The Evolution of Connectivity From 5G to 6G

5G Today: Enhanced mobile broadband, ultra-reliable low latency, massive IoT

6G Evolution in the next 5 years

- 100x faster data speeds (up to 1 Tbps)

- 1ms latency with extreme reliability

- Native AI integration for network automation

6G is expected to connect over **500 billio**n devices globally by 2030 (ITU/Next G Alliance)

AI, along with Digital transformations, will unlock new levels of operational efficiency and customer engagement

AI-powered Digital Connectivity with 5G/6G

AI enables proactive, real-time management of digital infrastructure

• Digital twins, powered by AI, simulate and optimize network performance

• Predictive analytics ensure seamless service delivery and minimal downtime

• AI improves energy efficiency and reduces cost across digital ecosystems

AI-powered digital operations could reduce network OpEx by up to **40% (McKinsey, 2024)**

AI + Digital technologies, when integrated with future connectivity, **transform the customer experience** by making it faster, smarter, hyper-personalized, and more proactive

AI-Driven Orchestration

- Automates lifecycle of services (provisioning, scaling, healing)

Closed Loop Automation

- Continuous monitoring + AI feedback loops for real-time optimization.

Intent-based Network Sizing

- Network interprets high-level business goals and adjusts resources automatically – Hyper-personalization

Real-time analytics and prediction

- AI processes data within the network core to anticipate issues and user demand.

Digital Customer Experience integrated with Network

- Network experience combined with omnichannel and 360-degree customer experience

Market Benefits of AI + Digital Networks for Telcos

New Revenue Streams:

- Network-as-a-Service (NaaS), B2B2X platforms, AI-as-a-Service

Cost Optimization:

- Automated operations, predictive maintenance, energy optimization
- Potential up to **40% OpEx savings** (McKinsey)

Accelerated Innovation:

- Fast service deployment via CI/CD and orchestration
- AI-driven product design for agile monetization

Superior Customer Experience:

- Hyper-personalization, AI-led QoS adjustments, reduced churn
- +10–20% customer retention improvement

Enhanced Security & Trust:

- AI-based threat detection, digital identity validation
- Improved compliance and reduced fraud risk

Early adopters can gain **20–30% more enterprise market share** (GSMA/BCG)

Conclusion

- AI + Digital + Connectivity = Smart, Responsive, and Scalable Networks

- Enterprises must adopt AI-driven digital platforms to remain competitive

- Ecosystem collaboration is key to accelerating AI-digital innovation

- Prepare for 6G by building AI-ready digital infrastructure today

AI and Intelligence are the pillars of the hyper-connected