







TOP 4 CHALLENGES IN MANUFACTURING

And How to Solve Them with Smarter Warehouse Automation

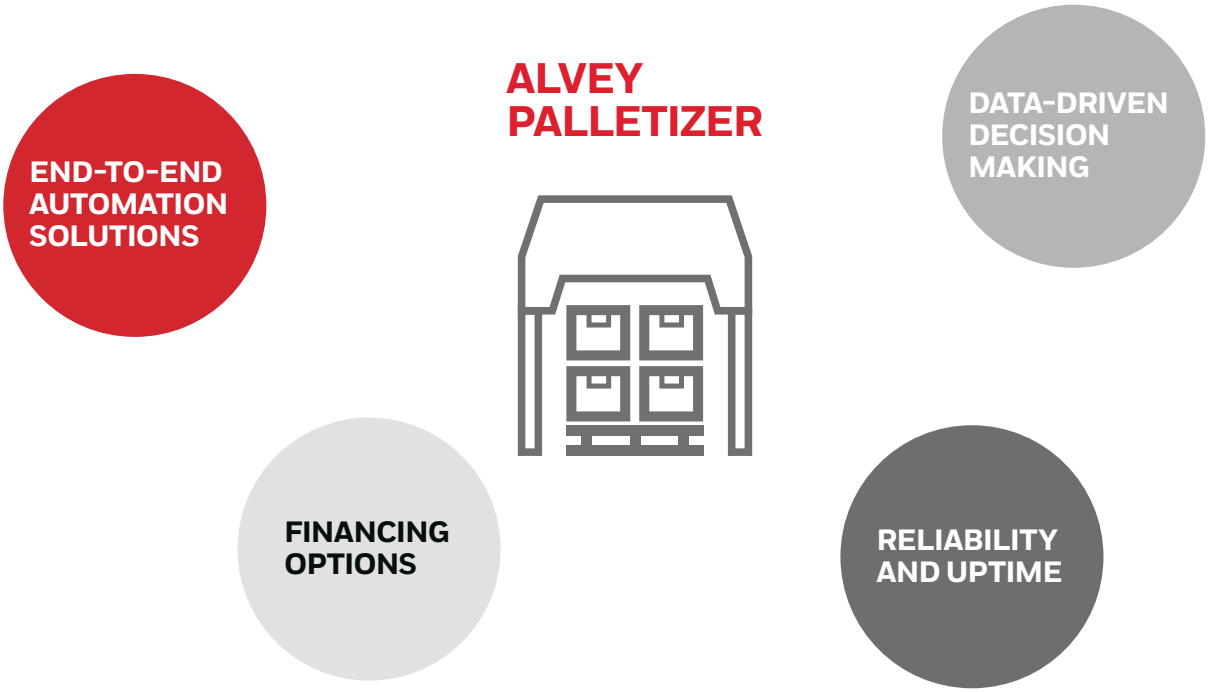
Honeywell

WAREHOUSE AUTOMATION IS TRANSFORMING FOOD & BEVERAGE, CONSUMER PACKAGED GOODS, AND DURABLE GOODS OPERATIONS

Manufacturers and logistics leaders are under growing pressure to modernize operations, reduce costs, and increase agility as innovation transforms the way business is done. This pressure is especially heightened in manufacturing sectors like food and beverage, consumer packaged goods, and durable goods, where labor shortages, shifting consumer expectations, and economic uncertainty are accelerating the need for smarter, more connected warehouse automation.

In this article, we'll explore four of the top challenges facing manufacturing and warehouse operations today, and how Honeywell Intelligrated is helping companies overcome them with end-to-end automation, data-driven decision-making, flexible financing, and industry-leading reliability.

At the heart of many of these solutions is a foundational technology that continues to deliver measurable impact: the Alvey Palletizer. A proven solution trusted by manufacturers for decades, Alvey palletizers are known for their robust build quality and dependable performance. They address common pain points such as inconsistent uptime and inflexible pallet configuration issues that often require additional labor or limit operational agility.



