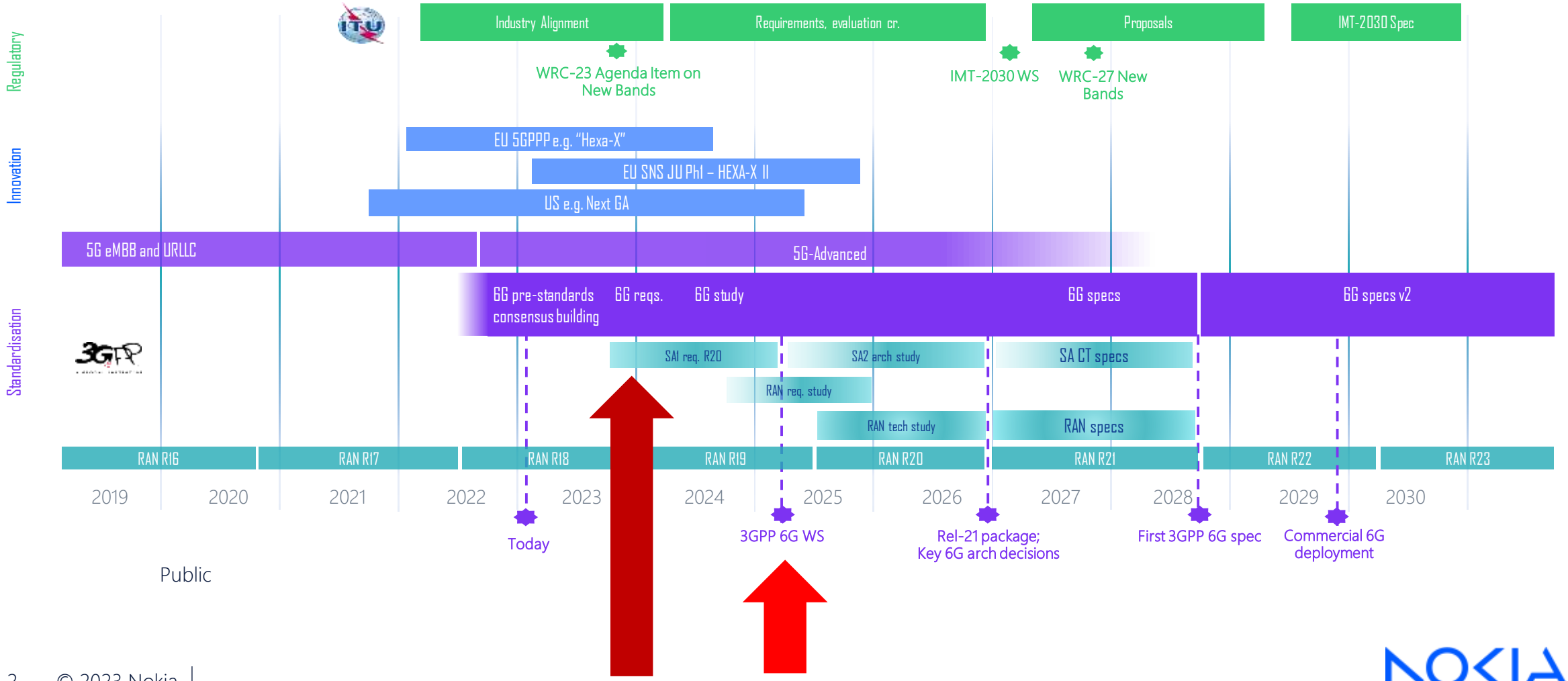
On 6G Standardization Timelines (3GPP) And Activities

Srinivasan

Nokia Standards

6G success depends on a global unified approach

Different regulatory, innovation, and standardization timelines to be brought in harmony

