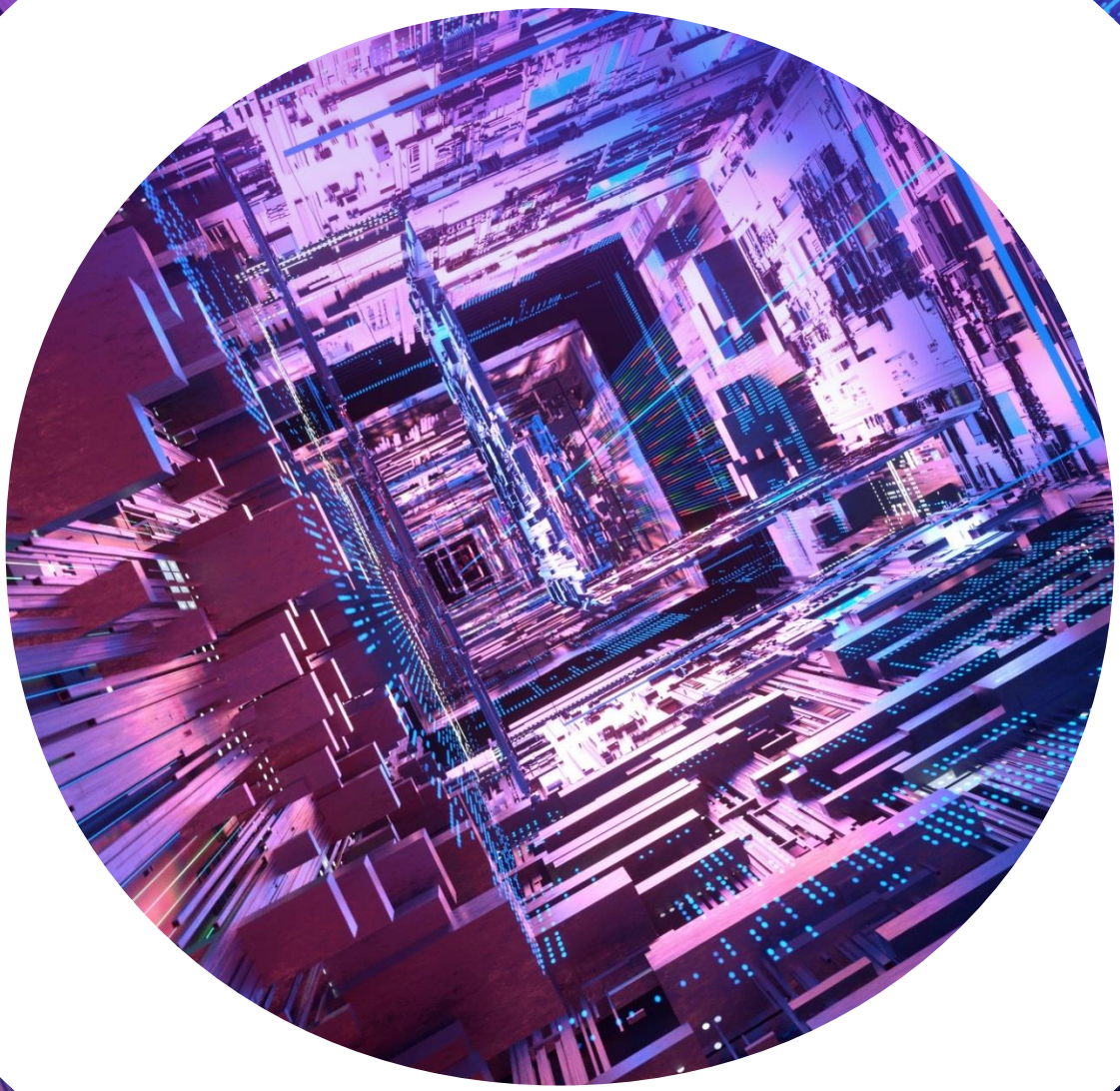
NOKIA | MBiT Index

12th Edition

India Mobile Broadband Index 2025



About

Nokia MBiT Index

Nokia MBiT Index is an annual report on mobile broadband performance in India. It aims to provide valuable insights, data and analysis of mobile broadband and traffic growth by correlating these trends with various demand and supply-side drivers of the connectivity ecosystem including devices and traffic usage patterns.

