

To remain productive, profitable and competitive in a fast-shifting world, industrial companies need more efficient and precise supply chain planning processes and transparency.

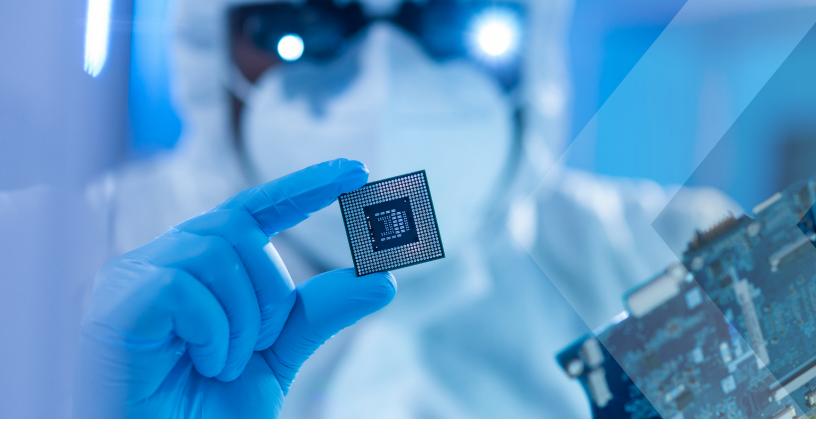
As an industrial manufacturer, you face a unique set of challenges. While your customers continue to demand "more, better, faster," delivering innovative, high-quality products to them, when and where they need them, is more difficult than ever.

Every day, you need to balance the precise management of customer requests and resources while controlling costs, often within multi-tier distribution channels. New suppliers must be quickly vetted and onboarded. Production schedules need to be optimized. And finally, you've got to make the right decisions using the latest, most-accurate data.

When you factor in a climate of sharply rising costs and the risk of major disruption lurking around every corner, it's clear that today's reality is too much for traditional, step-by-step, siloed planning.

That's why it's crucial to tightly sync every stage, from raw materials to delivery. Profitability depends on your organization's ability to strategically prepare for any scenario and anticipate its impact across different functions to ensure delivery in-full.





# WHAT'S PREVENTING INDUSTRIAL MANUFACTURERS FROM TRANSFORMING SUPPLY CHAINS?

While groundbreaking innovations such as generative AI, robotics, and automation are poised to revolutionize the manufacturing industry, a variety of challenges continue to hold back transformation efforts for many organizations.

# Outdated systems and processes

Achieving supply chain resilience is a delicate balancing act – and it's hard to pull that off when you're relying on an aging IT infrastructure and labor-intensive manual processes that don't scale. Legacy systems too often become bottlenecks, resulting in delays, reduced efficiency, stressed planners, higher costs and dissatisfied customers.

### Information silos

When communication isn't flowing between teams, suppliers and partners, it impedes your ability to understand the impact of a problem and determine the best course of action. And when this data lives in multiple spreadsheets or multiple legacy systems, it's challenging to understand the available options within the supply network.

### Lack of end-to-end visibility

When you have limited visibility across your industrial supply chain, you're forced to make decisions based on outdated or incomplete data. When the unexpected happens – shortages, delays, or quality issues – you don't have the agility to respond fast enough. This can lead to overproduction and misaligned inventory, both of which are extremely costly.

# Site-level production scheduling

Effective production scheduling can't be done in a vacuum. When each manufacturing site is working from its own playbook, it's almost impossible to allocate resources effectively across your other sites. This can lead to a whole host of negative outcomes that make it challenging to deliver for your customers and meet your business goals. You can be stuck with excess inventory and holding costs, while underutilizing resources like labor and machinery drives up operational costs.

# High inventory and transportation costs

The costs for carrying product inventory are high, plus the costs of transportation are rising, and it's only getting harder to contain them. Inefficient supply chain practices and badly outdated IT systems are often the culprit. Poor demand forecasting, long supply lines, and a reliance on inefficient transportation routes can all contribute to bottom-line financial headaches.





# WHAT MAKES KINAXIS RIGHT FOR YOU?

Kinaxis offers specific functionality and capabilities designed to help you overcome your unique supply chain challenges.

