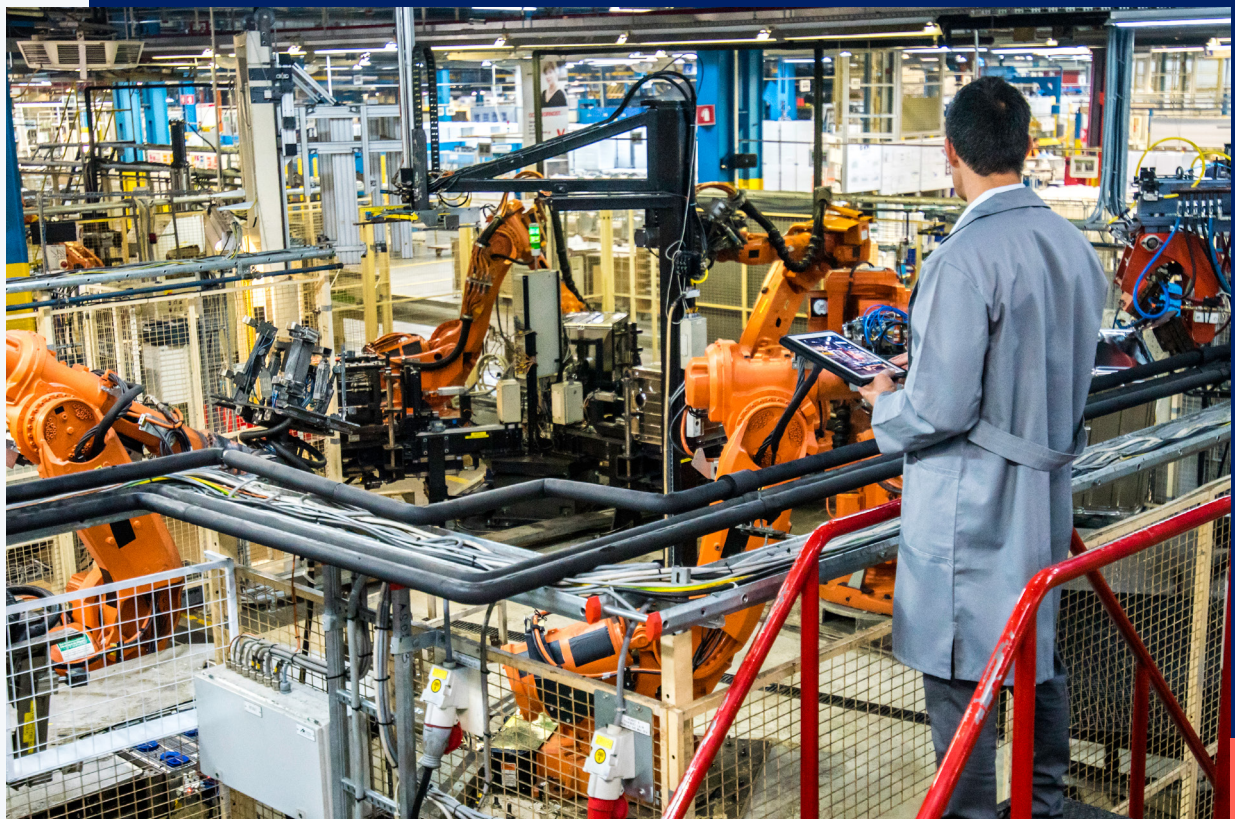# Is Your Manufacturing Supply Chain **Ready?**

Dramatic shifts in demand and supply expose weaknesses in global supply chains. The pressure is on manufacturers around the world to increase domestic production, diversify supplier bases, and minimize stock levels—while maintaining high product availability.

Manufacturing

/ Escalating product availability expectations

The pandemic didn't change ever-rising customer service and price expectations. To beat the competition, you need to maintain high product availability—but finding the right service/inventory balance is elusive with diverse products and businesses.