01

The 12th edition of the report assesses mobile broadband data traffic growth and trends across India. It also tracks data consumption per user and sheds light on the device ecosystem in India.

Widespread and reliable 5G accessibility and expanding device ecosystem are the primary drivers of 5G adoption and growth in data usage.

02

03

The report also highlights the role of 5G Advanced in realizing the full potential of 5G technology and provides insight into how 6G will shape the future of communications.

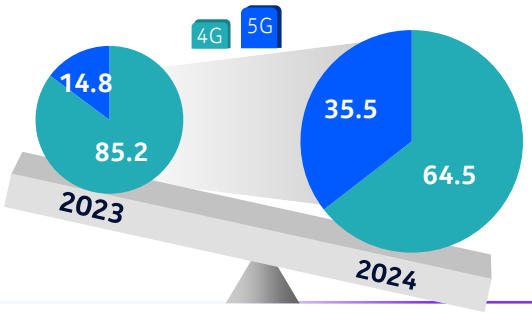
Pan India monthly 5G traffic surges threefold (y-o-y) to reach 7.6 EB in 2024

Mobile data traffic per month — **21.5** Exabyte

23% y-o-y growth

Over **12x** — **5G FWA vs. mobile data user** - Monthly data consumption

Traffic contribution (%)

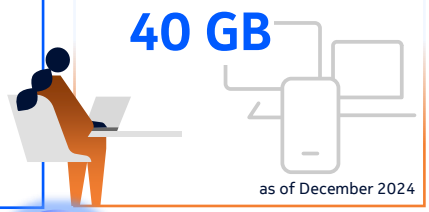


Average monthly mobile data traffic per user (GB)

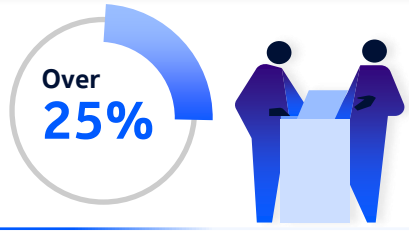
5G data traffic contribution in metros

Maximum growth witnessed in **Category B & C circles**

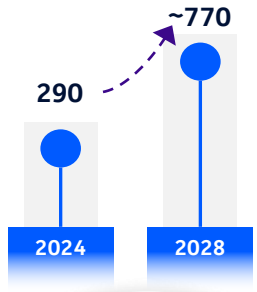
Average monthly 5G data traffic per user (GB)

