Intellectual Property for the EU in a World of Challenges

IP for a globally competitive European industry: Standard Essential Patents

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Disclaimer: the views expressed are those of the author and do not necessarily represent the views of Ericsson

Ericsson at a glance

Enabling the full value of connectivity for service providers

Business areas:

- Networks
- Digital services
- Managed services
- Technologies and new businesses

By the numbers:

- 180+ countries
- 227,2 b. SEK in sales
- 99,417 employees
- 49,000 patents

Ericsson Nikola Tesla in Croatia

the second s

>3000

Employees in Zagreb and Split

8%

Doctors of Science and Masters of Science 28%

88%

Highly

educated experts

Employees younger than 32

38 years

Average employee age

25%

Employees with up to 2 years of work experience



Our investment

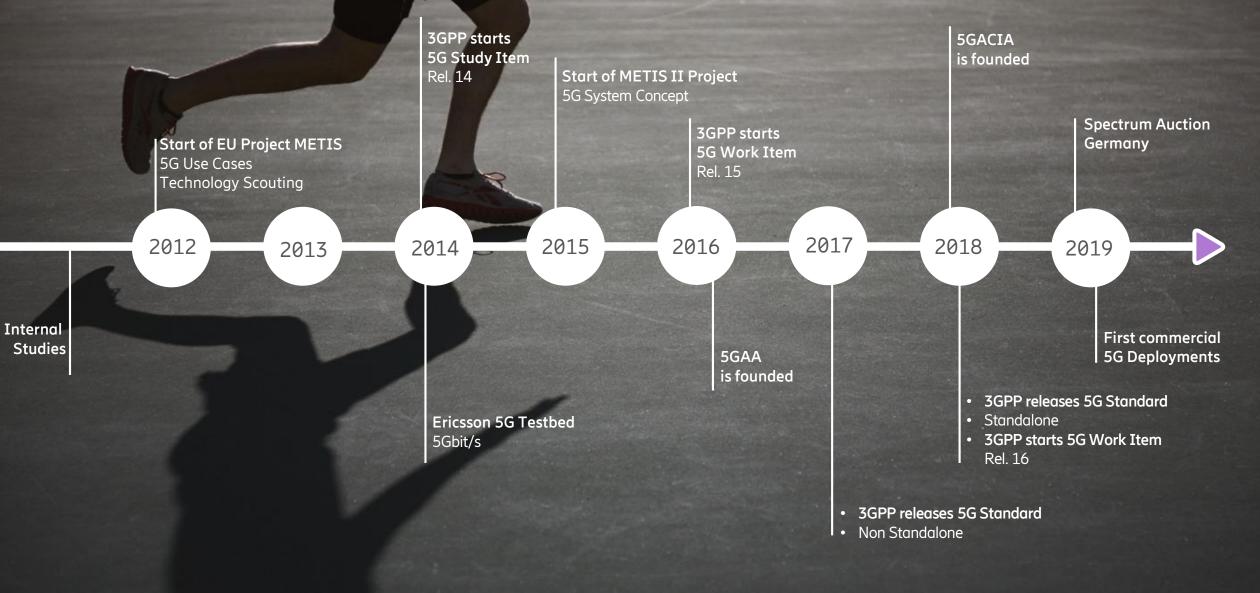
Ericsson invests heavily in R&D. Revenues from IPR licensing are reinvested to support this innovation.

- In 2019, Ericsson invested SEK 38.8 billion.
- A fair return on our <u>R&D investment</u> allows us to continually innovate and invest in new research.
- This helps ensure telecom standards evolve to meet the needs of the next generation of customers.