#### Advanced Cognitive Analytics (ML)

Leverage advanced analytics techniques to improve decision making and lead time accuracy





# **Data Harmonization**One single version of the truth

for all planning data

#### Supplier Collaboration

Agile response to changes thru streamlined coordination with the supply base







#### Clear-to-Build Analysis

Quickly identify component shortages and determine approval for production readiness

# Project Management Determine production

schedule and work breakdown structure for ETO



# K

# **Engineering Change Management**Simulate proposed BOM changes and capture as-built BOM's

#### Configuration Management

Use option ratios to control different versions of an assembly's BOM





#### Attribute Based Planning

Manufacture based on inventory attributes such as lot status or other criteria

#### Inventory Optimization

Determine optimal inventory levels to maximize on time delivery and minimize costs





#### **Concurrent Planning**

S&OP - Demand, Supply, Capacity & Inventory Planning for unconstrained and constrained products



# A closer look at supply chain orchestration

Today's industrial supply chain challenges demand hyper-agile, modern supply chain management techniques—the end-to-end orchestration of people, and physical, digital, and financial assets to meet customer expectations and corporate goals.

While the concept of "orchestrating" specific parts of the supply chain isn't new, supply chain orchestration is emerging as a new sub-segment of supply chain management—bringing together the most critical activities into a new synchronized process.

Supply chain orchestration with Maestro<sup>™</sup> rises to the challenge of managing multiple parties, systems, and processes to drive high-performance supply chains. These supply chains can fulfill on time and in full at the lowest possible cost and do so consistently, with resilience to changing demands and conditions.

The result? Happier customers, better network synchronization, and more sustainable profits.

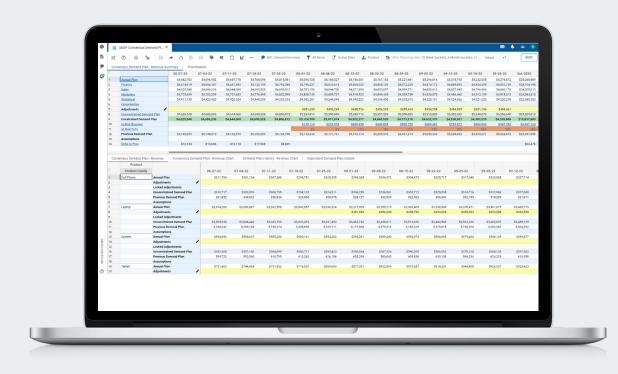
"Imagine your demand, supply, material and production planners having access to the same realtime insights. They can collaboratively work in running a mini-scenario of fulfilling rush demand from your most important customer by optimizing profits, service levels and line capacity – all enabled by a built-in AI/ML engine in a matter of minutes."

Raman Mehta, CIO and SVP, Johnson Electric



# Realign, consolidate and optimize supply chain activities

Automation, digitization and make-to-order configurations can bring big benefits to your operations – and complexity to your supply chain. That puts extra pressure on planning and execution to be streamlined, agile and responsive. Maestro is the user-friendly solution for realigning, consolidating and optimizing your global supply chain activities, for maximum flexibility and faster decision-making.



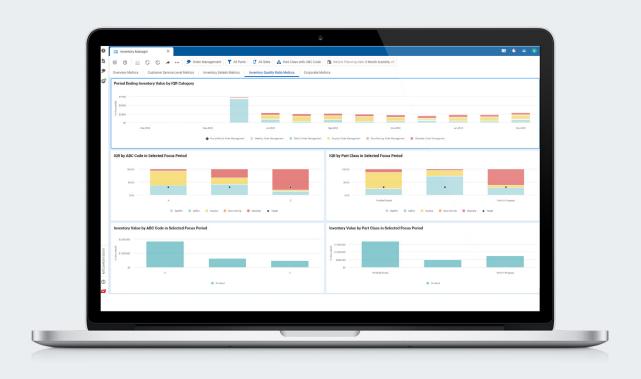
# Effortlessly deliver on the tallest of orders, no matter what

As an industrial manufacturer, meeting your customers' demands for high-quality products, delivered on time, and backed by reliable customer service and support can seem like a tall order. From raw materials to distribution, navigating intricate product configurations, production capacity, inventory, multiple channels, different regulations, and transportation requires precise orchestration. With Maestro, you can streamline and fine-tune your global supply chain to mitigate disruptions and make smart decisions fast.

