

*N.A. Fashion Supply Chain*  
**Study 2025**

A Miebach study on current developments in fashion supply chains and logistics

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# Introduction

Dear Reader,

Thank you to the executives and leaders who contributed their insights to this study. Your perspectives helped surface a clear message: fashion supply chains are entering a new era — one defined by visibility, speed, and resilience.

The data tells a compelling story. Leaders are prioritizing digital traceability, agile demand planning, and pragmatic automation — not just to navigate disruption, but to unlock competitive advantage across the enterprise. Sustainability, diversification, and omnichannel orchestration are no longer peripheral; they’re essential to long-term value creation.

At Miebach, we build supply chains for your world — systems that see, think, act, and adapt. Whether you’re navigating SKU complexity, tariff uncertainty, or sustainability pressures, we deliver real-world strategies and engineered solutions to move your business forward.

Let’s realize the full potential of your supply chain — together.



**Julian Osorio**  
 Director & Retail and  
 Distribution Lead, US  
 & Canada



# *Executive* summary

*Firms recognize transparent, data-rich operations as the cornerstone of future supply chain design*

The survey data provides a quantitative benchmark of fashion and apparel executives' priorities across manufacturing and distribution. Traceability and digitalization rank at the forefront, signaling that firms recognize transparent, data-rich operations as the cornerstone of future supply chain design. Demand planning and resiliency follow closely, demonstrating the sector's acute sensitivity to volatility and SKU proliferation.

Governmental policy, diversification, and sustainability are treated as important but secondary concerns. This suggests that while external risk factors and environmental imperatives are acknowledged, firms remain focused on strengthening their internal process intelligence and data pipelines first. The findings imply a phased strategy: address transparency, inventory planning and execution, and omnichannel orchestration immediately, then leverage those capabilities to support diversification and sustainability initiatives.

Automation emerges as a significant but contextually bounded issue. Rather than prioritizing robotics in isolation, respondents position automation as part of a systems hierarchy where traceability, planning, and orchestration provide the foundation. This suggests the industry is entering a stage of more rationalized, ROI-driven automation deployment rather than pursuing automation for its own sake.

# *Executive* summary

*Apparel executives are balancing external volatility with internal enablers.*

Fast fashion pressures, though not explicitly isolated in the survey, are visible through high ratings for resiliency and lifecycle management. This validates that companies recognize orchestration limits within their fulfillment ecosystems and are prioritizing adaptive capacity as a survival mechanism.

Overall, the study indicates that apparel executives are balancing external volatility (tariffs, sustainability, regulation) with internal enablers (traceability, demand planning, omnichannel, automation). The hierarchy of concerns reflected in the data suggests that success in the next 24 months will depend less on speculative strategy and more on disciplined technical execution of integrated, data-centric supply chain capabilities.

*Challenges and solutions regarding fashion and apparel supply chains*





# *Industry* overview

The fashion industry operates within a uniquely complex and volatile environment shaped by seasonality, rapid product turnover, and rising customer expectations for speed and transparency. Companies in this sector - spanning apparel, footwear, accessories, and luxury retail - face mounting pressure to balance agility, cost control, and visibility across their supply chains.

The most critical challenge identified is demand forecasting, cited as the top concern due to its cascading impact on operating costs, service levels, and overall resilience. Volatile demand and SKU proliferation further complicate planning, creating misalignment between production, inventory, and fulfillment operations. These issues are compounded by rising logistics costs, long lead times, and variable quality among logistics operators, all of which limit responsiveness to market fluctuations.

In response, companies are seeking to enhance forecast accuracy, inventory visibility, and cross-functional coordination, with many turning to S&OP and Integrated Business Planning (IBP) processes to improve alignment.

Overall, the findings portray a sector undergoing transition - moving from manual, fragmented processes toward digitally enabled, data-driven operations that can sustain both resilience and responsiveness in an increasingly fast-moving market.

*Demand forecasting is cited as the top concern due to its cascading impact on operating costs, service levels, and overall resilience.*



## *Study* results

# Challenges and *enablers*

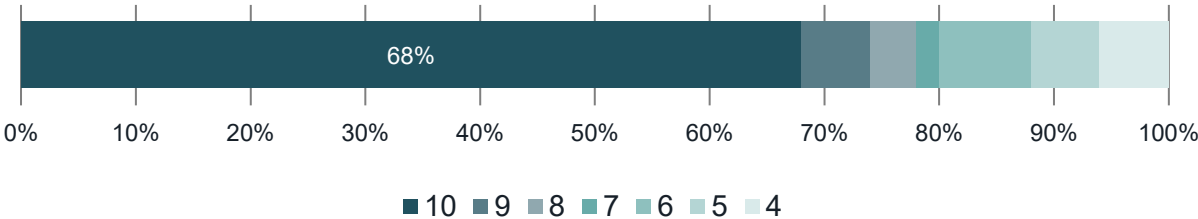
*Nearly 70% of respondents gave Customer Service as 10 out of 10 in terms of importance.*

Customer service, transparency and traceability, and digitalization of business processes rank as the top three operational challenges for North American apparel companies, with strategic supply, cost control, and supply chain resiliency following closely behind.

This hierarchy reinforces that the industry’s transformation is constrained not by lack of capital, but by the difficulty of executing change - specifically in managing technology adoption, workforce training, and system interoperability. Respondents repeatedly cited digitalization of processes as both a top challenge and a strategic imperative, suggesting that many organizations remain in mid-implementation stages of WMS, OMS, and ERP modernization.