/ Difficulty avoiding overstocks and inventory shortages

Fast-moving products are easy to forecast. The slow and intermittent movers are another story. Traditional supply chain applications are not designed for high variability demand, so inventory mixes and service levels get out of balance, leading to excessive costs, waste and obsolescence. SKU proliferation also makes it very difficult for manufacturer distributors to economically carry the right inventory.

/ Inevitable production constraints and supplier uncertainty

The pressure to operate efficiently is higher than ever—you must make smart decisions about use of manufacturing capacity and working capital. With so many processes to balance, amid constrained or uncertain supply, e.g. packaging material shortages causing out-of-stock of finished products, it's tough to assess impacts to lead times and service.

/ Complexity of new product introductions and lifecycle management

Forecasting for new products is critical to success, but it's also increasingly complex due to lack of historical data, variations of existing SKUs, and shortened product life cycles. Getting the forecast wrong results in overstocks or empty shelves and lost sales.

Manufacturers Like These Trust ToolsGroup

ToolsGroup is how manufacturers achieve their target service levels while optimizing inventory—no matter how complex their supply chain or how much demand changes. That way, they can be ready for anything.

SKF   ABB   ASTON MARTIN   ALESSI   POLARIS

AHF PRODUCTS   COPAN Innovating Together™   DART   ECOLAB   FIAT

Ford   FRANKE   HARLEY-DAVIDSON MOTOR COMPANY   LENNOX   MITSUBISHI ELECTRIC

mohawk   MOLESKINE®   PILKINGTON

Maintain High Product Availability and Minimize Inventory—Even With Uncertain Demand

Profitability in the manufacturing industry is a balancing act between safety stock and service. While our forecast accuracy is superior, ToolsGroup focuses on the ultimate goal—service-level delivery. With ToolsGroup's AI-powered Service Optimizer 99+ (SO99+), set your service levels and relax, knowing you'll meet them with the minimum inventory investment.

Our Manufacturing Customers Commonly Achieve:

✅ **15-30%**
Reduction in inventory (working capital) with improved inventory turns

✅ **3-5pp**
Service improvement while reducing inventory

✅ **5pp**
Increase in forecast reliability

✅ **50%**
Reduction in overhead due to overtime and expedited freight

✅ **99%**
Product availability as high as 99%

✅ **40-90%**
Reduction in planner workload with machine-learning automation

Digital Planning Enables Agility to Thrive Amid Uncertainty

Scenario plan to understand inventory and margin impact of planning and policy decisions

Accurately forecast intermittent demand and slow-moving inventory to make smart inventory decisions in highly uncertain environments

Orchestrate and **optimize the entire production operation,** including improved visibility into production and accelerated throughput

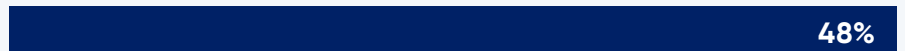Achieve **high service levels while reducing inventory**

Define an inventory strategy **to minimize the risk of obsolescence and maximize service**

Manage planning **across the product life cycle:** new product introduction, product replacement, supersession, end of life

Identify critical situations and empower a "management by exception" approach with **custom reporting dashboard and preventative alerts**

Impact of the Pandemic on Manufacturers' Digital Transformation

Progress has accelerated by a matter of months

48%

Progress has accelerated by a matter of years

48%

Progress is the same as before

3%

Source: KPMG 2020 CEO Outlook: COVID-19 Special Edition, KPMG International

ASTON MARTIN

✓ Reduced the inventory value of its safety stock on clustered items by 18%

✓ Immediately improved FTA service levels to 97.1%, above its target

"In a luxury business like ours, nothing affects team morale more than our ability to meet service requirements. Thanks to ToolsGroup applying its machine learning technology to our problem in a creative way, we're now much better geared up to serve our demanding client base without impacting our bottom line."

— **Nick Wilson,** Senior Inventory Planner, Parts Operations

mohawk

✓ Service levels increased from 85% to 93% in just 6 months

✓ Global inventory lowered by 25%, with 8% sales growth

✓ 40+% improvement in inventory turns

Over the course of the project, Mohawk's customer service-level metric was changed from "order lines shipped complete within five days" to "order lines complete and available at time of order".

