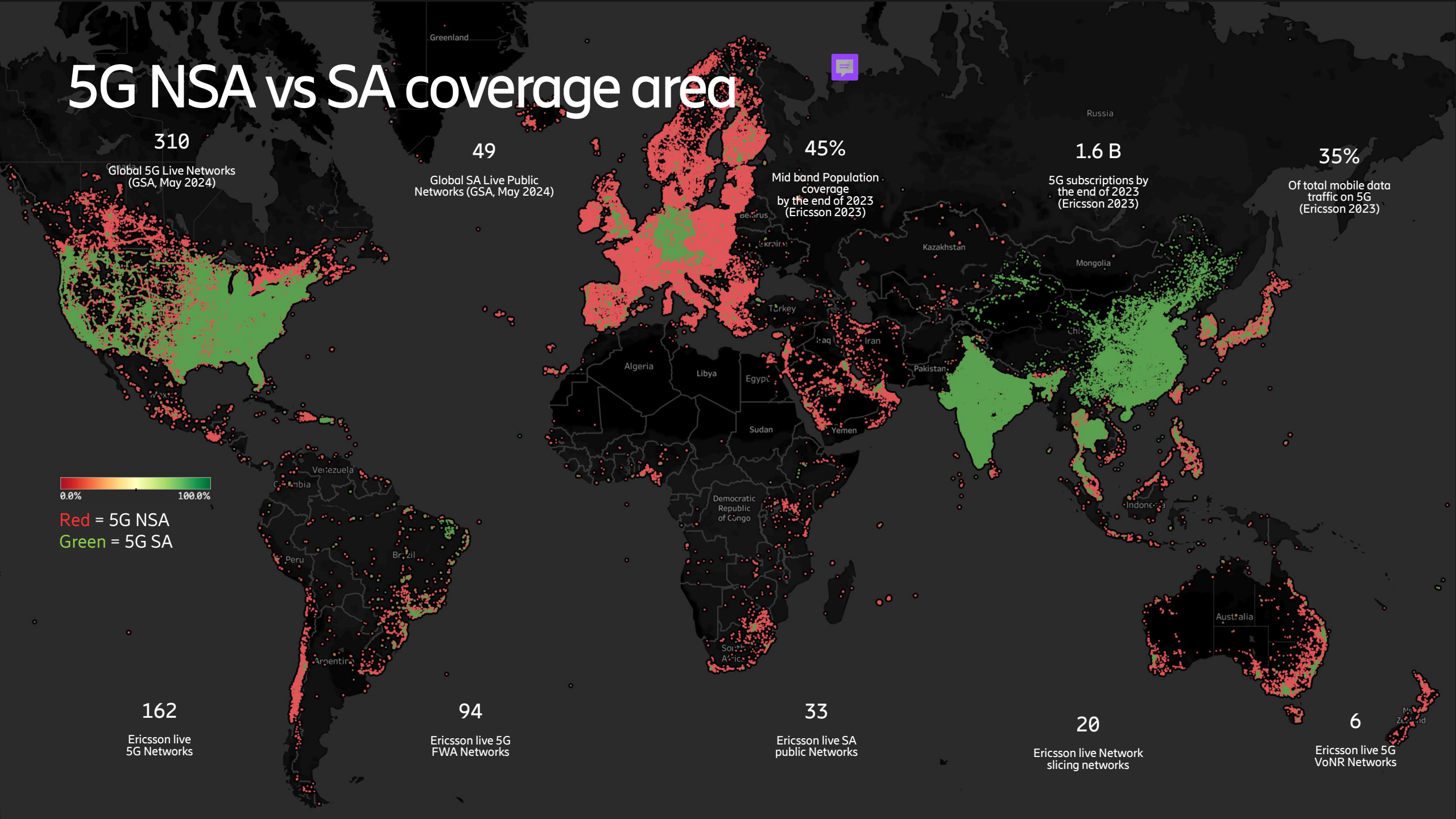


VATM-5G-Masters - Neue Horizonte für die Industrie: Die Rolle von 5G-Standalone

Dr. Christoph Bach
Ericsson GmbH
CTO Service Providers
Berlin, 25. September 2024



5G NSA vs SA coverage area

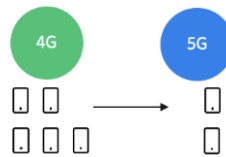


Why evolve to SA and main differences with NSA?



