

Six Trends That Are Shaping

Supply Chain Transformation for Manufacturers

1 2 3 4 5 6

Who this is for



Estimated reading time: 10 minutes

Chief supply chain officers and other manufacturing decision-makers who want to delight customers and empower employees to quickly adapt and innovate.

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Making agility a competitive advantage: Six emerging supply chain trends

In an era of significant supply chain disruption, manufacturers are rising to the challenge with technology innovation and intelligent insights. By adopting modern, cloud-based solutions, they are unifying data to gain real-time insight into supply chains so they can adapt to shifting business opportunities, customer needs, and market opportunities while anticipating disruption and minimizing risk.

In fact, today's key supply chain trends are all driven by the growing availability of data and the tools to operationalize it throughout the business. Whether it's tracking and mitigating carbon emissions or optimizing the employee experience through automation, manufacturing enterprises are more connected and agile than ever. By implementing the right strategies and technologies, business leaders create impact faster, win the competition for talent, and delight customers.

In this report, we dive into six emerging trends that are shaping how supply chain leaders succeed. By learning more about these trends and their impacts, you can identify opportunities to be more agile, efficient, and competitive.



1

**Circular manufacturing
opens a path to greater
sustainability**



Manufacturing has a major impact on the environment, accounting for 76.6 percent of total US emissions according to the National Institute of Standards and Technology.¹ Most emissions come from a company's suppliers, production operations, and distribution centers. Companies are working to reduce the amount of waste and other pollution created as byproducts of manufacturing while also investing in alternative energy sources, such as wind and solar, to power their operations.

Business leaders are finding new ways to make their operations and products more sustainable and have a more positive impact on the communities they serve, as well as their bottom line. Manufacturers are actively working to optimize their facilities and production processes to reduce their carbon emissions and overall energy consumption.

To achieve these goals, manufacturers are seeking ways to measure and mitigate waste, emissions, and energy usage. They are implementing circular manufacturing, granular track and trace programs, and more efficient processes. The sustainability revolution in manufacturing will depend on the ability to make data-driven decisions.

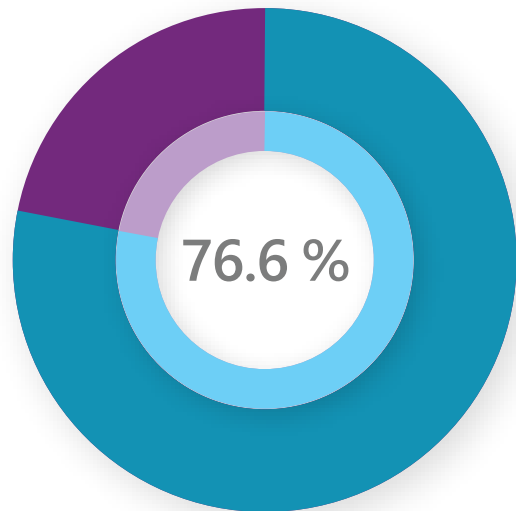


¹ **Manufacturing Industry Statistics**, NIST, webpage created 2021, updated 2022.

Microsoft Circular Centers program achieves 83 percent reuse, increasing supply chain efficiency and resiliency with Microsoft Dynamics 365 and Microsoft Power Platform

Microsoft built first-of-their-kind Microsoft Circular Centers to facilitate reuse and recycling of servers and hardware within its datacenters. These new Circular Centers will be located on all new major datacenter regions, and eventually will be added to existing ones as well. To operate in a circular model rather than a linear one, Microsoft Consulting Services rapidly created a custom reverse supply chain module within Dynamics 365 Supply Chain Management.

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Manufacturing accounts for **76.6 percent** of total US environmental impact.¹

How Microsoft can help

Digitize operations

Using Microsoft [Dynamics 365 Supply Chain Management](#), you can create a digital supply chain that is collaborative, coordinated, agile, and demand-driven. As a result, you can achieve real-time, end-to-end visibility across your supply chain, increasing the carbon efficiency of production and transportation.

¹ [Manufacturing Industry Statistics](#), NIST, webpage created 2021, updated 2022.

2

**Building closer relationships
with customers pays
dividends**



In the past, manufacturers were often separated from the ultimate buyers of their products by multiple layers of wholesale and retail. Today, manufacturers are increasingly seeking a competitive edge by improving how they understand and respond directly to the desires of these end customers.

