

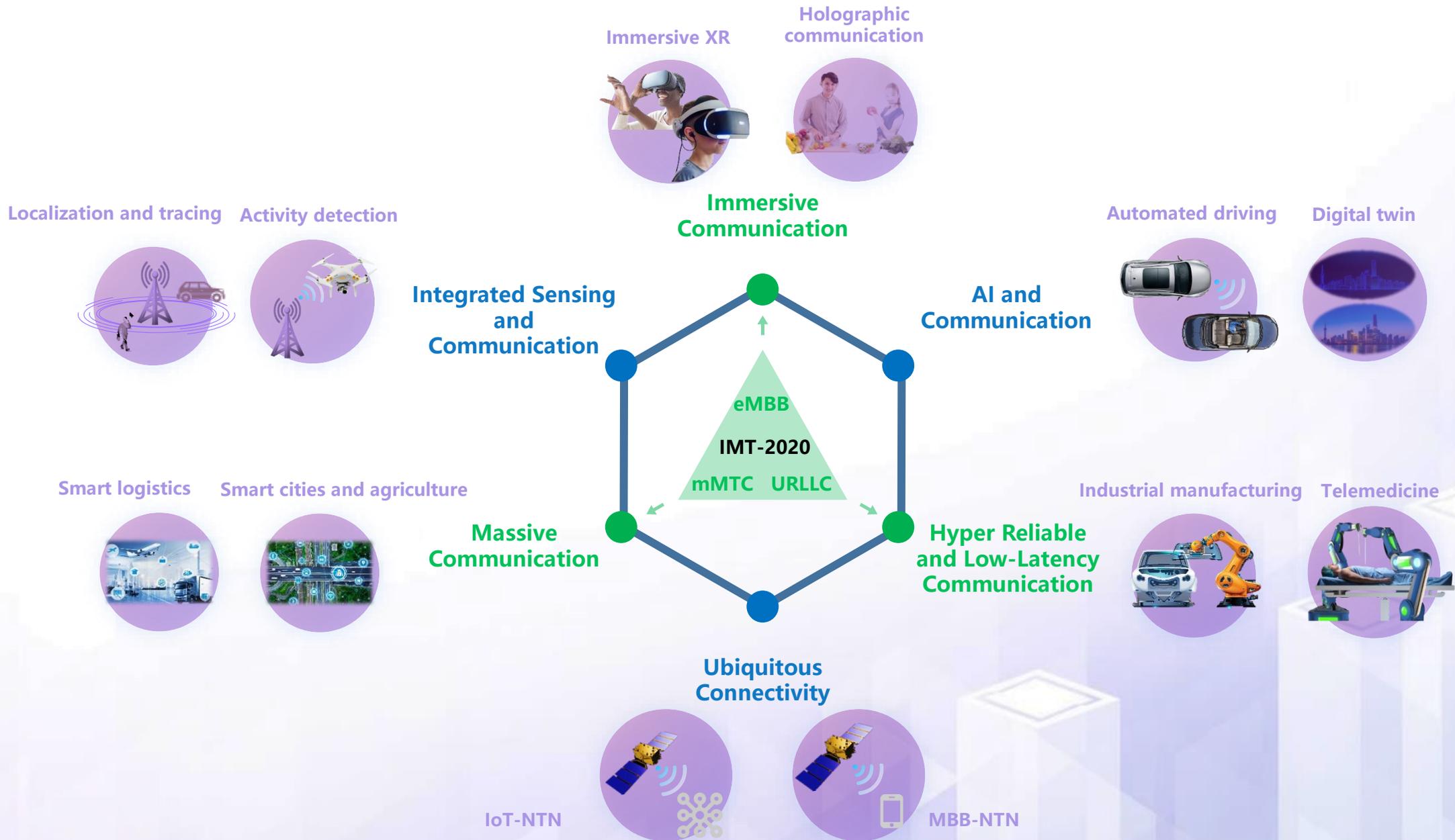
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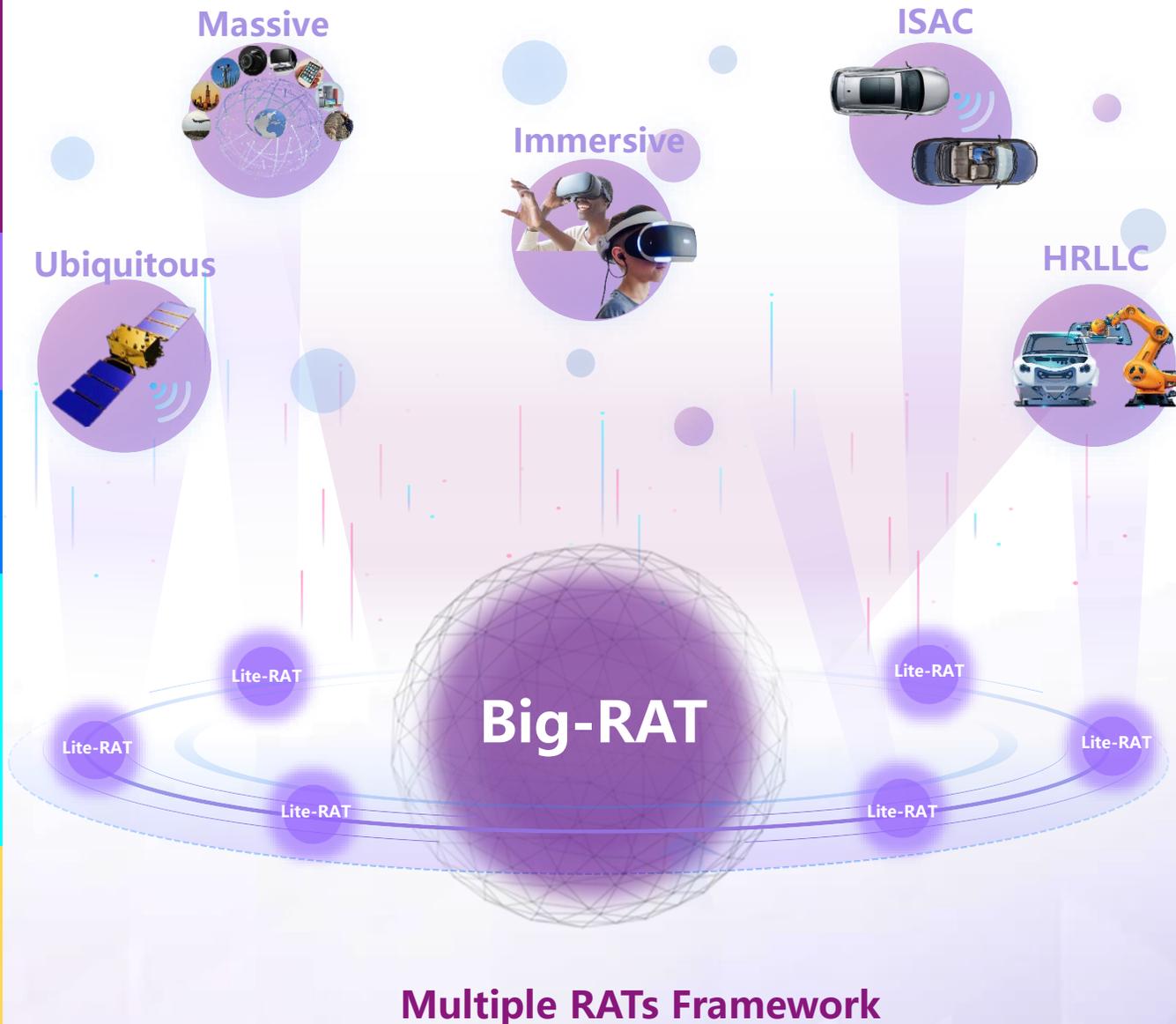
Initial Views on 6G Use Cases and Features