Network / Energy Efficiency and Enhanced Experience

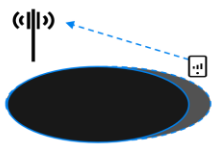
1. LTE offload



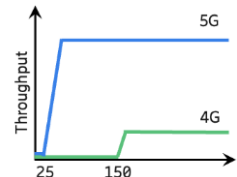
2. Extend the geographical coverage of 5G <1GHz



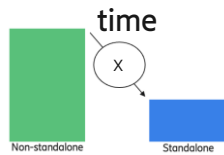
3. Improved Uplink



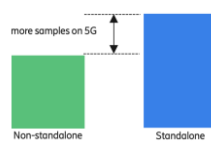
4. Instant access to large BW



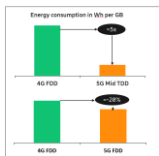
5. Less HO interruption time



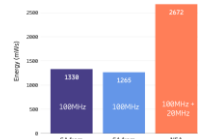
6. More time on 5G



7. Energy Efficiency

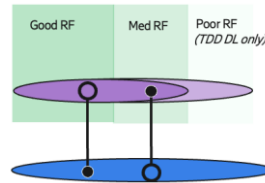


8. Device Battery consumption

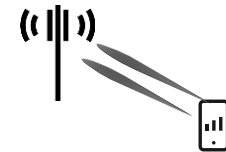


Functionality supported in SA only

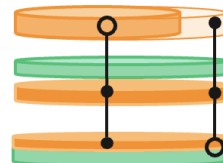
9. UL Carrier Aggregation



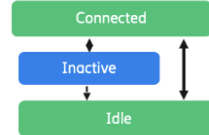
10. UL SU-MIMO (Single User MIMO)



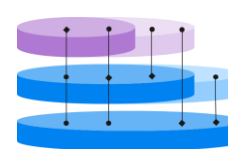
11. Support > 2 NR DL CA



12. Inactive state



13. Advanced Traffic Steering



14. Network Slicing/URSP



15. VoNR



16. SA on high band only (FWA)



New Technology Opportunities

Time-Critical Communication



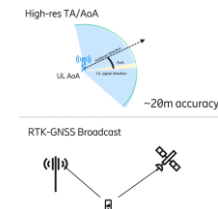
Reduced Capability (Redcap)



Extended Reality (XR)

