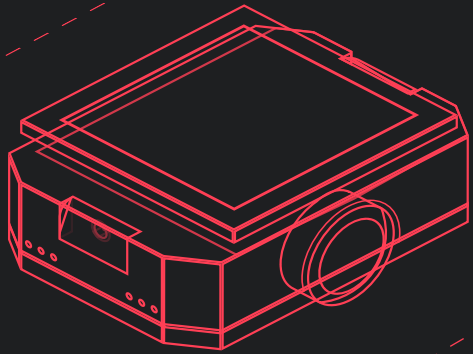





SYNAOS

Intelligent material flows with
mobile robots, forklifts, and people.



SYNAOS

01

About SYNAOS



02

One Intralogistics Platform
for Every Level of Automation



03

Solutions for Intelligent
Material Flows



04

From Planning to Implementation:
Simulation, Deployment & Support



05

Our Experts,
Your Points of Contact





SYNAOS in figures:

135+

Largest VDA 5050
robot fleet

50+

Live installations

40+

Mobile robot
partners

80+

SYNASIANS

10,000+

Daily transport orders

Trusted by Industry Leaders:



SCHAEFFLER

connox



The future of intralogistics is full of challenges — growing complexity, labor shortages, fragmented IT systems, and inefficient material flows are putting operations under pressure. To stay competitive, companies need smarter, more connected automation.

That's where SYNAOS comes in. Our intelligent software platform seamlessly integrates with your existing systems, automates workflows, and optimizes material flows across your entire operation.

At SYNAOS, we don't just offer software — we deliver a foundation for efficiency, flexibility, and scalability. Our Intralogistics Platform orchestrates mobile robots, IoT devices, forklifts, and manual processes in real time, giving you total control over your automation strategy.

Born from the automotive industry, SYNAOS was designed to meet the most demanding requirements for stability, scalability, and functionality. Today, our platform powers some of the world's largest AGV/AMR installations — proven every day in real-world production environments across Europe and beyond.



G 60

1508

M.R 110

1 Industry-Leading Expertise

No other platform combines as much real-world implementation experience in intralogistics. We understand our customers' processes and challenges, delivering software that seamlessly integrates complex, customer-specific workflows while continuously optimizing performance.

