

IoT och 5G för industrier



— Torbjörn Lundahl
— Ericsson Research



5G for Industries

Etbl. 2015



ABB Partnership

The Challenge
Ericsson and ABB share the same vision of wireless industrial automation. Both companies want to automate and connect their sites and products, and offer solutions.

The Solution
Non-commercial and non-exclusive partnership

The Result
Global partnership based on 4 pillars
1) Research 5G lab in Västerås
2) Connect own factories (5 sites)
3) New business opportunities
4) Communication with joint industrial messaging

Partners
• All five ABB business lines



"Ericsson and ABB already have a strong collaboration in research for 5G and Industrial IoT technologies. With this MoU, we strengthen our partnership to accelerate the industrial ecosystem and realize the full potential of flexible automation, unlocking new business opportunities enabled by combining 5G and Industry 4.0."

Björn Ekholm, CEO Ericsson



70+ samarbeten med industri kring 5G, IoT och molntjänster



Realiteter för företag i digital transformation



TRANSFORMATION

- Innovation
- Regulationer
- Nya affärsmodeller

OPTIMERING

- Produktivitet & effektivitet
- Prestation & närhet till kund
- Lönsamhet & tillväxt

HÅLLBARHET

- Ta socialt ansvar
- Miljötänkande och hållbarhet
- Tackla globala utmaningar

DIGITALISERING

- Process & produkt automation
- Kapitalisera på värdet av data
- Nya distributionsmodeller

SÄKERHET

- Ligga steget för eventuella hot
- Skydda kunddata
- Tillförlitlighet & precision