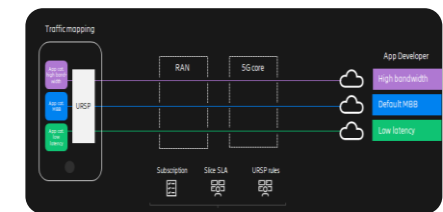


Advanced Macro & Indoor positioning



< 2m accuracy in 80% cases

Differentiated connectivity



Bundesnetzagentur, Jahresbericht 2023, Mai 2024



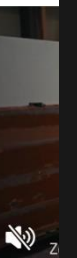
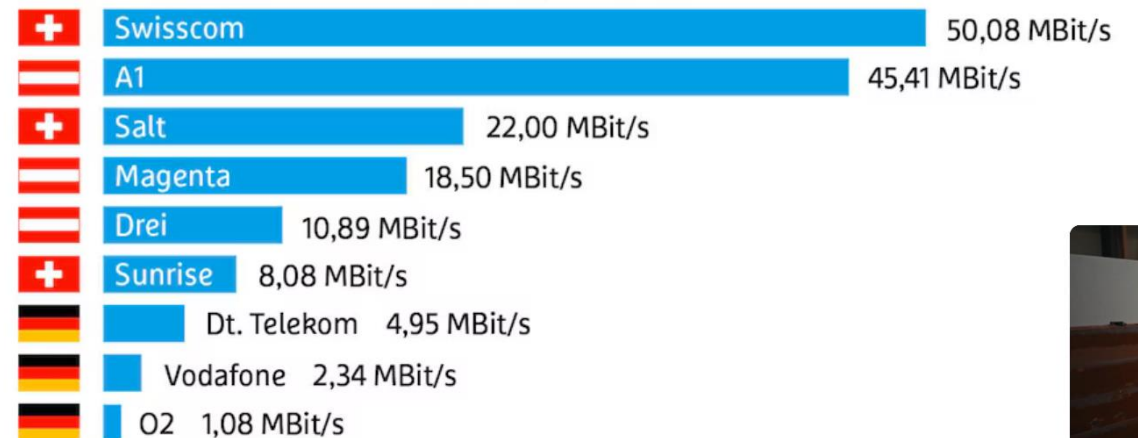
- Im LTE-Netz waren 88,2 Mio. der aktiv genutzten SIM-Profilen Ende 2023 eingesetzt. Im Vergleich zum Vorjahr ist die Zahl um über 18 Prozent gestiegen
- Davon nutzen 19,7 Mio. Endkundinnen und Endkunden 5G Non-Standalone. Dabei wird die Verbindung über ein 4G/5G-Zugangsnetz aufgebaut und der Verkehr über ein 4G-Kernnetz abgewickelt
- Es wird nur kurz erwähnt, dass 5G SA-Netze in Deutschland im Aufbau sind



Netz-Performance in den Fernzügen:

Schweiz und Österreich zeigen, dass es geht

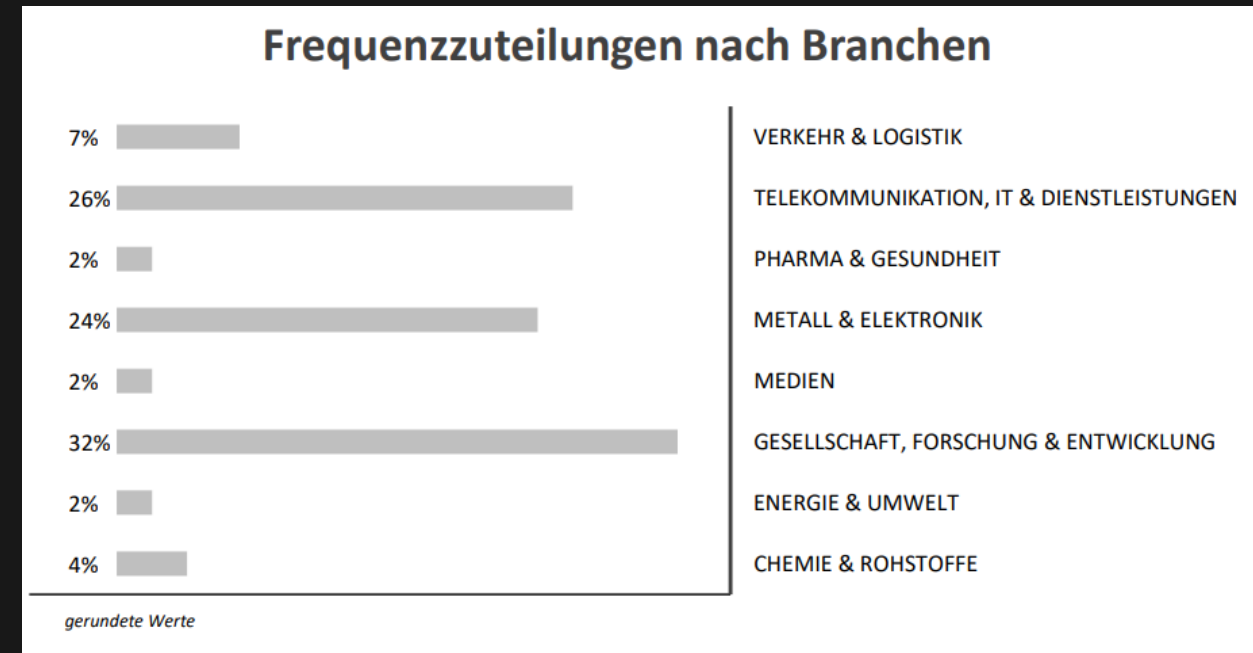
90 % aller Downloads in den Zügen sind schneller als...