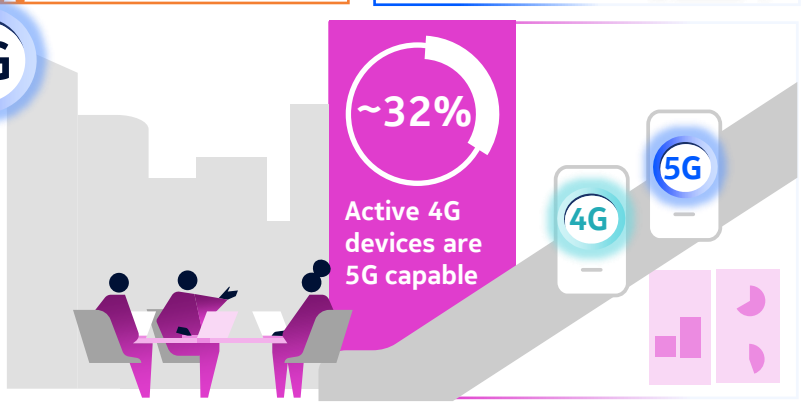


Share of 5G FWA in overall 5G data traffic

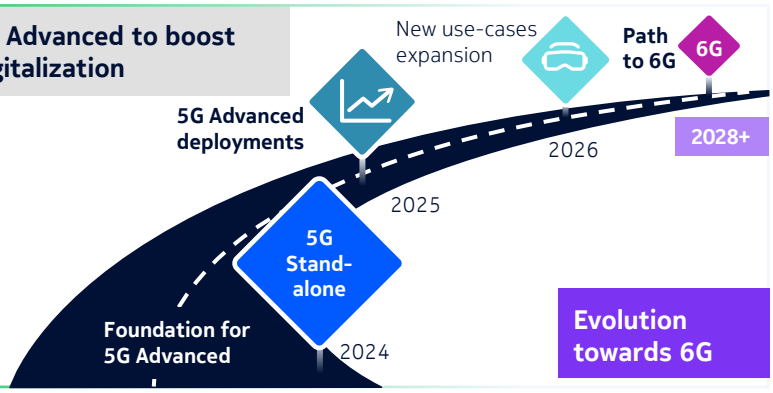


5G subscribers (million)



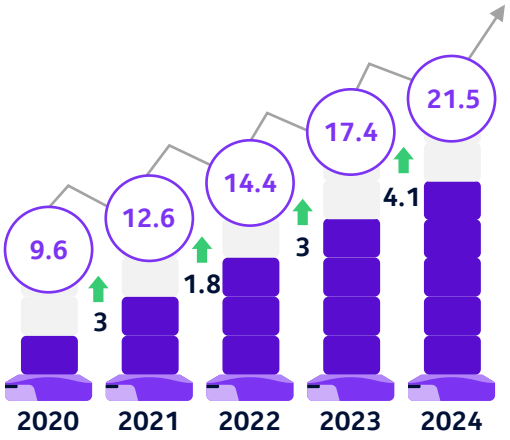


5G Advanced to boost digitalization



Mobile data traffic jumps 23% (y-o-y), touches 21.5 EB per month in 2024

Pan-India mobile data traffic – Exabyte (EB*) per month



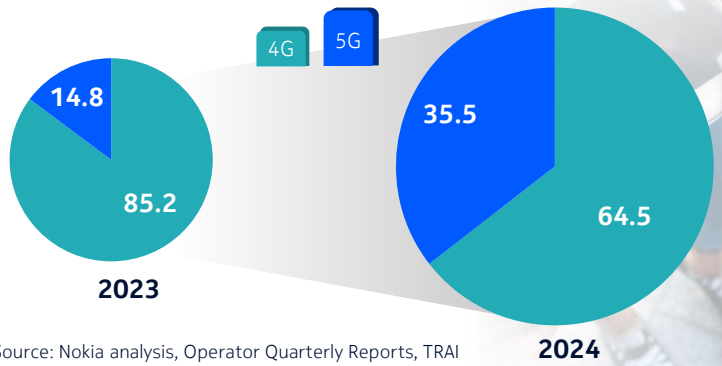
Source: Nokia analysis, Operator Quarterly Reports, TRAI

Mobile data payload y-o-y absolute growth

- 5G (FWA and mobile data) driving the data push as 4G data growth declines
- Growing 5G device ecosystem — shipments of the mass 5G budget segment grew 2 times (y-o-y) [1]

22.3%
CAGR
Includes 5G data

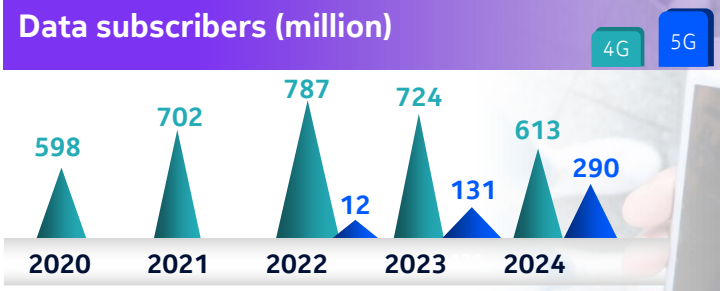
Traffic contribution (%)