By capturing and analyzing customer data at a deeper level, manufacturers can build closer relationships that help differentiate their offerings, increase margins, and build customer loyalty. By effectively applying insights into the customer journey, manufacturers can boost services revenue by 10 percent or more.²

E-commerce gives manufacturers a unique opportunity to transform their customer experience (CX) by transacting with customers all over the globe at any time. Manufacturers can go direct-to-consumer (D2C) to maximize efficiency and grow profit margins. Companies in a variety of industries, from ride sharing to travel to retail, are embracing the D2C model and revolutionizing how they do business. B2B buyers want e-commerce simplicity, too, with 62 percent saying they favor digital reordering.²

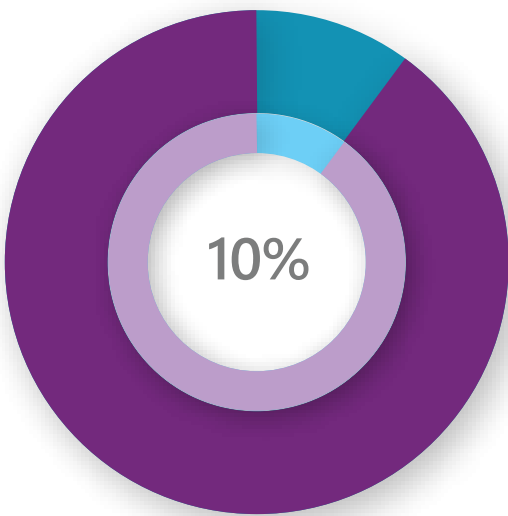


This requires the rapid adoption of capabilities for e-commerce and order management. To succeed at this kind of business transformation, companies need flexible systems that can adapt to changing business requirements.

For example, intelligent order fulfillment is one way manufacturers are optimizing CX. This approach orchestrates fulfillment via rules that optimize order flows using real-time inventory and AI. This provides a single global view of inventory positions in the moment to ensure that the right products are available when and where customers want them.

² **How to boost growth in industrial services:** Better customer experience, McKinsey, 2021.

In addition to new revenue streams, digitally savvy manufacturers recognize that selling directly to consumers gives them greater access to customer data, giving them insights to improve products and develop new lines of business.



>10%– Potential increase in manufacturing services revenue from applying customer journey insights.²

How Microsoft can help

Enable intelligent fulfillment

Drive frictionless fulfillment orchestration with Microsoft [Dynamics 365 Intelligent Order Management](#) (IOM). Built on a modern, open platform and offering pre-built connectors to common platforms, IOM provides an intelligent fulfillment optimization solution that performs rules-based order fulfillment orchestration (distributed order management) leveraging real-time inventory and AI.

Improve demand planning and forecasting

Through Dynamics 365 Supply Chain Management, you can gain the real-time visibility and intelligence you need to move from reactive to proactive operations. This solution uses predictive insights from AI and IoT across order fulfillment, planning, procurement, production, inventory, warehousing, and transportation. As a result, you can break through barriers and drive outcomes through data while maximizing efficiency and profitability.

² [How to boost growth in industrial services](#): Better customer experience, McKinsey, 2021.

