

# Ericsson and Kollmorgen

Discover automated guided vehicle (AGV)  
and mobile robot capabilities, powered by  
Ericsson Private 5G



In  
partnership  
with

**KOLLMORGEN**

01

# Ericsson Private 5G, together with Kollmorgen's NDC Solutions Platform



Kollmorgen's NDC Solutions is an industry leading platform used by vehicle builders to create driverless logistics automation solutions, adopted by more than 80 automated guided vehicle (AGV) manufacturers worldwide.

Kollmorgen Automation AB is a leading provider of hardware and software solutions that simplify the precise, safe and efficient navigation and control of automated guided vehicles (AGVs) and mobile robots. AGVs and mobile robots handle logistic flows autonomously, improving the efficiency and flexibility in manufacturing and warehousing without heavy investments.

Kollmorgen's NDC Solutions technology platform enables partners and end-users to cost-effectively build, integrate, scale and run their vehicle fleets in smart warehouses and smart factories. Kollmorgen has a network of 80+ AGV partners worldwide and is utilized by six out of the top ten largest lift truck suppliers in the world. Since 1972, 40 000+ units have been deployed with the NDC Solutions platform and the number is rapidly increasing.

Kollmorgen's NDC Solutions hardware and software have been proved to run as

stable on Ericsson Private 5G as on Wi-Fi, and with a seamless 5G antenna handover. 5G can enable new levels of AI and Machine Learning, simplify requirements for infrastructure, and increase network stability – which could dramatically increase performance and cost efficiency for Kollmorgen's partners and end-users. Testing done by Ericsson and Kollmorgen has proven that retro-fitting brownfield AGV systems is as easy as connecting an industrial 5G gateway to a vehicle.

By moving to 5G, manufacturers can take advantage of the increased speed, reliability, and capacity of 5G networks, which can help drive improvements in production. Through the partnership between Ericsson and Kollmorgen, these connectivity benefits now also extend to the factory AGVs.

Furthermore, 5G networks can support a larger number of AGVs and other connected devices, which can help manufacturers to expand and automate

their operations. This can lead to increased productivity and efficiency, and ultimately help manufacturers to remain competitive in today's fast-paced and increasingly digital economy.

"We want to continue to push the boundaries of Mobile Robot applications with our NDC Solutions platform. 5G holds the key to unlock more advanced routing of intralogistics, generate better insights, improve predictive maintenance, and speed-up commissioning. It is also likely going to be the future standard of industrial communication infrastructure" says Martin Törnqvist, Director Services, Kollmorgen.

"Autonomous material handling requires both powerful and secure connectivity, and a robust ecosystem of application providers. Ericsson is proud to partner with Kollmorgen to enable Automatic Guided Vehicles with industry grade reliable connectivity from Ericsson Private 5G, ensuring smooth and safe operations" said Thomas Noren, Head of Dedicated Networks at Ericsson.

## Challenges

Autonomous material handling requires secure connectivity and a robust ecosystem of application providers, for a stable intralogistics solution in line with Industry 4.0.