Campus Networks in Germany



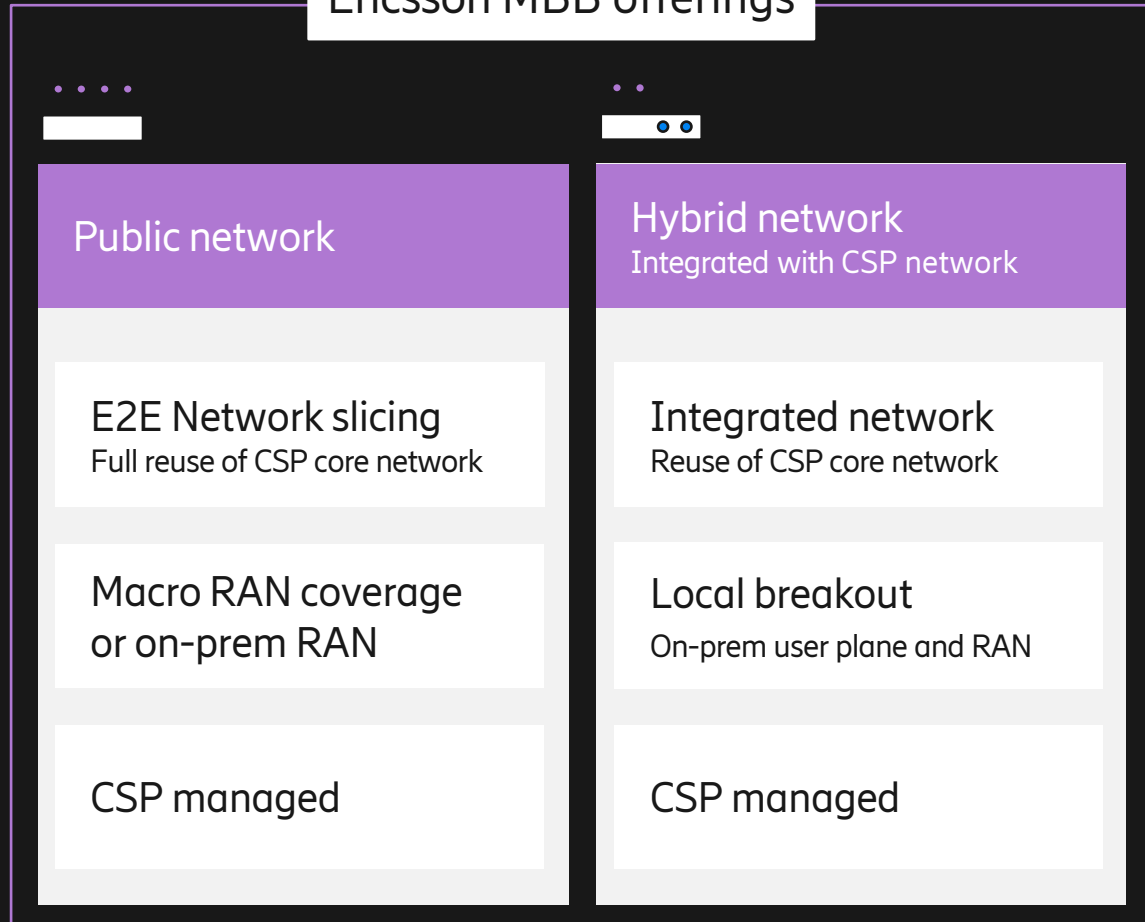
- Based on publications from Bundesnetzagentur (September 2nd 2024)
 - a total of 412 frequency allocations (3.7-3.8 GHz), seven pending requests
 - appr. 180 published
- a total of 22 frequency allocations (26 GHz), one pending request
- 12 published