## Optimize your inventory

It's costly to miss a commit, but it's also costly to hold excess inventory, especially large industrial products. And at a time when cost constraints are top of mind for every decision, you need to be able manage your inventory with precision. When you're trying to do it across multiple nodes and facilities around the globe, you need visibility across the organization to understand how much inventory is available at any given time, and where.

By applying inventory optimization with Maestro, you realize a variety of benefits. You can avoid excess stock which can consume working capital, improve delivery times to strengthen customer relationships, and free up working capital to invest elsewhere in the business. What's more, you can reduce risk with real time data, improve inventory turns, and reduce waste across the supply chain. Maestro empowers organizations to achieve upwards of an 18% reduction in inventory while maintaining customer services levels.



# Streamline sales and operations planning

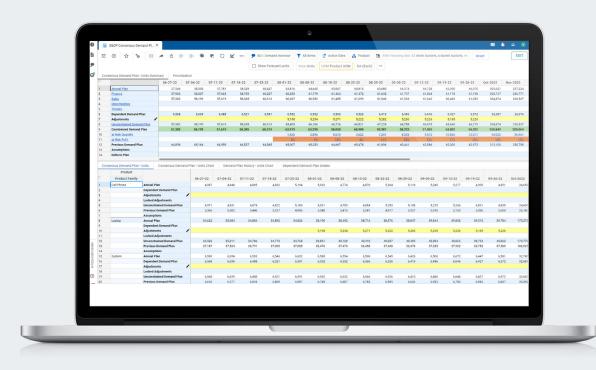
In many manufacturing organizations, regular sales and operations planning (S&OP) is non-existent. For those that do have a regular S&OP cadence, it's often an inefficient, labor-intensive process propped up by Excel spreadsheets.

Done right, S&OP allows for a true enterprise-wide planning cadence. Maestro provides sophisticated scenario analysis, which enables different functions in your organization to collaborate easily and assess KPI tradeoffs in real time, helping you determine the optimal strategy for meeting your business objectives.

# Aftermarket parts planning

Aftermarket demand can be unpredictable due to factors like the longevity of equipment, maintenance intervals, and external factors such as climate or usage intensity. Accurate forecasting helps you maintain optimal inventory levels without overstocking.

With Maestro, you can conduct probabilistic forecasting using AI and ML combined with traditional statistical forecasting. This takes the guesswork out of determining sporadic demand patterns for spare parts. These inventory management and optimization capabilities are vital for keeping assets in operation. Plus, the attribute-based planning capability automatically tailors spare parts inventory to customer-specific demands.



# Engineering change management

Common business models in industrial manufacturing, such as make-to-order and configure-to-order, can bring big benefits to your business – and complexity to your supply chain.

With Maestro, you have the precision you need to cut through the complexity. Maestro allows you to evaluate the impact of engineering changes, simulate multiple cut-over dates to determine the optimal time to change over a production line, and create alerts to monitor the cut-over. In addition, your planners are empowered to validate the allowable feature combinations.

# **Enterprise scheduling**

Treating each of your sites individually makes sense in some cases due to shop floor layouts and the nature of the products being manufactured. But often, key learnings and best practices from one site can also be applied to others.

With Maestro's enterprise scheduling capabilities you can simplify changes using drag-and-drop scheduling and interactive visualization in real-time. You can also accommodate a diverse mix of shop layouts and secondary constraints to serve the needs of each site. You can also enhance throughput by minimizing disruptions and creating executable production schedules that consider all constraints. Clear scorecards make it easier to measure multiple KPIs and share information across Maestro applications.





# VALIDATION FROM THE EXPERTS

If you'd like validation that Kinaxis is a leader in supply chain planning solutions, look no further than Gartner®.

The 2024 Gartner® Magic Quadrant™ for Supply Chain Planning Solutions positions Kinaxis highest on Ability to Execute. This also marks the tenth consecutive time Kinaxis has been recognized as a leader, solidifying our proven track record of bringing innovation to life.



### **ENDNOTES**

1 Gartner, Magic Quadrant for Supply Chain Planning Solutions, A. Salley, T. Payne, P. Orup Lund – 2021, 2022, 2023, 2024

Gartner, Magic Quadrant for Supply Chain Planning System of Record – 2014, 2016, 2018 Gartner, Magic Quadrant for Sales and Operations Planning Systems of Differentiation – 2019, 2017, 2015

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