5G VISION
NETWORK EVOLUTION & ERICSSON VIEWS

Lars Bergendahl
5G Program Director
~15 years
28 billion connected devices

25 years
5 billion connected people

100 years
1 billion connected places

Connections (billion)
2021

12X Mobile Data Traffic
90% pop coverage of MBB
75% LTE pop coverage

9.0 Billion Mobile Subscriptions
6.3 Billion Smartphones

• 14X Video as 70% of traffic

28 Billion Connected Devices

• 16 Billion IoT related
• 1.5 Billion IoT with cellular

1G
70-80’s

2G
80-90’s

3G
90-00’s

4G
00-10’s

5G
10-20’s

Foundation of Mobile Telephony
Mobile Telephony for Everyone
Foundation of Mobile Broadband
Future of Mobile Broadband

Ericsson Mobility Report June 2016
5G USE CASES

- Sensors Everywhere
- Broadband and Media Everywhere
- Smart Vehicles, Transport
- Infrastructure, Monitor and Control
- Critical Control of Remote Devices
- Interaction Human-IoT
5G FLEXIBLE ARCHITECTURE

Critical Comm. & MTC

Enterprise & Industry

Enhanced Mobile Broadband

Massive MTC

Antenna  Hub  Central Office  Aggregation  Switching  Primary
INDUSTRIAL COLLABORATIONS

INDUSTRIAL MOBILE COMMUNICATION IN MINING

- Evaluate mobile communication infrastructure in an industrial context
- Consider strict requirements on safety and robustness in underground mining
- Increased productivity
- Improved Safety
- Industrial 5G requirements
- Understanding new eco system, business models, etc.

5G-ENABLED WORLD CLASS MANUFACTURING

- Evaluate 5G technology in manufacturing industry
  - Wireless factory communication
  - Industrial Internet of Things (IIoT)
  - Mission critical contexts (MCC)
- Data analytics
- Improved production efficiency
- Increased flexibility
- Excellent traceability

CONNECTED MOBILITY ARENA STOCKHOLM

- Create Europe’s leading test site for connected mobility
  - Open innovation platform
  - Open cellular radio connectivity
  - Management and control platform
  - Efficient management of test activities (system configuration, road authority, etc.)
- Emergency vehicle prioritization
- Remote-controlling of platoons
- Automatic service orchestration

ABB REMOTE OPERATION OF ROBOTS

- Evaluate potential of mobile communication for industrial use
- Consider requirements from mission critical operation
- Industrial 5G requirements
- Transformation benefits
  - Centralization of expertise
  - Minimum training in hazardous environments
  - Increased productivity
ERICSSON 5G MOMENTUM

- 27 Operator MoUs
- 12 Industry partners
- ~20 Universities and Research institutes
TOWARDS 5G
Evolution of LTE and 5G NR
5G IN THE EYES OF THE INDUSTRY

› An Ericsson survey report on 5G: A multi-dimensional picture of current expectations and emergent trends
› How do industries use communications technology today
› Which 5G use-cases are likely in their industry
› Full report and guidelines on use:

http://crmweb.ericsson.net/cn/ar0ma/OpportunitiesIn5G