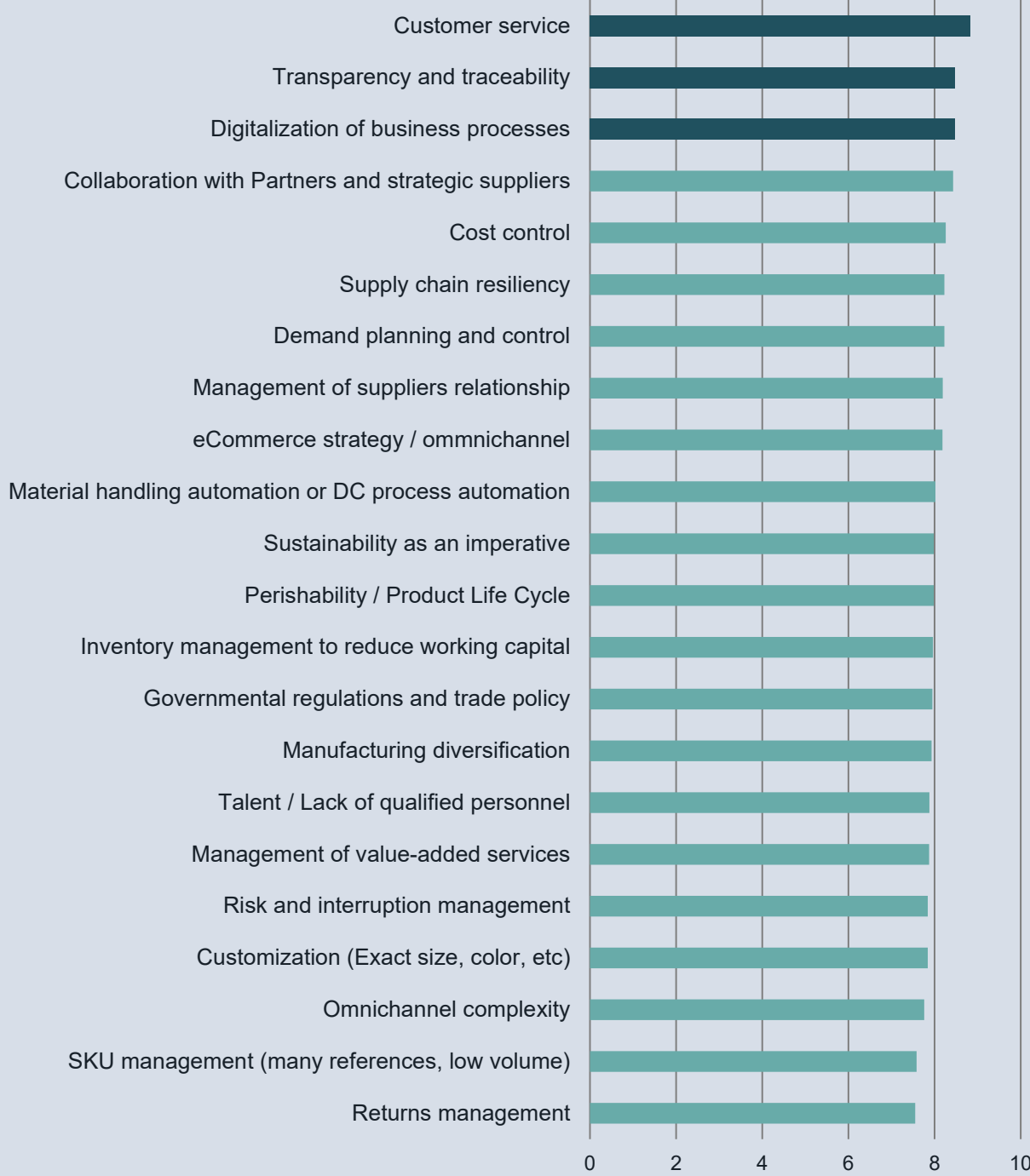
These challenges reflect broader systemic issues in North American logistics, including aging infrastructure, labor scarcity, and uneven technology integration across retail and wholesale networks. The greatest barriers to agility and resilience appear to lie in orchestration and change management, not in hardware or investment levels.

Importance of customer service



*Customer service, forecasting, and transparency rank as top challenges, underscoring the need for digital transformation.*

Business challenges average importance



# Demand volatility and *forecasting*

77% of the respondents face Moderate or High Volatility

### Volatility and Network Redesign

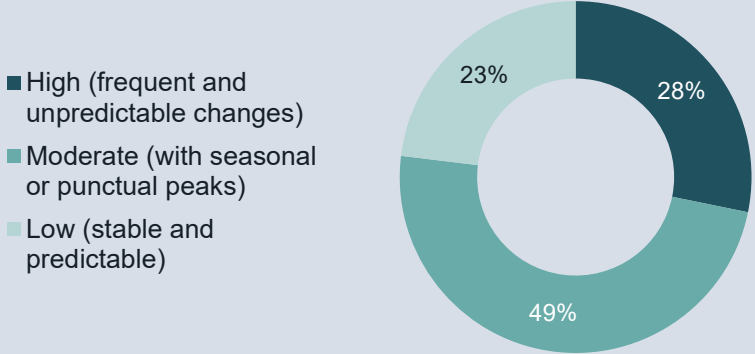
Across the U.S., Canada, and Mexico, tariff exposure and shifting trade policy have prompted apparel companies to reconsider network configurations. Respondents report significant implementation and planning activity around AI applications and data analytics tools, particularly those designed to counteract demand volatility. This focus supports the assertion that tariff uncertainty has become a catalyst for operational flexibility rather than a short-term disruption.

The prevalence of AI-driven demand planning solutions suggests companies are building responsiveness into their production systems - an essential hedge against external cost shocks. While the data does not directly quantify sourcing shifts, the emphasis on predictive analytics and lead-time reduction implies greater regional integration, particularly through Mexico's role as a nearshoring hub for North American brands seeking tariff diversification.