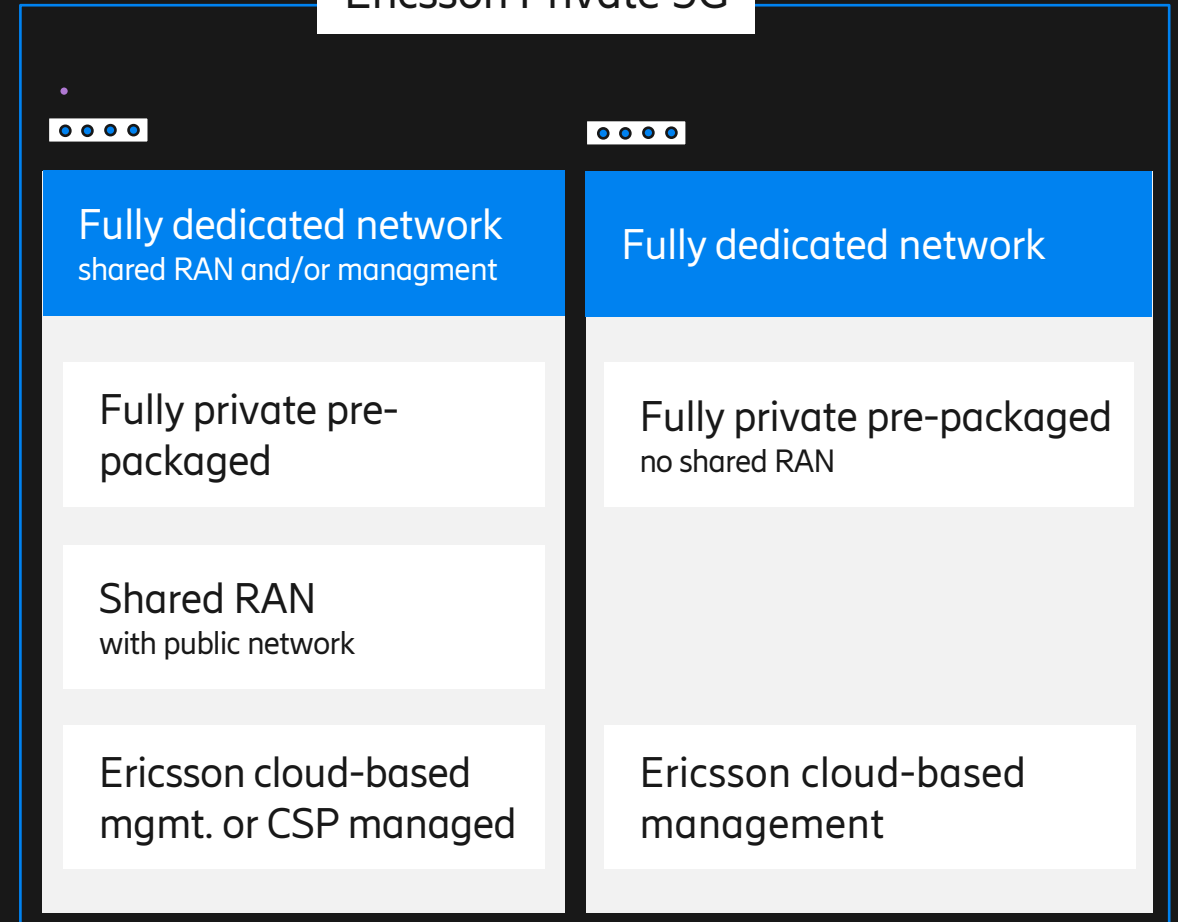
Ericsson enterprise offerings