## Solution

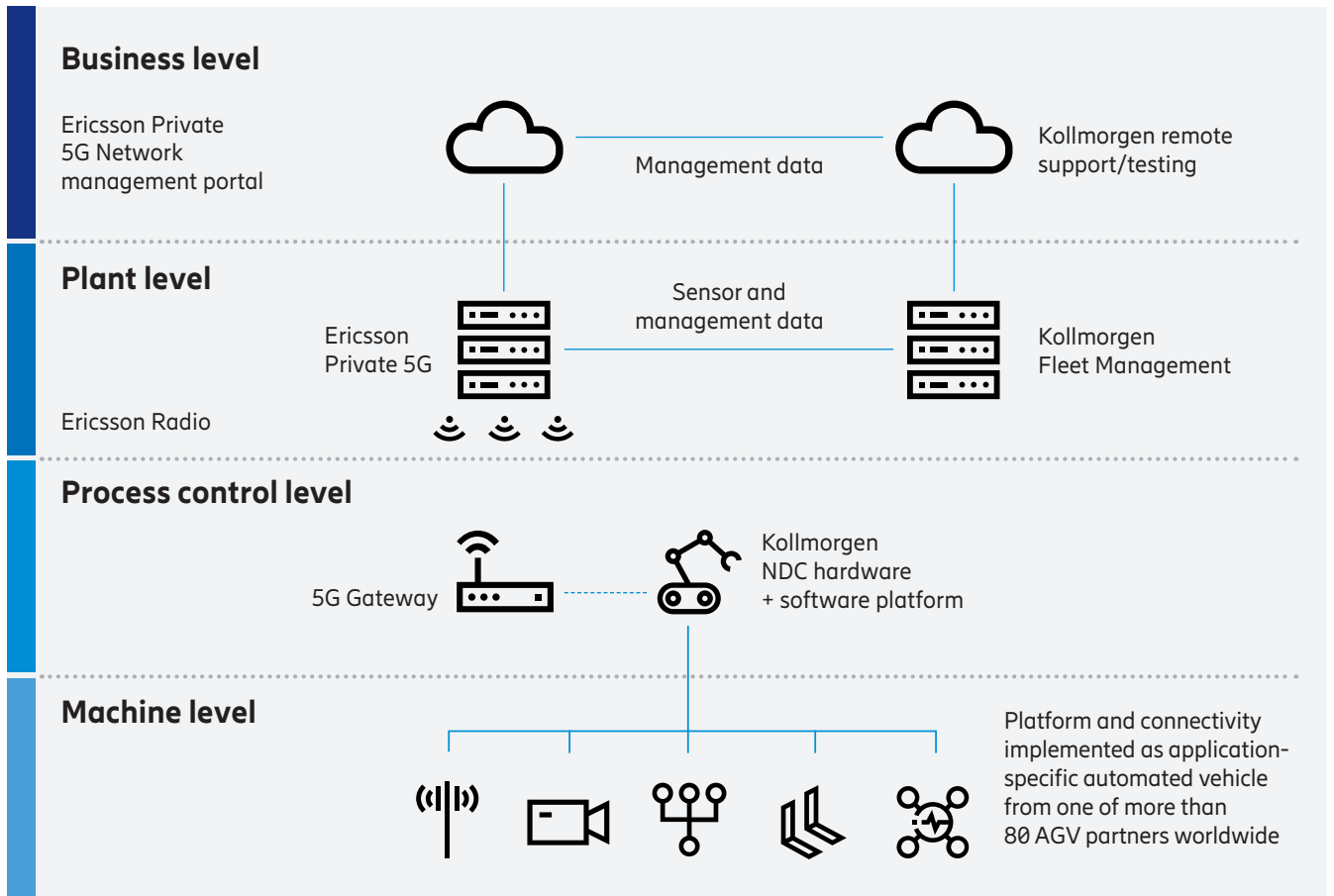
Kollmorgen provides a future-proof industry proven AGV platform utilized by global leaders in material handling, tested on Ericsson 5G.

## Outcomes

The use of Ericsson 5G in Kollmorgen-powered vehicles provides robust and reliable coverage, enabling better scalability and cost savings.

## 02

# Why choose Kollmorgen's NDC Solutions?



With Kollmorgen's NDC Solutions platform consisting of hardware, software and navigation technologies, you get a proven platform for boosting AGV performance in a broad range of industries worldwide.

Key challenges when building a conventional network for an AGV system is access point handover and coverage dead spots. When coverage is built out using 4G/5G cellular access points, they create one seamless cell of coverage, removing handover issues, and significantly reducing dead spots that could cause an AGV to stop.

With 5G, AGVs can communicate with each other and with other systems quickly and efficiently. Thanks to deterministic latency, low latency can be guaranteed even under heavy network load as an SLA.

This allows for smooth and predictable operations of the AGV fleet, even when that fleet grows large. Because traffic can be prioritized by setting up traffic segments in the network, the fleet is similarly guaranteed to operate free from interference from lower priority applications on the network. Ericsson Private 5G enables enterprises to deploy AGV fleets supported by faster data transfer speeds, lower latency, and improved reliability.

## About Ericsson

Ericsson enables communications service providers and enterprises to capture the full value of connectivity. The company's portfolio spans the following business areas: Networks, Cloud Software and Services, Enterprise Wireless Solutions, Global Communications Platform, and Technologies and New Businesses. It is designed to help our customers go digital, increase efficiency and find new revenue streams. Ericsson's innovation investments have delivered the benefits of mobility and mobile broadband to billions of people globally. Ericsson stock is listed on Nasdaq Stockholm and on Nasdaq New York.

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