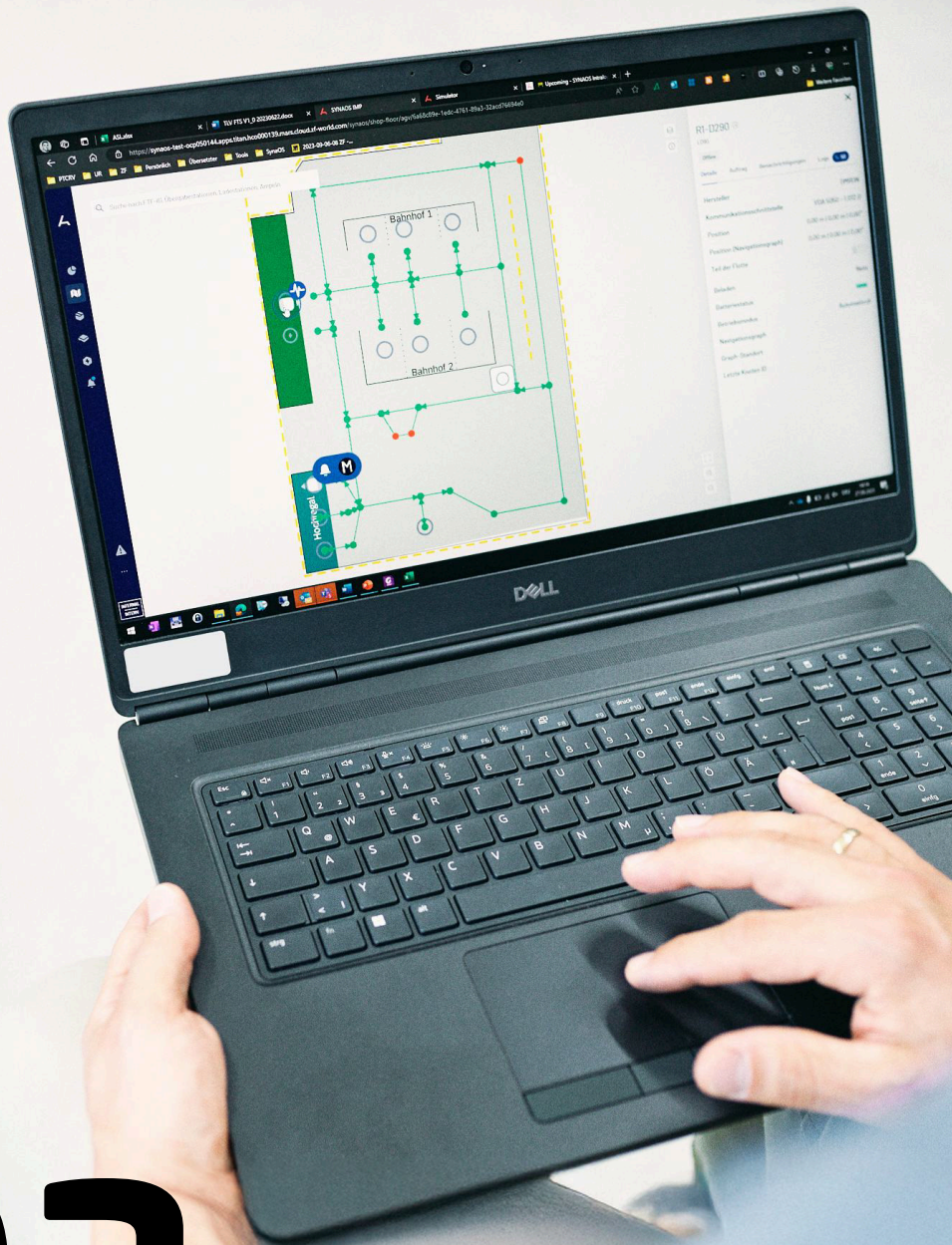
2 Industry-Leading Technology

The SYNAOS Intralogistics Platform is built from the ground up for high availability, scalability, and future readiness — whether at a single site or across multiple locations.

3 Industry-Leading Partner Network

With 40+ established technology and robotics partners, we enable seamless integration across various systems — regardless of manufacturer or platform. As a co-developer of the VDA 5050 standard, we ensure true cross-manufacturer interoperability and long-term investment security.





02

SYNAOS

Intralogistics Platform

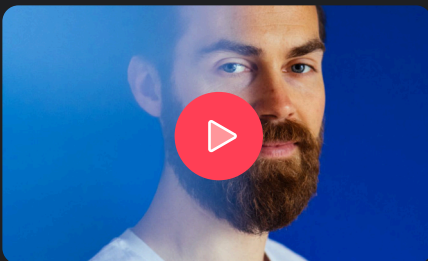
Intralogistics is more than just a collection of individual components. It is a complex, interconnected system that must be optimized as a whole to achieve maximum efficiency and cost-effectiveness.

That's exactly what the SYNAOS Intralogistics Platform was designed for: It provides centralized control, no matter where you are on your automation journey. Whether you're digitizing forklift fleets, connecting isolated automation solutions, integrating manual and autonomous processes, or scaling automation across multiple sites, our platform intelligently orchestrates all material flows with precision and efficiency.

The key to success isn't just what you automate — it's how well everything works together. The most advanced intralogistics systems share one thing in common: Interoperability isn't an afterthought, it's built in from the start.

Think of the difference between Tetris and chess. Many companies approach automation like Tetris, adding new technologies piece by piece and hoping they fit together later. But true efficiency demands a chess-like strategy, where every move is planned to ensure seamless long-term integration.

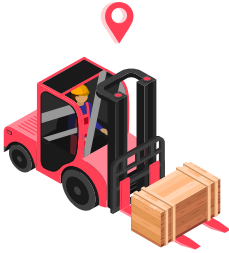
With SYNAOS, you get a holistic, well-structured approach designed for the future of intralogistics.



SYNAOS in Action (Video)

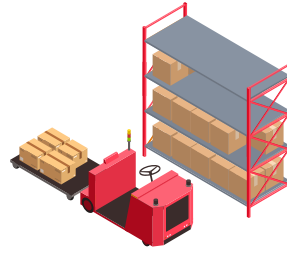
Get to know the SYNAOS Intralogistics Platform – explained in just a few minutes.

[▶ Watch the demo](#)



