

Empowering Connectivity. Be Limitless with 5G.



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1-5 April 2019

Empowering Connectivity. Be Limitless with 5G.

Ericsson is the missing link to empower Industry 4.0, accelerating intelligent automation, by making it easier to adopt, use and scale new digital and industrial solutions.

Today, fixed networks dominate factories and restrict the efficiency of manufacturing. Production lines remain wired and inflexible, not delivering on high mix production. Materials, assets and workflows are either unconnected and unmeasured, or still unreliable or unsecure due to the limitations of alternative wireless solutions.

Currently, 80% of Industrial IoT is wired and costly retrofitted on equipment, creating data and platform silos. One

dedicated, robust and versatile network is needed to unlock the full value of Industrial IoT, both locally and globally.

With 4G and the game changing capabilities of 5G, manufacturers can access the seamless factory of the future. Massive monitoring systematically protects from errors or accidents. Wireless production lines enable faster configurations and redesign. Stable mobility promotes autonomous vehicles and interconnected workflows, while low latencies support collaborative robots and enable real-time control of remote activities.



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PARTNER COUNTRY 2019

Powered by a live Ericsson 5G network, explore our technologies enabling intelligent automation in the following focus areas:

Connections that Perform

Wireless connections are not created equal. Compare and contrast 5G with alternative connectivity standards. Enable collaborative robotics.

Private Plant, Global Reach

Dedicated network for efficient operations on site. Integrate value chains with global connectivity off site.

Smart Wireless Manufacturing

Go wireless! Gain transparency and flexibility in production, empower workers, and redesign operations.

Robust, Safe & Secure Environments

Connect and protect assets, people and data with one secure connectivity platform.



Connections that Perform

Proof-Points

- Human-machine collaboration
- Cloud robots in perfect sync
- 5G-Industry Campus Europe
- Ericsson 5G City-Model
- 5G-ConnectedMobility

Wireless connections are not created equal. Experience the tangible difference of 5G, the new generation of mobile communication. Compare and contrast the performance of connected things with other wireless standards. Learn how superior connectivity enables new use cases, for example in robotics and human-machine collaboration.

5G raises the bar with unprecedented latency, capacity and reliability. Leapfrogging today's connectivity limitations, any process that requires mobility, such as automated vehicles, can be tracked and controlled. Manned activities can become safer and more efficient as interactions with machines become more intelligent. Furthermore, any production activity that cannot be practically measured with wires, but still needs real-time critical data transmissions, can now be monitored and optimized.

With the rise of AGVs and digital twins, different connectivity requirements are needed for just one environment. Secure mobility of assets as well as real-time copies of activities will not only shape future operations, they will represent a competitive edge for manufacturers. Processes will move faster and become more predictable but will demand a lot of the network and its connections. As demand for intelligent automation and IIoT grows, countless connections will require constant uptime. High performing connectivity is therefore necessary to safeguard operations, preventing any disconnect.



