KINEXON

Masterclass:

From Pilot to 100+ Robots: Orchestrating a 4-Vendor Fleet Across 3 Plants on One Platform

How a Premium Automotive OEM Redefined Operational Excellence with a Multi-Vendor Strategy

Presented By: Dr. Alexandar Hüttenbrink – Co-Founder and Co-CEO of KINEXON Industries

A Leading **Global Automotive OEM** Undergoing Rapid Expansion Was Facing Various **Challenges in Automating Their Intralogistics**

The Customer and the Phased Project

10+ global plants with diverse local logistics systems

100+ AGVs and AMRs from 4 different vendors spread out over multiple plants

Complex logistics systems across global sites with varied technology and infrastructure

1

Focus on the movement of materials from creation to use, often via buffer zones.

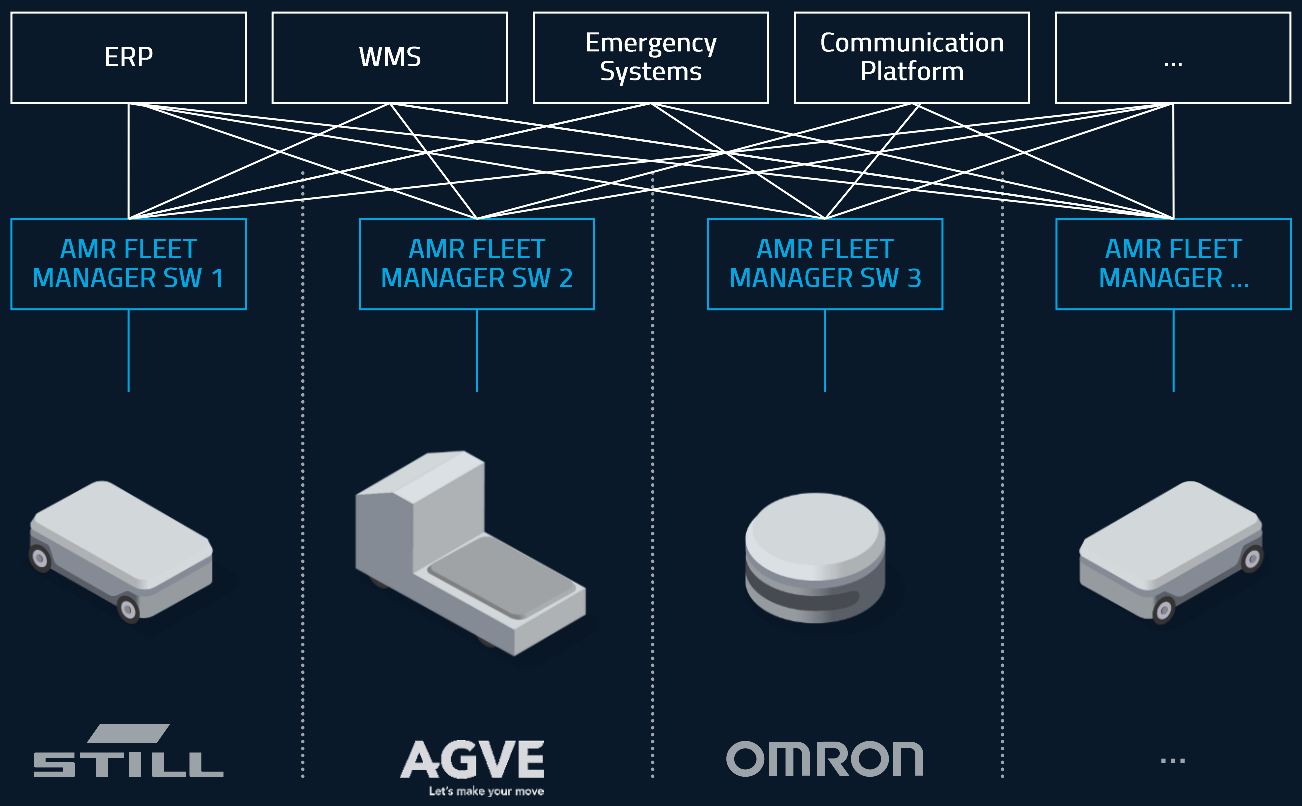
2

Streamline the transportation of materials between different production lines

3

Improve traffic control, prevent collisions between manual and autonomous vehicles

Challenges for Scaling: Vertical Silos, High Costs and a Lack of Scalability



Slow adoption & poor scalability within and across sites

- Steep learning curve for different robot platforms
- Reduced scalability across multiple sites