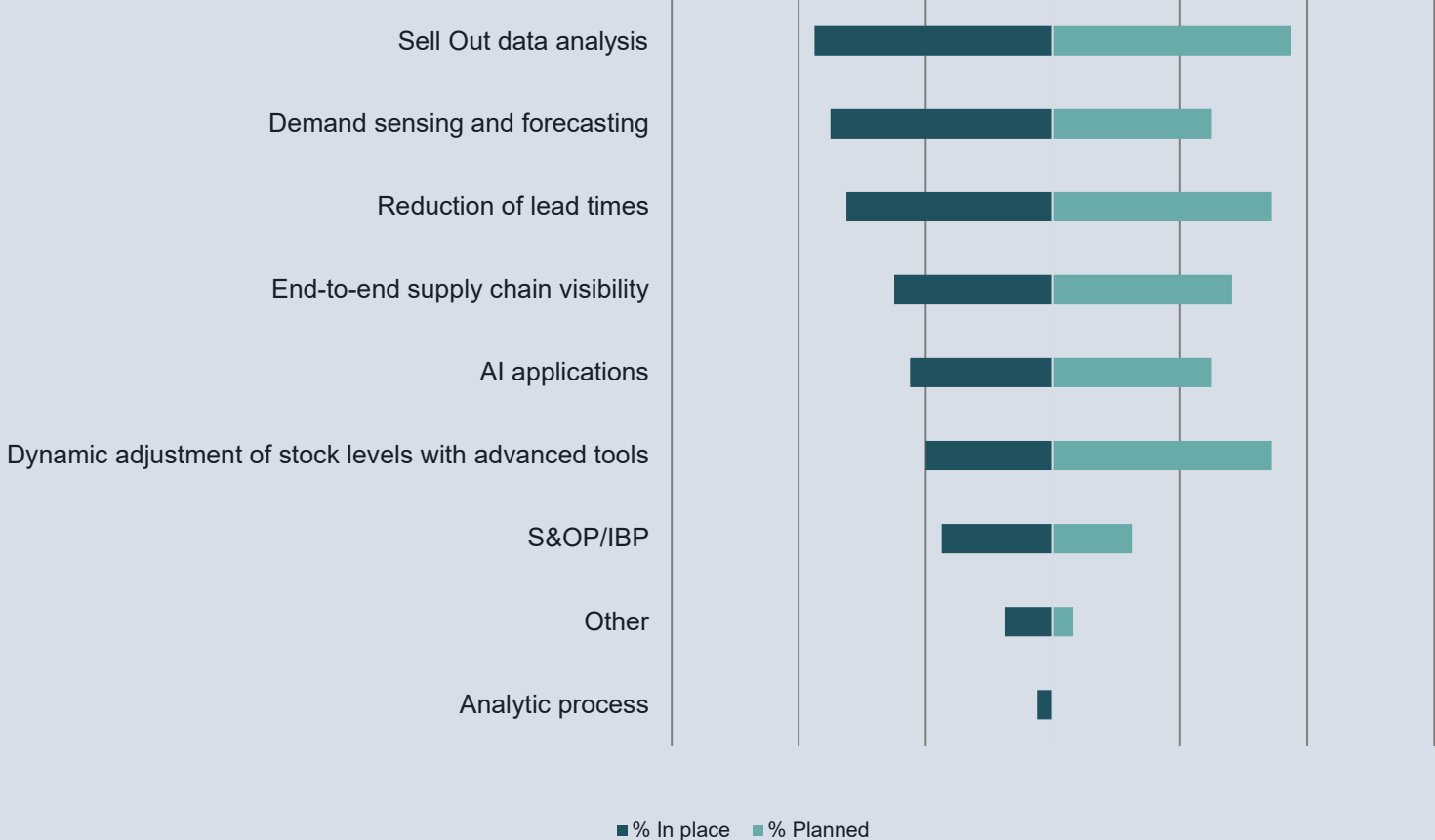
In effect, companies appear to be developing dual-path vendor networks - a blend of Asian and North American sourcing - to maintain agility. The data therefore supports the hypothesis that tariff volatility is accelerating a pivot toward flexible, regionally balanced network design.

Facing persistent demand volatility, companies are prioritizing lead-time reduction and predictive analytics to build resilience.

Volatility level of the respondent's business



Technology tool used or planned to counteract demand volatility



# Technology and *automation*

*90% of the respondents face moderate to very high complexity of their SKUs management operations.*

## Planning Technology and Inventory Efficiency

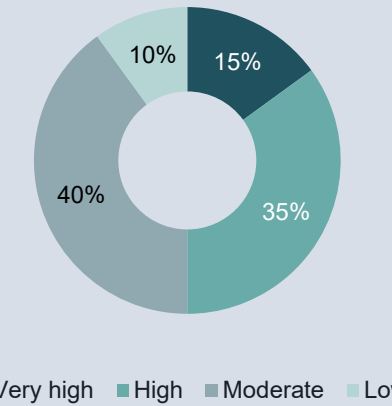
Respondents indicate that AI-driven forecasting systems and advanced ERP tools are among the most frequently cited technology investments. Although some respondents noted transitional adoption (“planned” but not yet in place), the direction is unmistakable: the region’s apparel manufacturers are modernizing planning systems to optimize inventory across their supply chain, reduce safety stock, and improve sell-through accuracy.

The data implies that these companies are targeting 5–10% reductions in buffer inventory, consistent with the hypothesis that advanced planning and integrated business planning (IBP) tools will shorten buy cycles and raise inventory turns. The commentary referencing “stronger interest at the moment and in the next two years” points to a sustained shift in capital allocation from transactional IT toward strategic planning systems.

In North America, where demand variability is amplified by seasonal and promotional cycles, this modernization represents a tangible step toward leaner, more adaptive supply chains. Overall, the evidence supports the assertion that planning technology investments are driving measurable inventory efficiency improvements.

*AI-driven planning tools are being deployed to manage SKU complexity and reduce buffer inventory in a volatile market.*

## Level of complexity of SKU management



## Tool used or planned to be used for SKU management



### Automation ROI and Modular System Focus

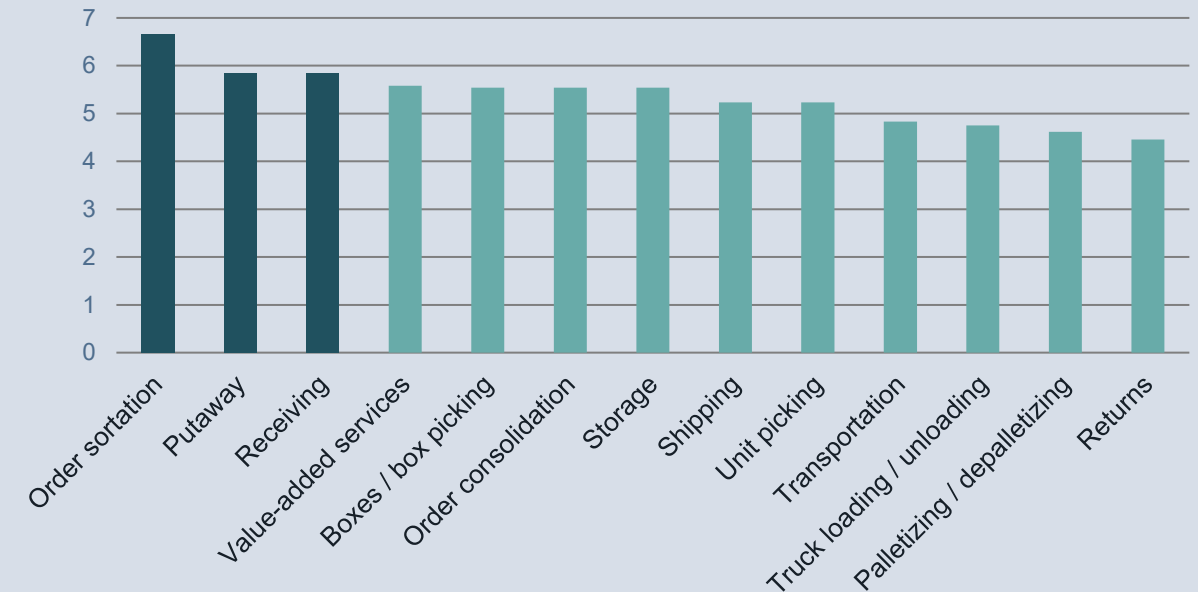
Automation investment across U.S., Canadian, and Mexican distribution centers is pragmatic rather than speculative. The survey results indicate that the average score was 5.35 out of 10. Among the options, order sortation stood out with the highest score, exceeding 6.5 out of 10, suggesting that respondents view order sortation automation as delivering significant value relative to its cost. Furthermore, order sortation was also identified as one of the most automated warehouse processes today, with 25% of companies reporting fully automated sortation systems. Taken together, these findings indicate that order sortation not only represents a leading opportunity for future investment but is also one of the most mature areas of warehouse automation, demonstrating proven impact and adoption across the industry.

