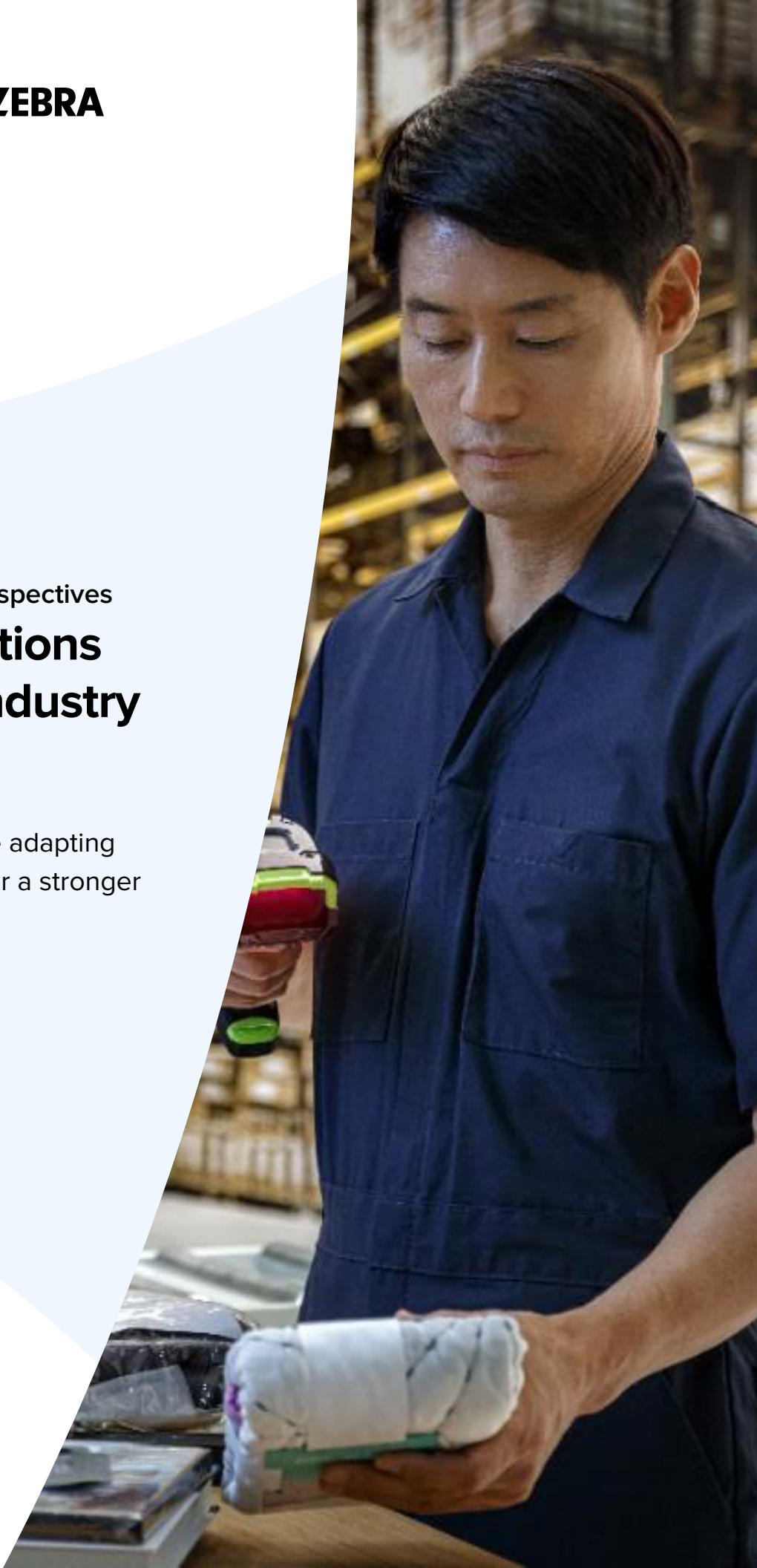




Warehousing Vision Study: Perspectives

Warehouse operations perspectives by industry and region

Warehouse industry leaders are adapting
and evolving their operations for a stronger
supply chain



Warehouse Operations by Industry

Each industry sector plays a critical role in supply chain execution. In a dynamic market like today and the foreseeable future, collaboration will be the key to everyone's success. Warehouse industry leaders are adapting and evolving their operations to do their part to make a stronger, more resilient ecosystem to do business.