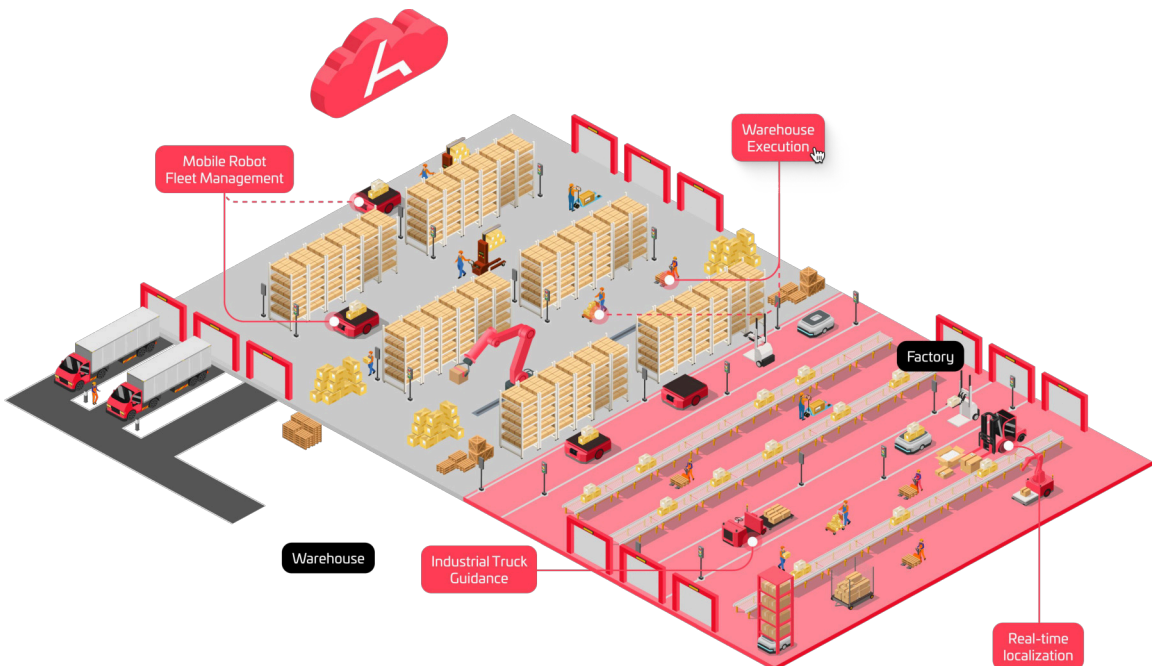
Real-Time Localization

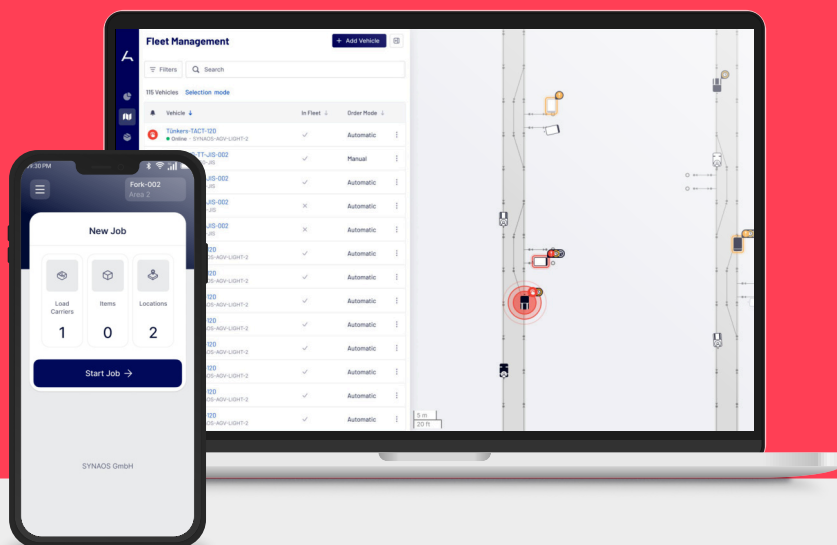
Maintain full visibility over your industrial vehicles with a precise, real-time tracking solution that is easy to implement. Leverage data-driven insights to optimize material flows and movement patterns.



Warehouse Execution

Manage material movements, buffers, and storage locations in real time to keep production running smoothly. Precise inventory and load tracking improve transport and logistics efficiency, reducing delays and bottlenecks.



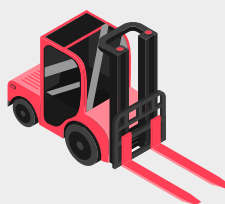


Solutions for Intelligent Material Flows



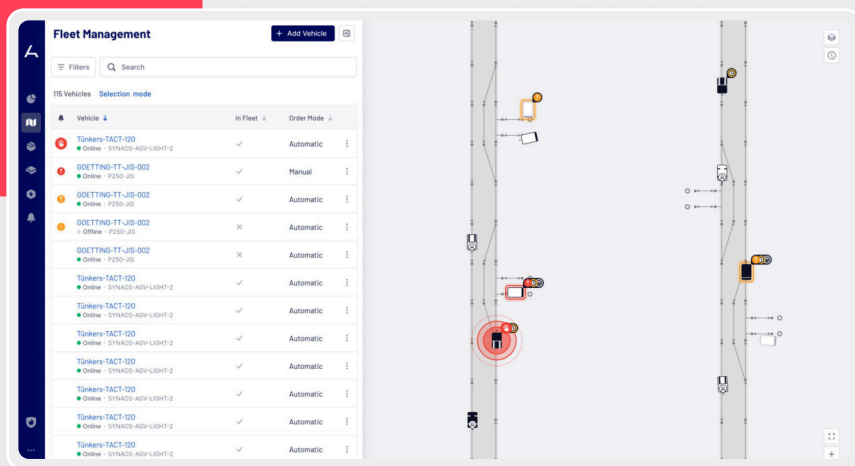
Mobile Robot Fleet Management

The leading platform for scalable, manufacturer-independent fleet management of autonomous mobile robots (AMRs/AGVs). Maximize efficiency, minimize downtime, and optimize material flows with intelligent fleet coordination.



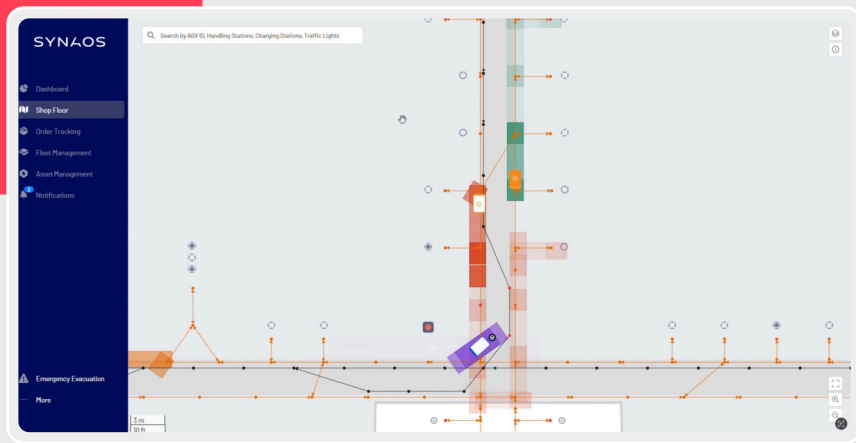
Forklift Guidance

Seamlessly integrate manual forklifts into automated workflows. Whether as an independent fleet or in combination with AGVs, intelligent task allocation and centralized control increase efficiency and flexibility — allowing you to scale automation at your own pace.