UNDERSTANDING THE LANDSCAPE

This emphasis on durable, high-performance automation comes at a pivotal time. The warehouse automation market is experiencing measured growth, shaped by evolving economic conditions and shifting investment priorities. While fulfillment center automation is seeing more cautious investment, strong momentum continues in sectors like durable manufacturing, consumer packaged goods, and food & beverage. These industries, known for their financial resilience and consistent demand, are leading the way in automation adoption. Their continued investment is expected to support long-term market expansion, with upstream warehouse automation projected to achieve an average CAGR of 7.1% in order intake between 2025 and 2030. [1]

KEY DRIVERS INCLUDE:

Labor Shortages and Rising Costs

Persistent labor shortages, especially for repetitive or physically demanding roles, are driving up costs and limiting productivity. With 78% of CPG manufacturers prioritizing efficiency, many are turning to automation to offset workforce gaps, reduce turnover-related expenses, and maintain throughput despite ongoing hiring challenges. [2]

Tariff and Policy Changes

Shifting trade policies and rising tariffs are accelerating reshoring and domestic production strategies. While these moves can reduce geopolitical risk and improve supply chain resilience, they also introduce higher input costs, regulatory complexity, and the need for capital-intensive facility upgrades. These pressures can compress margins and require manufacturers to rethink sourcing and production models.

Rising Complexity

Manufacturers are facing a surge in operational complexity due to expanding product portfolios (more SKUs), and tighter delivery windows. These factors demand more agile production systems, advanced inventory management, and specialized infrastructure. Without strategic investment, this complexity can lead to inefficiencies, higher overhead, and increased risk of service failures.

Operational Efficiency and Quality Improvements

To meet growing production demands, manufacturers are turning to automation to boost throughput and ensure consistent quality. Automated systems run without breaks or shift changes, reducing human error and variability. In sectors like food and beverage, they also support strict hygiene standards and lower contamination risks to maintaining compliance and consumer trust.

Economic Competitiveness

To stay competitive, manufacturers are accelerating automation to lower per-unit costs and protect margins. Automated systems enable faster production cycles, reduce material waste, and improve responsiveness to shifting market demands. This is especially critical for consumer packaged goods facing seasonal spikes and evolving consumer preferences.

Supply Chain Resilience
In the wake of global disruptions, manufacturers are prioritizing resilience. Automation helps stabilize production by reducing reliance on labor availability and providing consistent output, making operations more resistant to shocks like pandemics, labor shortages, or geopolitical events.

Data and Analytics Capabilities
Modern automation systems generate real-time data on performance, quality, and maintenance needs. However, the ability to act on these insights is increasingly dependent on having a modern, integrated software stack. As automation solutions multiply, managing disparate data flows becomes more complex, making legacy systems a barrier to progress. Honeywell Intelligrated helps customers modernize their software infrastructure, enabling them to fully harness data for smarter, faster decision-making and long-term operational improvement.

Safety Considerations
Automation reduces risk by taking on hazardous tasks and operating in dangerous environments. This not only protects workers but also lowers injury-related costs and strengthens safety compliance across the facility.

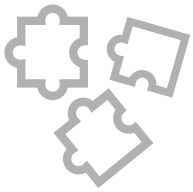
To stay competitive, manufacturers must rethink their approach to automation; not as isolated upgrades, but as strategic, integrated solutions that span production, warehousing, and distribution.



Honeywell Intelligrated's Alvey Palletizer

1. Scriven, Rueben and Stott, Rowan, Interact Analysis 2024, "Warehouse Automation – 2024", Interact Analysis, 2024
2. Food Industry Executive, "Automation investments Boost Productivity and Profits in Food Manufacturing", Krystle Morrison, May 23rd, 2025. [Accessed July 10, 2025]

1. END-TO-END AUTOMATION SOLUTIONS



Many manufacturers still rely on fragmented, legacy systems—multiple vendors, disconnected interfaces, and siloed data—which limit visibility, increase maintenance costs, and make it difficult to adopt new technologies.

CHALLENGE



Honeywell Intelligrated delivers end-to-end automation solutions that connect production lines to storage, fulfillment, and shipping. Acting as a single-source systems integrator, we simplify vendor management, reduce downtime, and enable system orchestration. Our approach includes support for migrating from legacy platforms to modern, cloud-enabled systems—ensuring customers can take full advantage of today's advanced automation capabilities while preparing for future scalability.