Source: Nokia analysis, Operator Quarterly Reports, TRAI

- 5G data traffic expected to surpass 4G data traffic by Q1 2026
- Data traffic contribution per month (2024)[1]
  - 5G: 7.7 EB
  - 4G: 13.8 EB
- Expected 5G subscribers by 2028[1]: ~770 million
- ~120 million 5G subscribers expected to be added annually[1]

Data subscribers (million)



Source: Nokia analysis, Operator Quarterly Reports, TRAI

Source: 1. Nokia analysis
*1EB=1000 PB **Represents y-o-y growth for Dec-23 to Dec-24
Note: 2G and 3G contribution in overall data traffic is marginal and reducing.

Pan India 5G traffic triples in a year, category B & C circles lead the growth

5G + 4G payload by category (in Exabyte), per month

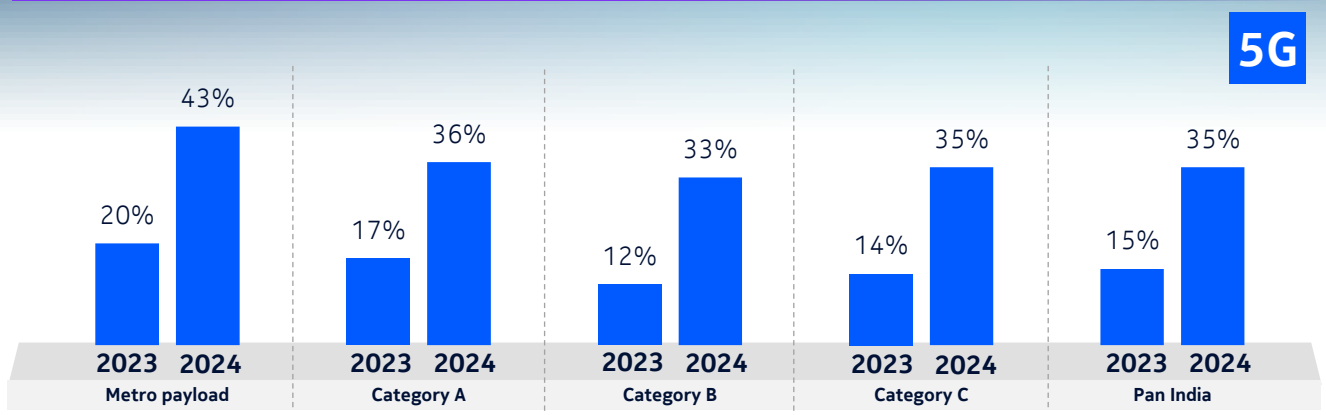
as of December 2024

	2023	Y-o-Y Growth	2024
Metro payload	1.5	~24%	1.9
Category A	6.1	~22%	7.5
Category B	6.8	~24%	8.5
Category C	2.9	~25%	3.6
Pan India	17.4	~23%	21.5

Source: Nokia analysis

5G data traffic contribution across circles

*Contribution as of December

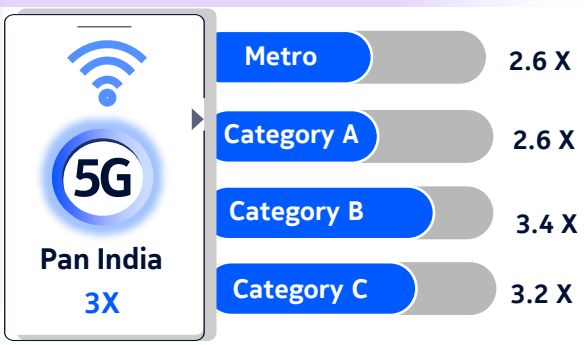


Source: Nokia analysis

- 5G data usage in metros touches ~43% (vs. 20% in 2023) as 4G data growth is declining[1]
- 5G data growth in Category B (3.4x) and C (3.2x) circles driven mainly by the expansion of 5G networks within these circles[1]