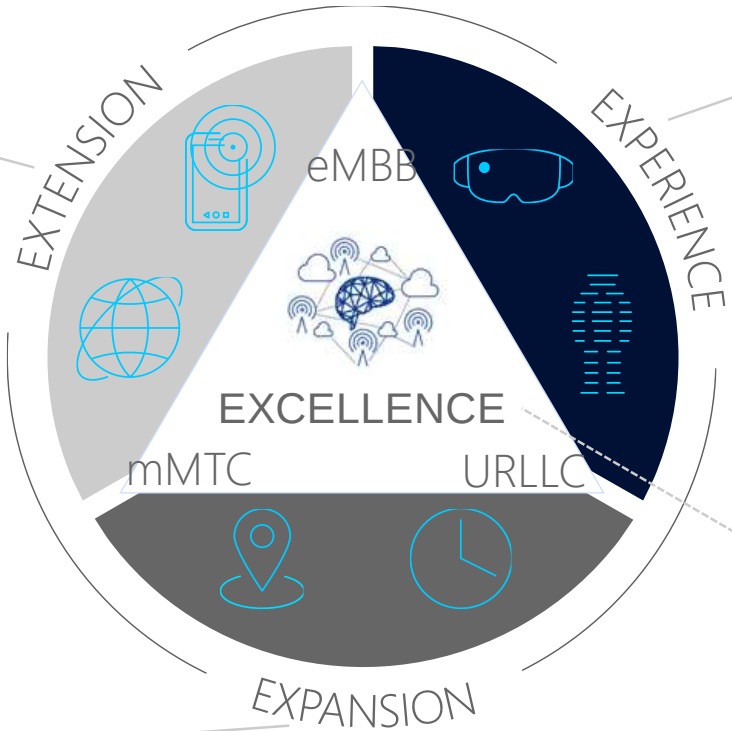


Public

5G-Advanced provides new usage areas and services with boosted resiliency and operability

Coverage extension, new 5G usage areas:
- Uplink coverage
- IoT optimized RedCap
- Non-terrestrial networks (NTN)
- UAV optimization
- Sidelink enhancements
- Sub 5MHz for verticals
- Low power WUS

