This is why we do it!
Smart manufacturing in Ericsson Eesti

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From copper wire to artificial intelligence

140
Years of enabling communication

95%
Of world population covered by mobile broadband (3GPP)

18
Billion connected devices in 2017

8X
Worldwide data traffic from 2017 to 2023
Fastest scaling technology ever

The 4\textsuperscript{th} industrial revolution

Image: Connect to Learn students, India, 2016

Image: Manufacturing
• Manufacturing sites

- ESS Tallinn
- ESS Nanjing

- ESS Dallas
- ESS São José dos Campos
Ericsson Supply in Tallinn

is the largest manufacturing unit of Ericsson to release and ramp up of new baseband and radio products in Ericsson Radio System family.

We are engaged in the development and launch of new products with focus of product industrialization and test system development.

People
2100 employees
47 nationalities

Operations
#1 exporter from Estonia
24/7 production
100 proto runs per month

Compliance
ISO 9001, ISO 14001, ISO 45001, ISO 27001 TL9000 SOX
Challenges

- Complexity in product mix and variants
- Short Time to Market and fast product volume ramp-up
  Shorter product life cycle
- Production flexibility
- Cost pressure
Need for ultra flexibility and mass customization = Industry 4.0

80% of all processes reinvented or eliminated by digital by 202x
This is why we do it!

Smart Manufacturing program at Ericsson Eesti to address:

- **Operational efficiency** (quality of products, lower maintenance and production cost, higher utilization)
- **Workplace health and safety**
- **Strengthen cooperation with R&D** to secure design to production integration
- Uncovering **sustainability value** enabled by new technologies
On our way to Smart Manufacturing

**Today**
- Proof of Concepts
- Customer trials
- IT architecture & data
- Automated operations

**Next**
- Big data predictive analytics
- Connecting the full flow
- Private LTE, 5G and IoT
- E2E flow automation

**202x**
- Real time data driven
- AI/AR/VR
- Digital Twin
- 5G factory network
- All devices seamlessly connected
- Flexible work cells and layout
Our use-cases
There is no Internet connection

You can try to diagnose the problem by taking the following steps:
Go to Applications > System Preferences > Network > Assist me to test your connection.

Try:
- Checking the network cable or router
- Resetting the modem or router
- Reconnecting to Wi-Fi

ERR_INTERNET_DISCONNECTED

DETAILS
Private LTE
Simple to Plan
Easy to install
Indoor System deployed in hours
Advanced industries enabled by better connectivity: Factory and warehouse opportunities

Massive IoT
- Environment sensors
- Asset management
- Low cost devices, low energy
- Small data volumes
- Massive numbers

Broadband IoT
- Security cameras
- Computer vision
- High throughput
- Predictable latency
- Large data volume

Critical IoT
- Hands-free instruction
- Remote operation
- Ultra reliability
- Ultra low latency
- Very high availability

Industrial Automation IoT
- Collision avoidance
- Automated operations
- Collision avoidance
- Collaborative robotics
- Advanced Automation & Control
- Industrial protocols
- Time sensitive networks
- Precise indoor positioning

One cellular wireless network serves wide range of use cases
Augmented Reality Troubleshooting
Key take-aways

- Mobile connectivity enabling secure connection for huge amount of devices
- Digitalization of manufacturing – to keep up with productivity and efficiency
- Uncovering Sustainability value enabled by new technologies
- Industry 4.0 from buzz-word to practical implementation
Thank you!

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www.ericsson.com/industry4.0