

Transforming warehouse performance with scalable automation from Movu Robotics

ODTH has redefined its Rumst facility, turning it into a high-performance, automated logistics hub. By leveraging Movu Robotics' scalable shuttle technology and intelligent software orchestration, this project sets a new benchmark for sustainable, future-proof warehousing.

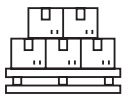
ODTH First Class Logistics is a family-owned logistics provider based in Belgium, known for its people-centric culture, customized solutions, and strong commitment to sustainability. With over 40 years of industry expertise, ODTH supports a wide range of clients, focusing on multimodal transport and value-added services. Innovation and collaboration are core to ODTH's identity, making them an ideal partner for forward-thinking automation projects.

Located in the heart of Flanders, the Rumst facility is a strategic hub serving one of the world's largest FMCG manufacturers. The warehouse manages a complex inventory of palletized goods, batch tracking, and SKU variations, all under tight service level agreements.

Previously operated with manual forklifts and 1D shuttle lanes, the facility had reached a tipping point. To meet rising demand while staying efficient and sustainable, modernization wasn't optional, it was essential.



KEY STATS



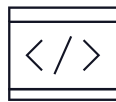
31,000

pallet positions



680

tonnes
CO₂ savings



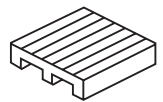
SAP ERP

integrated with
Movu OPS



20

shuttles over
4 levels



6,000

pallet
movements/day



Strategic shift toward smart automation

To address rising throughput needs, low ceiling clearance, and SKU growth, ODTN identified clear goals:

- Maximize storage density despite building height limitations
- Minimize manual pallet handling and travel distances
- Boost safety and reduce labor and energy costs
- Automate without service disruption
- Support long-term sustainability targets

ODTH partnered with Movu Robotics (part of stow Group) to develop and implement a scalable, phased automation strategy built around the Movu atlas pallet shuttle system and Movu OPS, a proprietary warehouse execution system.

"We saw a real opportunity to improve storage density and reduce handling costs by upgrading our 1D system," said Wim Van Leuven, Project Manager at ODTN. "Reusing our existing infrastructure made a big impact on both our investment and our carbon footprint."

Wim Van Leuven
ODTH Project Manager

A tailored, phased automation solution

The centerpiece of the solution is the Movu atlas system, an advanced ASRS (Automated Storage and Retrieval System) that enables high-density pallet storage using autonomous shuttles. Twenty shuttles currently operate across four vertical levels, fully maximizing the available height within the 14,000 m² facility. When complete, the system will support 31,000 pallet positions.

The system also includes 5 elevators, 5 inbound, and 7 outbound stations, enabling synchronized, high-throughput pallet movement, with a total flow capacity of up to 6,000 pallets per day.

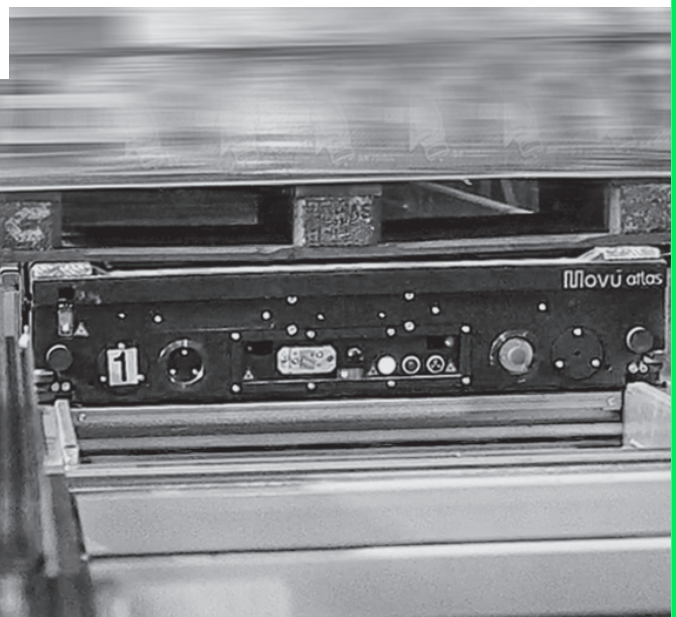
Movu OPS orchestrates all warehouse processes in real time. Fully integrated with ODTN's SAP ERP, it manages shuttle movements, elevator optimization, and dynamic staging, ensuring every operation is aligned with demand and priority.