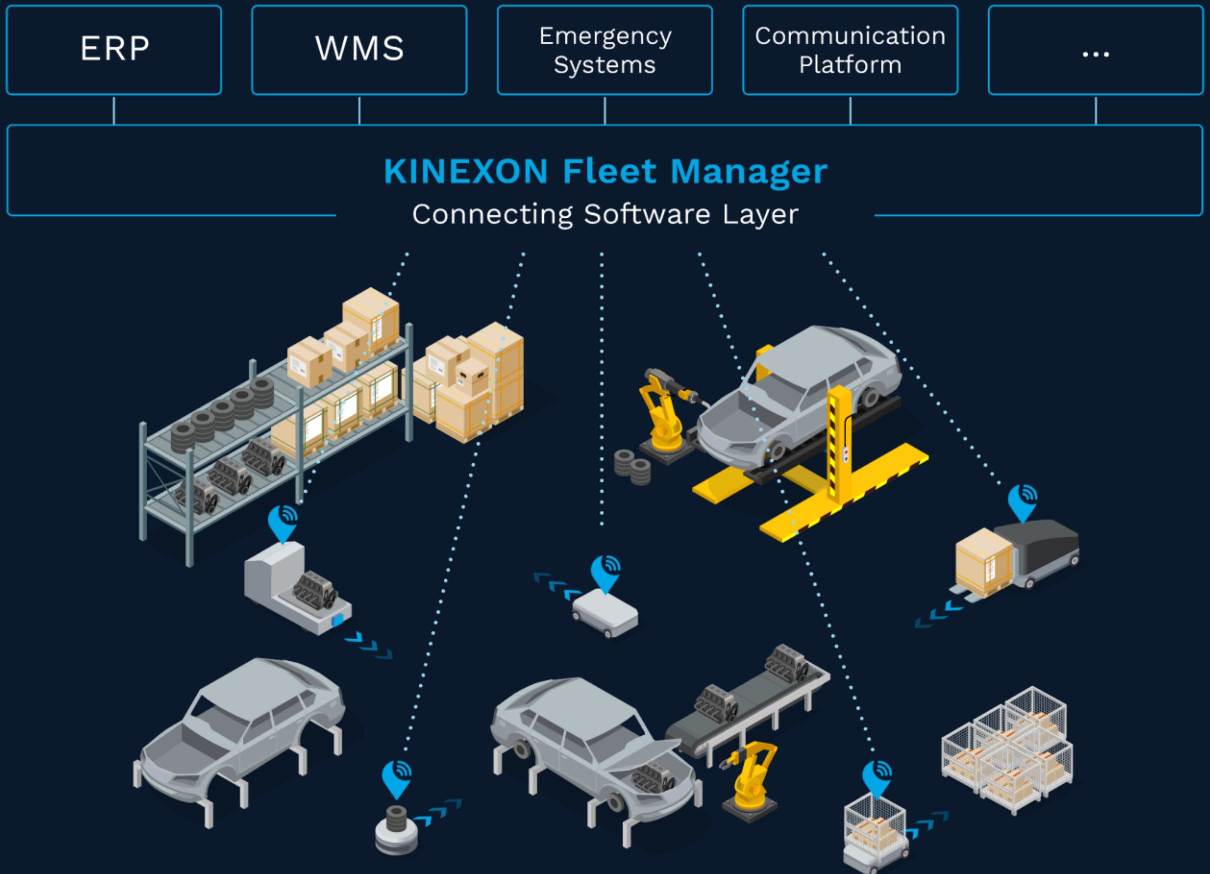
Highly inefficient and inflexible robot fleet operations due to vertical silos & legacy systems

- Lock-in effect with robot OEM
- High costs for software maintenance
- High effort in integration of various assets
- Reduced usability leads to efficiency drops