3

**Smart factories increase
agility and efficiency**

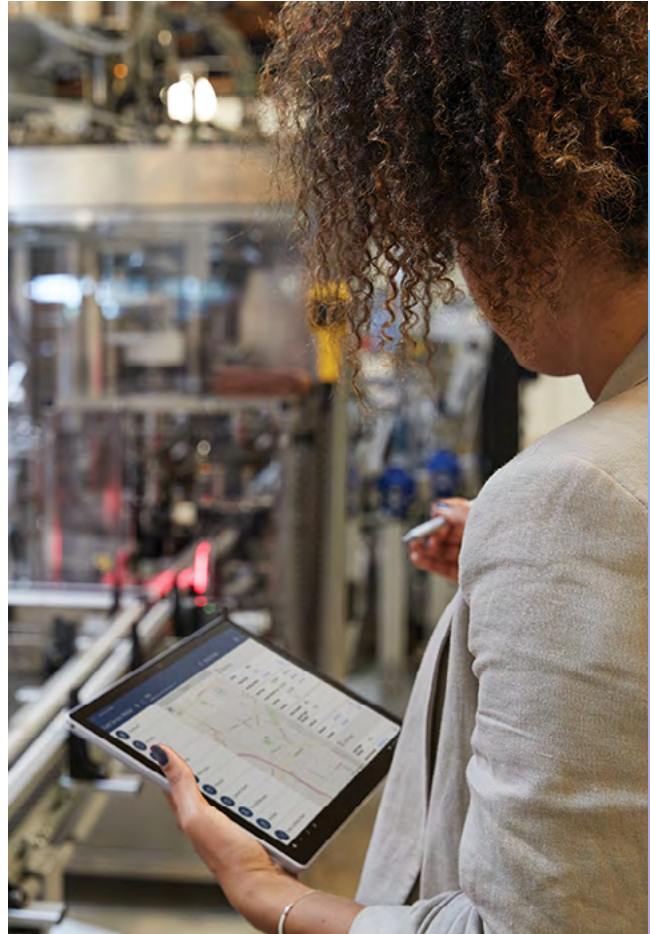


The broad adoption of smart sensor technology, connectivity improvements, and cloud computing advancements are helping drive the adoption and evolution of the industrial Internet of Things (IIoT). These capabilities are helping manufacturers increase competitiveness, with 45 percent of executives expecting further increases in operational efficiency from investments in industrial Internet of Things (IIoT) that connect machines and automate processes.³

Through these advancements, businesses are realizing the potential of a fully connected business, where all company information is aggregated into a central database that receives and sends data across the organization in real time.

To take advantage of this data, successful businesses are applying emerging technologies such as AI to create new processes that anticipate and respond to shifting marketplace factors.

This transformation doesn't need to happen overnight. Organizations can start small, learn, and adapt through piloting and testing



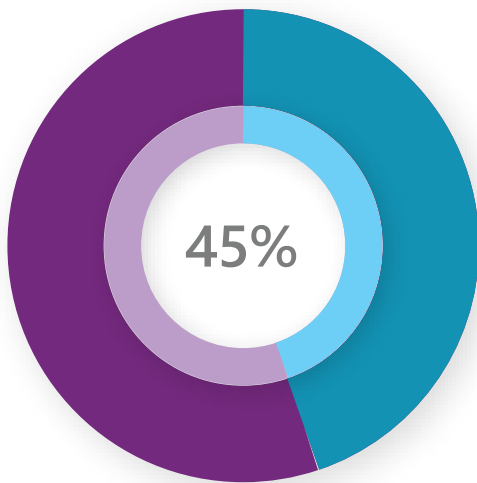
technology capabilities, then scale their solutions more broadly. Business leaders can enable modern manufacturing operations management by creating a connected factory, which can help proactively manage shop floors using a real-time view of production and stock to improve throughput, quality, and uptime.

³ [2022 manufacturing industry outlook](#), Deloitte, 2021.

ChemTreat digitally transforms its manufacturing and service operations with Microsoft Dynamics 365

To keep pace with its own growth and increasing technological maturity in the markets it serves, ChemTreat adopted Dynamics 365 Supply Chain Management, realizing enhanced data visibility and insights, improved inventory, manufacturing, and distribution processes, and better, more intentional, and proactive customer service.

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45 percent of executives expecting further increases in operational efficiency from investments in industrial Internet of Things (IIoT).³

³ [2022 manufacturing industry outlook](#), Deloitte, 2021.

How Microsoft can help

Gain better supply chain visibility

With Dynamics 365 Supply Chain Management, you gain end-to-end supply chain visibility, collaborate more easily with internal and external stakeholders, and automate execution to proactively overcome disruptions. It helps your organization build agile and sustainable manufacturing processes at the edge and easily adapt to new business models.

4

**Workplace automation
increases employee
satisfaction**



Job satisfaction is key to productivity in any industry. At a time when competition for skilled workers is higher than ever, manufacturers seek to boost productivity using automation. In fact, higher levels of automation attract and retain talented workers.

