The challenges of standardization within a global company

Jimmy Ahlberg, 2019-11-07

Ericsson at a glance

Enabling the full value of connectivity for service providers

Business areas:

- Networks
- Digital services
- Managed services
- Technology and emerging business

By the numbers:

- 180+ countries
- 43.4 b.sek in sales
- 97,500 employees
- 49,000 patents
  - 9.8 b.sek licensing revenue

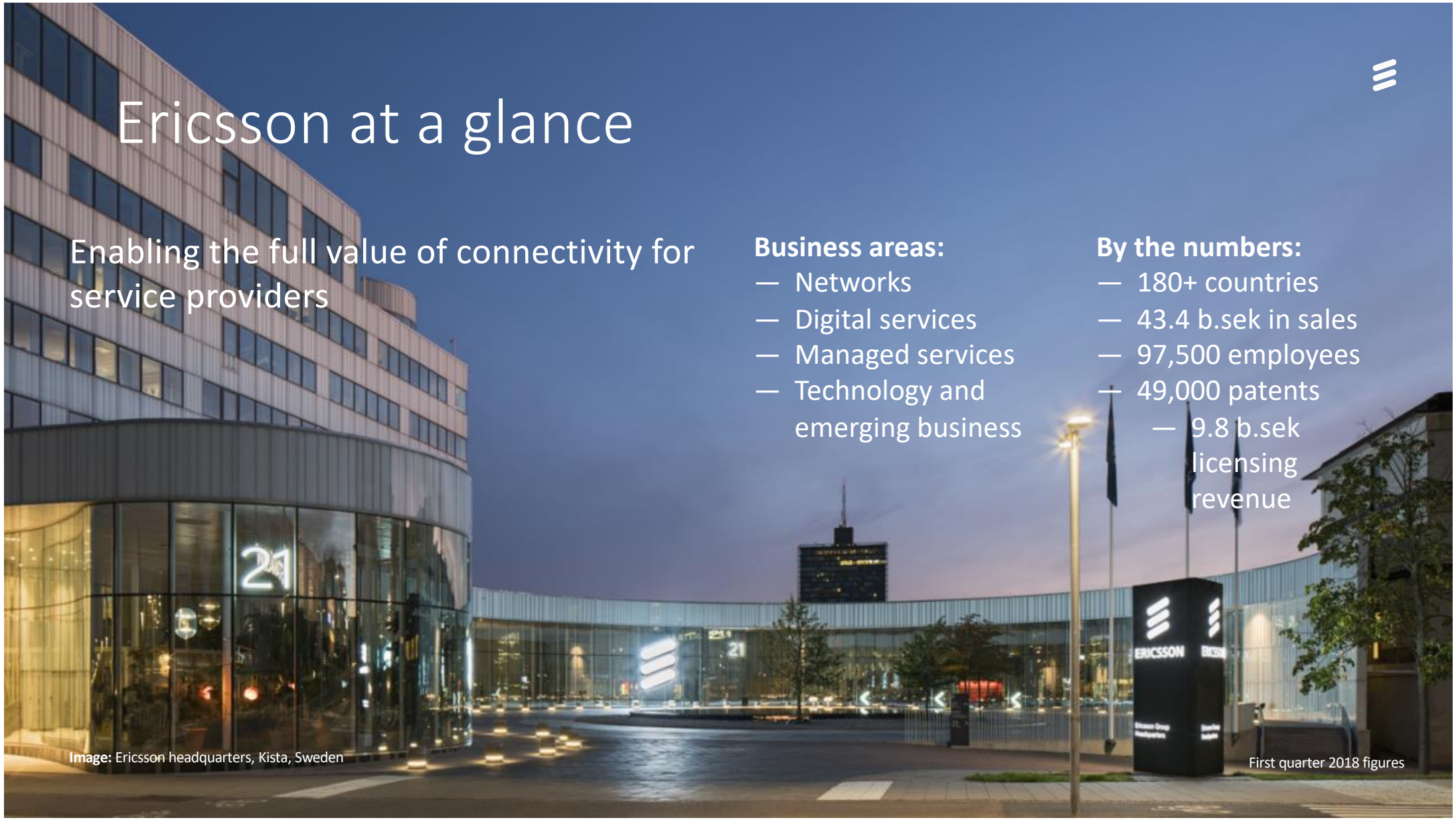

Image: Ericsson headquarters, Kista, Sweden

First quarter 2018 figures

The ~~challenges~~ necessity of standardization within a global company

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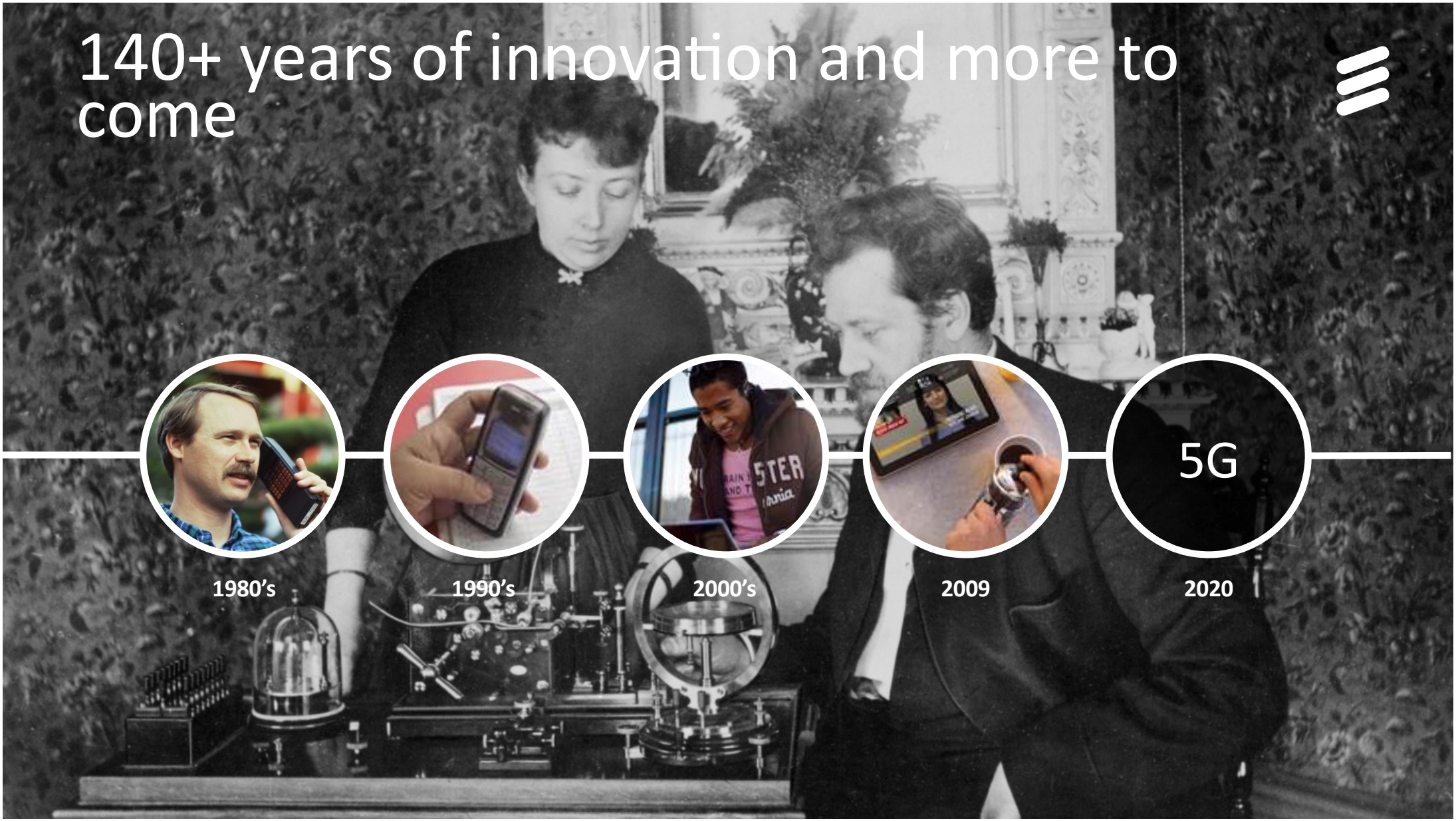
140+ years of innovation and more to come



What are standards?