Hybrid Fleet Management – Unified Control of All Transport Resources

- ✓ **Manufacturer-Independent Integration:** Mobile robots (AMRs, AGVs), manual forklifts, and workers operate within a single system without vendor lock-in or additional middleware.
- ✓ **VDA 5050-Native:** Built from the ground up on the VDA 5050 standard to ensure maximum compatibility across different vehicle manufacturers. With proven success in AGV mesh-ups, industry showcases, and live customer installations, our platform has demonstrated its reliability in real, complex intralogistics environments.
- ✓ **Intralogistics App:** Forklift operators and shopfloor workers connect directly to the platform through our app, ensuring manual workflows integrate smoothly with automated processes.

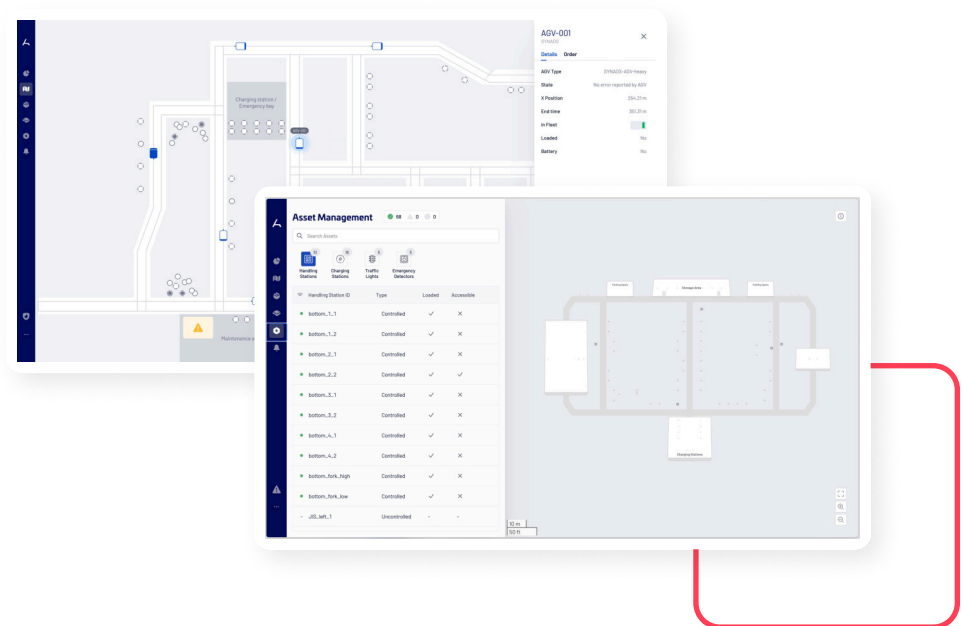


Traffic Flow Optimization – Ensuring Smooth Material Transport

- ✓ **Predictive Traffic Control:** The intralogistics platform continuously analyzes planned routes, congestion points, and traffic flow to prevent delays before they occur.
- ✓ **Coordinating Automated & Manual Transports:** Ensures smooth interaction between AMRs, forklifts, and human operators, including multi-step transport processes. By tracking the positions and movements of all traffic participants in real time, the system enables AGVs to adjust proactively — avoiding unnecessary stops and ensuring an optimal traffic flow.

Asset & Infrastructure Integration

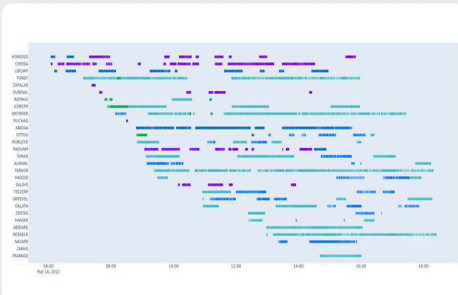
- ✓ **Connecting External Systems:** Integrates gates, conveyors, traffic lights, sensors, and automated storage systems, including handling stations where material is picked up or delivered.
- ✓ **Dynamic Process Control Based on Asset Status:** The platform reacts to status changes in connected assets — triggering or adjusting workflows in real time to keep material flows optimized.
- ✓ **Live Operational Insights:** The Control Center provides real-time visibility into all movements, order statuses, and system conditions for full transparency.



