



Blazing the 5G trail

From 2011 to 2020 – and beyond

Ericsson and its key industry partners have reached several important milestones on the road to global 5G standardization.

2011

We initiated discussions among the top four mobile infrastructure vendors to ponder 4G's successor



2012–2015



We managed the METIS project, collaborating with universities and research institutes to address the challenges of 5G mobile and wireless communications



We built a 5G radio testbed

2015–2016



We won an early 5G award:

Biggest Contribution to 5G Standards
LTE & 5G World Awards



We proved several tech concepts, including:

- 5G-LTE dual connectivity
- 5G data rates exceeding 5Gbps

2016–2017



5G advances:

Landmark 5G patent application filed – the largest in the world in terms of inventors in the cellular industry (source: Derwent Innovation)

Use cases delivered:

- Test peak rates of 15Gbps per user, and a latency below 3 milliseconds (with Telia)
- 25Gbps downlink throughput (with NTT DOCOMO and Korea Telecom)



Record-breaking 5G field trial, reaching 3.6Gbps at 170kph (with SK Telecom and BMW)



We performed the world's first federated end-to-end network slicing live demo, providing end-to-end network service between Korea and Germany (with SK Telecom and Deutsche Telekom)



Multiple 5G New Radio (NR) trials



First public 5G live network use cases deployed in Europe (with Telia)



5G network tested at the Indianapolis Motor Speedway (with Verizon)



Ericsson and Qualcomm, in collaboration with leading communications service providers, showcased 5G NR Non-Standalone (NSA) multi-vendor interoperability, as the standard was approved



First 5G deals signed (with Vodafone UK, Swisscom and Verizon)

2018



First to successfully perform interoperability tests with third-party device chipsets in low, mid and high bands



Connected a smartphone prototype to a live 5G network (with Swisscom and Qualcomm)

2019–present



Ericsson 5G went live in South Korea with SK Telecom



Ericsson and MediaTek completed a 5GC and NR Standalone (SA) call on a 2.6GHz band and the industry's first successful Voice over New Radio (VoNR) interoperability test



The first 5G call on 600MHz (with T-Mobile US and Intel)



Over 5 million 5G-ready (hardware) radios shipped to our customers since 2015



Leading 5G standardization, with the most contributions for 4G and 5G; counting declarations to ETSI and applying an essentiality filter resulted in Ericsson being on top of the 5G patent race



First with live networks in low, mid and high bands



First 5GC and NR SA commercial network enabled



First commercial cloud native container-based Evolved Packet Core for 4G (with Verizon) and for 5G (with Telstra)



Ericsson Spectrum Sharing milestones:

- Ericsson Spectrum Sharing (ESS) won Overall Mobile Technology and Best Mobile Technology Breakthrough at the 2020 Global Mobile Awards
- First transglobal 5G data call (with OPPO, Qualcomm Technologies, Swisscom and Telstra)
- ESS is live in four networks



Ericsson, Mercedes-Benz and Telefónica Deutschland established the world's first 5G network for automotive production



First with commercial live networks in the US, South Korea, Europe, Australia and the Middle East



100 commercial 5G agreements or contracts with unique service providers, of which more than 50 are live networks



Established a fully automated 5G smart factory in the US and modernized production in our China and Estonia factories

Beyond



We will see 5G take off as a platform for innovation:

- 5G will serve consumers and businesses and take IoT to the next level, with enhanced mobility, flexibility, reliability and security
- We predict 2.8 billion global 5G subscriptions and expect 5G to account for 45 percent of global mobile data traffic by the end of 2025

