

RECYCLING AND CIRCULAR ECONOMY

Customer Success Story

Returpack AB Norrköping, Sweden

Modern SCADA Platform for Secure Operations & Scalable Recycling Automation

Returpack AB operates Sweden's only approved deposit return system for beverage packaging and is the company behind the widely recognized Pantamera brand. Since 1984, Returpack has worked with producers, retailers, and partners across the value chain to develop and strengthen Sweden's national deposit system.

Operations are based in Norrköping, Sweden, where Returpack manages high-throughput recycling processes for cans and polyethylene terephthalate (PET) bottles. Activities include nationwide collection logistics, material sorting, baling, and preparation of recycled material for reuse in new packaging. The facility also includes a dedicated recycling process for plastic caps, where material is ground and washed before re-entering plastic production.

Returpack operates as a producer responsibility organization under Sweden's packaging regulations (SFS 2022:1274), with oversight from the Swedish Environmental Protection Agency. This framework ensures secure, transparent, and sustainable operation of the deposit return system across the country.

Sustainability, continuous improvement, and increasing levels of automation remain central to Returpack's role in advancing Sweden's circular economy.



Key Points

- Replaced an end-of-life SCADA system with GENESIS version 11, strengthening operational security, scalability, and long-term platform stability across Returpack's high-throughput recycling facility.
- Enabled secure multi-user access across plant-floor, control-room, office, browser, and mobile environments, improving visibility, responsiveness, and day-to-day operational efficiency.
- Established a scalable digital foundation for advanced monitoring, energy management, and future process integration, supporting continued automation, sustainability goals, and circular economy initiatives.

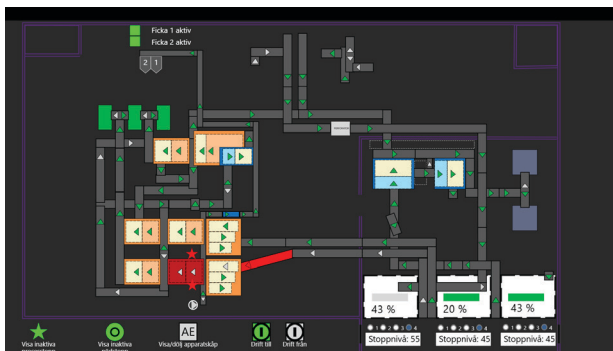
The Challenge

Ongoing modernization initiatives across Returpack's Norrköping facility created the need for a more secure, flexible, and scalable modern SCADA platform capable of supporting both current operations and long-term development. The existing system had reached end of life and no longer met operational, security, or expansion requirements.

Key challenges included:

- **Replacing an outdated SCADA system**
The legacy system provided only basic visualization and alarm functionality, lacked vendor support, and could not support modern security or scalability requirements.
- **Supporting a growing and diverse user base**
Operators required secure mobile access on smartphones and tablets, while engineers and operations teams needed robust PC clients for office and control-room use.

- **Improving operational visibility and decision-making**
The new platform needed to provide clear visualization and actionable insight into:
 - Plant utilization rates
 - Energy consumption and monitoring
 - Vibration monitoring
 - Online weight measurement
 - Conveyor volume measurement
 - Flow control and chemical level monitoring
 - Production statistics for finished bales
- **Ensuring secure and intuitive access**
Role-based access, a flexible interface, and ease of use were essential to ensure adoption across operators, engineers, and facility teams.
- **Enabling future expansion and continuous development**
The SCADA platform needed to support integration of additional plant processes, new data sources, and advanced monitoring capabilities without disrupting existing operations.



Process Overview

Actemium (IME AB), a long-standing system integration partner to Returpack since 2003, worked closely with the Returpack team to modernize the facility's SCADA environment. Acting as the technical advisor for the project, Actemium (IME AB) supported platform evaluation and led the implementation of the GENESIS solution, ensuring alignment with operational requirements, scalability goals, and long-term maintainability.

GENESIS was selected based on platform stability, security, scalability, and usability, providing a future-ready foundation for advanced monitoring, visualization, historization, trending, and ongoing automation initiatives.

The Solution

Mitsubishi Electric Iconics Digital Solutions

- **GENESIS**™ version 11

Mitsubishi Electric Automation Hardware

- 2 x iQ-R systems
- 4 x iQ-F systems

The Results

Returpack realized substantial operational and strategic benefits after deploying GENESIS. The digital platform replaced a limited, end-of-life system with a modern, secure SCADA environment designed to support high-availability operations, multi-user access, and long-term scalability. With GENESIS in place, Returpack gained clearer operational insight, faster response capability, and a more intuitive day-to-day user experience across the facility.

Realized benefits include:

- **Smooth deployment and transition**, completed over a single weekend following thorough preparation and testing
- **Simplified daily operations enabled by an intuitive**, consistent interface that operators understand quickly, resulting in minimal training overhead
- **Expanded analytical capability** through signal historization and trending that support deeper operational insight and data-driven decision-making
- **Broader system accessibility** for both plant-floor and office users through browser-based and mobile interfaces, supporting multiple roles and work patterns
- **Improved readiness for energy monitoring and reporting**,

- establishing a foundation for future efficiency initiatives
- **Improved operator responsiveness through mobile access** that enables real-time monitoring and basic control directly at the point of need, reducing reliance on fixed workstations

Beyond immediate benefits, the GENESIS digital platform positions Returpack to expand monitoring and control capabilities over time. Planned next steps include plant utilization analysis, vibration monitoring, online weight and volume measurement, flow and chemical level control, and production statistics for finished bales.

The Conclusion

GENESIS version 11 provides Returpack with a modern digital platform that goes beyond traditional SCADA, supporting secure operations, multi-user access, and continued development as plant requirements evolve.

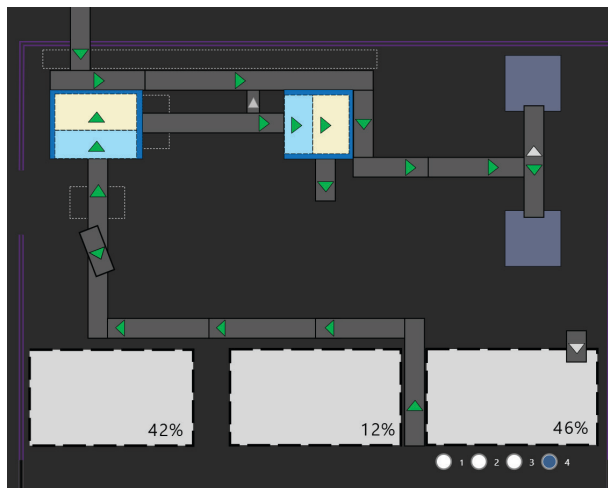
Near-term expansion plans include integration of additional plant areas where grinding and washing operations currently run as a standalone system. Future integration opportunities also include water treatment and expanded energy monitoring.

By establishing a scalable and future-ready digital platform, Returpack has created a solid foundation for continued automation, efficiency improvement, and sustainable operation across the facility.

“GENESIS gives us a stable digital platform to control and monitor our production process. The system also gives us the opportunity to continue developing capabilities such as energy measurement and trending to further increase efficiency across the plant.”

Henric Oscarsson

Technical & Development Manager, Returpack AB



Process Detail

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