POLARIS

✓ Reduced inventory by 15 percentage points

✓ Boosted service levels by 10 percentage points

"Now we can focus on more added-value work because the data crunching doesn't consume any time on our end. It's a good interaction between humans and machines. We let the machines do the dirty job, the one where humans don't add value and actually sometimes get things wrong."

— **Ilaria Maruccia,** EMEA WG & PGA SIOP Manager

"With SO99+, organizations are equipped with greater supply chain flexibility and agility to meet the rapidly changing demands of today's commercial landscape."

— Nucleus Research[1]

How ToolsGroup Stands Apart in Digital Supply Chain Planning

/ Guarantee high customer service levels at the lowest cost
While our forecast accuracy is superior, ToolsGroup focuses on your ultimate goal—service-level delivery. Our service-driven approach positions inventory across the network to efficiently meet high customer service level objectives. Set your service levels and relax knowing you'll have the right products in the right place and time for your customers with the minimum inventory investment.

/ Optimize inventory even in uncertain demand environments
Instead of rough approximations and one-size-fits-all logic, ToolsGroup's self-adaptive inventory model automatically defines the optimal mix of inventory across the multi-echelon supply chain. When dealing with a highly uncertain environment, our approach achieves aggressive service level targets while minimizing inventory. Our customers routinely achieve millions of dollars in savings via increased service levels, reduced stock-outs and improved inventory turns.

/ Decode demand uncertainty with probabilistic forecasting
Our probabilistic forecasting method incorporates uncertainty modeling across a range of supply chain planning functions, from demand forecasting to inventory and replenishment/ master planning. This means manufacturers can effectively manage intermittent demand and slow-moving inventory, which are becoming more common due to product proliferation and rapid replenishment cycles.

/ Effectively manage production planning
From long-term planning to shop-floor control and machine integration, ToolsGroup production planning enables manufacturers to effectively govern their advanced production planning, scheduling and manufacturing execution. Our lean, flexible and interactive solution is designed to run real-time simulations and thoroughly analyze the results, following intuitive and streamlined workflows.

/ Conquer complexity with machine learning automation
Because our machine learning engine incorporates deep learning, our models "learn" from existing data and accurately identify future demand trends. It leverages the knowledge, experience and skills of demand planners and other experts, working like an intelligent assistant to reduce their workload and improve results.

Would you shift your car directly from first to fifth gear?
That's how the "best fit" forecasting method used by other planning systems works. They switch algorithms, causing forecast disruptions and overreactions. ToolsGroup uses a single, self-learning algorithm that never switches; instead it makes smooth micro-adjustments over time based on the most recent demand behavior.

Supply Chain Planning Solutions for Manufacturers

Our cloud-based planning software runs on Microsoft Azure for scalable, automated planning enhanced by AI.

SALES & OPERATIONS PLANNING
DASHBOARDS & PERFORMANCE MANAGEMENT

Demand Modeling	Demand Sensing & Planning	Inventory Optimization	Supply Planning	Production Planning & Scheduling
• Probabilistic Forecasting • Seasonality • Daily Patterns • Calendars • Sales Windows	• Promotions Planning • New Product Introduction • External Demand Causals • Early Signal Analysis • Demand Collaboration	• Service Level Optimization • Multi-Echelon Inventory Optimization • Mix, Stage & Lot Size Optimization • Inventory Modeling	• Allocation & Replenishment • Dynamic Min/ Max Projected Requirements • Monitoring & Visibility • Supply Collaboration	• MPS • Finite Capacity Plan • ATP • Production Scheduling • MES

SAP   Microsoft Dynamics 365   **ORACLE®**   **Plus any third-party data sources**

Azure

toolsgroup®

Build a Powerful Business Case for Digital Supply Chain Planning

// Guided Supply Chain Assessment
This complimentary service provides a rapid assessment of supply chain health and delivers practical and quantifiable evidence of opportunity for improved business outcomes.
Download an example report

toolsgroup.com

[1] Nucleus Research: ToolsGroup Optimizes Inventory to Increase Service Levels. Isaac Gould. July 2020