This indicates that apparel distributors are prioritizing targeted, modular automation solutions - particularly goods-to-person and tote-based systems - over large-scale, fully automated installations. Respondents' emphasis on "semi-automated" or "fit-for-purpose" approaches underscores a practical ROI orientation, reflecting warehouse space constraints and labor availability challenges common in North America.

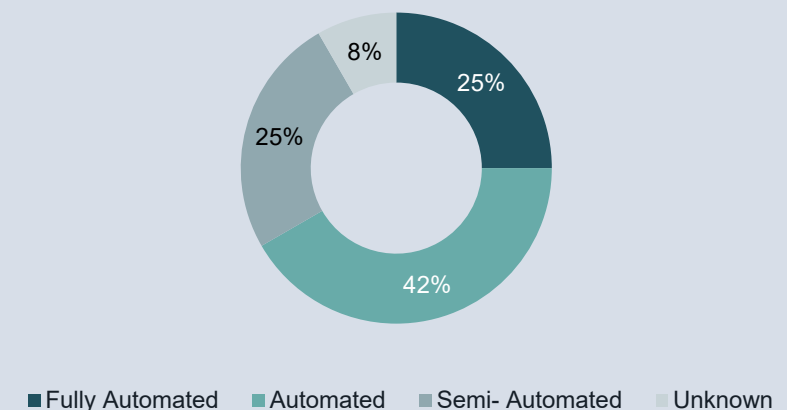
In short, modular, right-sized automation investments are favored for apparel DCs, allowing flexibility to manage high SKU diversity and seasonality without excessive capital expenditure.

*Modular, semi-automated solutions dominate automation strategies, reflecting ROI-conscious investments in North America.*

Areas for Future Automation



Order sortation automation level break down



# Traceability and *transparency*

## Deep-Tier Traceability and Compliance

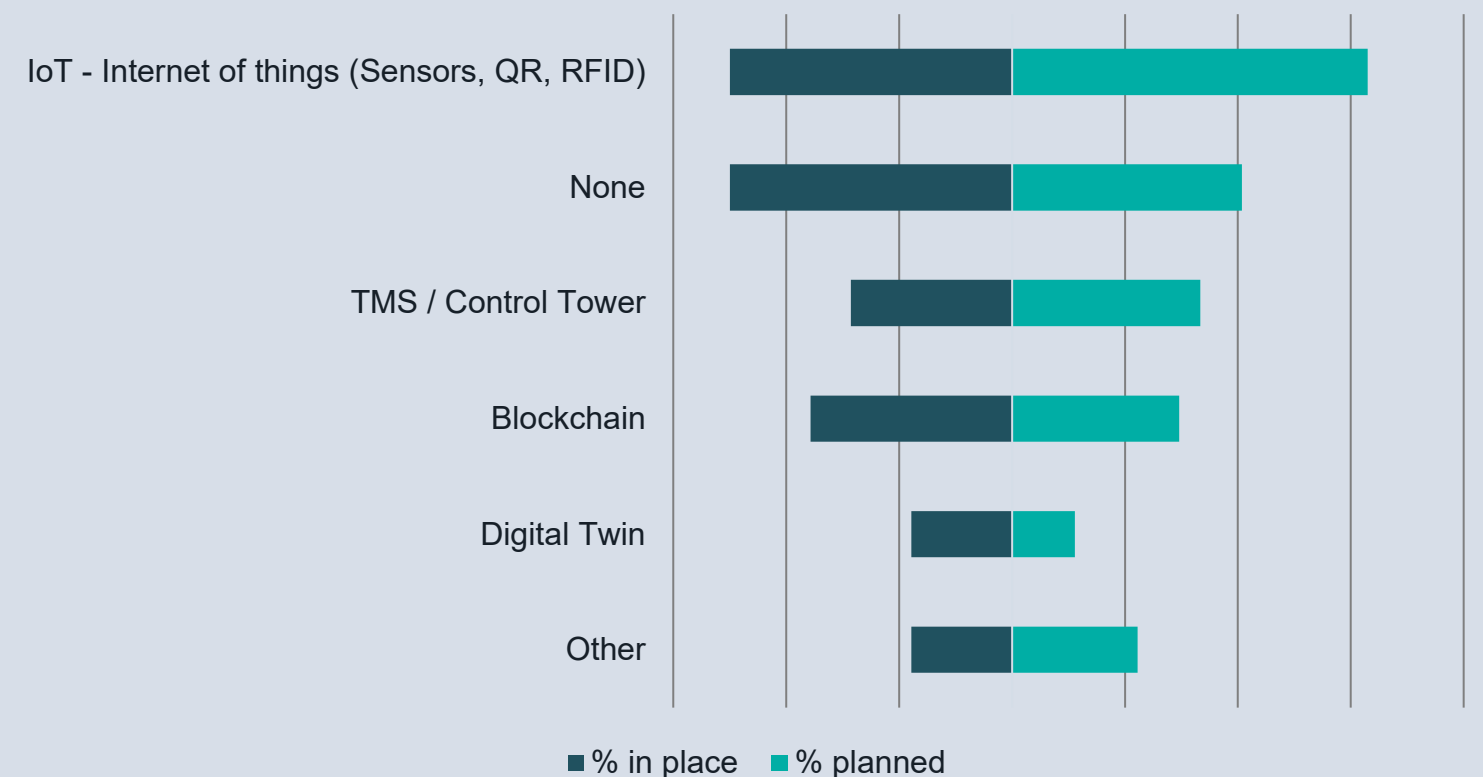
Traceability and transparency are rapidly evolving into operational imperatives for fashion and apparel firms in the region. Participants identified IoT systems as the most widely implemented technology, underscoring the industry's movement toward end-to-end visibility. This trend is reinforced by qualitative responses highlighting traceable returns and digital data integration as top investment priorities.