Intelligent Task & Process Management

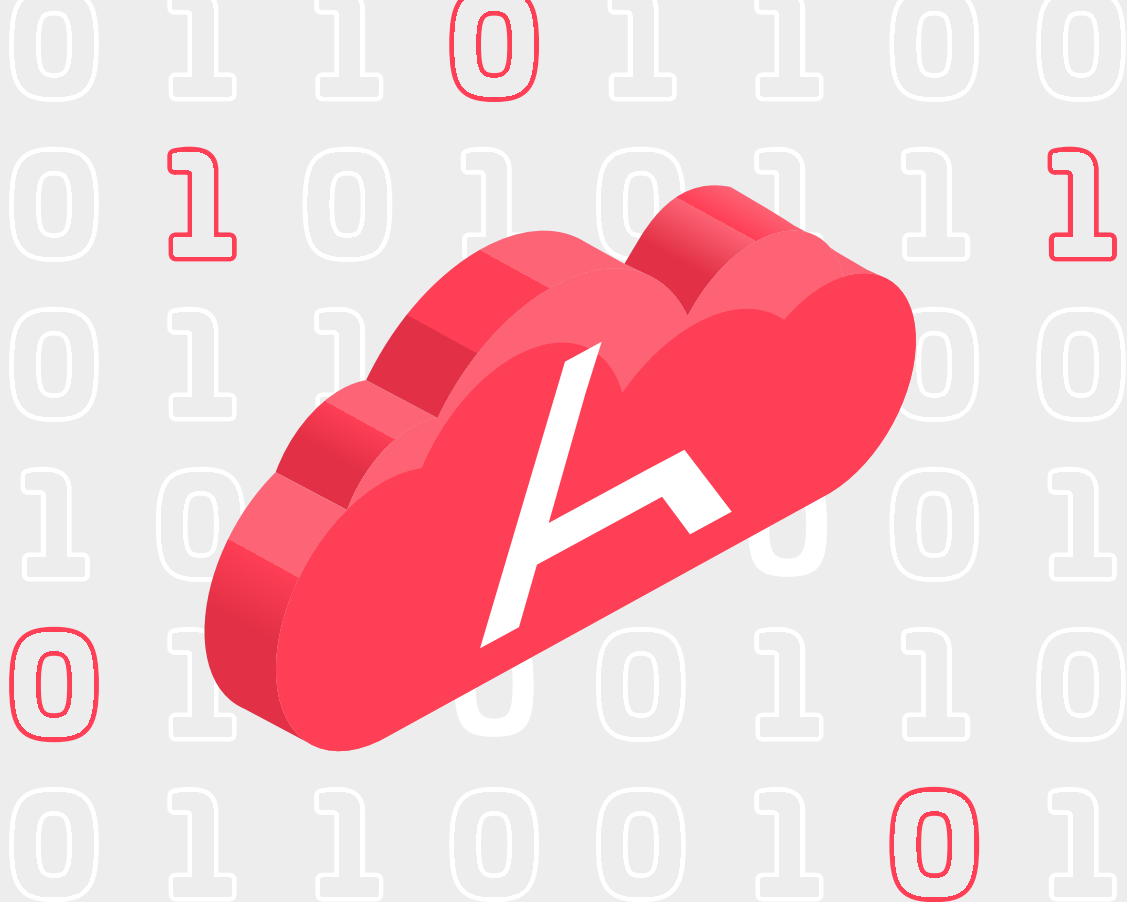
- ✓ **Dynamic Task Allocation:** Transport tasks are assigned intelligently and situationally, ensuring that the right resource is deployed at the optimal time. The system factors in vehicle availability, route congestion, and task priorities to maximize efficiency.
- ✓ **Proactive Planning & Material Demand Management:** Beyond simply dispatching tasks, the focus is on timely material delivery. The SYNAOS platform dynamically adjusts plans in real time to prevent delays and maintain continuous material supply across all process steps.
- ✓ **Flexible Control & Manual Order Creation:** Not everything needs to be fully automated — operators can manually create, adjust, or take over orders at any time through an intuitive interface, ensuring full control over transport processes.