Source: 1. Nokia analysis

5G Traffic Growth (2024 vs. 2023)



Source: Nokia analysis

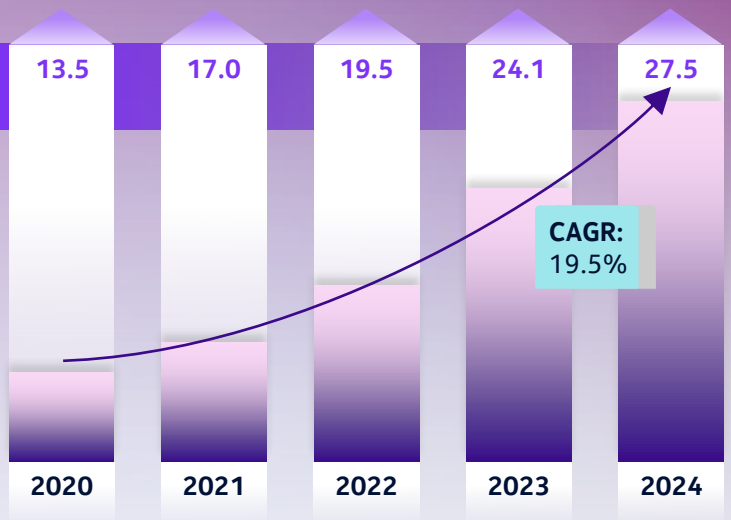
Average monthly data per user soars to 27.5 GB in 2024, CAGR of 19.5% over last five years

Average mobile data per user per month (GB)

as of December

Average monthly data per user grew over 14% (y-o-y) in 2024

Average monthly 5G data per user 40 GB[1]



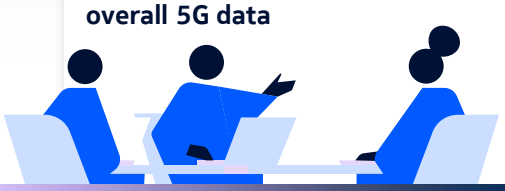
Source: Nokia analysis

5G FWA – A key catalyst for data traffic growth

Over **25%**

Share of 5G FWA in overall 5G data

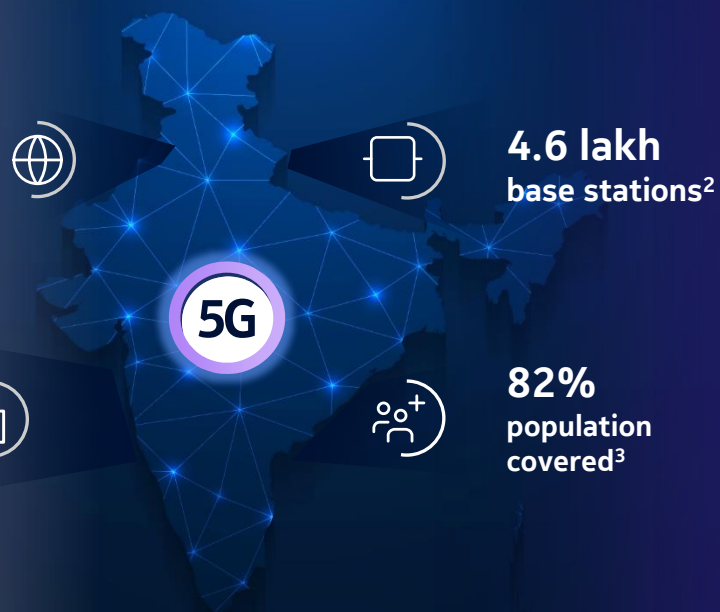
Source: Nokia analysis



Over **12x**

Data consumption of 5G FWA user vs. mobile data user

Source: Nokia analysis



World's fastest rollout

4.6 lakh base stations[2]