Smart Wireless Manufacturing

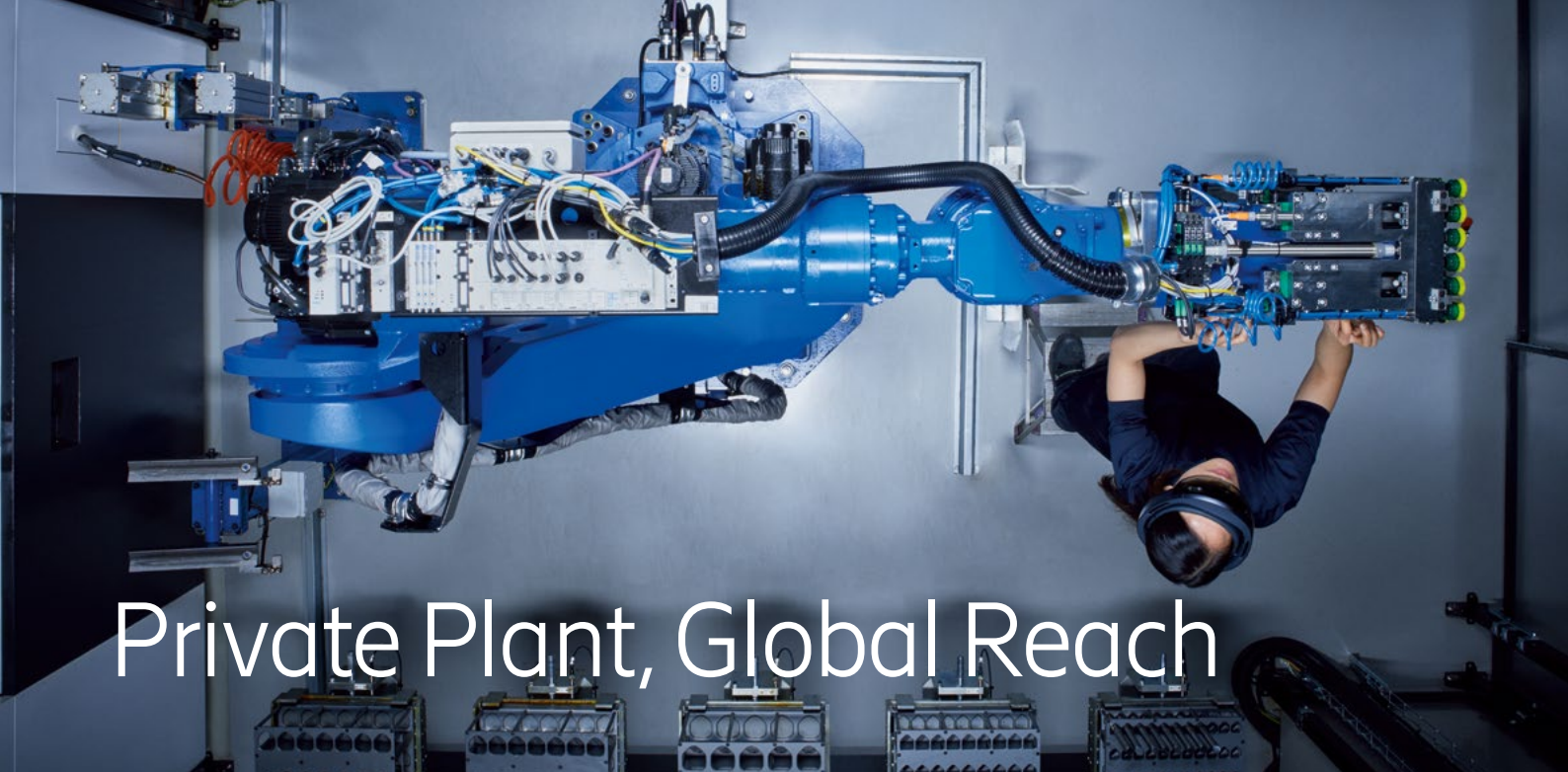
Proof-Points

- Ericsson Industry Connect – fast to deploy, easy to manage
- Enhance business with Private Networks
- Cellular IoT for industries
- Industrial ecosystem
- Wireless factory – measure on the fly
- VR monitoring of production lines
- Smart factory: 5G ready electric car manufacturing

Get transparent and flexible with Smart Wireless Manufacturing. Explore different IIoT use cases and AR applications. Learn how wireless solutions can empower workers, decision-makers and transform production lines. Redesign operations by gaining mobility in factory processes.

The value of wireless lies in all assets and work-flows being connected, tracked and traced, as well as manipulated, when in motion and during production. As pressure rises to deliver highly customized products, production must be flexible and customizable too. By removing dependency on wires, production lines are more easily reconfigurable and less time consuming.

By going wireless, onboarding of smart devices or sensors gets much simpler. Massive monitoring of infrastructure and activities can finally scale well. Simultaneously, critical control of real-time applications can be managed on the same network. Without one common platform to support IIoT connections, the current system complexity with data silos prevents the seamless factory of the future. Transparency as well as interconnections between cells and workstations are essential, to realize efficient processes with connected materials, tools and people. Push the frontier of smart manufacturing – cut the wires and make new connections.



Private Plant, Global Reach

Proof-Points

- Remote VR control on distributed cloud
- Real-time process optimization for distributed production sites
- Global management of connected products

As much as production on site must be securely connected, improved and automated, the benefits are limited due to the boundary of the scope. An industrial plant does not operate in isolation and depends on the incoming and outgoing flows of goods and services. With the global reach of mobile connectivity, the entire value chain can be better integrated and timed with processes on site.

A company might even depend on a seamless coordination of an entire network of factories; both copying the setup of lines, and tracking the arrivals and shipping of resources, assets and components. Furthermore, the value of tracking outgoing and monitoring delivered finished products adds another service dimension. Customers can be assisted and serviced remotely, even before errors occur.

Explore how a local factory can be strengthened with global capabilities. Expand horizons while securing privacy in operations. Welcome to networked production and a connected ecosystem.



Robust, Safe and Secure Environment

Proof-Points

- Certify IoT devices
- Trust built-in 5G & IoT
- 5G campus networks
 - dual strength of public & private networks
- Secure intelligent, data-driven operations

Digital transformation of an environment is only as strong as its underlying foundation. Choosing a connectivity standard determines how many physical connections can be served simultaneously, hence how smart the environment inevitably becomes.

The first requirements are securing identities of boundless devices and effectively managing data without being compromised. Mobile communications use coded chip-sets and built-in protocols of encryption and can also prioritize data streams according to urgency.

