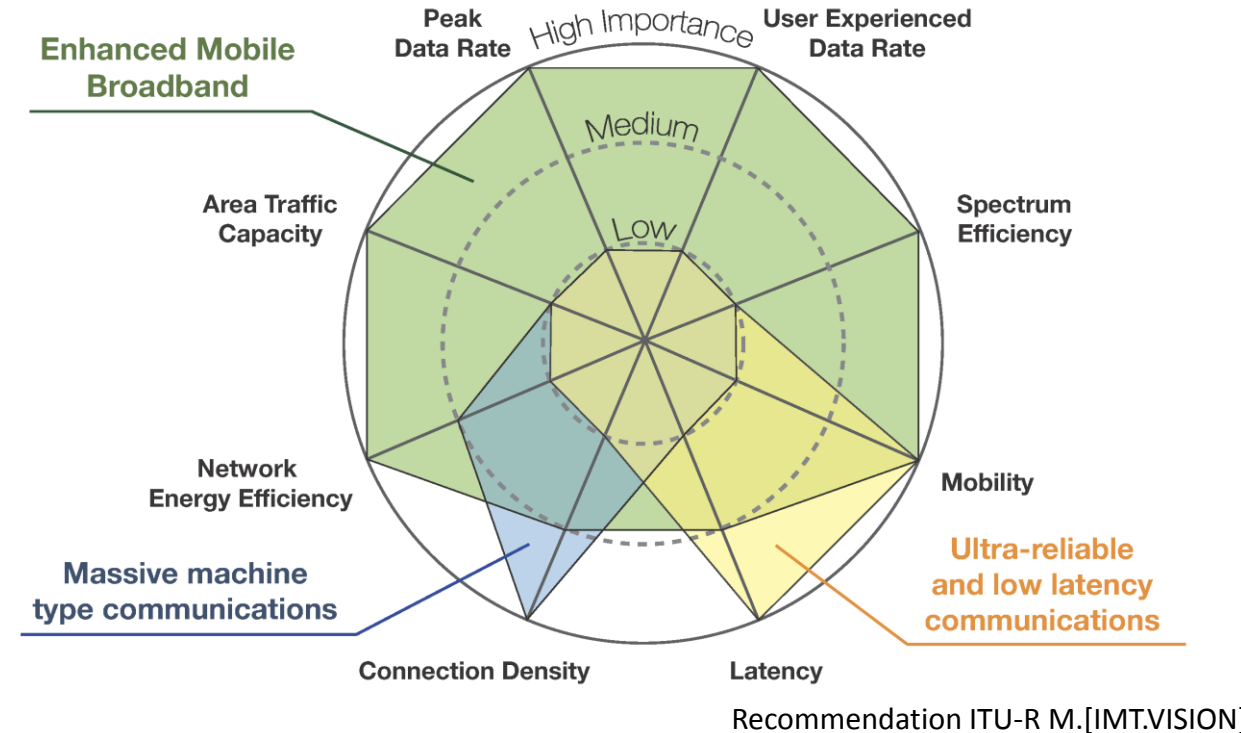
ITU 5G vision

IMT-2020 (“5G”) usage scenario



Usage scenarios extend from MBB to Internet of Things.