This mirrors the regulatory and market context of 2025, where North American and European compliance frameworks increasingly demand proof of ethical sourcing and materials traceability beyond Tier 2. The study's evidence demonstrates that companies are extending visibility deeper into their supply chains - tracking inputs at the mill and fiber levels - to reduce customs clearance times and minimize the risk of shipment detainments.

For U.S. and Canadian importers, these efforts align with customs modernization initiatives emphasizing digital documentation and port efficiency. As such, the data strongly supports the hypothesis that Tier 4 and Tier 5 traceability has become a compliance prerequisite, enhancing both resilience and operational efficiency.

*IoT leads traceability investments as firms push beyond Tier-2 visibility to meet rising compliance demands.*

Technology tools used & planned to improve transparency and traceability



# Omnichannel and *e-commerce*

*71% of the respondents have seen more than 10% increase in their e-commerce operations.*

## Omnichannel Maturity and Ship-from-Store

Omnichannel orchestration continues to reshape retail logistics in North America. The automation of logistics processes and order management system (OMS) integration are among the most frequently cited actions taken to address omnichannel challenges.

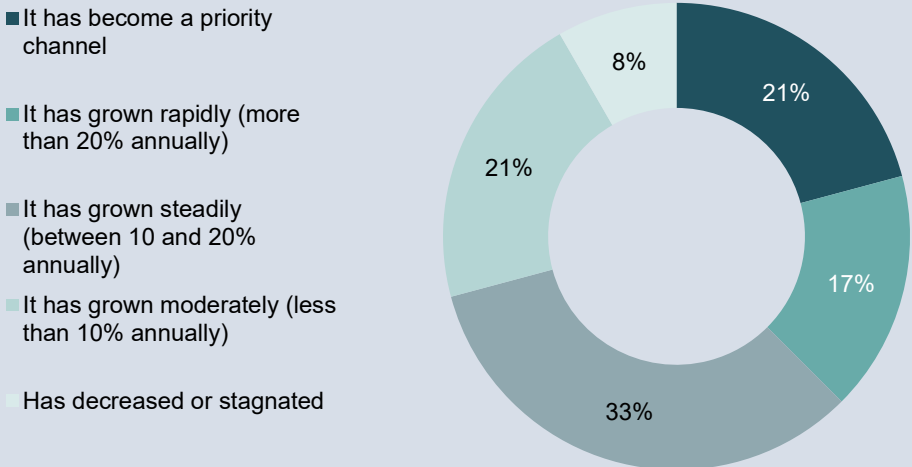
While only a portion of respondents report full implementation, many indicate active plans to expand ship-from-store and real-time inventory visibility capabilities. This corresponds with the e-commerce data, which reveals that one-third of respondents report steady e-commerce growth between 10–20% annually, while fewer than 10% indicate stagnation.

Together, these findings confirm that apparel retailers are rebalancing inventory between distribution centers and retail locations to improve service levels and delivery speed. However, qualitative comments caution that the effectiveness of these initiatives depends heavily on available-to-promise accuracy and returns processing capabilities.

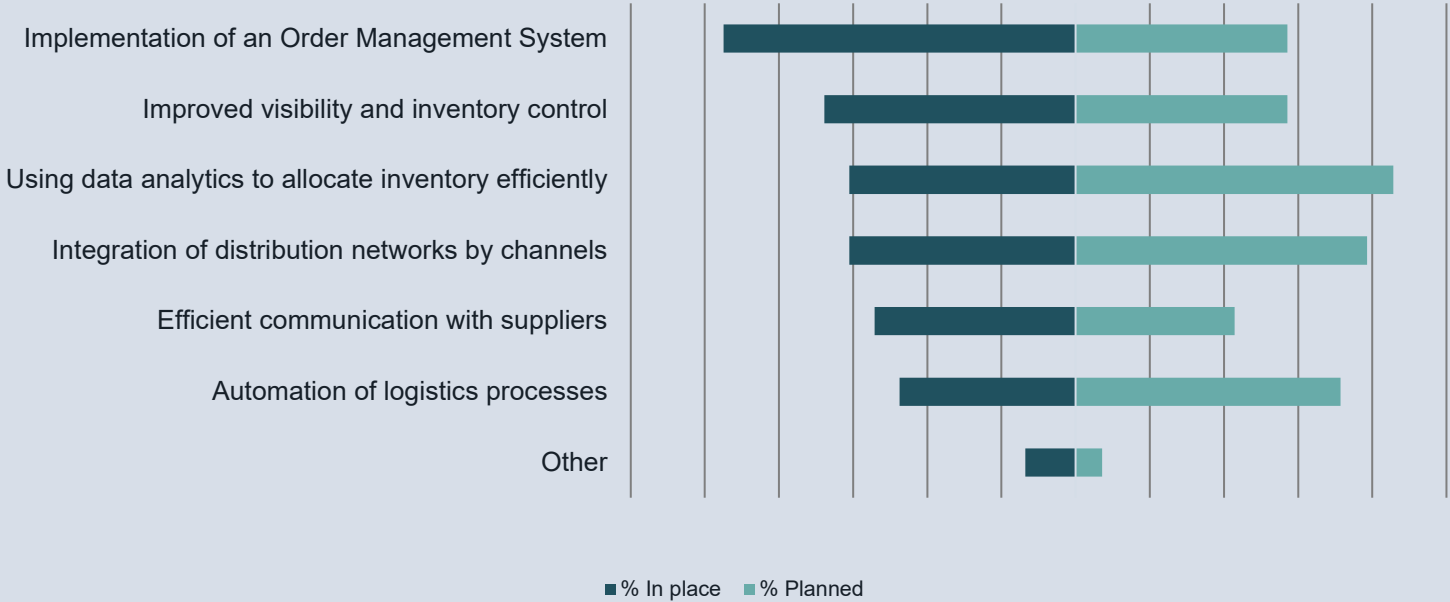
Thus, ship-from-store adoption is progressing, but its full benefits depend on system integration maturity - particularly between WMS and OMS layers, and in-store operations fulfillment systems.

