



**KINAXIS®**

INDUSTRY SPOTLIGHT

# 5 roadblocks to profitability for automotive suppliers



# How to manage materials volatility and cost pressures with supply chain orchestration

The automotive industry is at a crossroads. While sales of electric vehicles (EVs) continue to grow, demand for ICE vehicles has not receded as quickly as many projected.

As the competition to be viewed as the “electric leader” pushes OEMs to innovate more rapidly and stave off competition from overseas, margins are becoming increasingly tight, with suppliers bearing the brunt of the financial impact. Throw materials shortages and a host of geopolitical factors and natural disasters into the fray, and almost any decision you make has the potential to be costly.

Managing uncertainty and staying profitable in this environment requires a tightly orchestrated supply chain. Orchestration positions you strategically to prepare for and respond to any scenario and understand its impact on other essential supply chain functions. Not only does it allow you to stay ahead of disruption, it enables you to forecast accurately, minimize costs, and track every step of every order from the production line to last-mile delivery.

Here are five industry challenges that loom large on the road ahead and call for a solution that delivers agility, resiliency, and orchestrated efficiency.

***“Before, we only had one plan. Now we could have a plan A, B and C and decide which one is best.”***

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# 1

## The shift to EV is slowing growth for ICE components

After years of hype for electric vehicles, consumer behavior is finally catching up to analyst projections, but the path to an all-EV future is still full of twists and turns. Governments are incentivizing suppliers with grants to make the leap to an EV future. But for now, suppliers are successfully balancing demand for both EV and ICE components, even though forecasting volumes is proving to be challenging and determining when their EV business will overtake their ICE business is unclear.

The EV transition is reversing the trend towards severe cost-cutting. EVs cost 40–50% more to produce than gas-powered cars on average. Only suppliers that adapt and increase productivity will survive, as supply chains are rebuilt to serve an EV future.

For suppliers whose businesses only serve the ICE vehicle market, surviving in the EV era requires a substantial shift. At the same time, too much upfront investment in EV parts can be risky, especially as EV sales continue to move through peaks and valleys.

With fierce competition for OEMs in the EV space, many are cutting costs to be more attractive to consumers. But these cost-cutting measures often trickle down into the supplier network, increasing pressure in an already cash-constrained environment. Having a good understanding of demand, required inventory, and available supply is critical for navigating through this period of flux. Facing increased competition and significant financial constraints, suppliers can't afford a missed commit to the OEMs they serve. Old, outdated operational systems will not have the horsepower to drive suppliers to success.

To prepare for this potential onslaught of external pressures on margins, both OEMs and suppliers have no time to lose to make their business models more resilient, enacting more fundamental cost-reduction measures while staying disciplined to maintain price levels.

# 2

## Raw materials shortages continue to plague the industry

The global chip shortage of 2020 set in motion a raw material crisis of epic proportions, demonstrating what happens across the supply chain when suppliers are no longer able to fill orders. The transition to EVs brings with it a similar potential for material disruption and shortages, especially for batteries and transistors, and a growing requirement to track supplier risks like financial solvency and inflationary pricing.

Increasingly, OEMs are embracing circular models for plastics and batteries for their main components that focus on reducing, reusing, and recycling. The need for better batteries could see companies enter into long-term supply agreements or recycling initiatives to ensure a steady supply of whatever battery materials they'll need. Other research shows the potential for more sustainable solutions. Either way, there's instability in the supply and demand dynamic around this area of future automotive power.

Traditional manufacturing materials show volatility on the horizon too, as regulations recently introduced to protect some high-demand resources are putting pressure on those markets. For instance, the Carbon Border Adjustment Mechanism has been put in place to ensure that EU steel and aluminum producers are not undercut – but these protections could still increase costs related to these metals.

Along with these developments, the chip shortage offers a cautionary tale on the perils of putting all your eggs in one basket. As innovation and new legislation increase the potential for material disruption, agility initiatives must diversify, too. Suppliers need deep visibility into their inventory in transit, as well as the ability to conduct robust, what-if scenario analyses to test out alternative strategies for overcoming a disruption. As the likelihood of having to switch to alternative sources increases, suppliers will also require multi-modal transportation management capabilities that provide full visibility and executability over new modes and with new carriers to ensure they don't lose any time with their supplier install base if they switch from, say, Asia to Europe.

# 3

## Lack of sophistication in planning processes

Imagine trying to run a marathon in shoes designed in the 1970s, while your competitors arrive at the starting line wearing the latest carbon-plated “super shoes.” You wouldn’t deliver your best performance, but you’d also be left in the dust by your fellow runners. Yet, this is the approach many suppliers continue to rely on, trying to keep pace using vastly outdated systems in a discipline that has made enormous leaps over time.

Only with increased transparency and a consolidated view of production planning across the enterprise can suppliers gain the insights they need into how their production aligns with current demand. These capabilities are critical for decreasing the risk of delays as well as their costly flipside: excess inventory or missed commits. To avoid losing production capacity also requires automation and logistics optimization that minimizes costs and ensures critical just-in-time (JIT) parts get where they need to be.

For Tier 1 suppliers, having the additional responsibility of orchestrating and coordinating the OEM’s other suppliers means they need to manage their supply chain with planning solutions now – and it’s not only about execution and fulfilling the orders from OEMs as it was in the past.

The cost of penalties for late delivery is a key driver for Tier 1 suppliers to plan and execute better, which can only happen with better, more transparent collaboration with the OEMs. But the need to collaborate goes beyond managing constraints and goes deeper in the network than at the Tier 2 level. Strengthening strategic relationships and improving the visibility upstream beyond Tier 1 is critical for suppliers, and new protocols like Catena-X are also emerging in Europe to allow seamless data exchanges between OEMs and suppliers.