Complex and lengthy IT-integration process

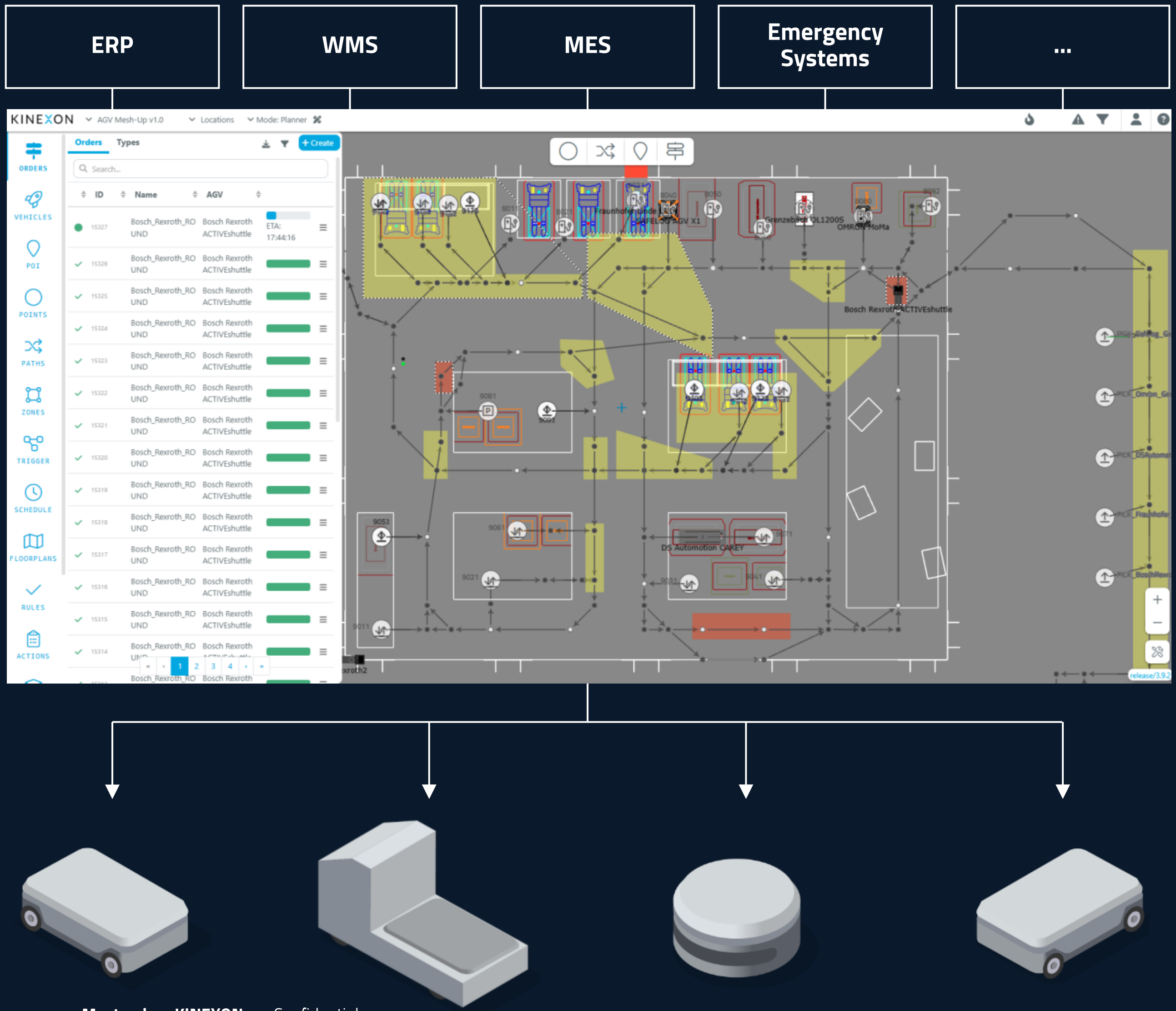
- High complexity for ERP/WMS/MES integrations
- High Maintenance
- Not all Integrations work seamlessly

Solution Design: Kinexon Fleet Manager Is the Perfect Solution to Accomplish All That



- VDA5050 support – new compliant robots can be configured and run in days.
- 20+ AMRs/AGVs – VDA5050 & KINEXON certified brands supported out of the box.
- < 2 months for retrofitting other brands.
- Centralizes all relevant orchestration features in one platform, such as smart routing, traffic management, real-time monitoring.
- Integrates plant infrastructure (traffic lights, forklift detection) via MQTT
- Connects seamlessly with ERP, MES, and WMS systems, comes with certified SAP integrations
- Scalable across sites with cloud or on-premise deployment and global remote support.

Ready to Scale: Fleet Manager Is Optimally Set up to Support Further Rollouts in Other Plants with Various Robot Vendors & Types



ERP/EWM Partner

SAP

Robot Partners

Continental, rexroth A Bosch Company, SAFELOG, OMRON, Linde Material Handling, MLR System GmbH, STILL, SUNYELL LOGISTICS SYSTEM, ek-robotics, symovo, HIKROBOT, DS AUTOMOTION, GRENZEBACH, MiR, AGVE, ABB, JUNGHEINRICH, KÄRCHER