99% districts covered[2]

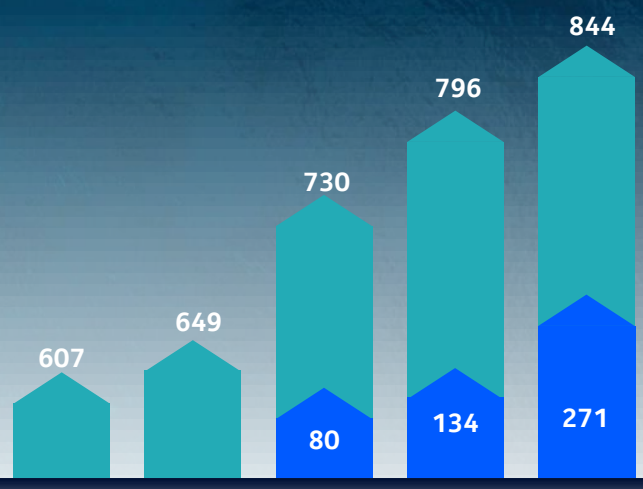
82% population covered[3]

1. Nokia analysis 2. Media 3. Media

Active 5G devices doubled to reach 271 million in 2024

5G and 4G devices

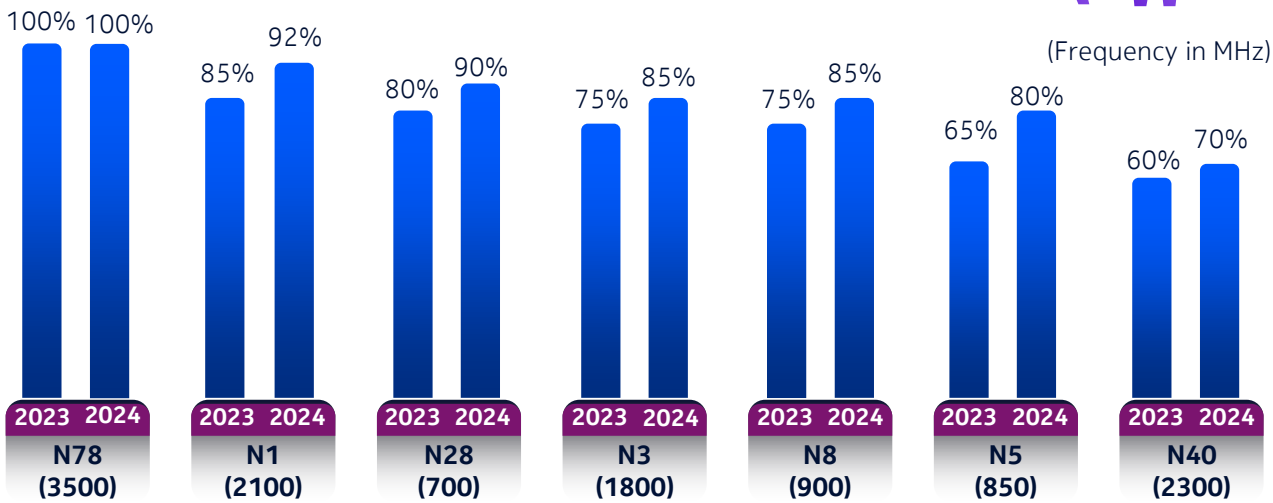
- 844 million active 4G devices; out of which 271 million are 5G capable
- Nearly 4 out of 5 smartphones replaced in 2024 were 5G-capable[1]
- The share of 5G smartphone in overall smartphone shipments grew to 79% in 2024 (vs.55% in 2023) [1]