Without SYNAOS



With SYNAOS



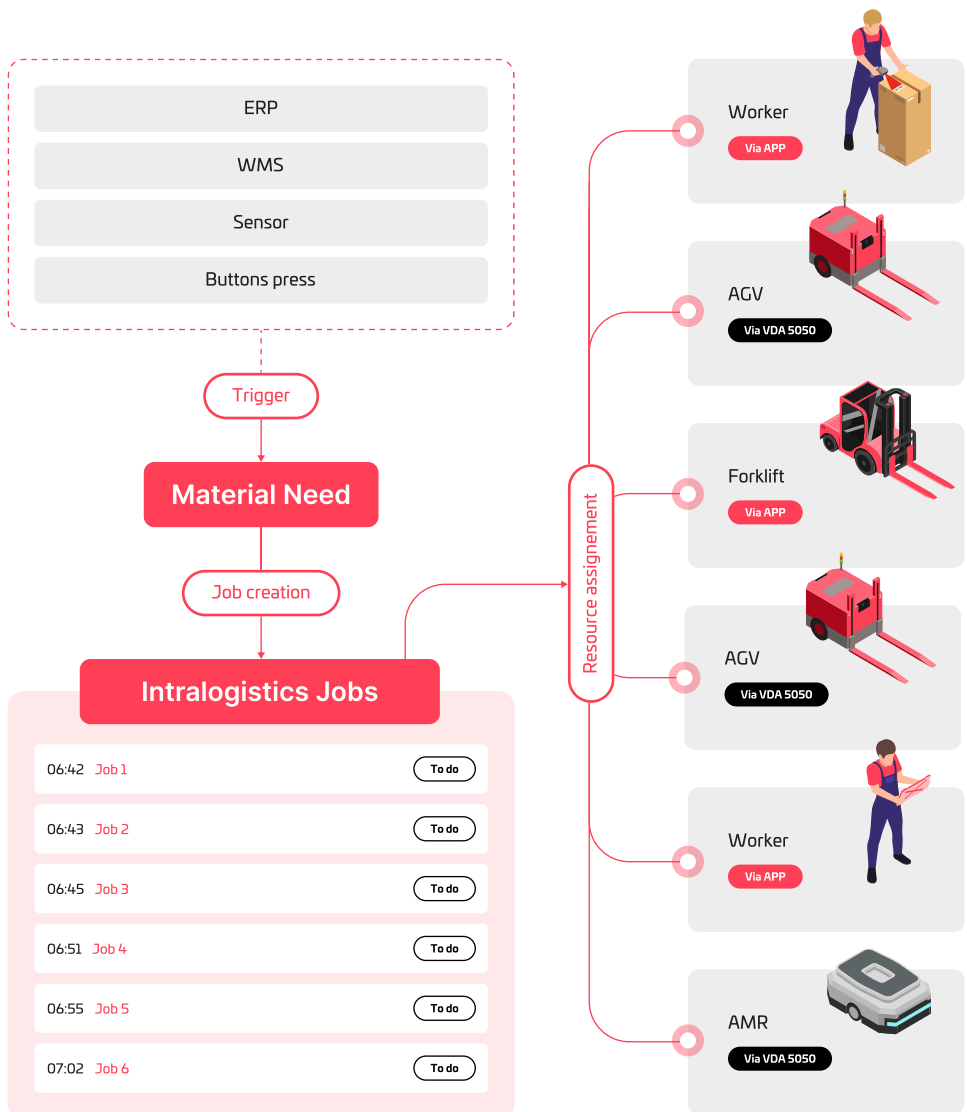


Modern Architecture & High Availability

- ✓ **Cloud-native:** Built on Kubernetes and microservices, the SYNAOS Intralogistics Platform ensures high performance and effortless scalability.
- ✓ **Fail-Safe Infrastructure:** Automated load balancing and self-healing mechanisms guarantee continuous operation with minimal downtime.
- ✓ **Reduced IT Burden:** SYNAOS handles system updates, scaling, and maintenance.

Resource-Agnostic architecture

The architecture of the Intralogistics Platform is designed to keep intralogistics operations flexible as a whole, ensuring that resources are always optimally allocated and utilized.





Success Story

Volkswagen Commercial Vehicles

Centralized Control for the World's Largest
Multi-Brand VDA 5050 Fleet

- **135+ mobile robots**, including automated tugger trains and underride AGVs of various sizes.
- **Complex logistics scenarios**, including Just-in-Time and Just-in-Sequence deliveries.
- **2,500+ automated transport orders per day.**

Read the story



Success Story

Schaeffler

Schaeffler relies on SYNAOS as the global control platform for its intralogistics.

- SYNAOS Intralogistics Platform **deployed across sites** in Germany, France, and Hungary.
- **Cloud-based** control enabling cross-site flexibility while allowing for local adaptations.
- Supporting Schaeffler's "Roadmap 2025" strategy by **expanding mobile robotics** across operations.

[Read the story](#)



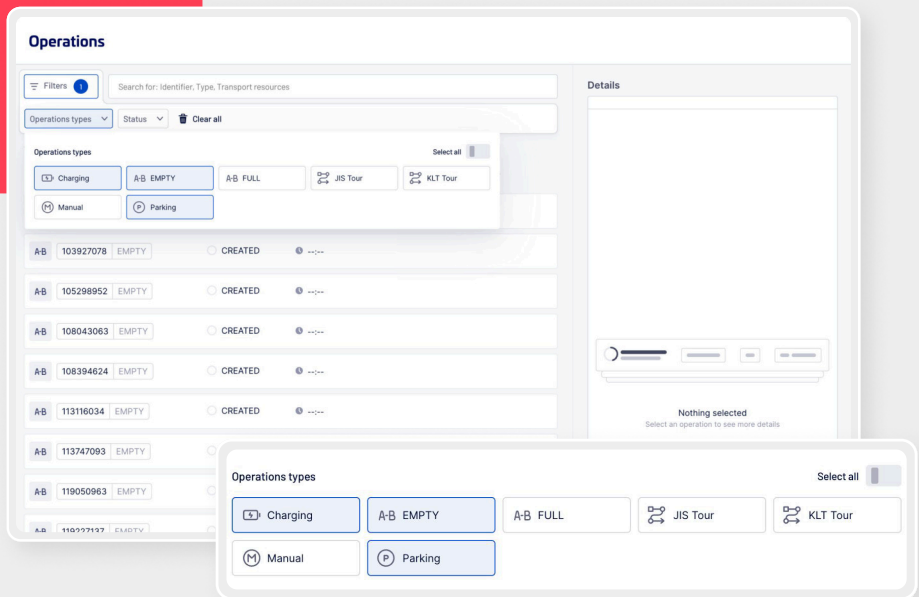
SYNAOS

Mobile Robot Fleet Management

Managing mobile robots (AMRs/AGVs) and automated guided vehicles (AGVs) presents significant challenges — especially in heterogeneous fleets with different manufacturers. The SYNAOS Mobile Robot Fleet Management solution enables centralized, intelligent, and dynamic control of all mobile transport units — manufacturer-independent, cloud-based, and in real time.

03





Key Features

Manufacturer-Independent Integration

Control AMRs and AGVs from different manufacturers using VDA 5050. Whether managing an existing fleet or introducing new hardware, our fleet management solution ensures flexibility, allowing you to choose the best equipment for your needs.

Automated Task Allocation

Intelligent algorithms efficiently assign transport orders based on priority, factoring in traffic conditions, route availability, and charging cycles to minimize empty runs.