A robust network creates a safer connected environment for workers and infrastructure. Without connected things, manufacturers will still remain vulnerable to accidents and errors in the field. However, IoT as a safety measure will not take off until IoT and mobile security is trusted.

Learn about network properties and design. Explore automation of security management and analysis, given the scale, exposure and complexity of IoT connections.

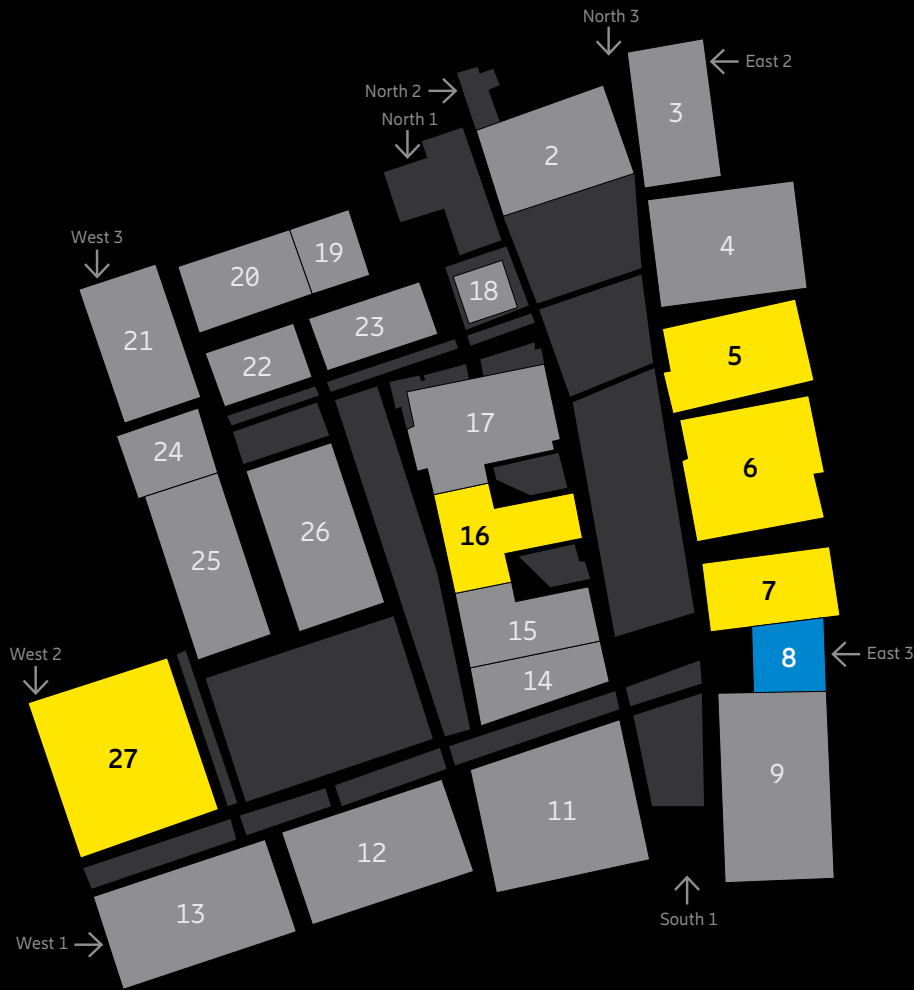
Experience a live Industrial 5G Network by Ericsson in Hall 8



5G

- A live running 5G Network, using 3.7- 3.8 GHz spectrum in Hall 8 at the Ericsson booth
- The Ericsson 5G system in Hall 8 supports applications and use cases which need ultra-high bandwidth and low latency in order to process data in real time.
- High flexibility and adaptability as per the use case and capacity demands.
- The 5G network is powered by a commercially available Ericsson 5G “New Radio” AIR 6488.
- Antenna Integrated Radios (AIRs) combine the antenna, radio, and more elements into one single product.
- The AIR series supports 5G-ready features like Massive MIMO technology to further increase network capacity and coverage.

Where to find us at Hannover Messe 2019



5 Deutsche Telekom Main booth

Hall 5 Digital Factory & Industrial supply / Booth E04

6 Fraunhofer IPT booth

Hall 6 Digital Factory / Booth A30

6 Hexagon booth

Hall 6, K10, Smart Factory Booth

7 SAP booth

Hall 7 Digital factory / Booth A02

7 Microsoft booth

Hall 7 Digital factory / Booth C40

8 Ericsson main booth

Hall 8 Digital Factory & Integrated Automation / Booth D28-D32

8 HMS booth

Hall 8, Booth D31

16 Hannover Messe 5G-Arena

Hall 16 5G Arena / Booth D38-5

27 Sweden Co-Lab Pavilion

Hall 27 Integrated Energy / Sweden Partner country area