A4 paper sheet

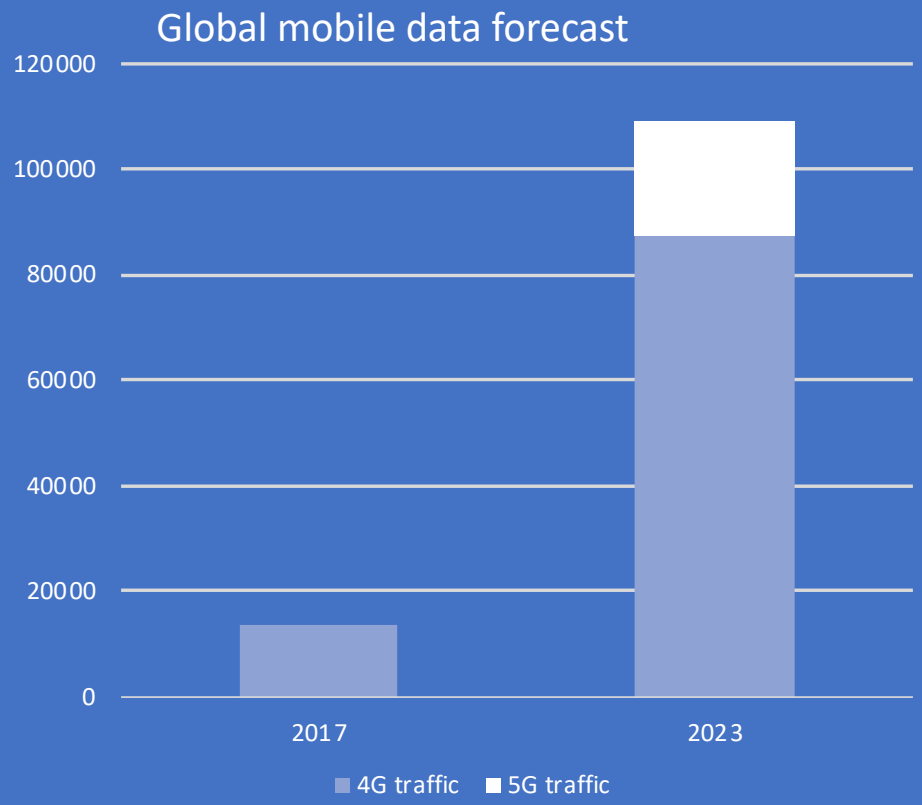
MPEG4 video codec

Plug adaptors

Cellular standards

STANDARD SETTING	STANDARD DEVELOPMENT
Safety requirements for AC power plugs and sockets	Selecting the actual technology used in 2G/3G/4G mobile communications

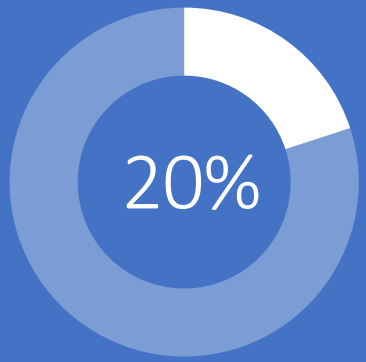
The measure of a successful standard is the use of it.