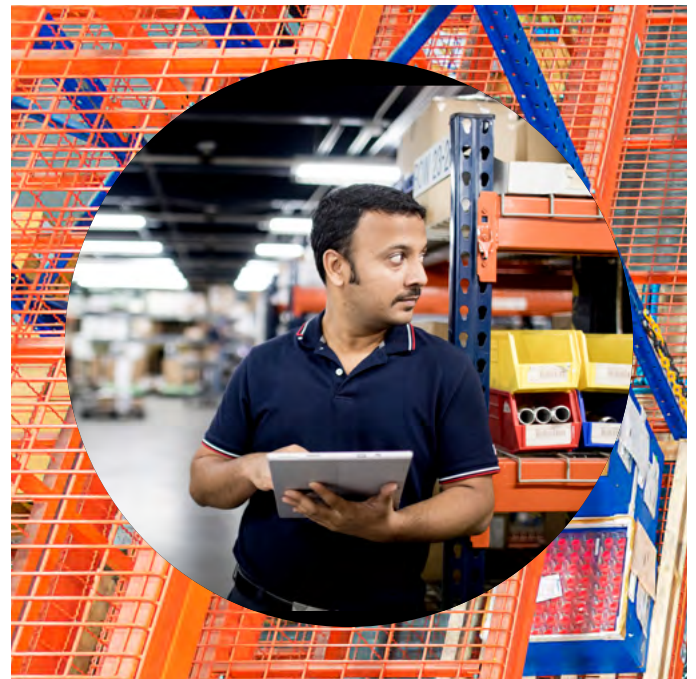
Among digital automation users, 89 percent report they are more satisfied with their job, while 84 percent are more satisfied with their company as a result of workplace automation. In addition, 91 percent of full-time workers say automation saves them time and offers better work/life balance.⁴

From the back office to the production line, automation streamlines processes and empowers people to focus on the more challenging aspects of their jobs rather than repetitive activities.

From an operational perspective, automation enables manufacturing leaders to increase asset productivity by improving throughput, quality, and uptime through resource scheduling, IoT, and mixed-reality technologies. Leaders can also transform the workforce by improving worker

safety, increasing efficiency, and accelerating learning and performance.

Accelerating onboarding for new employees and upskilling for existing ones helps to close the talent gap. Using mixed reality and digital guides, companies can ensure their people can be productive and engaged faster. Immersive training empowers employees to make the most of their skills and work more accurately and safely.

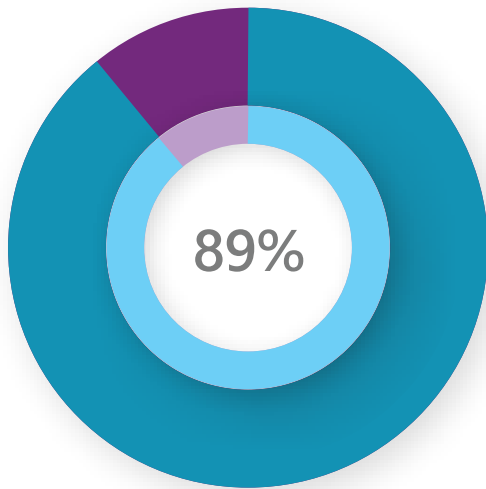


⁴ [Employee satisfaction increases as a result of automation in the workplace](#), ZDNet, 2021.

Toyota Material Handling India uses Microsoft Dynamics 365 to optimize operations

Toyota Material Handling India (TMHIN), a subsidiary of Toyota Industries Corporation Japan, chose Dynamics 365 Supply Chain Management to automate business processes and provide management with a unified, real-time view of the business. It reduced manual input and enabled integration with other systems across the company.

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89 percent of digital automation users say they are more satisfied with their job.⁴

⁴ [Employee satisfaction increases as a result of automation in the workplace](#), ZDNet, 2021.

How Microsoft can help

Rapidly upskill and onboard

When you integrate production processes from Dynamics 365 Supply Chain Management with [Dynamics 365 Guides](#), frontline workers can benefit from mixed-reality guides in various areas of their work, such as assembly, service, operations, certification, and safety. Microsoft Dynamics 365 Guides is a mixed-reality application for Microsoft HoloLens that helps operators learn during the flow of work by providing holographic instructions when and where they're needed.