Source: Nokia analysis

Growing 5G ecosystem paving the way for accelerated 5G adoption

- Average 10% increase in device support across all the major bands deployed in India
- N1 (2100MHz) band emerges as the second most popular 5G band
- Expanding 5G device ecosystem in existing CSP frequency bands to be a key driver for refarming



Source: Nokia analysis

1. IDC (Media)

5G Advanced: The next evolutionary step

- Enhanced capabilities beyond connectivity and a wider set of advanced use cases for verticals
- AI and ML enhancements across RAN, Core, and network management layer for improved performance, network optimization, and energy efficiency

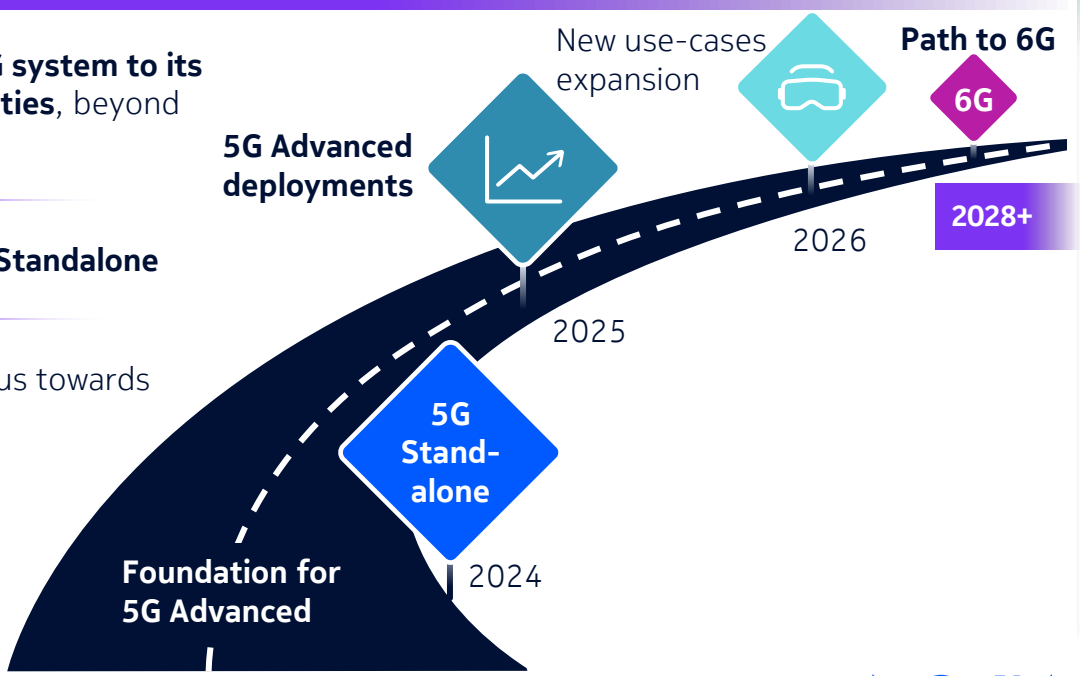
Evolves the 5G system to its fullest capabilities

5G Advanced deployment timeline

Evolves the 5G system to its fullest capabilities, beyond eMBB

Leverages 5G Standalone

Widens 5G focus towards **new use cases**

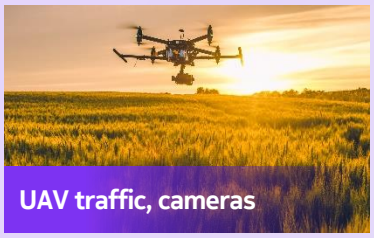


New usage areas, new services, boosted resiliency and operability

5G Advanced will deliver superior service differentiation, enable new revenue streams and drive down operational costs by leveraging intelligent and autonomous operations.