# 4

## Varying (and finicky) regulation

Avoiding the costs of compliance is another area where navigating risks to profitability has grown more complex for suppliers. Conditions and trends vary tremendously from one region to another. In the US, there's been some pumping of the brakes on emissions legislation, with the Biden administration slowing tailpipe emissions regulations and EV requirements through 2030. This relative lack of infrastructure supporting the overall market shift to EVs creates its own instability, however.

At the same time, Clean Air for Europe (CAFE) efficiency regulations already in effect are forcing OEMs to reconsider their approach to the production of sedans, which tend to operate at the low end of efficiency. Suppliers must have good communication and collaboration with the OEMs they serve to understand their regulatory compliance strategy. This will give them an accurate picture of the demand they'll need to serve programs and where to slow production to avoid holding excess inventory for parts that don't fit into an OEM's compliance strategy.

Compounded with protections such as the Carbon Border Adjustment Mechanism (CBAM) regulations on steel and aluminum mentioned earlier, forecasting buyer trends and trade pressures across international markets becomes incredibly challenging.



# 5

## Geopolitical impacts (UAW strikes, elections, economics, etc.)

A variety of geopolitical factors also pose substantive challenges to the auto supplier industry. Strikes by the United Auto Workers (UAW) in the US in 2023 led to decreased demand, cash flow issues, supply line disruptions, and even bankruptcy for some suppliers. These strikes also had a trickle-down effect for raw material producers, including those supplying steel and plastics.

With [64 countries – or approximately 49% of voters worldwide – holding elections this year](#), there is also the potential for significant political shake-ups in 2024/25. The impacts of any regulatory changes are yet to be seen but could rattle an already shaky outlook for suppliers. And while the Americas and Europe have imposed new tariffs on Chinese goods to protect domestic industry, and talk of near-shoring continues to arise, the costs will be passed onto consumers who are already experiencing tepid sentiment.

This all underscores the need for suppliers to be more agile in their approach and more efficient with resources. With a solid foundation of supply, demand and inventory planning, suppliers can work concurrently across the enterprise to ensure they are maximizing resources without unnecessarily impacting KPIs in other functions. And by pairing their planning and execution capabilities via supply chain orchestration, they can achieve true network-wide transparency and avoid unnecessary costs.



# How Kinaxis builds a more resilient supplier network supply chain

Through secure cloud-based integration, Kinaxis Maestro connects all internal and external data sources seamlessly. Offering flexibility to easily integrate with existing ERP systems or develop custom apps and algorithms, it enables you to create a supply chain configuration to your unique needs, reducing waste and accelerating breakthroughs. Instead of allowing disruptions to halt progress, Maestro injects your supply chain with the power of an intuitive and adaptable planning solution.



## POWER TRUE ENTERPRISE-WIDE VISIBILITY

Maestro breaks down functional silos, enabling organization-wide orchestration and providing intelligence that's backed by real-life supply chain data via a digital twin, instilling trust in the network from multi-year strategy planning to last-mile execution and delivery. With real-time exceptions alerts and inventory views across multi-tier partners, locations, and shipment milestones, businesses never have to wonder where critical parts are, and can quickly ensure items get where needed, on time and at the lowest cost.



## CUT COSTS WITH INVENTORY OPTIMIZATION

Manage cost constraints by ensuring you have the inventory you need, and only the inventory you need. Holding excess inventory can lead to massive costs and even obsolete stock, which equals dollars down the drain. With inventory optimization suppliers can more strategically manage stock of a given part, understanding if it's a high-volume or a low-volume part, and collaborate across the organization to maximize production resources, without creating excess, while having the parts needed to avoid a stockout and a penalty from the OEM.



## DRIVE AGILITY AND COLLABORATION

When there's a material shortage, a site goes offline, or a weather event interrupts operations, Maestro delivers agility to handle bumps in the road. With what-if scenario analysis, suppliers can test strategies to overcome disruption and keep business moving. Collaboration functionality between OEMs and suppliers enables configuration of additional data streams. Once parts are on their way, always-on, optimized re-planning ensures logistics teams are notified in real-time of any issues.



## ADVANCE SUSTAINABILITY PLANNING AND LOGISTICS

Don't be at the mercy of regulations and expectations for cleaner operations, plan for them. Maestro allows OEMs to see all nodes within the network, empower cleaner sourcing and transportation decisions, explore fuel options and optimize for truckload, route, and carrier. Kinaxis enables partner network logistics planning of order flows against the lowest carbon footprint.





## Steer towards the future with insight and integrity

Kinaxis has been helping suppliers achieve supply chain success and step up to market challenges for years. Today, you can do more with your supply chain management processes than ever, from data synchronization and smart collaboration to AI-enabled “always learning” algorithms. The end-to-end orchestration solutions on the Kinaxis platform will turn your supply chain into a powertrain for business success.

With Kinaxis, you can harness the power of cross-network data to monitor trends, improve forecasts, and maximize gains. Capitalize on opportunities that a siloed competitor won't even see. Organizational change can be overwhelming, especially supply chain transformation. We get it and can work with you to capture gains surgically and iteratively.

Kinaxis is proud to work with many of the world's automotive leaders. Find out why companies like NORMA Group, Veoneer, and Lippert rely on Kinaxis implementations to differentiate their supply chains and gain competitive edge.

To learn how Kinaxis can be implemented quickly to accelerate the strength of your automotive supply chain, **request a personalized demo.**