Onboarding

KEMARO Autonomous Robotics, SEW EURODRIVE, KUKA, OTTONOMY.IO, VisionNav Robotics

Outlook

K.HARTWALL Logistics Efficiency through Innovation, SHERPA MOBILE ROBOTICS

Project Success Factors

Solving Several Complex Challenges in the Planning and Implementation Phase

Achieving Cross-Site Understanding

Doing Global Goal Prioritization

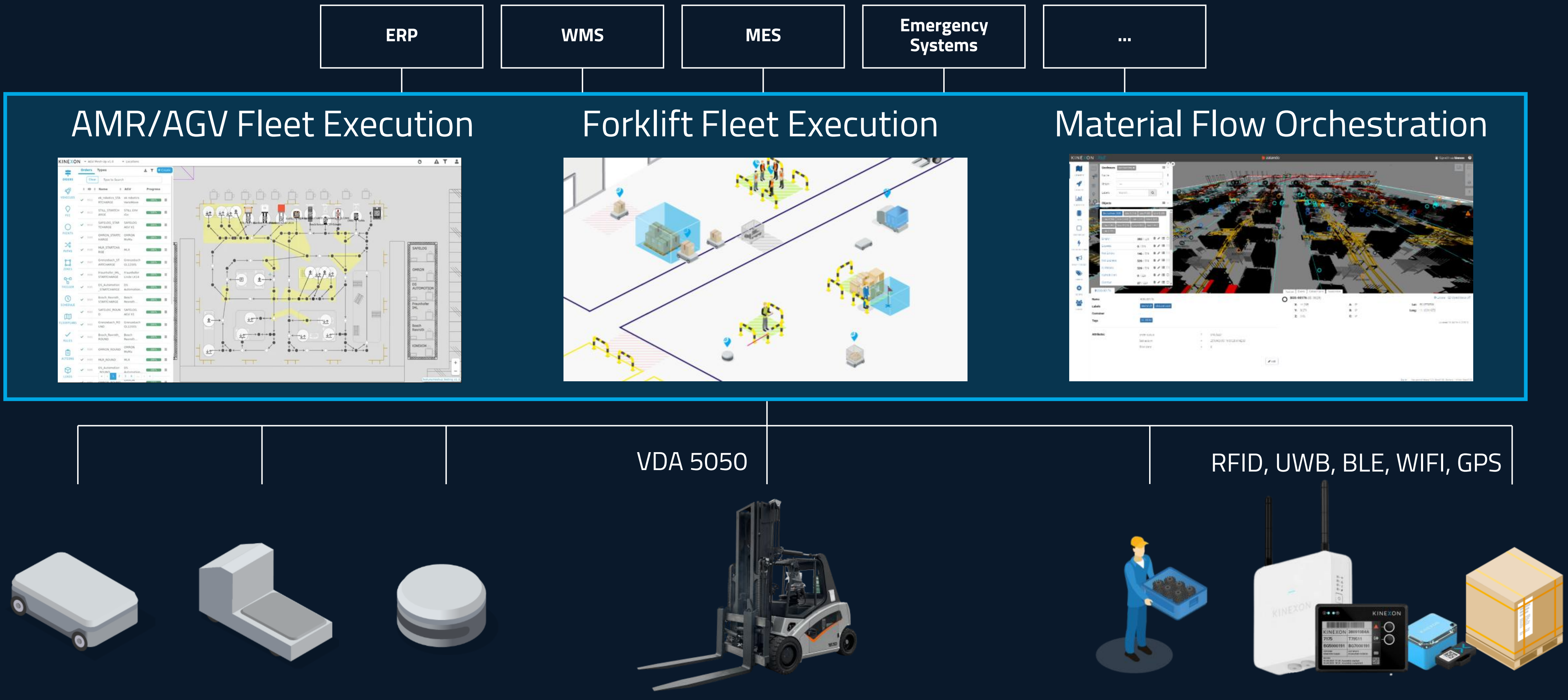
Creating a Consensus on Functionality

Mastering Retro-Fitting

Flexible System Integration

Operational Alignment & Responsible Orchestrator

Outlook for Next Level of Automation: End-to-End Intralogistics Execution Orchestrating AMRs with Manual Vehicles and Asset Tracking



Now, Next, and the Big Picture

Current Status

- ✓ Fleet manager live across multiple plants
- ✓ Running an AMR-only model line

Key Takeaway

Scalable automation needs:

- Global standards
- Vendor-agnostic tech
- Remote support (24/7)

What's Next

1. Integration into production flows
2. AI-based operational optimization
3. Continued global rollout

Results

- ✓ Harmonized data and control boosted operational efficiency across plants.
- ✓ Safety incidents dropped, automated logistics tasks reduced costs and increased throughput.
- ✓ **3 plants, 4 vendors, 100+ vehicles in 1.5 years!**

See You at Our Booth Next to the Integration Zone!

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