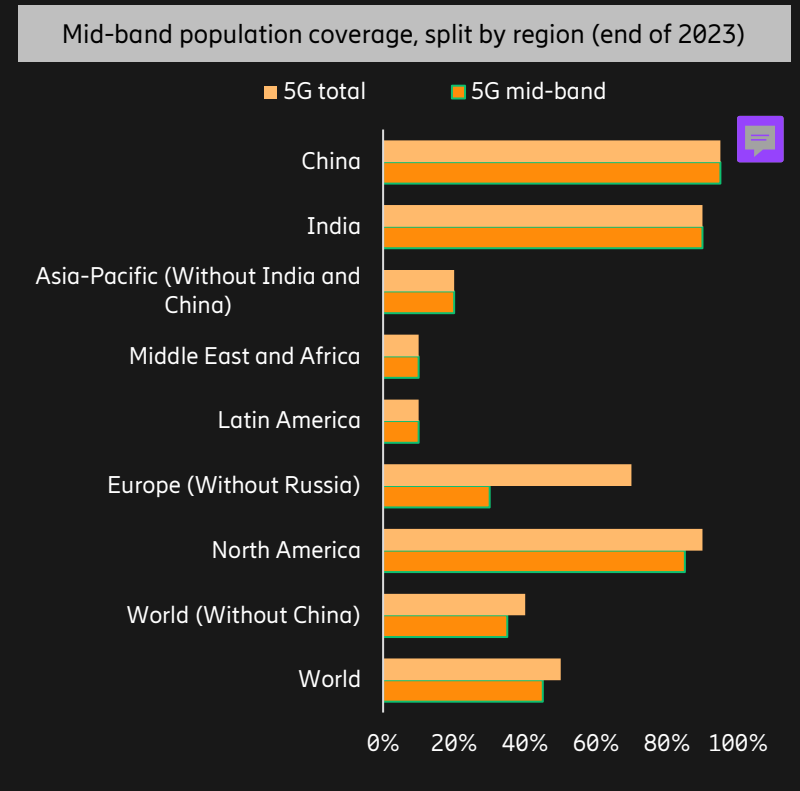
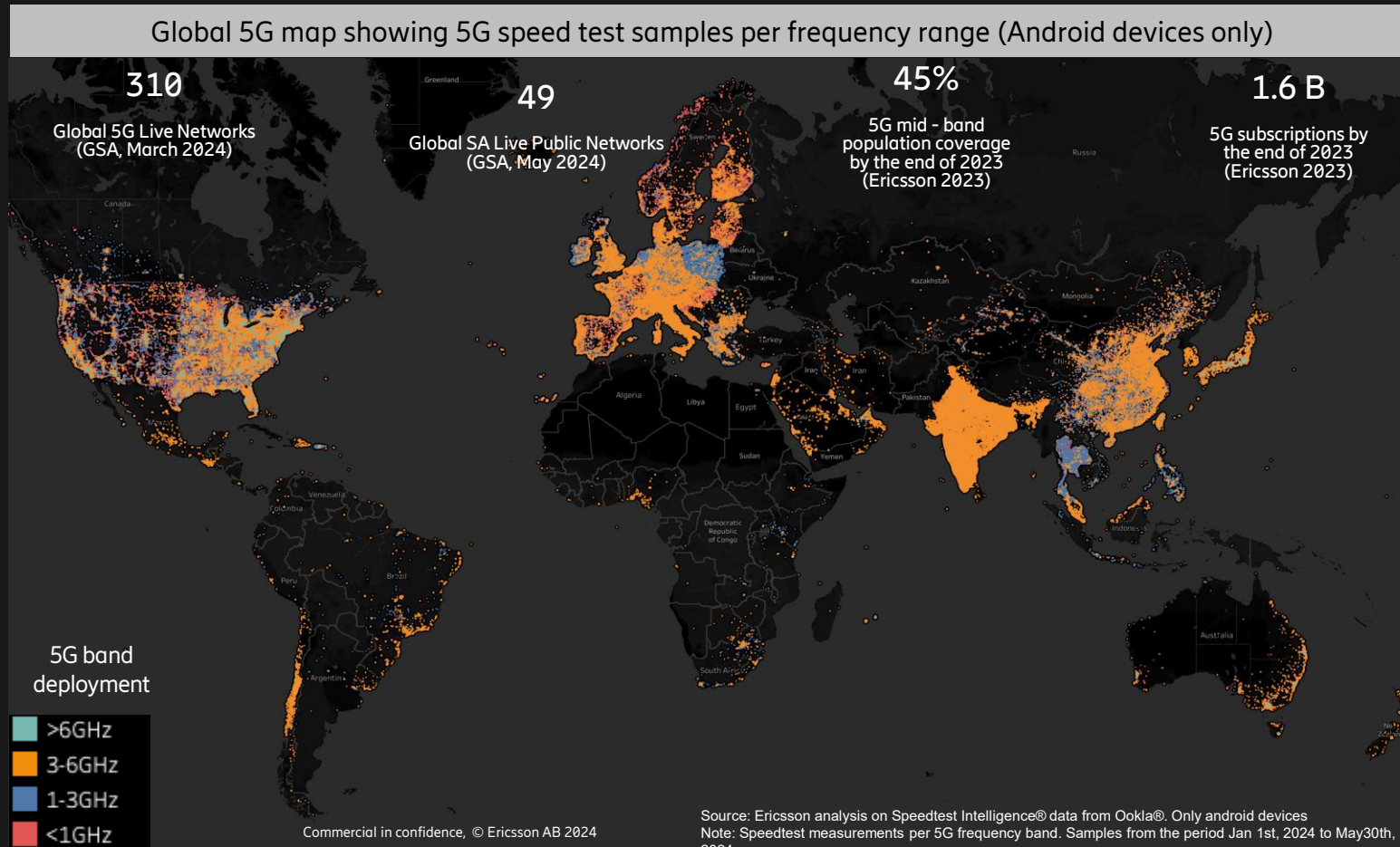
Ericsson MBB offerings