IMT-2020 (“5G”) Key capabilities

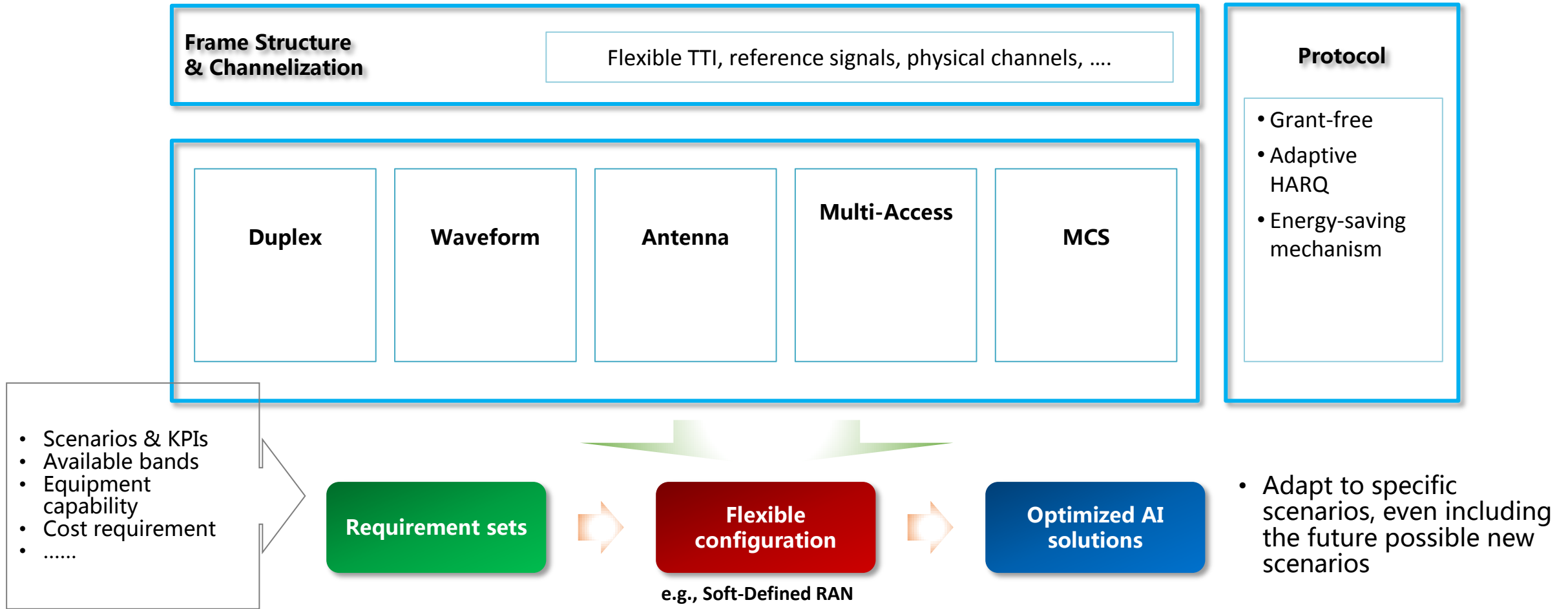


Different usage scenarios have quite different capability requirements.

5G overview in 3GPP

- Target: Highly flexible and capable 5G system to meet diverse requirements for 3 usage scenarios envisaged for 2020 and beyond.
- New RAT for 5G that is not constrained by backward compatibility to LTE needs to be studied to fulfill all the requirements.
 - needs to enable new service using the same air interface framework to fulfill all IMT-2020 requirements. Flexible design to support 3 usage scenarios.
 - supports scalable numerology and flexible frame structure.
 - considers new waveform, coding scheme, and multiple access.
- The 5G new RAT will tightly integrate with LTE-A evolution.