FLEXIBILITET

- Snabbt igångsättande
- Geografisk kompatibilitet
- Framtidssäkerhet

5G Private Network empower Ericsson Nanjing factory

Won the 2020 ICT China Innovation Award and the 2020 Blooming Cup National Award

Automated
manufacturing



5G Drone inventory counting – No.1



5G Cloud AGV

More efficient
production



5G surveillance camera



5G AR training

Increased
quality



5G industrial computer

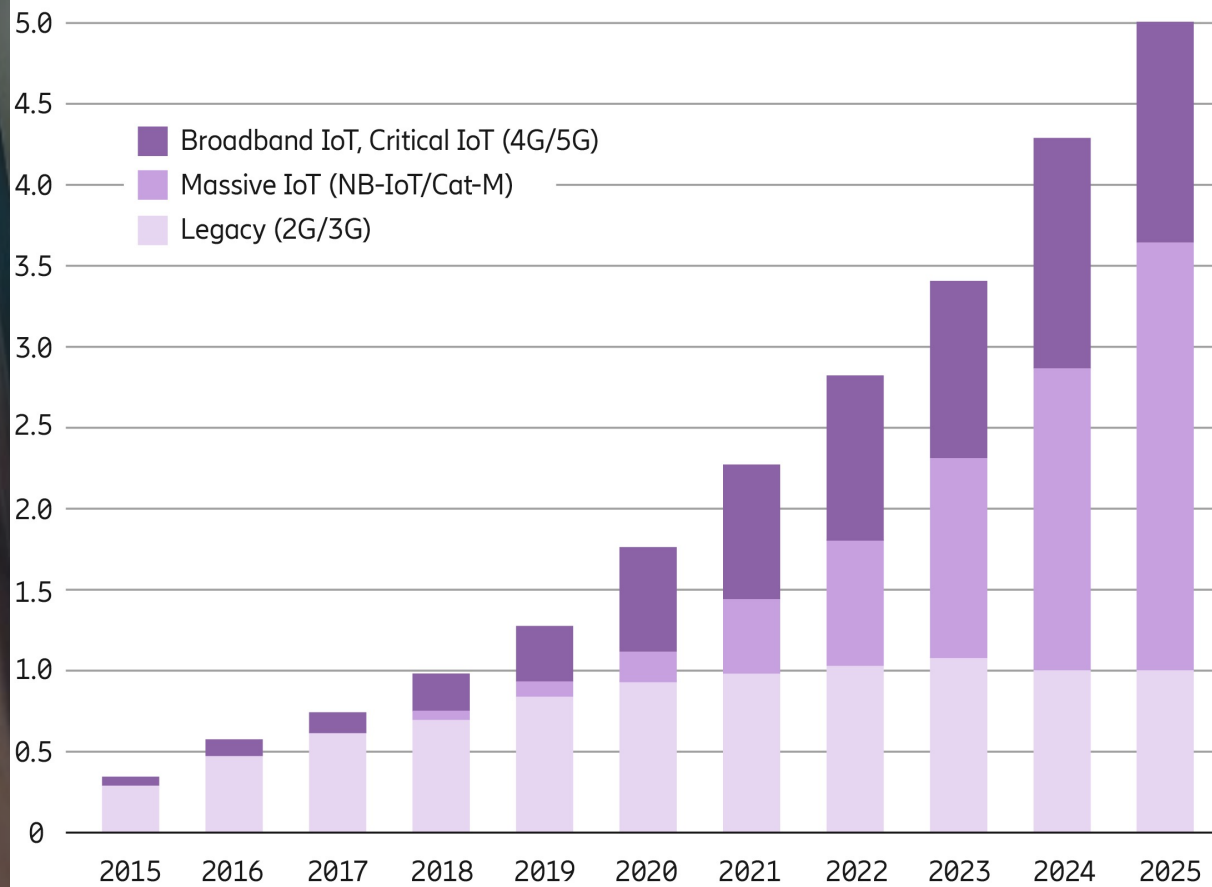


5G AR remote assist

Cellular IoT to reach 5 billion connections in 2025



Cellular IoT connections by segment and technology (billion)

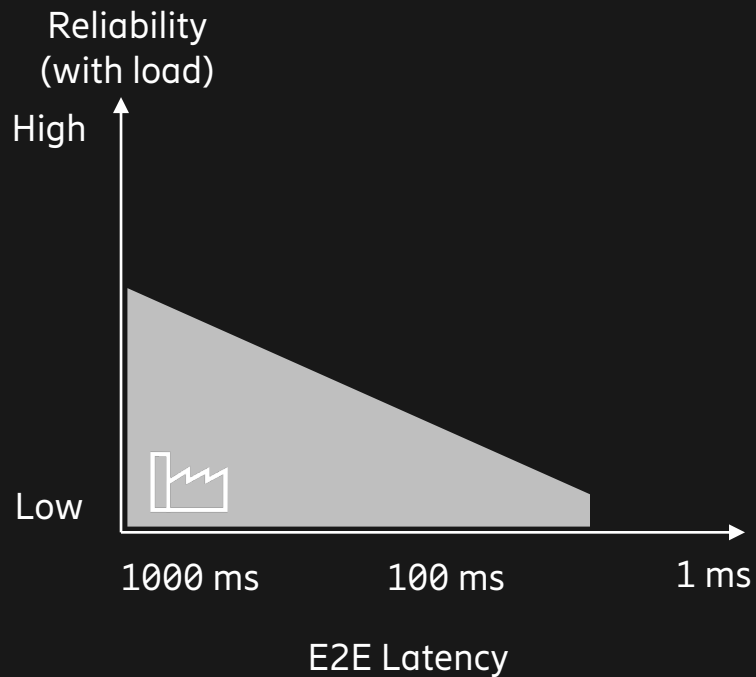


IoT	2019	2025	CAGR
Wide-area IoT	1.4	5.4	24%
Cellular IoT ¹	1.3	5.0	25%
Short-range IoT	9.3	19.5	13%
Total	10.8	24.9	15%