Source: Spreadtrum, SGITG
Agenda Item: 8
Type: Discussion
For: Information

6G Usage Scenarios and Typical Use Cases



6G Framework and Features



● One "Big-RAT"

- Apply to most scenarios
- Traditional mobile service oriented
- Based on 5G/5G-A evolution
- Fundamental features with the highest priority in 6G Phase-1

● Several "Lite-RATs"

- Apply to extreme scenarios
- Flexible and agile design
 - Sensing air interface
 - Immersive
 - Hyper-reliability and low latency (e.g. ellot)
 - Massive connectivity (e.g. eAIoT)
 - Ubiquitous

Proposed SA1 6G Umbrella

1st big basic umbrella

Building Block: Network operation

- General mobile network functions
 - Security, Privacy, and resilience
 - Interoperability, roaming
 - Sustainability, Energy efficiency
 - System flexibility & scalability
- Basic capabilities for 6G eMBB
 - Peak data, User experienced data rate, Spectrum efficiency, ...
 - Positioning
 - Coverage
 - Basic sensing
 - Basic Inherent AI
 -

2nd umbrella with N sub-blocks

sub-Building Block 1: ISAC

high accuracy sensing, high anti-interference capability

sub-Building Block 2: Immersive Communication

Tbps level data rate, end to end high QoS

sub-Building Block 3: HRLLC (e.g. eIoT)

simplified functions, ultra-lean protocol, robust to Interference

sub-Building Block 4: Massive Communication (e.g. eAIoT)

ultra-low complexity, data rate, and low-power consumption

sub-Building Block 5: Ubiquitous Connectivity

6G SatCom (NTN) v.s Many Proprietary SatCom Systems

sub-Building Block X:

THANKS