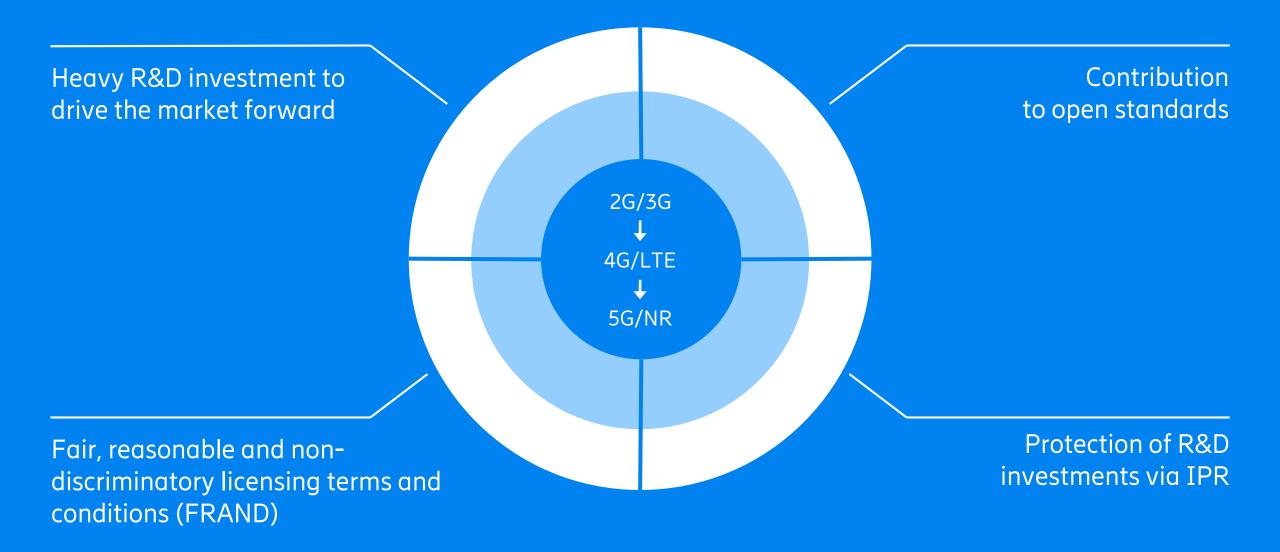
Research and development	2017	2018	2019
Expenses (SEK billion)	37.9	38.9	38.8
As percentage of net sales	18.4%	18.5%	17.1%
Employees within R&D as of December 31*	23,600	24,850	25,100
Patents*	45,000	49,000	ТВА
Continual investment in standards increases performance			

*The number of employees and patents is approximate

What does it take to make a G?

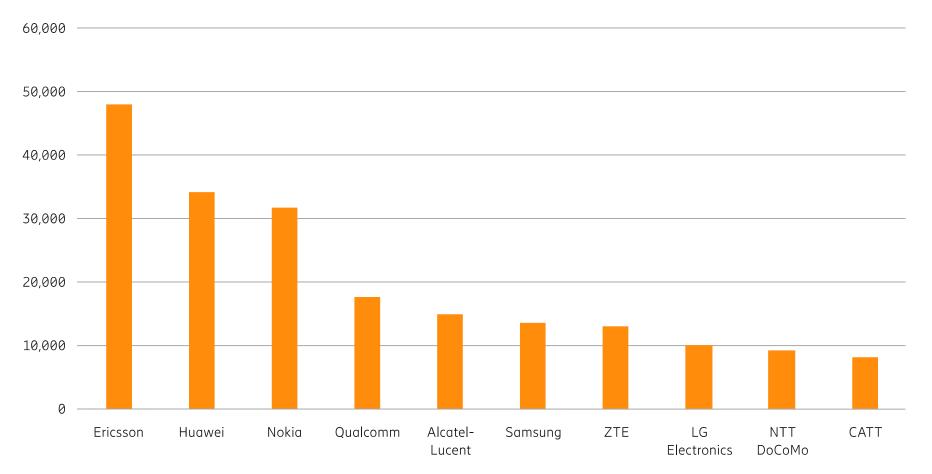


The "Big Picture": an open innovation model under pressure



Who are the leading technology contributors?

• Figure 4: Total number of submitted technical papers to 3GPP, 1999-2017.



The detail: recent developments at EU level

- EC Communication on SEPs (November 2017)

- Focus on transparency, FRAND valuation, enforcement, open source
- Follow-up actions: SEP Expert Group launched in Nov. 2018; Pilot project on essentiality underway (Eindhoven University of Technology & Technical University of Munich)
- JRC studies: SEP licensing terms, SDO Governance, Open Source & FRAND

- Key topics under discussion

- Transparency
- Licensing level
- Valuation

Conclusion & reflections

- Continued EU industry participation in 5G/6G development requires a high level of IPR protection
- Industry-led framework at risk if the model becomes unsustainable
- Beware of unintended consequences: a review of the IPR framework should seek to incentivize EU R&D efforts rather than discourage them

 Important aspects to consider in new EU Industrial Strategy