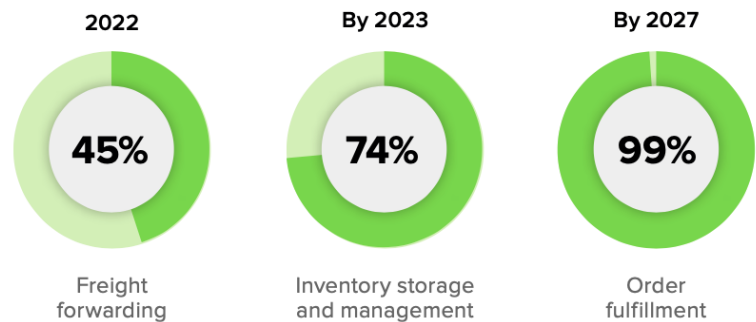
3PL Organizations Prepare To Support Supply Chain Partners

3PL operators are expanding their services as opportunities arise from others in the supply chain that are planning more value-added services or need help handling day-to-day demands.

As more supply chain partners increase their reliance on 3PLs, **30%** of 3PL decision-makers cite onboarding new customers quickly as a challenge for their organization stemming from increased e-commerce activity.

Evolution of 3PL Decision-Makers' Implementation Plans

Most Implemented



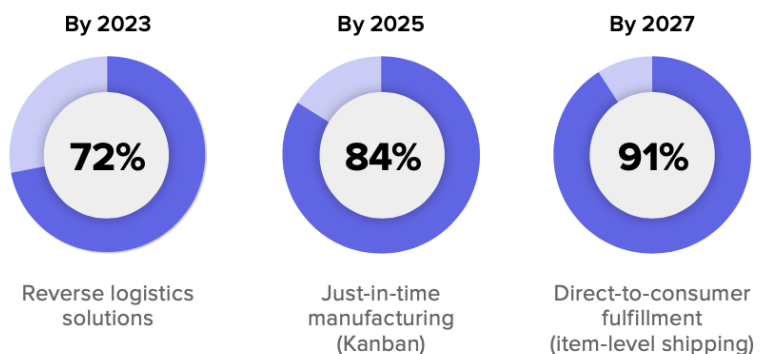
Manufacturers' Warehouse Operations Critical to Plant and Fulfillment

Inventory and asset visibility in the warehouse is critical for manufacturers. Lineside replenishment with just-in-time inventory keeps assembly lines moving. Accurate accounting for the repairs or refurbishments received enables smooth track and trace and customer accountability. Inventory visibility as it moves from work-in-progress to finished goods allows for accurate inventory reporting.

Manufacturers are leading the way in implementing indoor location solutions, with **34%** already implementing this technology compared to the global response across all sectors of **28%**.

Evolution of Manufacturing Decision-Makers' Implementation Plans

Most Implemented



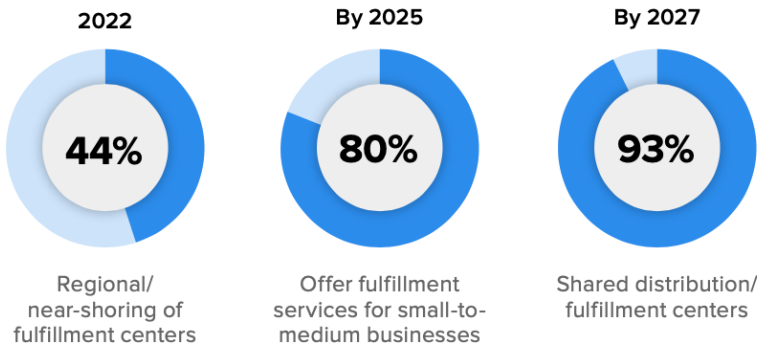
Warehouse Operations by Industry (continued)

The Influence of Omnichannel Shopping on Retail Warehousing

Retailers have a variety of choices for managing how inventory gets to stores and end customers, from getting closer to delivery points to dedicating space for specific operations to having all operations under one roof. Decision-makers are considering a variety of options to keep customers satisfied with faster delivery.

