



Next-Gen Networks

Transforming the Future of Connectivity

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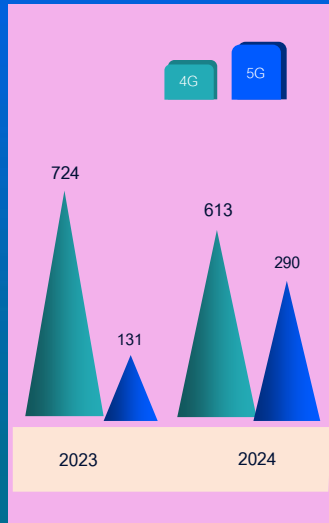
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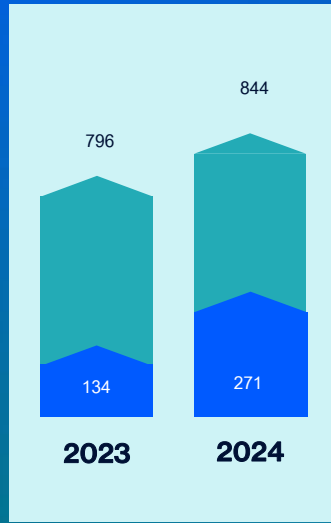
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5G Adoption – A Reflection on Data Uptake ...

1. 4G Offload



2. 5G Smartphone Penetration



3. Customer Experience



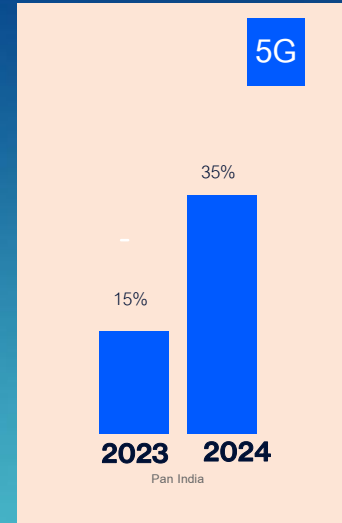
Average Data
speed
(100 Mbps+)

4. 5G Monetization



FWA
(for Home & enterprise)

5. 5G Data Uptake



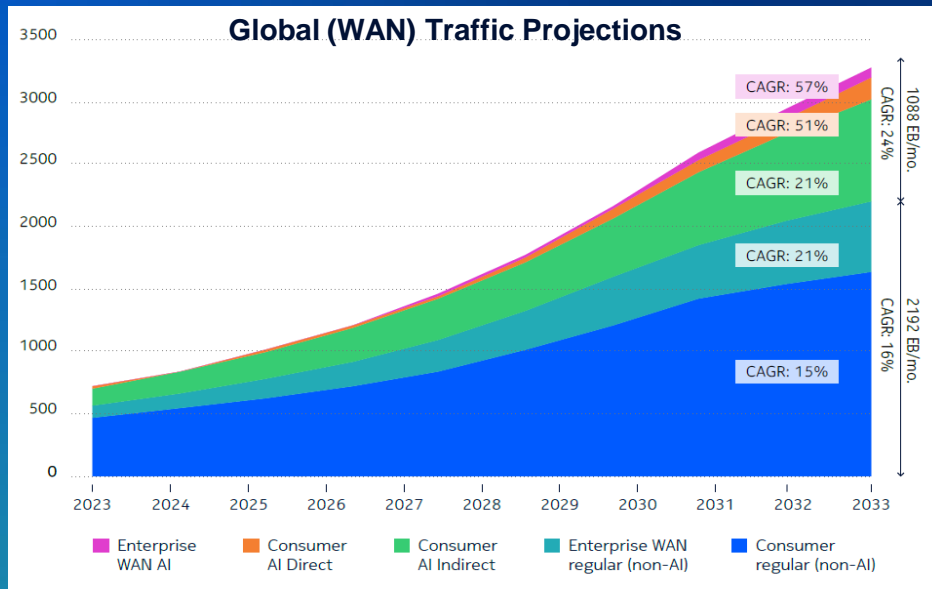
Source: Nokia analysis, Operator Quarterly Reports, TRAI

Unprecedented data traffic growth is fueled by the combination of new services, device expansion and surge in AI usage