SYNAOS Mobile Robot Finder

Find the Best Mobile Robots for Your Shopfloor Automation!

www.synaos.com/mrf



Onboarding

ABB

AMR T702

AMR T702 is a bidirectional towing mobile robot that adapts to different types of trolleys.



Onboarding

Asseco CEIT

F800AP

The F800AP has a hidden fork system



Onboarding

STILL

EXV 16 iGO

The STILL EXV iGO is an automated high-lift truck for precise, efficient goods transport and stacking processes in warehouse environments.



SYNAOS certified

Asseco CEIT

1500FS

A lifting height of 1.5m in a compact design for tighter environments.



Onboarding

SHERPA Mobile Robots

SHERPA-F

The SHERPA-F is an AMR designed to transport various types of pallets from ground to ground.



Onboarding

SAFELOG

X1 lift 1200

The lifting height is up to 80 mm with a load capacity of 1,200 kg



Onboarding

Bluepath Robotics

T2000

Specifically designed for efficiency, these T2000 models boast a robust towing capacity of 2 tons.



Onboarding

Jungheinrich

EKS 215a

Compact and versatile, ideal for mixed operations.



SYNAOS certified

Hikrobot

Q7-1000

Q7-1000E is easily integrated with other equipment and adapts to multiple load carriers such as racks, pallets, and rollers.



Find your solution

Traffic Management

The platform coordinates all traffic participants to prevent congestion and collisions. It supports a wide range of transport processes, including point-to-point transports, Just-in-Time and Just-in-Sequence deliveries, tour-based transports, and multi-step workflows.



Maximum Transparency

Gain real-time insights into fleet movements, order status, and utilization through an intuitive dashboard — ensuring full visibility and the ability to adjust operations as needed.



Benefits

- ✓ **No Vendor Lock-In:** Open standards ensure seamless integration and control of a wide range of robot and vehicle types.
- ✓ **Maximum Flexibility:** Highly scalable and adaptable, making it ideal for companies that need to respond to dynamic market demands and evolving intralogistics processes.

Dashboard

System Health



The system is operating optimally, no serious issues detected

Daily Insights

Distance

121

+10% vs \$TimePeriod

+10% vs \$TimePeriod

Time standing

256 h

+10% vs \$TimePeriod

+10% vs \$TimePeriod

Fleet

Fleet Utilisation

91%

+10% vs \$TimePeriod

+10% vs \$TimePeriod



Automated Vehicles

99

Available

72

Executing

50

Online

104

Offline

1

Manually driven Vehicles

99

Available

90

Executing

81

Vehicles with Errors

- ADV192 12 Errors
- M556 11 Errors
- GOETTING-TL... 5 Errors
- Tunkers-23A 5 Errors
- Vehicle ID 5 Errors

Show All

Assets with Errors

- MidLeft-L1 12 Errors
- TL_XX24 11 Errors
- TL_Y935 5 Errors
- Asset ID 5 Errors
- Asset ID 5 Errors

Show All

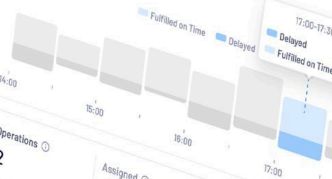
Operations

Completed Operations

34

+10% vs \$TimePeriod

+10% vs \$TimePeriod



All Operations

162

Assigned

120

Unassigned

42

In execution

112

Delayed Operations

10

Delayed at creation time

3

Critical Top 5 Operations

- E3519846 TYPE
 - XXC1234... TYPE
 - EN33001... TYPE
 - ODT1030... TYPE
 - YXXC123... TYPE
- AGV192
- M556
- GOETTING-Totallyio...
- Vehicle ID
- Vehicle ID
- 60 min delay
- Not assigned for 2 h 23 min
- Unknown reason
- Not assigned for 1 h 23 min
- Message



SYNAOS

Forklift Guidance

Forklifts are essential to intralogistics, but without centralized control, companies face inefficiencies, empty runs, and delays. SYNAOS Forklift Guidance optimizes manual forklift operations and integrates them directly into automated material flows. Whether augmenting an existing AGV fleet or serving as a first step toward automation, this solution ensures consistent, efficient transport management.

Key Features

Intelligent Task Allocation

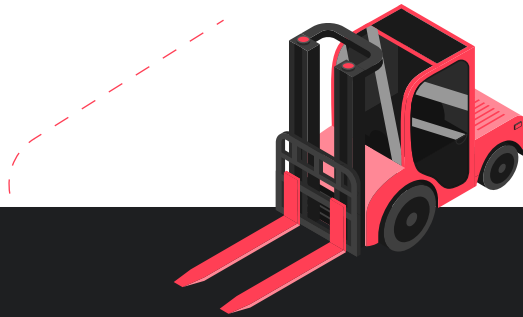
Transport orders are dynamically prioritized and assigned to the most suitable forklift to minimize empty runs.

Maximum Transparency

Gain real-time visibility into vehicle locations (when combined with SYNAOS Real-Time Localization) and active transport orders.

Quick Setup & Easy Operation:

The Android-based mobile app provides clear instructions for drivers, allows direct issue reporting, and supports barcode scanning for faster, error-free task execution. No specialized hardware is required — the solution works on existing mobile devices or vehicle terminals.



