

# 2021 TOP 10 SUPPLY CHAIN TRENDS

Developed by ASCM's Research, Innovation and Strategy (RISC) Sensing Subcommittee

# 1

## **Accelerated use of analytics and automation across the supply chain**

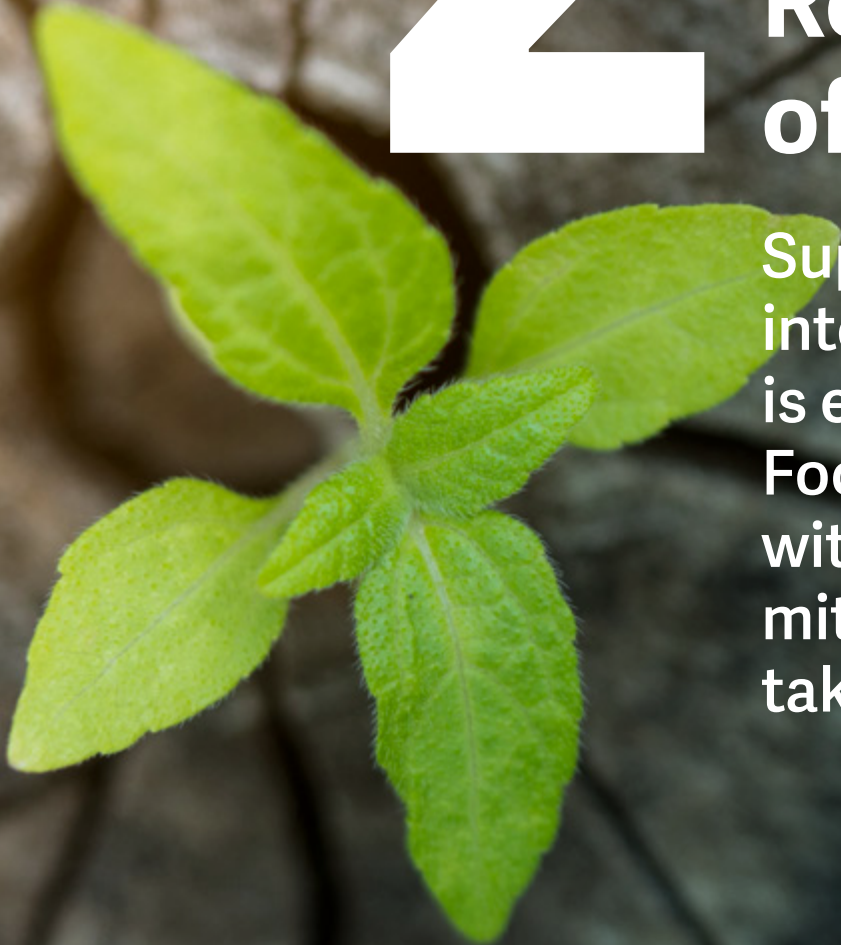
Implementation of artificial intelligence and machine learning for predictive and prescriptive analytics will continue to accelerate, with broad-reaching effects across the end-to-end supply chain. Businesses that harness the power of big data and automation will have a competitive advantage in visibility, executional efficiency, quality and profitability.



# 2

## **Resilience as key focus of risk prevention**

Supply chains are complex, global and increasingly interconnected. When one part of the network is exposed to risk, all are vulnerable to disruption. Focusing on supply chain resilience in conjunction with risk prevention will enable companies to mitigate adverse events faster than the competition, take market share and outperform.





# 3

## Using digital supply chain to predict disruptions

The transformation from loosely connected sets of data, processes and people toward a fully integrated, end-to-end supply chain will significantly enhance visibility. Information sharing and global data harmonization and standardization will shift the focus on putting out fires today to predicting tomorrow's challenges so they can be prevented.

# 4

## **Introduce supply chain career path early**

**Supply chain organizations need a robust strategy for hiring and retaining diverse talent. Partnerships with universities and other organizations will develop flexible programs to prepare current and future industry professionals to drive the supply chains of the future. Companies must do their part to influence the younger generation, women and minorities to pursue a supply chain career.**



# 5

## **Cybersecurity is a prerequisite for survival**

The explosion of data and data-driven organizations through AI, blockchain and IOT is creating much more interwoven areas of vulnerability in systems and tools. Social engineering, ransomware and exploiting even the tiniest gaps of vulnerability will continue. Supply chains must protect their networks, devices, people and programs.





A hand is holding a black barcode scanner over a shipping box. The scanner is pointed towards the box, and the hand is positioned on the left side of the frame. The background is a blurred green wall.

# 6

## **E-commerce boom elevates consumer expectations of flexible shipping and fulfillment options**

The pandemic impact of consumers shopping online more than ever is forcing companies to create new and innovative last-mile delivery solutions such as turning retail stores into fulfillment centers, delivery vehicles into pickup points and passenger vehicles into delivery vehicles; all providing consumers more choices of how to receive their products.



# 7

## Changing demographics

Migrations to cities are creating new urban landscapes that have different supply chain and infrastructure challenges. Populations in the West face an ongoing talent shortage, as populations shrink while the workforce ages. As consumer and talents pools continue to evolve, supply chain leaders will need to be laser-focused on ways to optimize performance to be responsive while also managing sourcing and logistics costs.



# 8

## **Low cost and reliability increase IoT usage**

The Internet of Things (IoT) continues to revolutionize supply chains by increasing visibility and real-time tracking for both raw materials and final products. With cheap and reliable sensors about both raw materials and final products. This is making networks more responsive and competitive.



# 9

## 3D printing to the rescue

COVID-19 gave the world a glimpse of how 3D printing can be used temporarily to alleviate the strain on supply chains during demand surges and shortages as it did with medical equipment. Inventors are combining 3D printing with traditional processes creating unique combinations of parts that perform better with lower cost that can be manufactured closer to the customer, all while being more sustainable.



# 10

## **Corporate citizenship comes with challenges**

The ethical and ecological expectations of consumers will drive supply chains to determine how they source, produce and serve their products in sustainable, eco-friendly and profitable ways. This could create challenges for all constituents, including consumers, who may experience price increases, quality issues or product availability problems.







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