Expansion beyond connectivity:
- Positioning enhancements
- Timing Resiliency

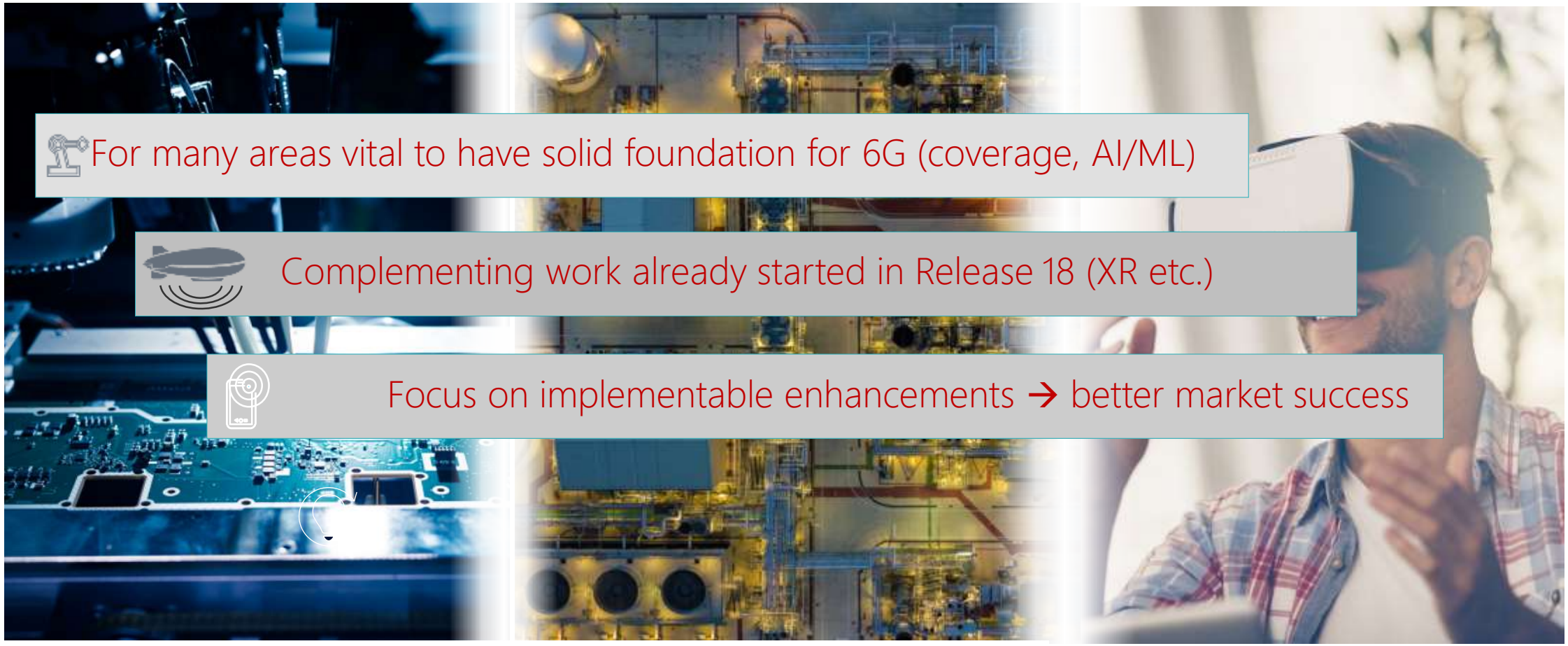


Enhanced experience:
- Extended reality (XR)
- MIMO enhancements
- Mobility enhancements
- Duplex operations Study
- Edge computing

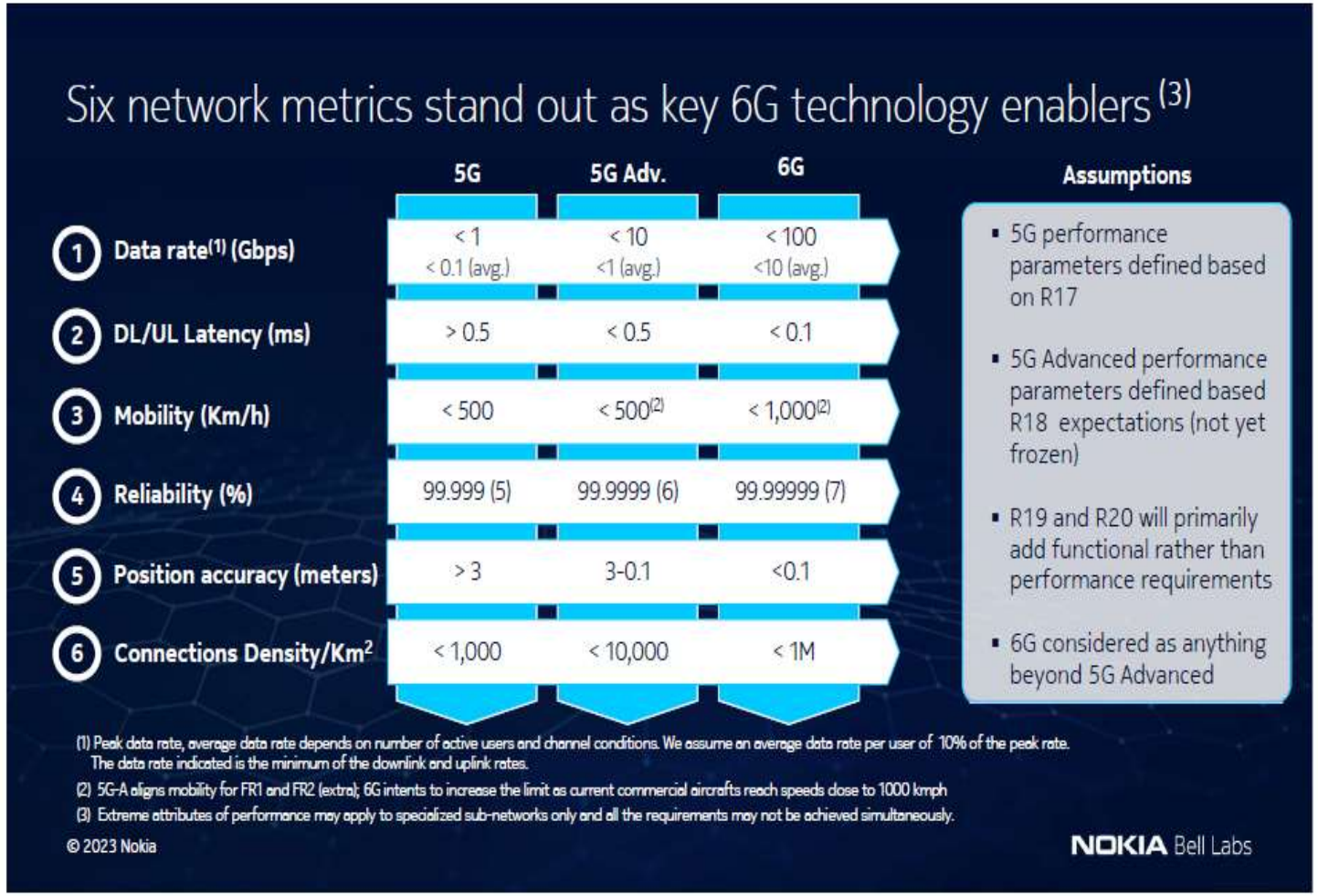
Operational excellence:
- AI/ML for NG-RAN
- AI/ML for Air Interface
- AI/ML in 5G Core
- Network energy efficiency
- Network-controlled Repeater
- Mobile IAB
- DSS enhancements
- Network slicing

