



8 Key Strategies Leading Automotive OEMs and Suppliers Plan to Deploy

By Joe Bellini, EVP Product Management & Marketing | One Network Enterprises



A Report From the Front on the Major Challenges Facing the Automotive Sector Today and How the Leaders Plan to Meet Them

Over the past few months, automotive original equipment manufacturers (OEM) and suppliers have been participating in banker-led sector updates. In these updates, strategies, opportunities, problems, and major initiatives have been discussed along with Q&A designed to understand go-forward plans and market positioning for each company.

This paper is a summary of select points voiced by **Ford, GM, Rivian, Lear, Adient, American Axle, and Aptiv**, whose presentations were attended by the author. I'll focus primarily on topics relevant to supply chain networks.

1. PERMANENT REDUCTION IN INVENTORY LEVELS

All parties learned from having to meet demand based on a network of lowered inventory positions and scarcity of supply. The estimated typical three months' of supply had dropped to one month. Predictions are that the industry will need to carry their new learnings forward and run with two months' supply, running a more streamlined and make-to-order network. Reference was made to Tesla where a mix of new techniques applied from the tech sector across certain processes combined with proven automotive production techniques would lead to the best outcomes. For the upstream supply, the general consensus was that inventory policies would be designed around supporting make-to-order, along with keeping Just-in-Time (JIT) into final assembly. Upstream policies would include postponement and staging of inventories based on realistic lead times.

2. ELECTRIC VEHICLE MOMENTUM

A discussion was had around the valuation of Tesla as compared to the traditional internal combustion engine (ICE) vehicle OEMs. The issue for ICE over time is increasing costs related to meeting Corporate Average Fuel Economy (CAFE) standards, along with the overall environmental push which manifests itself in multiple ways. This means the cost of capital will be higher for ICE as compared to electric vehicles (EV). Ford discussed organizing into separate EV and ICE divisions with core market focus along with cross-organizational leverage.

3. CONFIGURATION

Due to the rising electronic content in vehicles, configurability is growing at an accelerated rate. Participants discussed high-tech supply chain network models, and the need to better understand those methods and processes, as they will apply to automotive in the future. The OEMs discussed the fact that the traditional forecasting techniques are no longer working, especially in the EV market.

4. VEHICLE LIFE CYCLE LEVERAGE

Multiple programs, linked to the OEMs, are moving forward in this area, from subscriptions to used vehicle marketplaces. Key for everyone is a set of integrated processes that represent the entire vehicle life cycle from preference and acquisition through finance, insurance, support, service, maintenance, and rollover. Discussion was around maintaining an ecosystem through the fourth owner, rather than the second owner, which is the average today. For example, one OEM discussed driving longer lifetime revenue through connected platforms with services and experience. Telematics, fleet management, EV charge management, and service management, all play a big role.

The goal is to maintain the post warranty service market. This will generate additional revenue, plus extend service revenue from the fleet post warranty. Companies will also get better penetration in mixed fleets by providing better service. They speculate that it could be possible to extend the revenue cut off from 4 years to possibly 10 or 15 years. And because uptime is critical for commercial vehicles, they could be serviced where they are, to minimize their out-of-service downtime.

5. CONTRACTUAL ADVANCEMENTS

Everyone in the trading partner ecosystem is concerned about headwinds related to costs and inflation. Suppliers are dealing with a mixed bag, given cost increases on directed parts pass through to the OEM, but they are impacted by rising costs in many other areas. Significant focus is being placed on collaboration across all tiers of supply upstream in the network, and this includes futures positions on materials and capacity. Contracts themselves are being upgraded to include new terms around costs like ocean freight as well as non-cancellation of contracted materials and capacity.

6. SUPPLY NETWORK DESIGN AND OPERATION

Participants discussed sourcing regionalization to reduce risk. Digital twins, scenario planning, multi-tier collaboration, supply coordination, and rolling constraints across the network, were all mentioned. Another key theme was the need to merge execution with planning to better perform, given the rolling constraints combined with demand and

supply variation. There were questions about the ability of the supply base to ramp up based on increased production requirements.

Volatility in schedules remains a key concern with many changes happening weekly, sometimes even daily, where suppliers find out on Sunday that they aren't shipping Monday, due to an assembly plant closure on Tuesday or Wednesday. Batteries are another key concern with some suppliers locking up raw materials such as lithium, cobalt, and nickel, and some investing in their own battery production. To complicate the networks further, the suppliers will have some components which are agnostic to ICE, Hybrid and EV, and others that are dedicated to a specific family.

7. PRODUCT DESIGN

This was a key topic related to network sourcing, capacity, and availability. Responsibility for the design of certain subsystems was discussed, along with the consolidation of multiple and varied signal processors into a single bus. Platform design in general will become more highly leveraged. Engineering change notices will become more frequent in the EV segment as advancements are made around things like cockpit design, which could open the footprint for battery capacity as batteries continue to improve at the same time.