More than

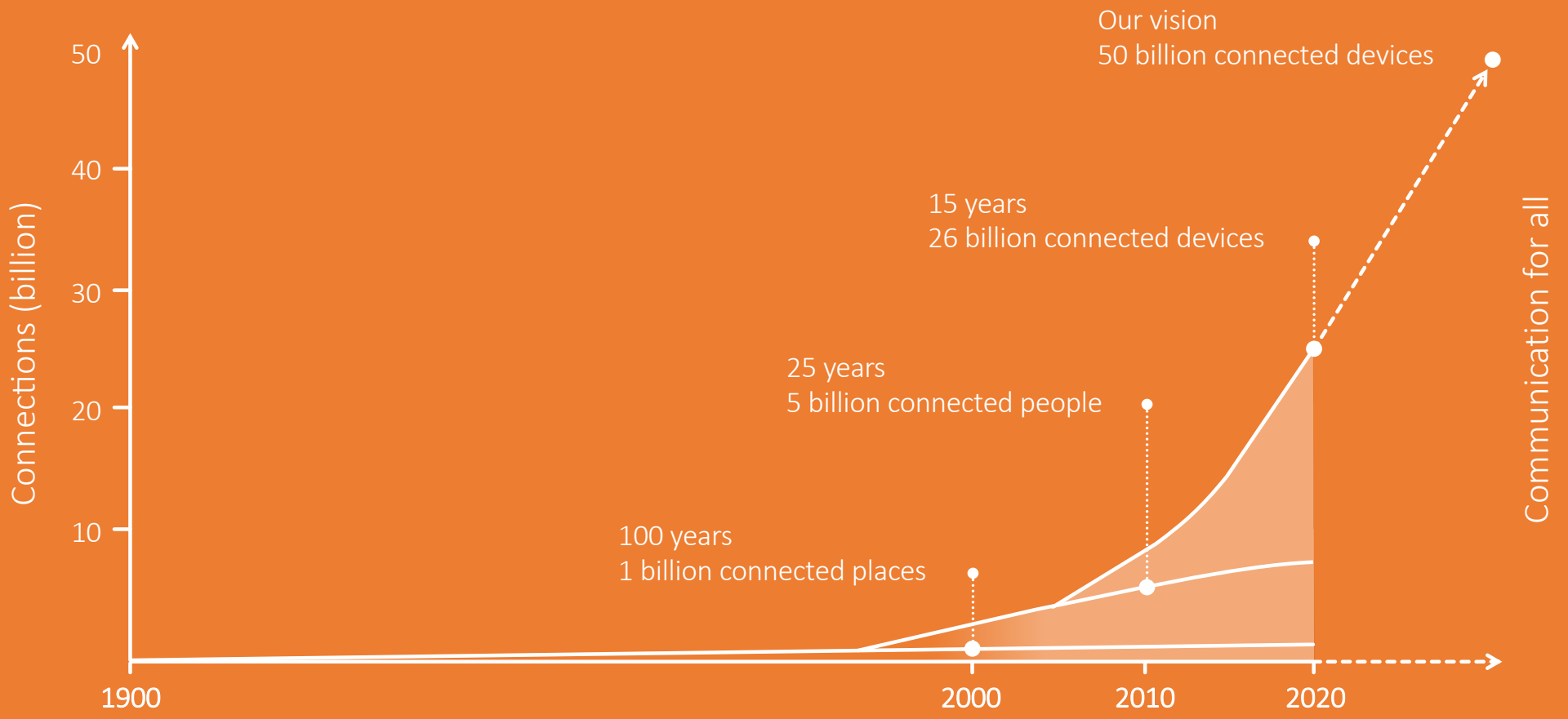
95%

Of world population covered by mobile broadband (3GPP)