Ericsson Private 5G



Globally, 5G mid-band population coverage has reached around 45%



*Source: Ericsson Mobility Report, June 2024

45%, 5G mid-band population coverage has reached around 45% at the end of 2023

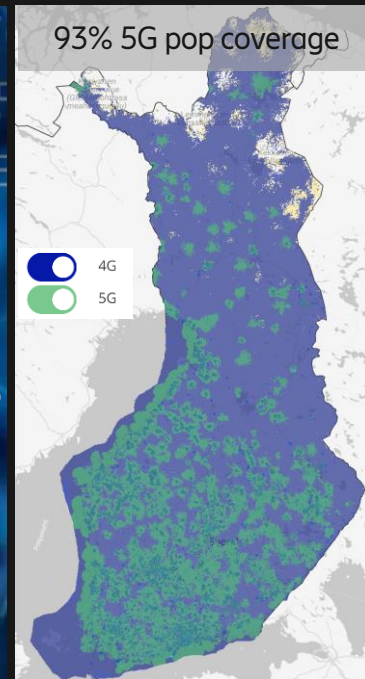
Elisa launches 5G Standalone FWA with differentiated performance

5G+ premium speed tiering to initially monetize SA
(unlimited speed)

Fiber like home internet 5G SA FWA with network slicing
(more stable, regardless of the number of other users in the area, and reduced latency)

5G+ – Elisa's best 5G connection

We are the first in Finland to make an independent 5G network available to our customers. Independent 5G offers even more stable and smoother connections.



5G Omakaista - skip the line for better home internet

We are the first in Finland to offer a home connection that includes a 5G Omakaista using a sliced network. With it, your internet speed is stable even in the most congested moments.

5G Omakaista - your bypass lane for better home internet



Elisa Netti Kotiin XXL Omakai

- The Internet is similar to a fixed connection, and the quality of your connection is excellent even at peak times
- Limited availability
- Elisa's best 5G home connection
- Connection type: Fixed 5G

€59.99/month

[CHECK THE AVAILABILITY](#)



Outdoor 5G CPE

5G Omakaista (own broadband) available throughout Finland in Elisa's 5G network area for detached houses, semi-detached houses and terraced houses.