To respond to the demands and growth of e-commerce, many retailers are also leveraging their brick-and-mortar stores for order fulfillment, with **67%** leveraging front-of-store space and **61%** leveraging back-of-store space.

Retail Decision-Makers' Implementation Plans



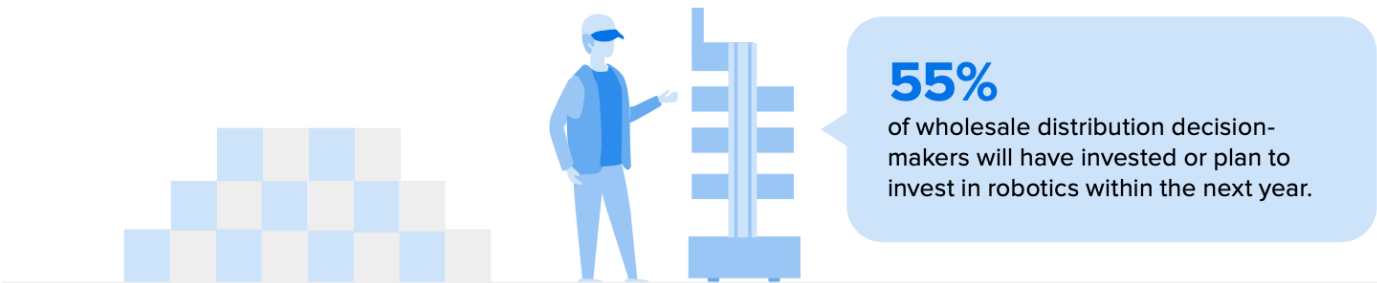
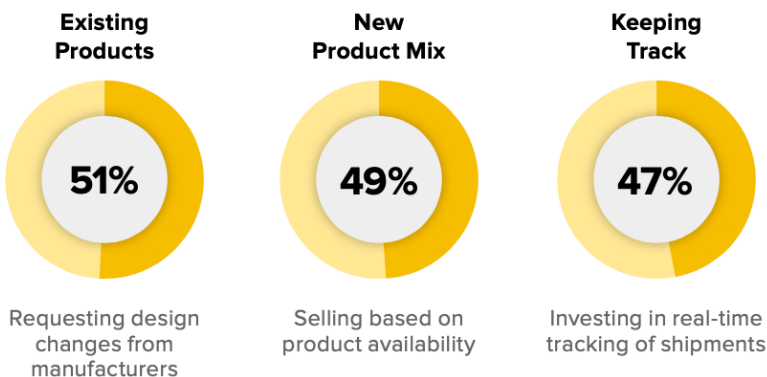
Wholesale Distributors Making Changes To Ensure Inventory Availability

Wholesale distributors are desperate to keep their shelves stocked and to maintain an accurate inventory account. From working with their suppliers on design changes to adjusting their product mix to investing in real-time tracking and air transportation, they have a variety of logistics concerns to address.

The accelerated growth in e-commerce is having specific effects for wholesale distributors.

Almost four in 10 cite order fulfillment processing time as their biggest operational challenge, compared to the global response of **35%** across all industries.

Wholesale Distributors Adapt to Supply Chain Challenges



Regional Perspectives

North America

- **Fifty-eight percent** of decision-makers say the time to fill open positions is too long, making this the top challenge they need to address when it comes to labor initiatives. This is higher than all other regions and **7 pp** higher than the global response.
- **Eighty-six percent** of North American decision-makers say the pandemic has prompted them to evolve and modernize more quickly, the most of any region.
- Within three years, **81%** of decision-makers plan to implement person-to-goods AMRs to collaborate and guide workers in order-picking workflows.

Europe

- **Eighty-five percent** of associates say they are more likely to work for an employer that provides more modern devices to use for tasks, **4 pp** higher than the global response.
- In five years, **83%** of decision-makers in Europe say they will use mobility in their operations, with **47%** also planning use of sensors for real-time visibility that will allow for automating tasks or decision-making.