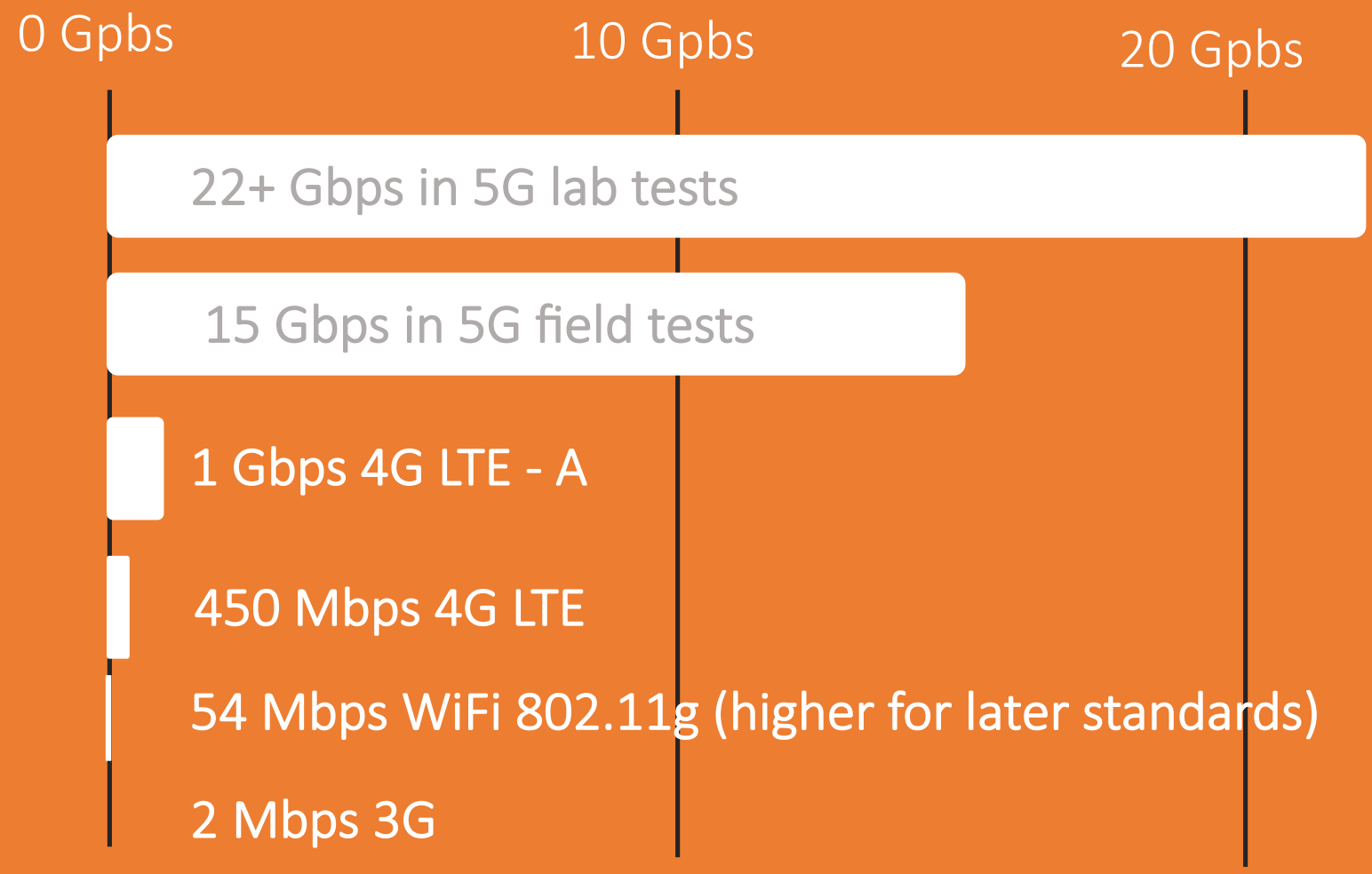


of mobile traffic will be carried by 5G in 2023

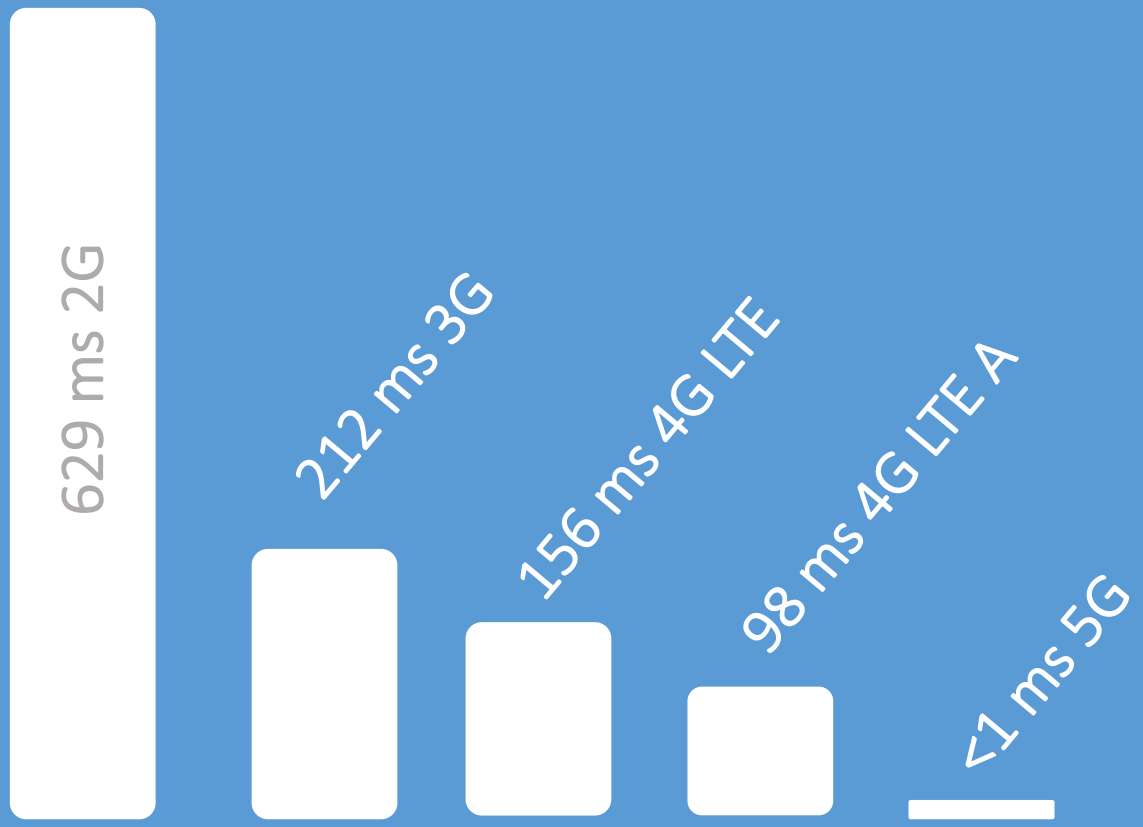
Innovation is part of who we are



What about 5G? Speed…



What about 5G? Latency…



>100 ms reaction time (human latency) = false start in track & field