Benefits

- ✓ **Step-by-Step Automation:** Companies without AGVs can digitize their forklift fleet first and later introduce AGVs or AMRs for specific processes without system disruptions or complex transitions.
- ✓ **Enhancement for Existing Automated Processes:** If AGVs or AMRs are already in use, Forklift Guidance handles manual transport tasks such as last-mile deliveries and multi-step processes where automation reaches its limits.
- ✓ **Scalable & Adaptive:** As operational demands fluctuate, additional forklift drivers can be quickly integrated into the process. The centralized control ensures flexible, demand-driven task distribution.



SYNAOS

Real-Time Localization

SYNAOS Real-Time Localization digitizes forklift operations by making their movements visible in real time. Our fast-installation sensor technology provides precise location data, helping businesses identify optimization potential and improve intralogistics efficiency. Without requiring complex infrastructure, companies get a cost-effective, scalable, and easily integrated solution.

Key Features

Fast-Mount Camera Sensor Kit

Captures forklift positions with high-precision localization.

GDPR-Compliant Data Processing

Location data is processed directly within the sensor before being visualized in the cloud.

03 Solutions for Intelligent Material Flows

Unified Visibility

Displays real-time positions of forklifts, AGVs, and AMRs when combined with SYNAOS Mobile Robot Fleet Management, ensuring a centralized view of all transport resources.

Minimal Infrastructure Requirements

No additional IT systems or servers needed — only WiFi, a 12-24V power supply, and a mounting position on the vehicle.

Automatic Calibration

QR codes placed every 50-100 meters enable fine-tuned positioning and quick setup.



Benefits

- ✓ **Low Implementation Costs:** Standard hardware and intelligent software reduce costs by a factor of 10.
- ✓ **Plug & Play Deployment:** Simple WiFi and power connection, ready to operate in under 30 minutes.
- ✓ **Highly Scalable:** Standardized interfaces allow easy expansion and seamless integration into existing systems.



SYNAOS

Warehouse Execution

Reliable material supply is essential for smooth production processes. SYNAOS Warehouse Execution optimizes material flow between storage areas and production lines by intelligently managing buffers, block storage, and high-bay warehouses — fully integrating them into the overall intralogistics system.

Key Features

Buffer Management & Storage Integration

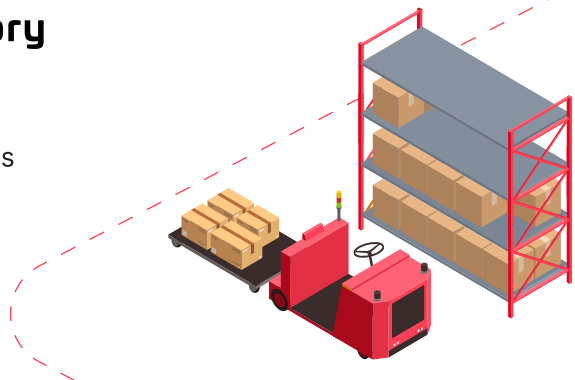
Optimized control of production-specific storage areas and their connection to intralogistics processes.

Flexible Booking & Scanning

Materials, containers, and storage locations can be scanned or confirmed via the app for quick and accurate updates.

Load Tracking & Inventory Management

Real-time visibility of where materials are located across the facility.



Benefits

- ✓ **Full Transparency:** Complete overview of inventory, buffer zones, and active material movements.
- ✓ **Efficient Resource Utilization:** Manual and automated transports are intelligently coordinated to prevent bottlenecks.
- ✓ **Optimized Production Supply:** Ensures the right materials are in the right place at the right time.



04

04 Simulation, Deployment & Support

Successfully implementing automation and digitalization in intralogistics requires a clear strategy and well-founded planning. SYNAOS supports companies at every stage — from initial analysis and feasibility studies to planning, simulation, virtual commissioning, on-site implementation, and ongoing operations.

For years, we have helped businesses kickstart their automation journey with process workshops and simulations, ensuring they have a clear, step-by-step roadmap for the future.

Simulation, Process & Strategy

Analyse, Strategie & Roadmap

We evaluate your current intralogistics setup, identify optimization potential, and develop a clear automation strategy. This includes concrete recommendations and a step-by-step roadmap for seamless implementation.

Simulation & Validation

Using digital simulations, we test traffic flows, optimize processes, and validate software updates — without disrupting live operations. This allows you to identify improvements early and make data-driven decisions.

Implementation & Support

Commissioning & Deployment

Our experts ensure a smooth, efficient implementation, guaranteeing seamless system integration and optimal collaboration between all components.

Enterprise-Level Support

24/7 assistance, continuous system monitoring, change management, and proactive software updates for maximum operational security.

05

Shaping a
software
driver
industrial
future

Ready for the Future of Intralogistics?

Looking to increase efficiency, flexibility, and intelligent automation in your operations? Let's take your intralogistics to the next level — together!

Your Contact:

Nicolas Galanulis

Head of Sales &
Account Management

✉ sales@synaos.com
☎ +49 162 23 99 311
www.synaos.com/en/contact

Strong Partnerships for the Future of Intralogistics!

As a SYNAOS partner, you gain access to cutting-edge technology, industry-leading expertise, and shared success stories. Let's shape the future of intralogistics — together.

Your Contacts:

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Head of Partner Management &
Business Development

François-Xavier Molliere

Head of Business Development

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