5

**Data empowers employees
to make smarter decisions**



Armed with the digital capabilities, manufacturers can gain better visibility into performance and operations, and they can make faster, smarter business decisions. In fact, digital leaders in the industrial sector deliver an average total return to shareholders of 47 percent, compared with 27 percent for their peers.⁵

The importance of data to supply chains has grown consistently for decades. Today, in an era where the pace of change and the potential for disruption have intensified dramatically, data is more critical than ever. The increasing ability to monitor and manage supply chains from anywhere helps businesses adapt quickly regardless of where people are working. This gives frontline workers more access to the information they need to optimize production and avoid delays.

A growing number of manufacturers are implementing data collection throughout their supply chains, from planning to materials acquisition to distribution. The wide availability of sensors, communication protocols, and cloud-based data ingestion and analytics puts the supply chain digital twin within reach of more organizations.



By choosing supply chain management solutions that are built on a structured approach to data from the beginning, manufacturers can integrate analytics insights into their business processes without having to build custom solutions or integrate third-party tools. Ultimately, the ability to capture and use real-time data to connect various supply chain functions will emerge as a significant competitive advantage. This will require the integration of IoT and advanced analytics in a responsive platform.

⁵ [Implementing a digital transformation at industrial companies](#), McKinsey, 2021.

Jansen AG streamlines complex reporting and supply chain process with Microsoft Dynamics 365

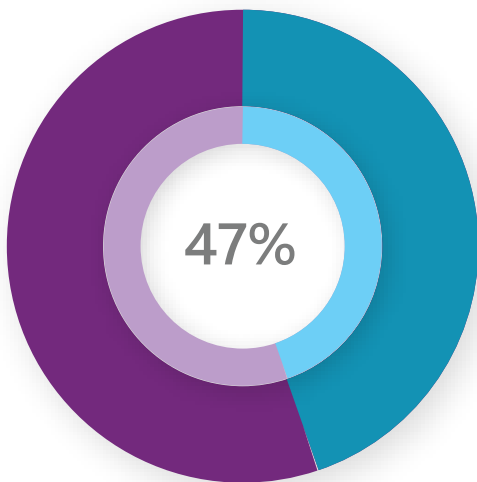
To simplify complex supply chain and cross-border supplier and customer relationships, Jansen AG implemented Dynamics 365 Finance and Dynamics 365 Supply Chain Management. As a result, the company resolved complex reporting requirements, digitized the production process, and positioned itself to be prepared for tomorrow's opportunities.

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How Microsoft can help

Maximize the value of data faster and more easily

Dynamics 365 applications use Microsoft Dataverse to store and secure the data they use. This enables you to build apps by using Power Apps and Dataverse directly against your core business data, which is already used within Dynamics 365, without the need for integration.



47 percent: total return to shareholders among digital leaders in the industrial sector, compared with 27 percent for their peers.⁵

⁵ [Implementing a digital transformation at industrial companies](#), McKinsey, 2021.

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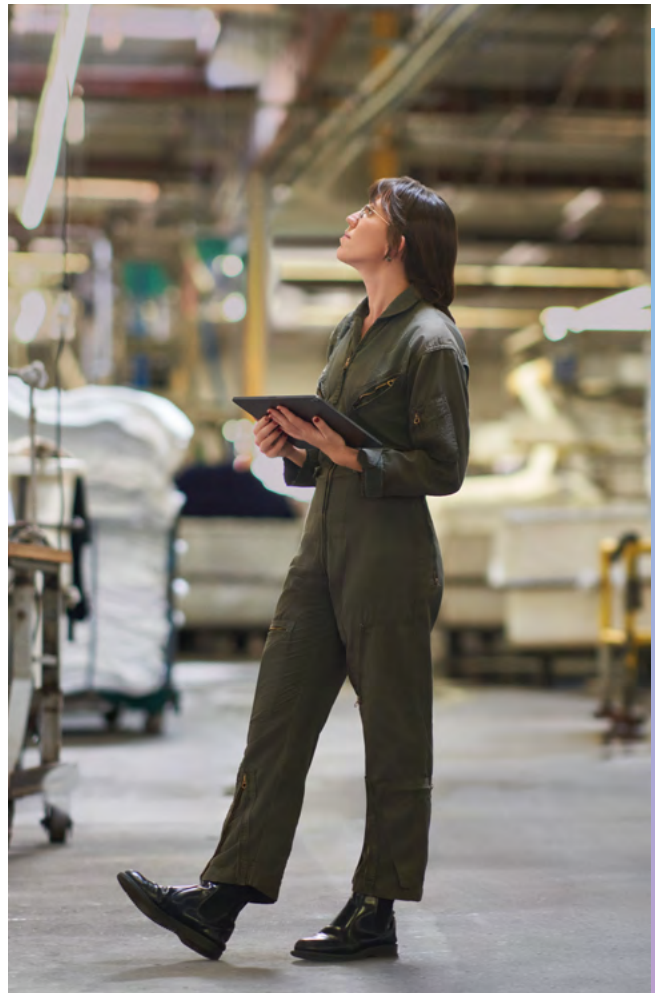
**New tools simplify
risk prediction**