*Omnichannel growth and ship-from-store adoption hinge on real-time visibility and OMS-WMS integration maturity.*

## E-commerce evolution



## Actions taken and planned to address the challenges of omnichannel logistics



# Reverse Logistics and VAS

## Reverse Logistics and Value-Added Services

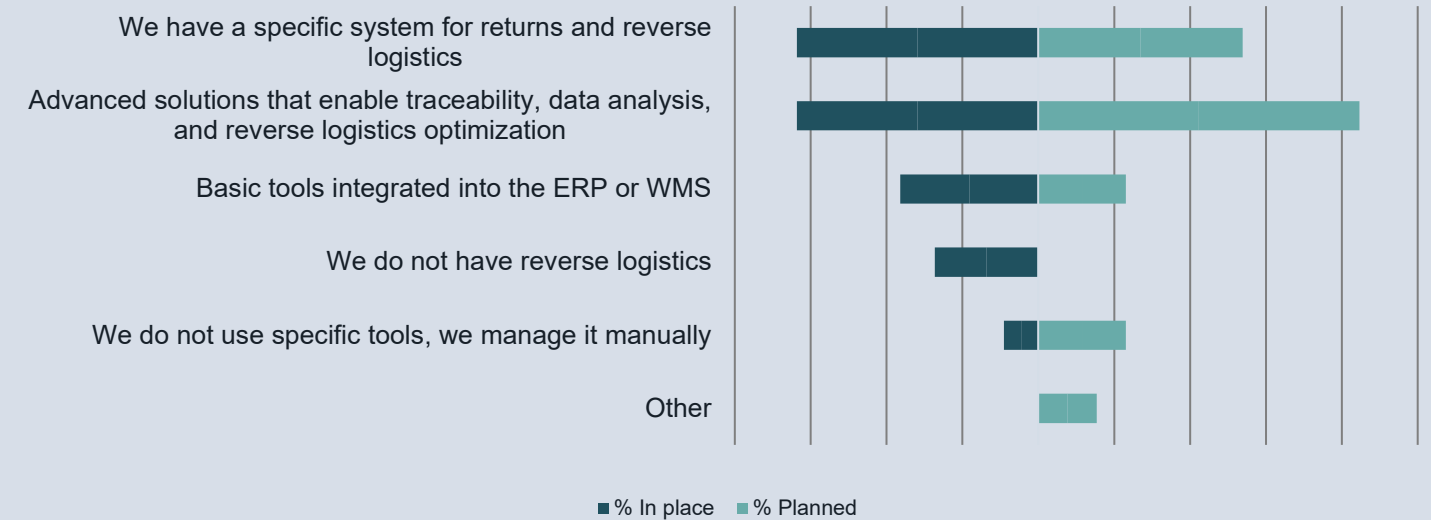
Returns management and value-added fulfillment are becoming defining differentiators in North American apparel logistics. Notably, strong interest was cited in advanced solutions that enable traceability, digital returns, and data-driven visibility.

Meanwhile, the Value Add-Services overall reveals a mean importance weight of 7.03 out of 10, with quality inspection, personalized packaging, and relabeling ranked among the most relevant value-added services. These findings indicate that operators are aligning logistics execution with customer experience and brand differentiation strategies.

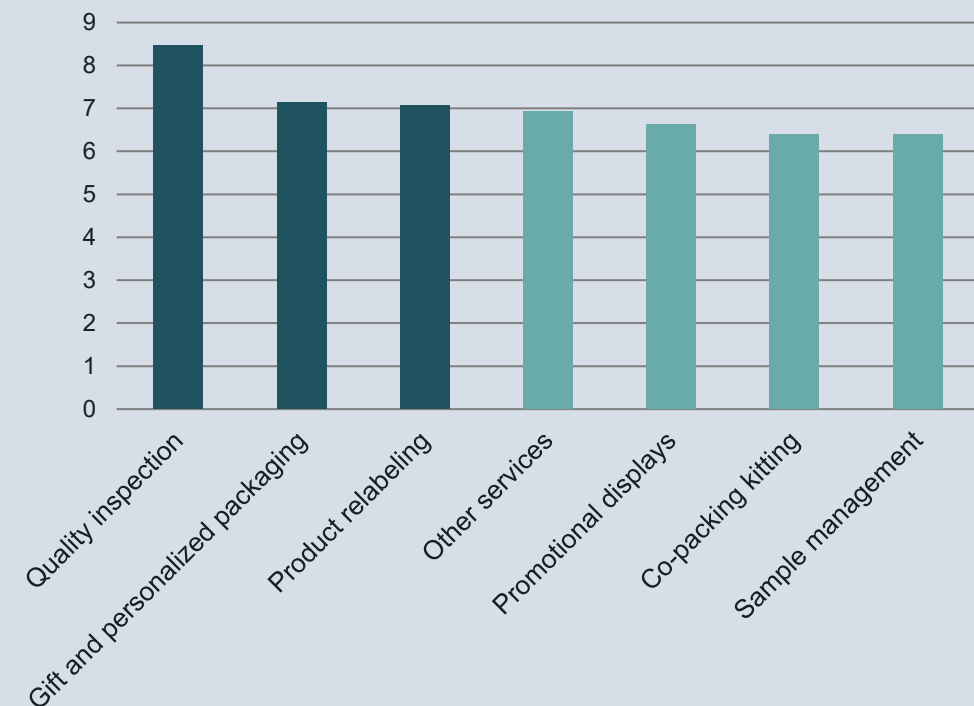
The regional insight here is clear: consumers' expectations for personalized fulfillment and hassle-free returns are driving logistics providers to integrate data systems that can handle product customization, quality inspection, and traceable reverse flows simultaneously. Therefore, value-added logistics capabilities, anchored in sustainability and personalization, are key to future competitiveness.

Returns management and personalized value-added services are emerging as logistics differentiators in apparel.