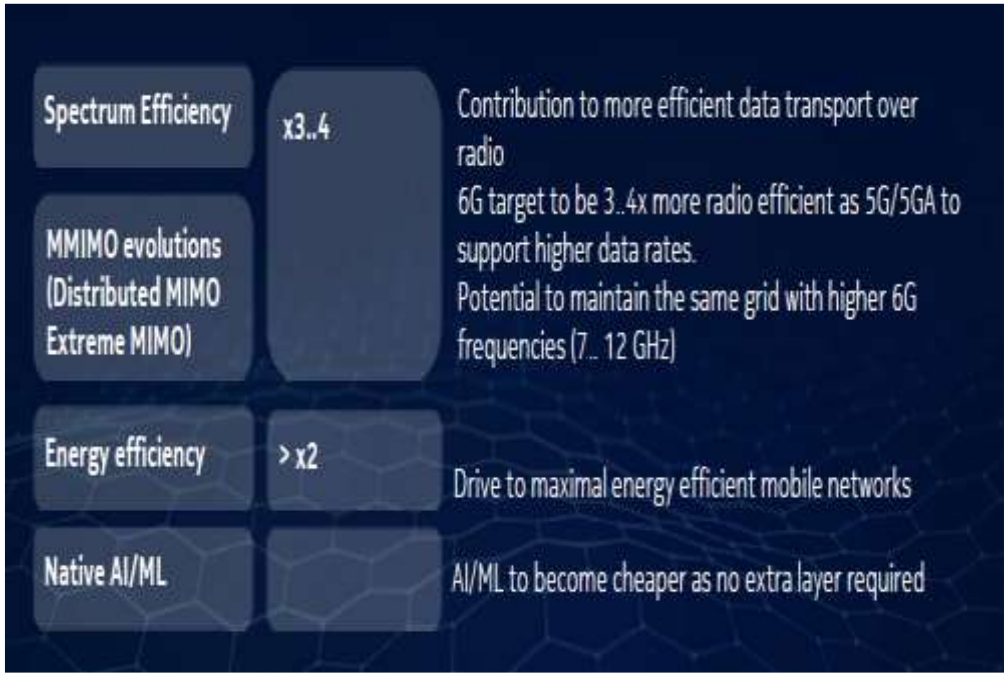
Release 19 continues to complement 5G-Advanced

At the same time important preparation toward 6G



6G Capability And Operational Efficiency Projection





Important Steps for 6G Standardisation

- Early Contributions to 6G Scenarios and Use-cases (SA1- Study Starts in Early 2024)
- Pre-standardization work – For Radio aspects Study
- Contributions to Radio Aspects Study activity / Architecture Aspects (Mid 2025)
- 6G Work Package contents (Rel-21) -Based on Study Outcome
- Consistent Involvement in successive releases (First 2-3 releases of New G)

Role of SDO (TSDSI): Framework and Platform to Enable IM Contributions to Global Standard

- Identification of India-specific use-cases /Requirements
- Pre-standardization activities: Study , Identification of Key issues, Performance Requirements analysis
- Post Standardisation: Applicability of Technology components and Features in India-Context.
- Pre-Release Workshop for exchange of IM views and coordination for support for WP discussions (Rel-19 /Rel-20 /Rel-21)