New monetizable services

Devices expansion

Surge in AI usage



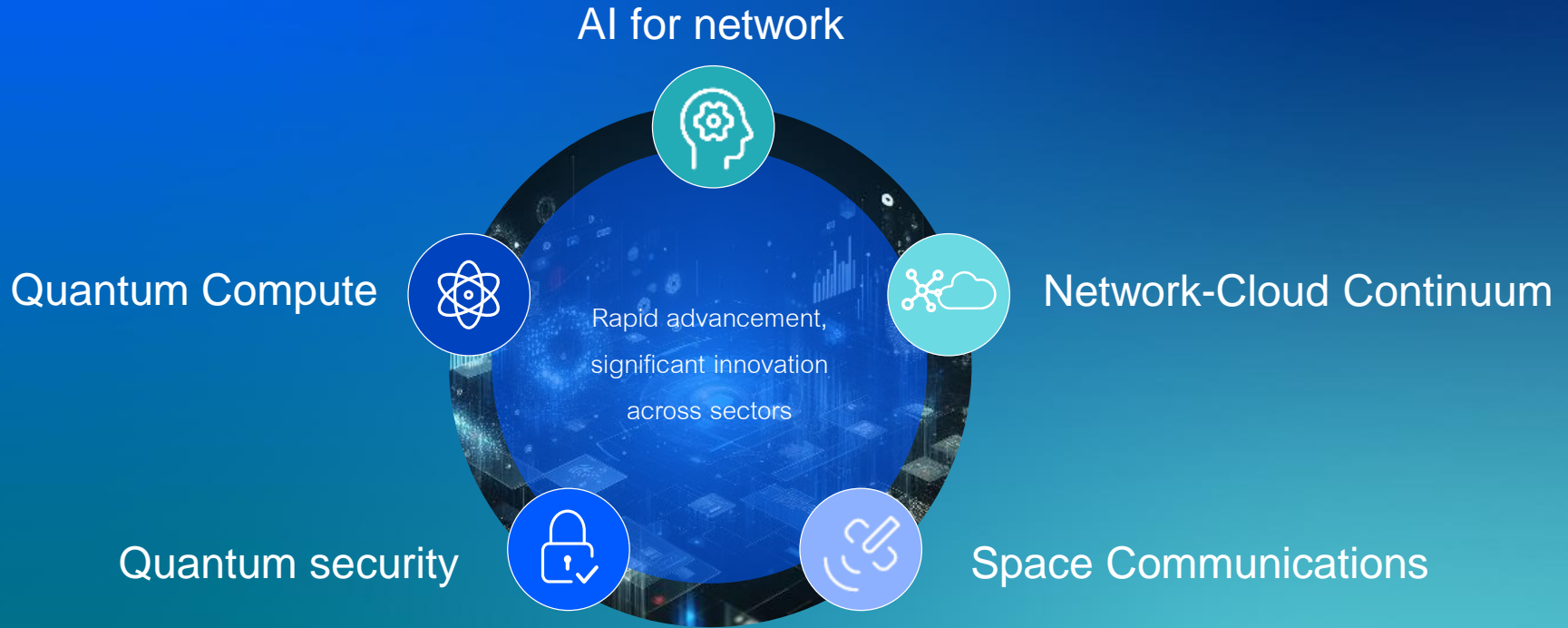
Global AI Traffic (2033: ~1088 EB/month, CAGR: 24%) to account for –

- ~33% of Global Traffic
- ~38% of the Global Consumer traffic
- ~13% of the Global Enterprise traffic

Source: Bell Labs Consulting

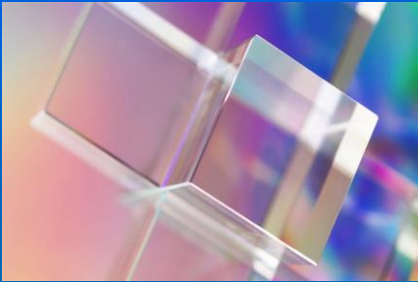
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Additionally, emerging technologies require continuous network advancements



Anticipated data traffic growth and technological evolution are shaping future wireless network

Key considerations for Future Wireless Network



Value-centric



Intelligent



Sustainable



Cyber-resilient
& secure

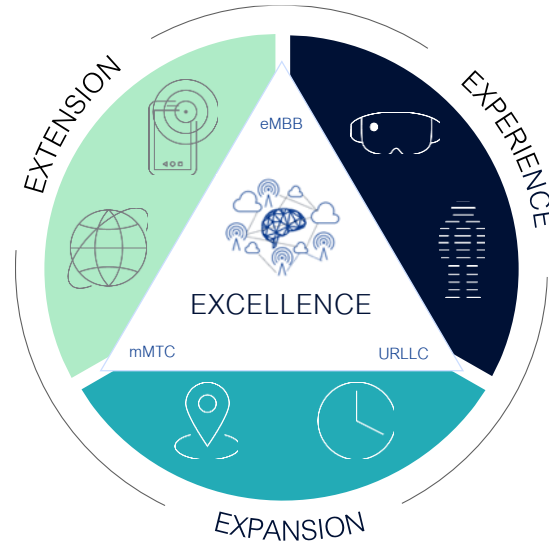
5G-Advanced – interim step towards future wireless network (6G)

New usage areas, new services, boosted resiliency and operability

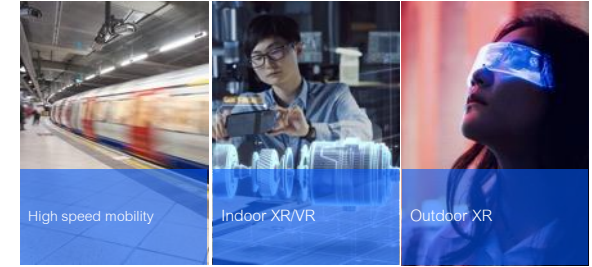
Extension: Extend reach to address new segments



Expansion : Go beyond traditional communication



Experience: Enrich 5G experience



Excellence: Optimize operational expenses



Realization of 6G will come in stages

Building a robust and extensible day-one baseline is critical for initial success of 6G

6G day-one focus

- Extreme MIMO on existing grid
- Smooth migration and core evolution
- Programmable networks and API native
- Framework for native AI
- Framework for energy efficiency
- Non-Terrestrial Networks (NTN) support for all UE types



NextG mobile broadband



Fixed Wireless Access (FWA)



Immersive /Cloud gaming



Extended Reality



IoT/LPWA native support



"Integrated" global connectivity

6G to build on 5G success and do so in a more efficient, economical, scalable and sustainable way

Realization of 6G will come in stages

6G evolution beyond day-one

6G evolution and beyond

The human, physical and digital worlds will become seamlessly integrated in the 6G era



From Connectedness to
Togetherness



From Information to
Knowledge



From Efficiency to
Purpose

Augmenting human capabilities and the full realization of digital-physical fusion



6G foundations are being laid
today

6G realization will happen in
stages
(5GA interim stage)

Nokia leading 6G ecosystem &
spearheading 6G innovation

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