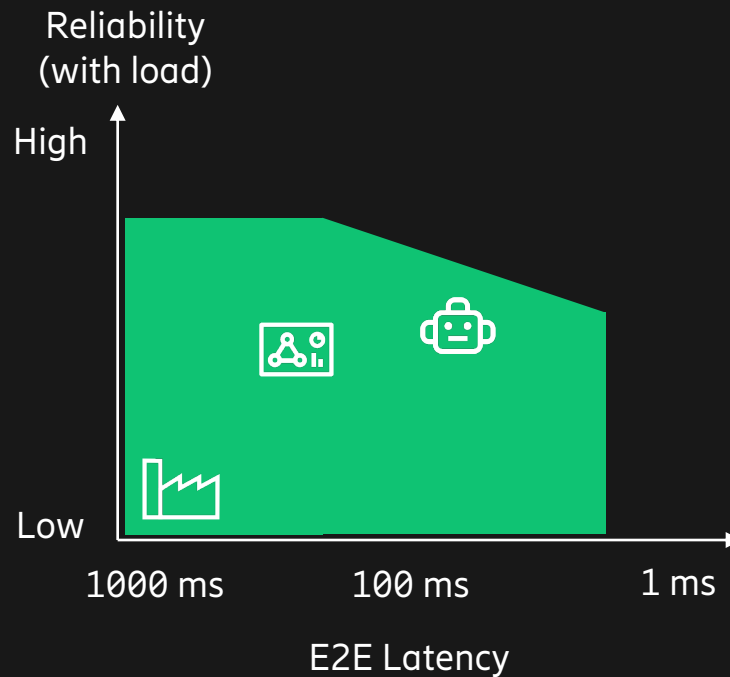
¹ These figures are also included in the figures for wide-area IoT

Move toward 5G

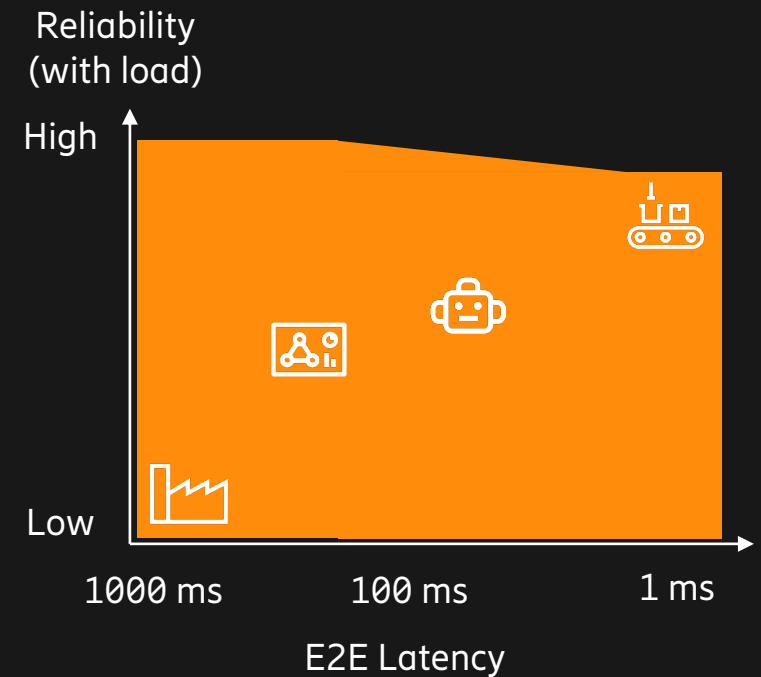
Wi-Fi



4G



5G



Monitoring
(non-real time)



Monitoring & Control
(real time)



Cable Replacement



Control loops with
guaranteed latency



Uppkopplad Gruva



Uppkopplad Fabrik



Uppkopplad Logistik



Uppkopplad Produkt

AR Troubleshooting



Felsökningstiden kunde minskas med mer än 15%.

Uppkopplad Gruva



> +20% i produktivitetsökning

[Depth: -398 m]

Uppkopplad Fabrik



26 MSEK i besparingar för
en BLISK fabrik
16 miljoner kubikmeter
CO₂ besparing



Uppkopplad Hamn



70% besparing av arbetskostnader
1 MSEK i besparing per insparad timmes försening



Value created through cellular connectivity



New economic
value

↑ 5%-13%

New societal value

↑ Workplace
safety

New sector value

↑ US\$750 bn

New environmental value

↑ Greener planet



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