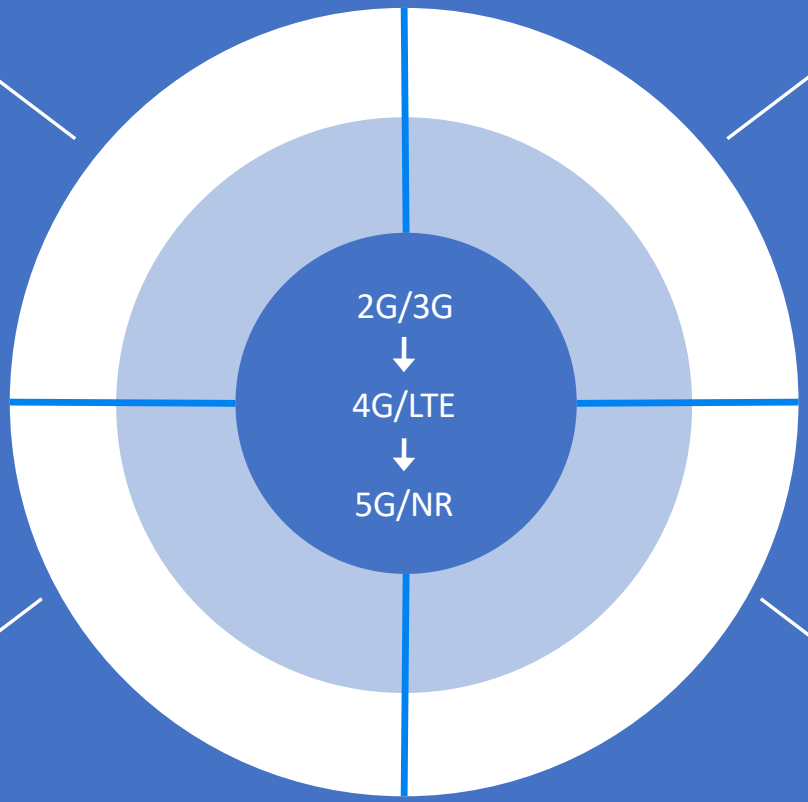
5G

The challenge is not technical standardization, the challenge is keeping the standardization process, open, business model neutral, ensuring access for implementers (old and new), and ensuring the innovators recive a fair and balaenced compensation for their R&D investment.