The entire system was rolled out in six phases, allowing live operations to continue uninterrupted. Each stage builds on the last, expanding capability without disrupting ODTN's 24/7 service model.

Sustainable by design

A standout achievement of the project is its sustainable engineering approach. Instead of replacing the entire racking system, Movu and ODTN reused the existing rack uprights, drastically cutting costs and avoiding more than 680 metric tons of CO₂ emissions.

The system supports both Euro and industrial pallets - up to 2400 mm tall - within the same storage lanes, ensuring flexibility and optimized space utilization. Additionally, automated staging and expedition buffer creation are handled during off-peak hours, like nighttime, boosting throughput without increasing staffing needs.





Intelligent software that drives results

While the Movu atlas system handles the physical storage, it's Movu OPS that powers the intelligence behind it.

This warehouse execution software dynamically orchestrates operations, using real-time data to manage storage logic, prioritize shuttle tasks, and ensure just-in-time pallet availability.

Movu OPS capabilities:

- Native integration with SAP ERP
- Seamless communication with Movu Conveyor Control (MCC) and Movu Tower (traffic control)
- Real-time routing and elevator optimization
- Configurable logic for buffer management and slotting
- User-friendly interface for operators

"The SAP integration was technically demanding, but it made Movu OPS a true control center for the system," said Thomas De Rudder, Integration Manager at Movu Robotics.

"We now have a multi-level, multi-shuttle operation that's faster and more responsive than ever."

Results from Phase 1: The future in motion

Phase 1 has already delivered measurable improvements:

- Reduced forklift traffic, improving safety and cutting energy use
- Increased storage density, maximizing vertical space
- Real-time SAP-WES integration, for responsive orchestration

- Chaotic storage logic, reducing pallet handling and damage
- Nighttime buffering, enabling proactive order staging

The system now supports round-the-clock operations, handling higher volumes with less manual effort and optimized space utilization, paving the way for future phases.

What's next: scaling with minimal disruption

ODTH and Movu are preparing for the next five rollout phases. With each step, the system will scale, adding shuttles, capacity, and software intelligence, while maintaining uninterrupted operations.

This project not only validates ODTH's automation vision but also shows how modular, software-led solutions can drive tangible results, even in highly complex logistics environments.

Conclusion: a new standard for smarter, greener logistics

The transformation at ODTH Rumst proves that existing facilities can be future-proofed without a full rebuild. Through intelligent automation, modular robotics, and sustainable design, ODTH and Movu Robotics have created a high-performance logistics ecosystem, smarter, greener, and ready for what's next.

This initiative sets a new industry standard for scalable warehouse automation, where innovation, sustainability, and operational excellence converge.





Vertical Market	3PL
Pallet locations	31,000
Shuttles	20 across 4 levels
DC's Footprint	14,000 sqm
Elevators & stations	5 elevators 5 inbound 7 outbound
Performance	Up to 6,000 pallet moves/day
CO ₂ savings	Over 680 tons avoided

Key Features

- Phased rollout
- Racking reuse
- SAP integration
- Support for Euro & industrial pallets
- 4-level ASRS design
- Chaotic storage logic
- Night buffering

WCS Software	SAP ERP integrated with Movu OPS, Conveyor Control, and Traffic Controller
Loading Equipment	Euro and industrial pallet formats (up to 2400 mm in height)
Application	Logistics hub serving one of the world's leading producers of fast-moving consumer goods (FMCGs)
Location	Belgium

Movu. No warehouse left behind.

READY TO AUTOMATE?

Contact us today to explore how Movu Robotics can deliver a tailored automation solution for your warehouse

HEADQUARTER

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