## Tools used and planned to address reverse logistics challenges



## Relevance of Value-Add Services



# Sustainability and *outlook*

## Sustainability and Material Impact

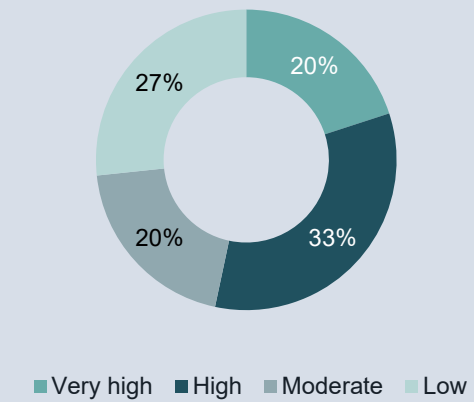
Sustainability continues to exert upward pressure on logistics decisions throughout the U.S., Canada, and Mexico. A notable focus on Scope 3 carbon reduction initiatives and supplier collaboration is noted, indicating that companies are actively mapping material flows and logistics emissions.

Qualitative responses emphasize growing interest in using supply chain data to identify emissions hotspots, particularly within materials procurement and transportation modes. These findings align closely with broader industry reporting that polyester’s carbon footprint is becoming a constraint to achieving 2030 emissions goals. 53% of respondents have embedded sustainability across key supply chain processes - like design, procurement, logistics, and packaging - with measurable strategies, clear traceability, and enterprise-wide commitment.

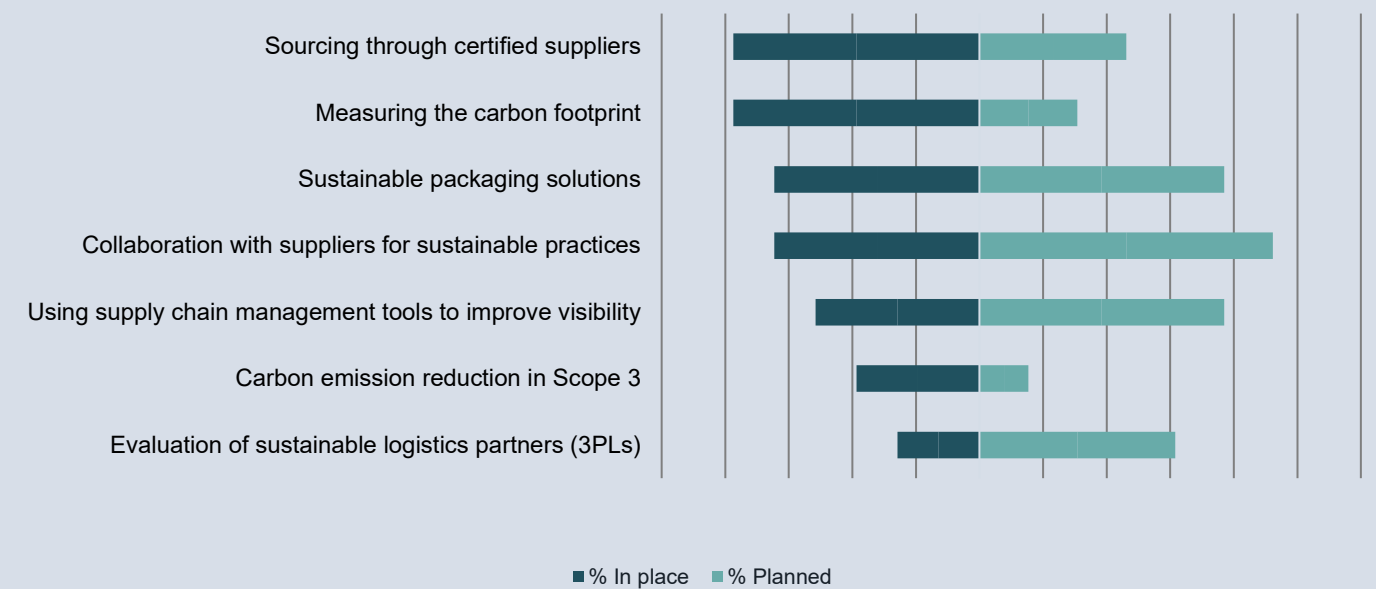
Within the regional context, this means companies are not only re-evaluating material sourcing but also exploring logistics route optimization and low-carbon carriers - for example, selecting ocean programs with biofuel options or carbon-offset partnerships. It’s clear that material choices and sustainability targets are beginning to influence logistics mode selection and carrier strategy across North American apparel supply chains.

*Sustainability practices are expanding, with a strong focus on Scope 3 emissions, supplier collaboration, and certified sourcing.*