8. CONSTRUCTIVE COLLABORATION ACROSS THE NETWORK

If I had to pick a major theme that carried through every presentation, it would be this one. Financially, there are headwinds, tailwinds, and all kinds of problems and issues to be managed; but there is a big pot of gold for those who navigate them well. It was generally agreed that go-forward solutions will be a mix of things including demand shaping, inventory, and long-term contractual commits. In addition, participants acknowledged that better communication, forecasting processes, and supplier performance, were all critical to success.

The solution needs to be systemic, since even buying ahead in anticipation of problems, like we saw in Japan, only went so far. It was noted that JIT didn't cause the whole problem; and that carrying more inventory costs money, which the customer won't pay for. However, if the OEMs can reduce disruption, and communicate in real time upstream across all tiers of supply, then suppliers won't have to carry the extra inventory.

Everyone needs to contribute in a multi-party, multi-tier network, working in real time to handle disruption as well as capitalize on mix and volume opportunities. Disruption is expected to continue, and will vary day to day, and quarter to quarter, similar to that sparked by events such as the pandemic, the war in Ukraine, and erratic supply flow from China. To navigate this variability and uncertainty, all trading partners in the ecosystem need to be open and transparent.

Change and Opportunity Abounds in Automotive

It is an exciting time in the automotive sector. New revenue opportunities exist in the traditional ICE markets and are rapidly expanding in the EV marketplace, all while supply chain network disruption has never been higher.

Adding to the complexity are new demand and forecasting models, more frequent engineering changes, increased flexibility and adaptability in the supply chain network itself, and the expansion of collaboration upstream through all tiers of suppliers considering raw materials and related gating capacity for those components. And for both the OEM's and their suppliers, they now have a platform mix between ICE and EV, where there is some co-mingling which further complicates their network processes.

Everyone is being asked to maximize on all this opportunity as volume rebounds, while simultaneously lowering costs through maintaining inventory reductions, labor efficiencies, and other cost/expense related improvements.

One Network's Digital Supply Chain Network™ solution is specifically designed to enable the capabilities to maximize the available opportunities. Real-time multi-party, multi-

tier, collaborative planning and execution is proven and has been deployed successfully around the globe. Expansion of services across all parties delivering an extended lifecycle service capability is configurable and available today. The network enables a distributed BOM upstream across all tiers of supply and is linked downstream to real-time demand and product mix. This is a core capability, along with the associated common and integrated data model across all trading partners in the ecosystem. The potential labor efficiencies and improved decision making across buyers, planners, schedulers and dispatchers is significant.

Supply constrained components can be planned with the mix and volume of final product that maximizes overall outcomes for business targets and objectives. And as the industry struggles with mixing business process models from traditional automotive, high tech, retail/CPG, service industries, and others, One Network has successfully deployed in all these segments. It is thus able to configure the highest impact automotive process flows based on the targeted business outcomes to maximize on the current market opportunities across EV, ICE, and all extended vehicle life cycle models.



ABOUT THE AUTHOR

Joe Bellini is certified in AI/ML from MIT Sloan, is an alumnus of Harvard Business School, and holds degrees in Applied Mathematics and Statistics and Mechanical Engineering. He is a past award winner in the Mathematics Olympiad competition, authored the patent for Extended Enterprise Planning across a Supply Chain, and has been listed by Supply and Demand Chain Executive Magazine as a Pro to Know for the past two years.



ABOUT ONE NETWORK

One Network is the leader in intelligent control towers for autonomous supply chain management. From inbound supply to outbound order fulfilment and logistics, this multi-tier, multiparty digital platform helps optimize and automate planning and execution across the entire supply network and every trading partner. Powered by NEO, **One Network's** machine learning and intelligent agent technology, real time predictive and prescriptive analytics enable industry-leading performance for the highest service levels and product quality at the lowest possible cost. It's the industry's only solution with a fully integrated data model from the consumer to suppliers and all logistics partners, providing a network-wide, real-time single version of the truth. Leading global organizations have joined **One Network**, transforming industries like Retail, Food Service, Consumer Goods, Automotive, Healthcare, Public Sector, Telecom, Defense, and Logistics. Headquartered in Dallas, **One Network** has offices across the Americas, Europe, and APAC. For more information, please visit www.onenetwork.com.



One Network Enterprises™

US Corporate Headquarters

4055 Valley View Ln, Suite 1000
Dallas, TX 75244

☎ +1 866 302 1936 (toll free)

📠 +1 972 385 8630

🌐 www.onenetwork.com

One Network Europe

Epworth House, 25 City Road,
Shoreditch, London, EC1Y 1AA

☎ +44 (0) 203 28 66 901

✉ europa@onenetwork.com

One Network Australia/ Asia-Pacific/Japan

☎ +61 401 990 435

✉ cedwards@onenetwork.com

One Network India Pvt Lts

Westend Centre III, Survey No. 169/1,
Second Floor, South Wing, Sector 2
Aundh, Pune 411007, Maharashtra, India

☎ +91 20 49111800

✉ indiasales@onenetwork.com

One Network Russia

☎ +7 916 303 2351

✉ russia@onenetwork.com