A limited number of 5G Omakaista subscriptions are available per region.

5G Network built right – differentiated connectivity to monetize 5G

5G Rail Corridor Reference

GINT (Gigabit Innovation Track)



Targets:

- Deliver >1 Gbps along railway tracks (Gigabit Train)
- Enable future digital rail communication (FRMCS)
- Minimize infrastructure investment and operational costs

Approach: ONE shared passive infrastructure for:

- Multiple mobile network operators (MNOs) and...
- ...future digital rail communication (FRMCS)
- Option to share active equipment between MNOs

Ambition: Demonstration of feasibility in the field in cross-industry GINT project (until Dec. 2024)

ONE shared passive infrastructure along the track 1–1.5 Gbps

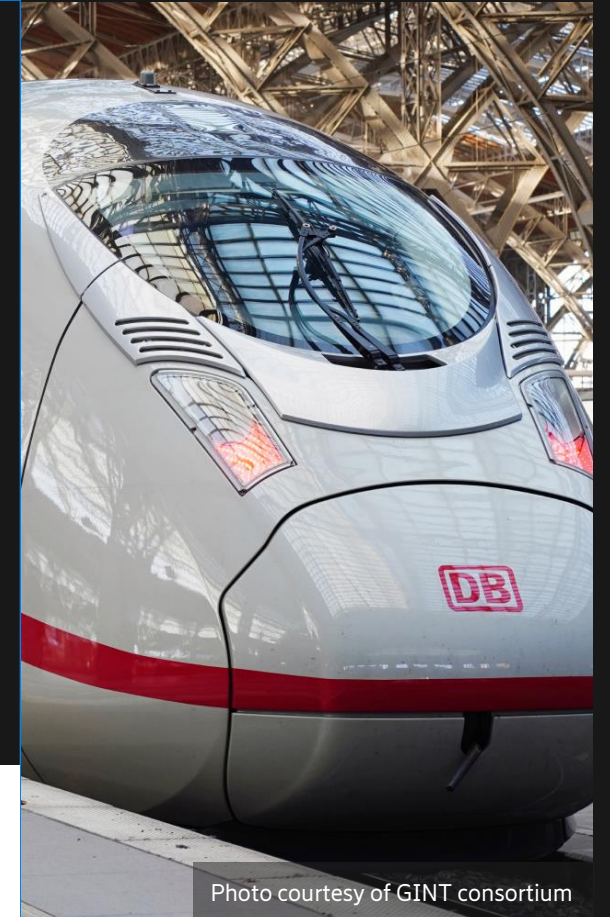
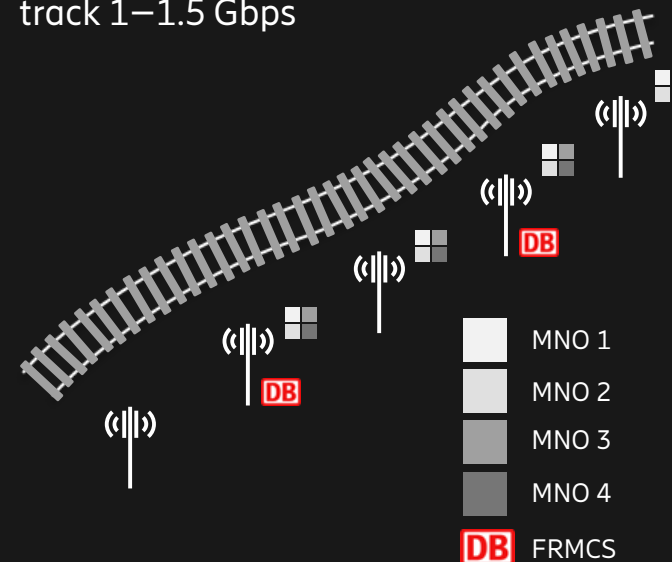


Photo courtesy of GINT consortium

GINT consortium

Funded by