Driving the ecosystem

Heavy R&D investment to drive the market forward

Key contributor to 3GPP standards



Fair and reasonable licensing for new entrants

Largest holder of essential patents

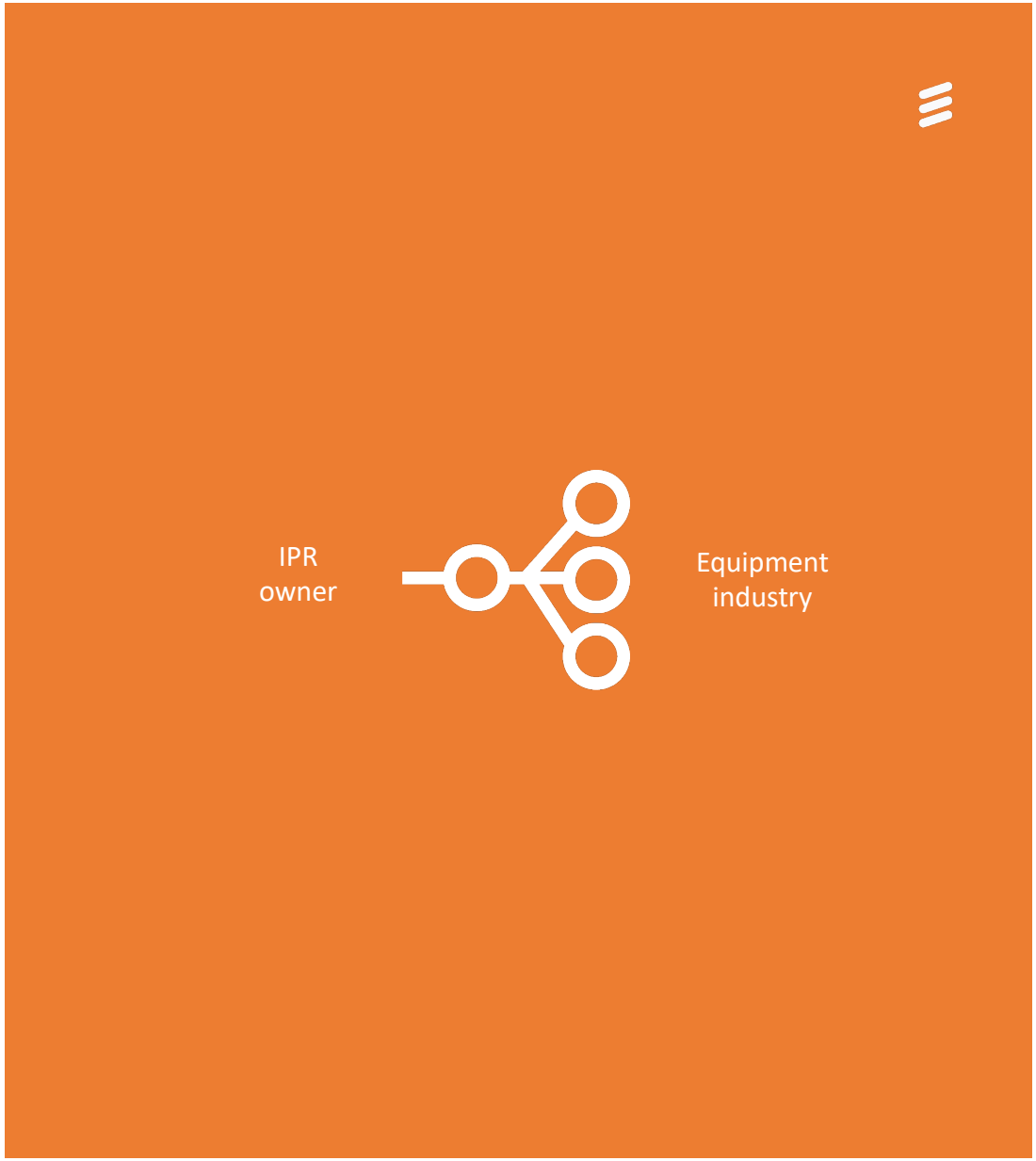
FRAND explained

FRAND is a proven success across the global market. It's an incentive for further innovation and a door opener, allowing new companies to enter the market.

A FRAND commitment means:

- Standard essential patents are made available on fair, reasonable and non-discriminatory terms
- The telecoms standard is not blocked, so vendors can invest in infrastructure and device businesses
- Technology transfer is possible through reasonable cumulative royalty

Fair compensation ⟷ No monopoly



How licensing works

Licensing agreements are usually a result of bilateral business negotiations between patent holders and new entrants.

Established vendors:

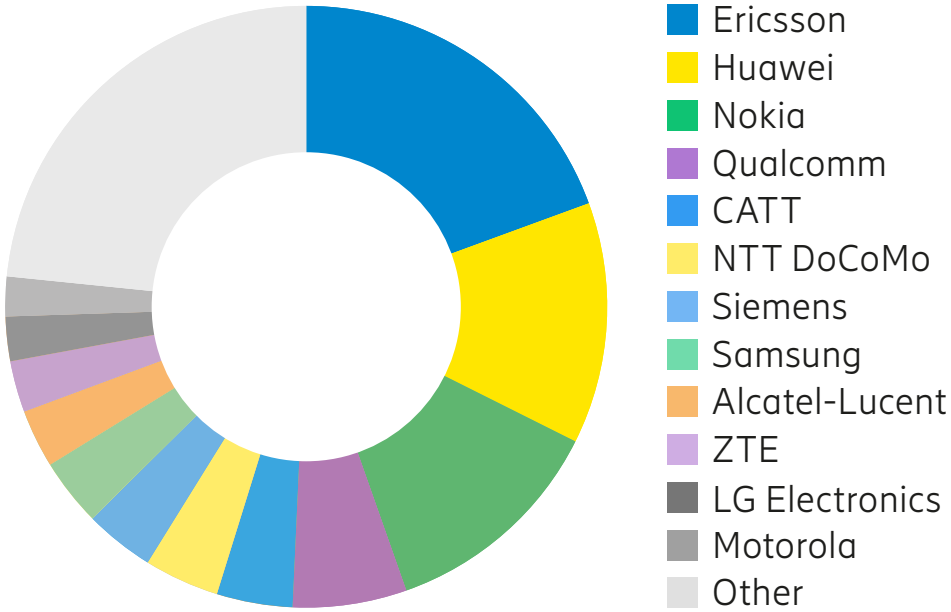
- When cross-licensing is required between two essential patent holders, each receives a license from the other and obtains a royalty as compensation
- The strength and level of exposure to the patent portfolio determines how much compensation each will receive

New entrants:

- When a new entrant requires a license from existing essential patent holders, the new entrant signs the license and the patent holders receive compensation in relation to the strength and level of exposure to the patent portfolio

Analyzing approved papers

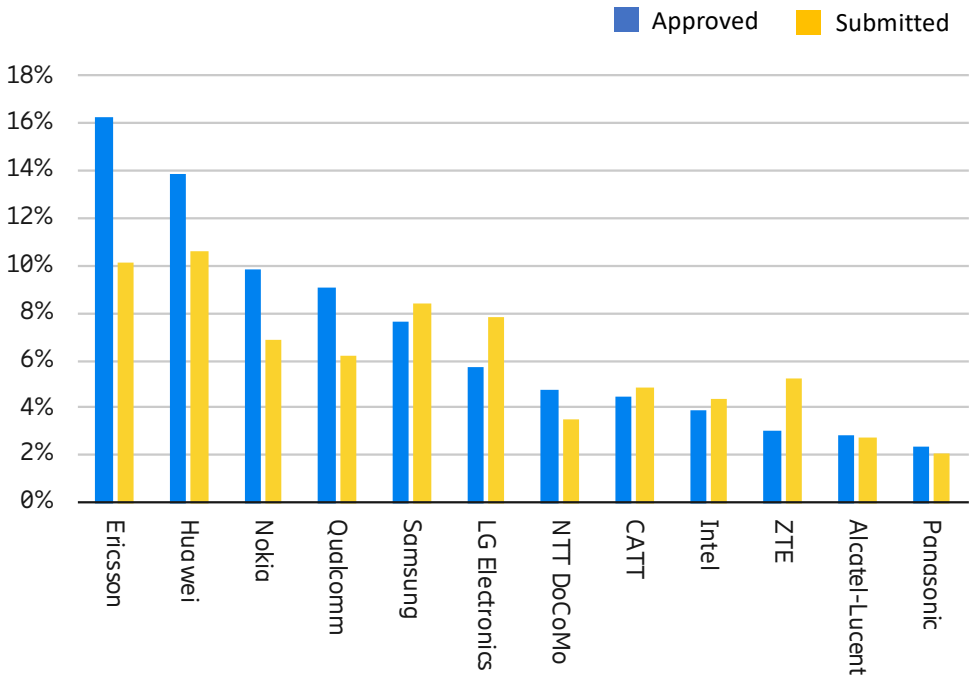
Multi-mode 3G, 4G, 5G share of approved contributions in six 3GPP Working Groups.



Ericsson is the 3GPP member that has contributed most to 3G, 4G and 5G combined between 1999-2017, having authored
19 percent of the approved contributions.

Approved vs submitted papers

Comparison of approved versus submitted contributions for 4G and 5G.



Leading companies often get a higher score, which could be because their technical input is of better quality due to:

- earlier, more substantial research and development
- a broader understanding of the interrelationships among technology proposals
- higher credibility and trust gained over the course of the development work

2.50 $ – 5.00 $