SOLUTION

OUR HIGH-GROWTH AUTOMATION SOLUTIONS (2025–2030 UPSTREAM VERTICALS)

We're investing in key areas of automation, backed by strategic partnerships that bring innovation and scalability to our customers:

- **Each Picking:**
  Each Picking is a fulfillment method where individual items are picked directly from storage to complete orders, making it ideal for high-mix, low-volume manufacturing environments that require precision and flexibility. Integrated technologies are available from our partners HAI Robotics and Berkshire Grey.
- **Automated Pallet Storage:**
  A system that uses robotics and automation to store and retrieve full pallets, maximizing vertical space and improving inventory handling efficiency in high-volume manufacturing environments. Integrated technologies are available from our partner Movu.
- **Convey and Sort:**
  The use of sortation systems to identify, route, and organize products or materials, increasing speed and accuracy in sorting tasks critical to streamlined production and distribution. Fixed and mobile sortation solutions available directly and through our partners Berkshire Grey and Tompkins Robotics.

- **Case Picking:**
  A method where full cases of products are picked for orders, ideal for bulk handling in manufacturing operations that require consistent, high-throughput fulfillment. Integrated technologies are available from our partners Mujin and Plus One Robotics.
- **Mobile Material Transport:**
  The use of autonomous mobile robots or guided vehicles to move materials across the facility, reducing manual labor and enhancing workflow flexibility and safety. Integrated technologies are available from our partners Seegrid and Mobile Industrial Robots (MiR).

Through our broad portfolio of integrated solutions and services by our team of experts, Honeywell Intelligrated can help with manufacturing specific challenges such as building beverage variety packs and helping improve your operations.

Discover how our products can help your business achieve its goals.

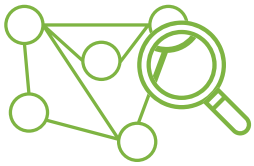
2. DATA-DRIVEN DECISION MAKING



Post-production visibility is often limited. Without real-time data from the warehouse floor, manufacturers struggle to make informed decisions, leading to inefficiencies, lost inventory, and missed opportunities.

CHALLENGE

SOLUTION



Honeywell's software-first approach empowers manufacturers by seamlessly integrating production operations with warehousing and distribution systems. Through our Warehouse Execution System (WES), Honeywell coordinates Manufacturing Execution Systems (MES), Warehouse Management System (WMS), and individual control systems.

Our solution enables the following:

- Real-time visibility into inventory, order status, and equipment performance across the production and distribution network.
- Predictive analytics that support proactive maintenance and optimize throughput on the factory floor.
- Intelligent orchestration that dynamically synchronizes material flow and labor allocation between manufacturing and warehouse operations—minimizing downtime and reducing bottlenecks.
- When paired with Honeywell's WES, Alvey Palletizers become even more powerful, enabling real-time performance monitoring, predictive maintenance, and seamless coordination with upstream and downstream systems. This integration ensures that end-of-line operations remain agile, efficient, and aligned with broader production goals.

This integrated approach bridges the gap between production and logistics, helping manufacturers respond faster to demand shifts and improve overall supply chain agility.

Explore how our software offerings can streamline your business processes.

3. FINANCING OPTIONS



Automation projects often require significant upfront investment, making ROI more difficult to justify—especially in uncertain economic climates.

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Honeywell offers flexible financing models, including “as-a-Service” options that shift capital expenditures (CapEx) to operational expenditures (OpEx).

Our solution allows manufacturers to:

- Start automation projects faster with lower upfront costs.
- Scale solutions over time as needs evolve.
- Improve ROI visibility with predictable monthly payments.

Tip: Consider bundling hardware, software, and services into a single monthly payment to simplify budgeting and procurement.

4. RELIABILITY AND UPTIME



Unplanned downtime, especially at critical points like palletizers, can halt production, waste perishable goods, and erode customer trust.