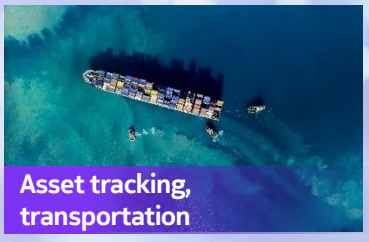
5G Advanced to expand digitalization

Address new segments



Experience: Enrich 5G experience

Beyond traditional communication



Optimize operational expenses

The enhanced capabilities and features of 5G Advanced lay the foundation for transitioning to 6G.

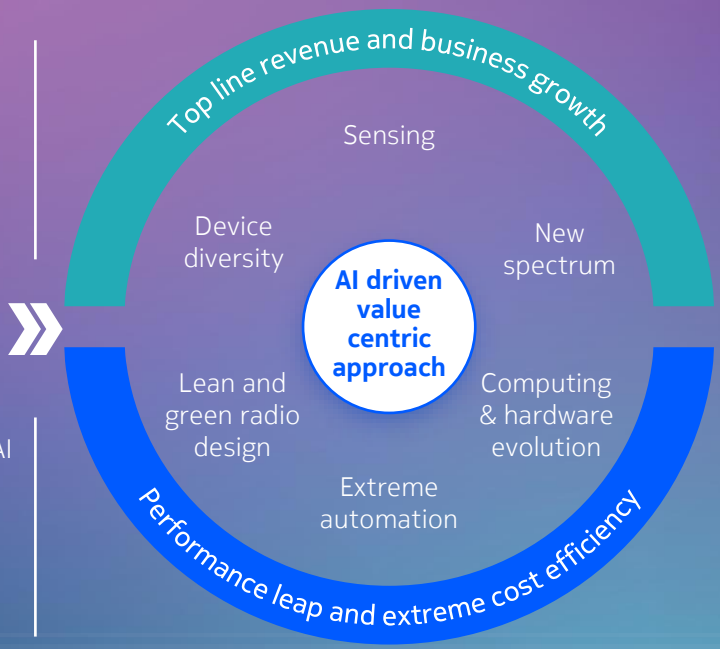
The stepping stones would also include: distributed massive MIMO, AI-native network fabric, new spectrum and radio architectures, and the evolution of intent based automation.

6G: Vital to shaping the future of communications

Trends and challenges

- Demand for higher network performance
- The vastly growing device ecosystem
- The surging power of AI
- Network Security

How 6G can address them



Design principles for 6G

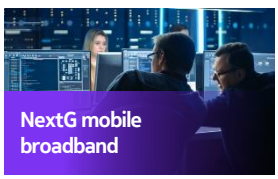
- Sustainable
- Resilient & secure
- Digital inclusive

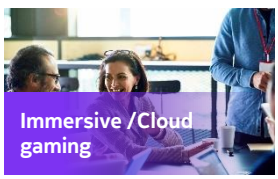
Realization of this 6G vision comes in stages

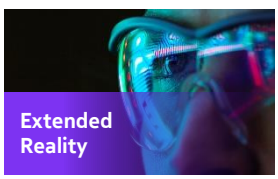
Technology enablers and services examples

6G day-one focus

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







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

Future Outlook

5G data traffic expected to surpass 4G data traffic by Q1 2026

~90% of smartphones to be replaced in 2025 expected to be 5G-capable

5G Advanced will provide major enhancements to widen the business potential of 5G and accelerate the monetization investments

Moving beyond voice, video and data communications, future applications in the 6G era will benefit from distributed compute services, intelligence and analytics capabilities, as well as sensing, spatial and temporal services for the localization of people and objects

Nokia India
7th Floor, Building No 9A, DLF Cyber City, DLF Phase III
Gurugram -122002, Haryana, India

Tel. +91 124 4504000

CID: 214679

At Nokia, we create technology that helps the world act together.

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With truly open architectures that seamlessly integrate into any ecosystem, our high-performance networks create new opportunities for monetization and scale. Service providers, enterprises and partners worldwide trust Nokia to deliver secure, reliable and sustainable networks today – and work with us to create the digital services and applications of the future.