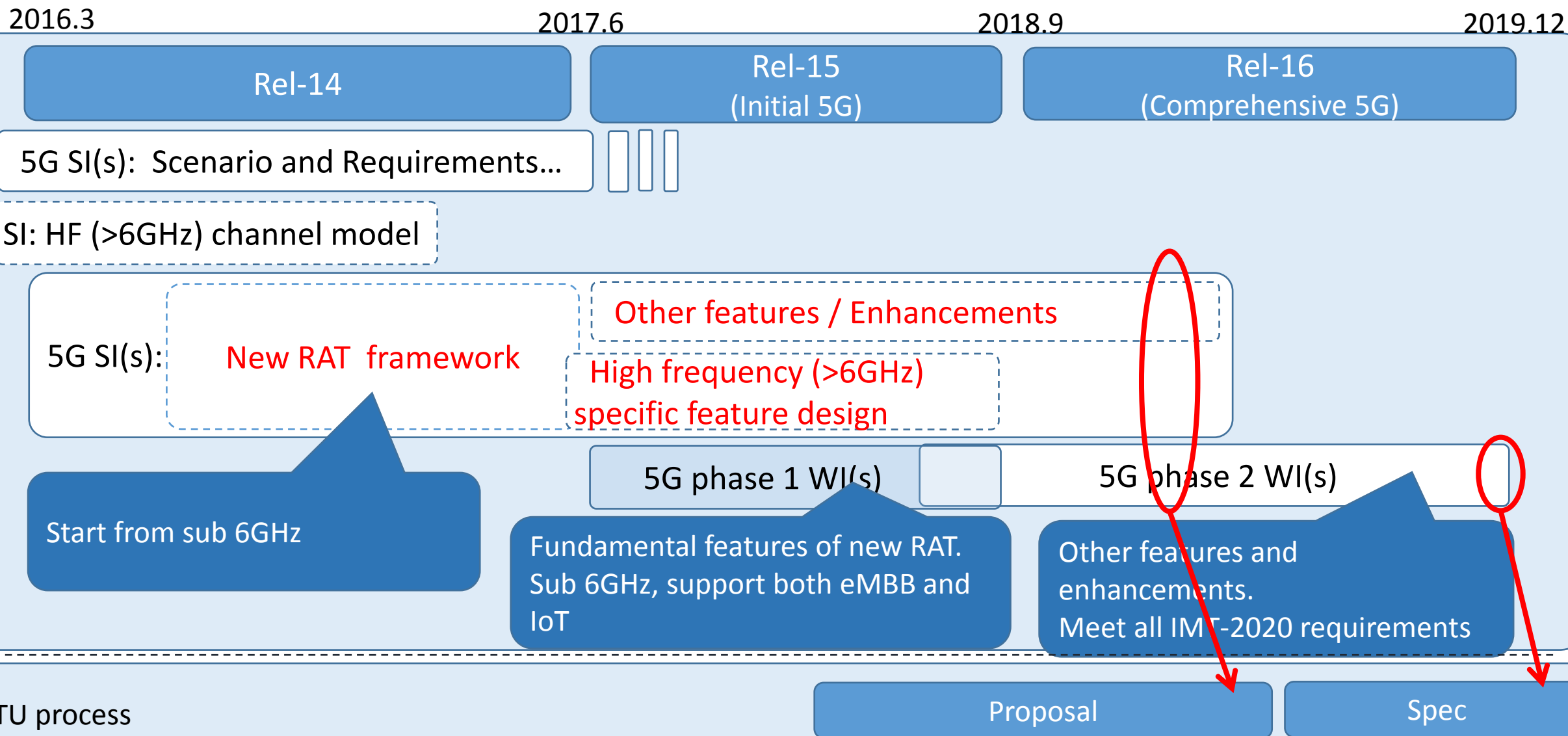
5G AI Technical Framework



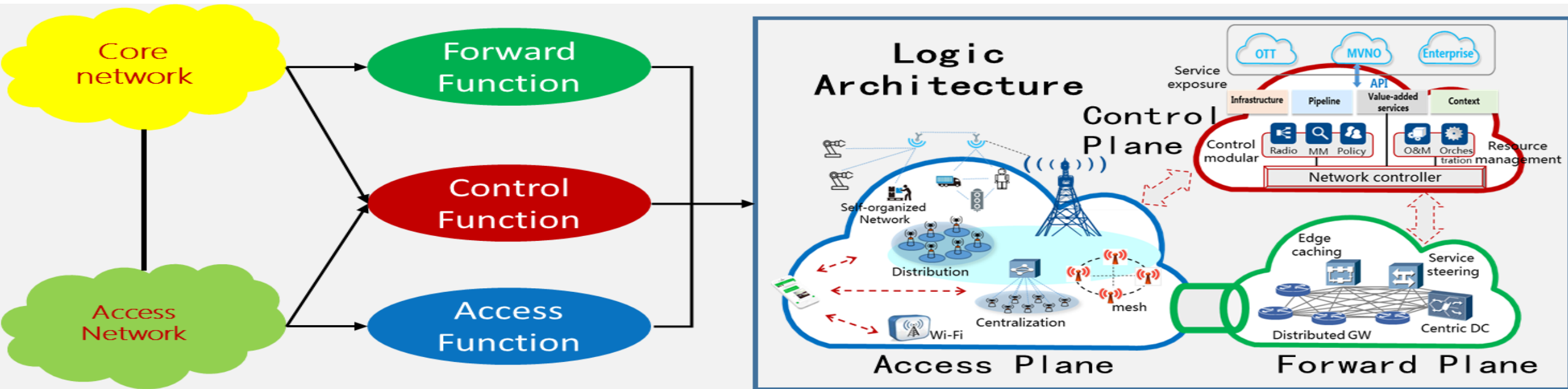
Considerations for new RAT

- 5G new RAT shall apply at both low and high frequency band. However low frequency market is more urgent and has higher priority.
 - Vertical market is very important for mobile industry and is mainly deployed in sub 6GHz.
 - New sub 6GHz IMT spectrum will be identified in WRC15.
 - Air interface design for high frequency is based on high frequency channel model which is not ready.
 - High frequency spectrum for IMT will be identified in WRC19.