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Honeywell Intelligrated designs systems with maximum uptime and reliability in mind, offering the following:

- **High-Reliability Equipment:** Our Alvey Palletizers are built with quarter-inch steel frames (model-dependent) and designed for safe, dependable operation over decades. Their simplified mechanical design reduces the number of components that can fail, making them easier to service and maintain, especially when supported by Honeywell's world-class service team.
- **Digital Services & Predictive Analytics:** IoT-enabled monitoring predicts failures before they occur, enabling data-driven maintenance decisions and reducing costs by up to 25%.
- **Lifecycle Services & Obsolescence Management:** From system assessments to proactive upgrades, we help promote long-term system viability and reduce the risk of unexpected failures.
- **Proactive Maintenance & OEM Support:** On-site service and preventive programs minimize downtime and extend equipment life.
- **Critical Spares & Remote Diagnostics:** Fast access to parts and real-time insights help resolve issues before they impact operations.

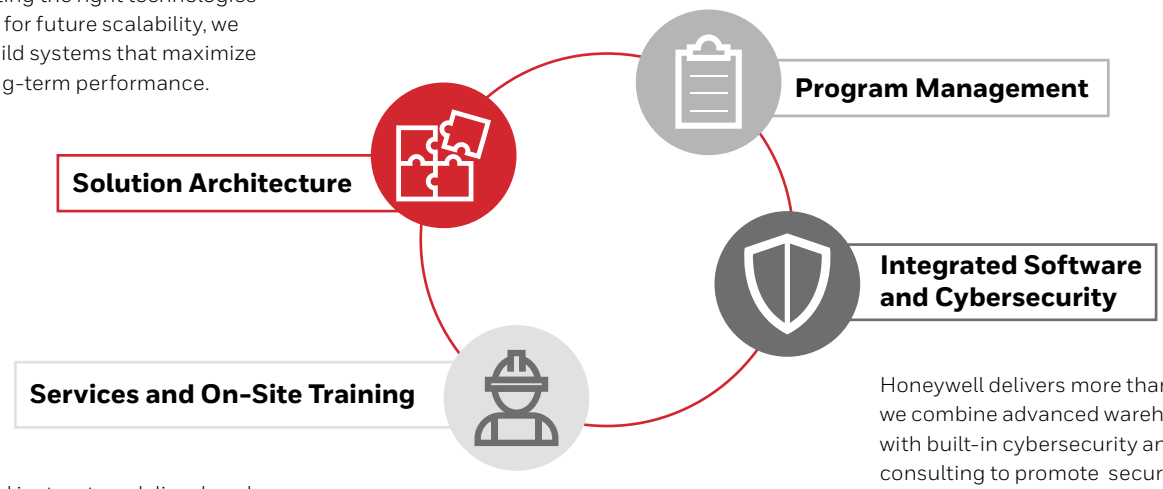
These capabilities reduce downtime, extend equipment life, and keep production running smoothly—Honeywell's reliability-first approach makes it possible. Explore our Proactive Maintenance and Critical Spares pages to see how.

FUTURE-PROOFING MANUFACTURING WITH HONEYWELL INTELLIGRATED

At Honeywell Intelligrated, we see today's manufacturing challenges—integration, data, financing, and uptime—not as obstacles, but as opportunities to gain a competitive edge. Our end-to-end warehouse automation solutions are designed to help you meet these challenges head-on, with:

Our experts visit your facility to assess current operations and recommend tailored improvements. We combine deep industry knowledge with data-driven analysis to design solutions that align with your goals. From selecting the right technologies to planning for future scalability, we help you build systems that maximize ROI and long-term performance.

We provide structured, transparent project oversight to keep your implementation on track. Our team supports alignment with your KPIs, drives operational discipline, and maintains clear communication throughout the process. From budget control to timeline management, we deliver projects that meet safety, quality, and performance standards—on time and within scope.



Honeywell delivers more than just software; we combine advanced warehouse platforms with built-in cybersecurity and expert consulting to promote secure, scalable solutions. This integrated approach reduces risk, improves visibility, and aligns technology with your business goals from day one.

Our certified instructors deliver hands-on training at your facility using your actual equipment—building real-world skills that boost uptime, safety, and productivity. With flexible delivery options and custom curriculum, we help develop confident teams and long-term operational resilience.

Whether you're in food and beverage, consumer packaged goods, durable manufacturing or a different industry, we're here to help you build smarter, more resilient operations.

Meet with our solutions consultants to see how we can create the right solution for you.

BOOK YOUR FREE SYSTEMS REVIEW TODAY

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