Reacting to risk is no longer sufficient when shocks come one after another. Among supply chain executives, 68 percent report that they have been constantly responding to high-impact disruptions over the last three years, and most did not have time to recover before the next disruptive event hit them.⁶ Manufacturers are learning to operate in an environment where disruption is a constant and agility is a fundamental business need.

To solve the problem, manufacturers can take advantage of intelligent manufacturing to better anticipate and adapt to change. End-to-end visibility and actionable data insights enable them to improve demand planning, change with agility, and keep their options open to reduce disruption.

With these capabilities, manufacturers can predict disruptions and respond faster with a digital supply chain. Additionally, they can use increased visibility as a means to simplify processes, cut down on the length and complexity of their supply chains, and minimize touchpoints, helping to reduce the likelihood of disruption.

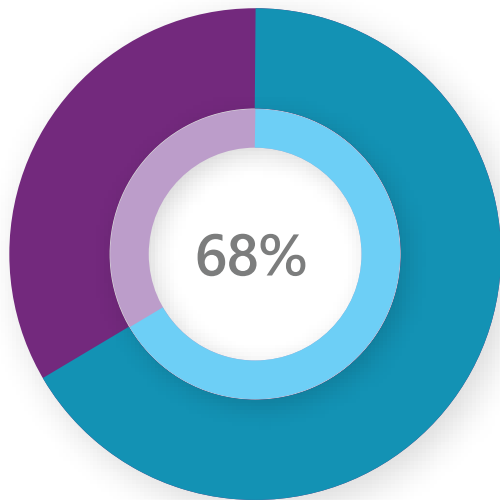


⁶ [The Rise of the Ecosystem — and 4 More Supply Chain Predictions](#), Gartner, 2022.

Daimler looks to optimize supply chain processes and reduce downtime with Microsoft Dynamics 365

To bring data together to optimize operations on the production floor and across the supply chain and meet customer demand, Daimler Trucks North America can implement Dynamics 365. Now, the company can break down barriers by inviting suppliers to share real-time supply chain data and better deliver on the customer promise.

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68 percent of supply chain leaders say they have been constantly responding to supply chain disruptions over the past 3 years.⁶

⁶ [The Rise of the Ecosystem — and 4 More Supply Chain Predictions](#), Gartner, 2022.

How Microsoft can help

Enhance visibility with actionable insights

Microsoft [Dynamics 365](#) helps manufacturers respond intelligently to dynamic shifts in supply and demand with prescriptive analytics using real-time data from providers, partners, customers, and suppliers.

Mitigate risk

Dynamics 365 uses advanced analytics powered by Microsoft Azure AI and machine learning to perform predictions and analyses to simulate the impact of potential disruptions and determine the impact of decisions made to mitigate them throughout the supply chain.

Explore Microsoft Dynamics 365 Supply Chain Management [learning resources](#) to find out more.

Create impact and build value faster with Dynamics 365

The past couple of years have brought unprecedented challenges for businesses dependent on global supply chains—especially manufacturers. The power of data to drive agility, innovation, and resilience has never been more apparent. Organizations are accelerating digital transformation, using Dynamics 365

to transform supply chain visibility, enhance customer and employee experiences, and realize the promise of smarter factories.

Contact a Dynamics 365 representative to request a live demo or set up a free trial of Dynamics 365 Supply Chain Management.

[Contact a Dynamics 365 representative](#)



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