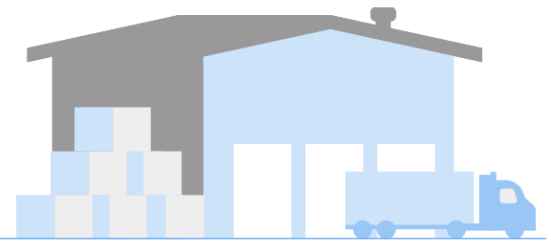
Latin America (LATAM)

- Decision-makers expect the highest growth in both number (+**44%** more facilities) and size (+**31%** more square footage) of warehouse facilities in the next five years.
- Today, more decision-makers are implementing innovative wearable computers and peripheral devices than any other region (**47%**). This lead is projected to continue, with **98%** expecting to implement these technologies within five years.
- **Ninety-six percent** of associates believe implementing warehouse technologies such as robotics and devices would help attract and retain workers, the highest of any region.

Asia-Pacific (APAC)

- **Nine in 10** decision-makers agree machine vision and/or fixed industrial scanning technology in key areas would save time and eliminate errors. Yet, only **one-quarter** say they are currently using or implementing these technologies.
- Decision-makers and associates differ in their assessment of the biggest challenge impacting their organization. **Seventy-eight percent** of associates rank fulfilling higher order volumes from increased e-commerce activity as the biggest challenge, while **74%** of decision-makers feel predicting inventory availability and confirming inventory accuracy are most challenging.

Key Takeaways



1 Market Pressures Become Catalyst for Positive Changes

Decision-makers agree they must implement new technologies to be competitive in today's on-demand economy, and they are accelerating timelines and increasing funding. Front-line workers say positive workplace changes are happening even amid labor shortages. They report improved working conditions and new technology to make their jobs easier, increased wages and bonuses, and more flexible work shifts due to new technologies.

2 Top Warehouse Challenges

Shipping volumes have increased **more than 20%** on average for both business-to-business and business-to-consumer orders since 2019. Increased e-commerce activity is challenging decision-makers with unpredictable customer demands, faster delivery times and the need for greater inventory accuracy. Operationally, returns management and several outbound fulfillment-related operations are challenging decision-makers.

3 Five-Year Technology Outlook for Warehouse Operations

Reducing unnecessary tasks performed by front-line workers is a priority for decision-makers and workers themselves. Both are concerned they will not meet their business objectives unless more technology investments are made to improve operations.

With labor optimization as an initiative for decision-makers, **64%** plan to augment workers with mobile devices or introduce collaboration with automation solutions in addition to mobility solutions to help ease the workload within five years. **Twenty-one percent** plan partial facility automation, while **10%** will fully automate their facilities. Only **5%** will continue to use paper-based or fixed workstations.

Today, **five in 10** decision-makers are utilizing mobility with some level of automated data capture, location solution, or predictive and adaptive data analytics. Within five years, **almost six in 10** are expected to be utilizing mobility with these sensor-based technologies, with more emphasis on automating decision-making and constantly predicting and adapting operations in real time.

ABOUT ZEBRA TECHNOLOGIES

Zebra (NASDAQ: ZBRA) empowers organizations to thrive in the on-demand economy by making every front-line worker and asset at the edge visible, connected and fully optimized. With an ecosystem of more than 10,000 partners across more than 100 countries, Zebra serves customers of all sizes—including 94% of the Fortune 100—with an award-winning portfolio of hardware, software, services and solutions that digitize and automate workflows. Zebra recently expanded its industrial automation portfolio with its Fetch Robotics acquisition and increased its machine vision and AI software capabilities with the acquisitions of Adaptive Vision and antuit.ai.

Empower your connected workforce

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With AbeTech, you can do more with less when you have access to connected technology experts who understand your challenges and simplify your day.

About AbeTech

At AbeTech, we are dedicated to helping technology leaders simplify their connected technology transformation. We understand your challenges, simplify your technology initiatives, and enable you to maximize your IT investments.

About Zebra Technologies

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[Contact us](#) for a complimentary needs assessment

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