## Level of sustainable practices in supply chain



## Sustainability measures in place and planned to be implemented



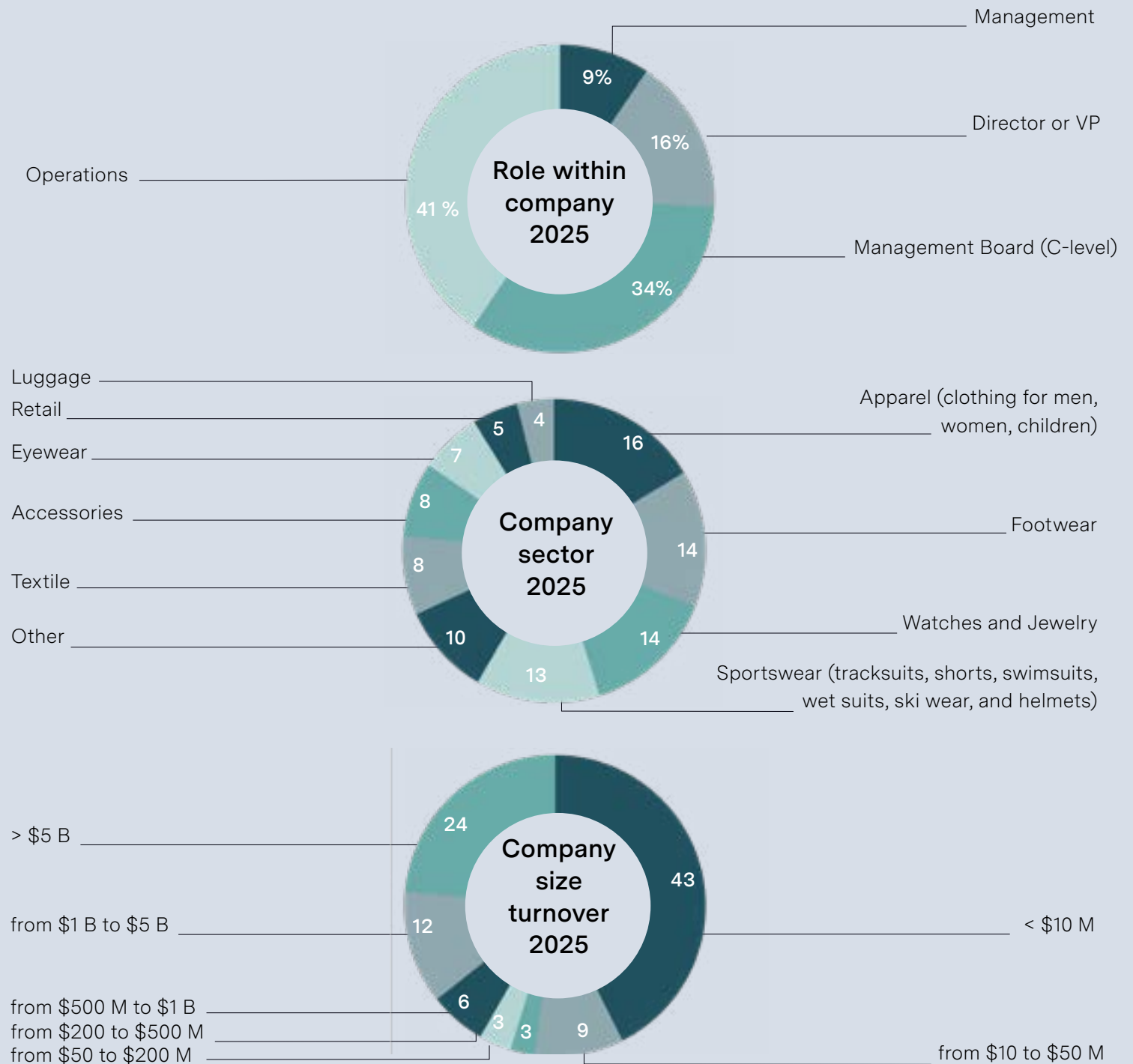
# Study *design & participation*

*Over 100 participants across North America actively contributed to the study.*

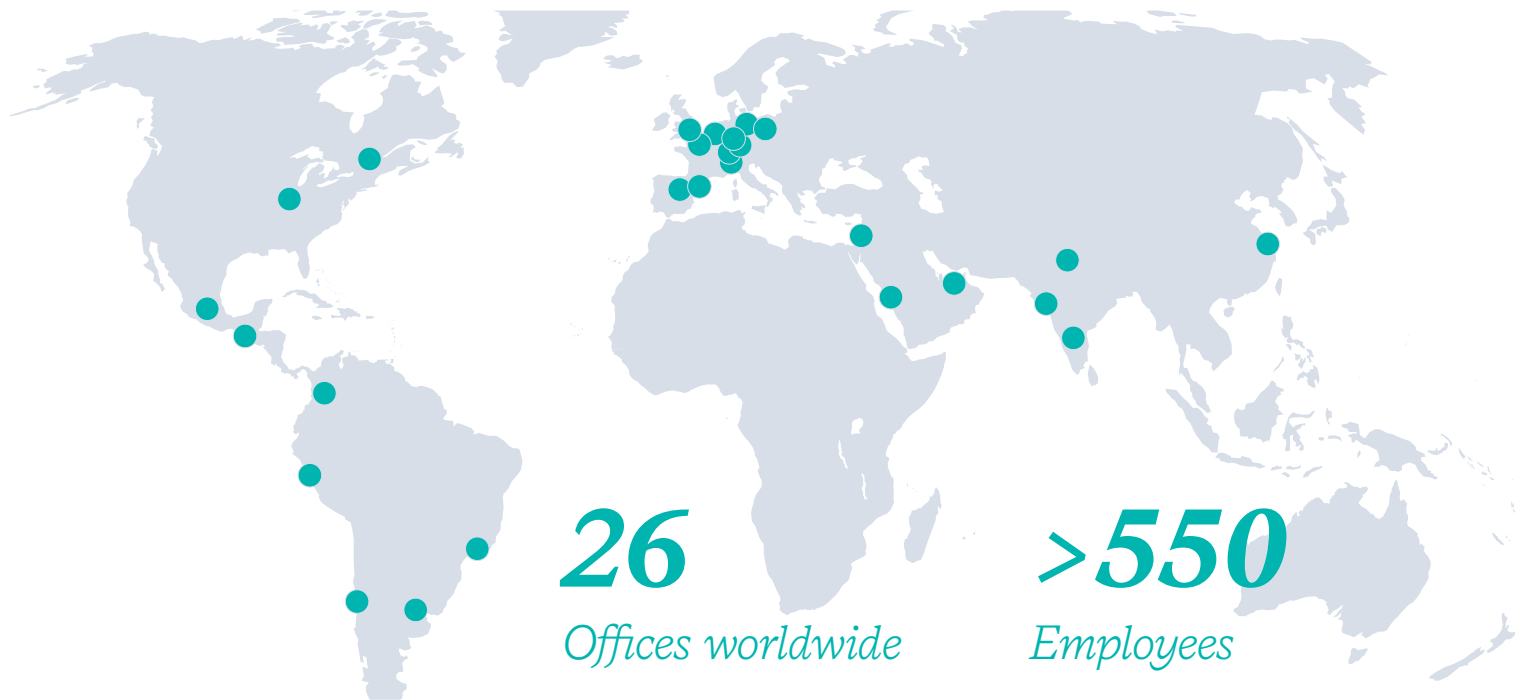
The North American Fashion and Apparel study was conducted in Q3 of 2025. We conducted the survey using an online questionnaire which was published globally on internet portals, social media, and through direct messaging. Over 100 participants across North America actively contributed to the study, representing a diverse range of Fashion and Apparel companies. This wide-ranging participation ensures an accurate depiction of the current state of supply chains, encompassing their evolution, challenges, and future trends. The majority of participants hail from supply chain and logistics roles, with a notable 40% in operations and 33% in executive positions.

While the participating companies primarily operate in the manufacturing sector, they also include fashion and apparel retailers. These companies span a broad spectrum, varying from medium-sized enterprises to large-scale multinational corporations within the dynamic fashion and apparel industries.

*Diverse participation across sectors, roles, and company sizes ensures robust insights into fashion supply chain challenges.*



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# Supply chains that move at the *speed* of your business

## One partner across your supply chain needs

Our capabilities span the full length of supply chain, from strategy and engineering to digital. By taking a comprehensive view, we diagnose, develop, and deliver opportunities that see, think, act, and adapt in time with your needs.



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Our Center of Excellence for Sustainability puts sustainability at the core of our business, from reducing global emissions to building healthier communities.

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