Organize 5G RAN SIs and WIs and Time Plan



5G Network Technology Architecture



Access Plane

- Diversity of network topology
- User and service aware
- Multi-RAT co-existence
- Enhanced cooperation

Control Plane

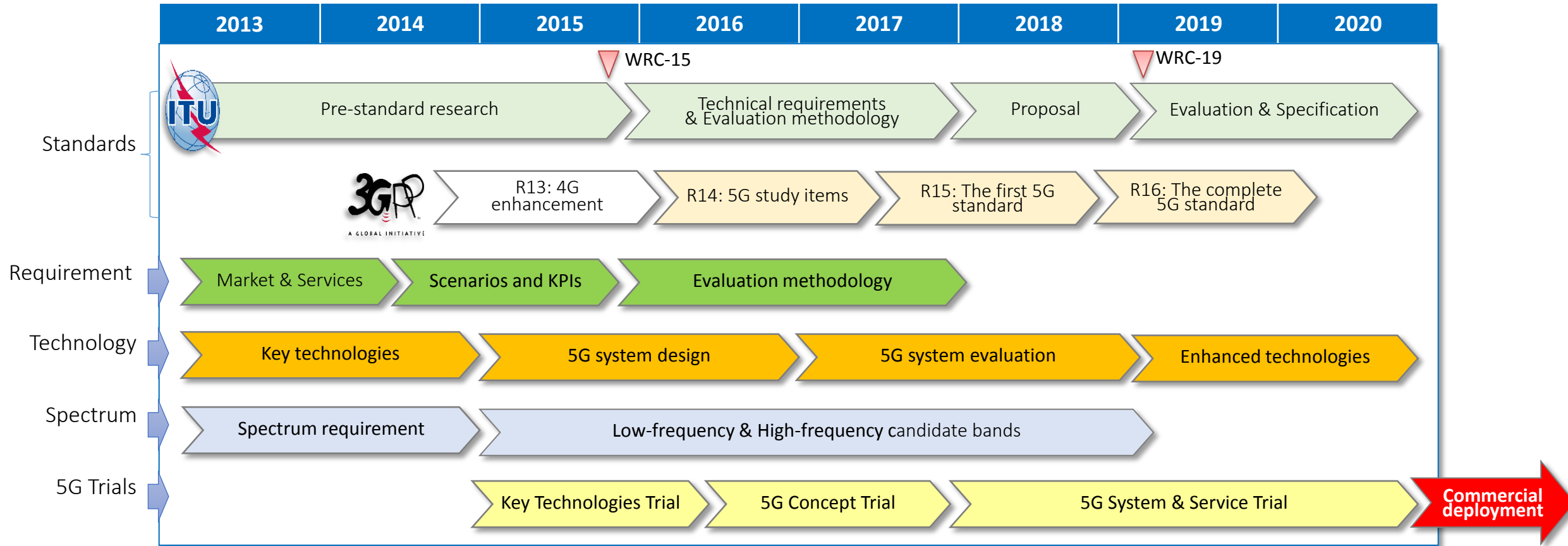
- Logically centralized unified control
- Global resource MGMT (inc. Radio)
- On-demand orchestration
- Friendly open platform

Forward Plane

- Distributed GW
- Simplified functions
- Improved programmability
- Edge computing and storage

Consideration on 5G Development Plan

Considerations on 5G time plan



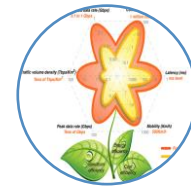
International cooperation on standard research

International Cooperation



Methods of cooperation

- Mutually support on global 5G summit
- Regular communication mechanism
- Joint research projects
- Joint trials, etc.



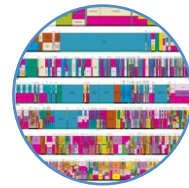
vision



technology



standard



spectrum



Thank You

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