How Mercedes-Benz is driving Real Results by improving its Customer Service Levels and Optimizing its Inventory Mix – Right Parts, Right Place, Right Time

Industry Speakers

Salim Shaikh
Vice President, Industry Strategy
Blue Yonder

Julia Wayne
Supply Chain Technology and Strategy Lead
Mercedes-Benz USA

Ashleigh Stone
IT Product Owner: Forecasting, Planning and Analytics
Mercedes-Benz USA

Christian Gabriel
Supply Chain Applications Specialist
Mercedes-Benz USA

Mercedes-Benz

Agenda

1. Mercedes-Benz USA Highlights
2. The Goal: The Autonomous Supply Chain
3. The Challenge: Disruptions Add Complexity
4. The Solution: Blue Yonder Dynamic Deployment
5. Performance and Results
6. Future Roadmap

Mercedes-Benz Highlights

Network View

Network View

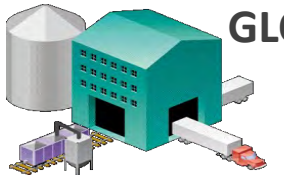
- 9 North America PDCs
- 400+ Dealerships Served
- 100k+ unique parts actively planned
- $1.7B+ in aftersales parts revenue (US Only)
- Industry leading service level during Covid-19

Network Challenges

- 90% of SKUs sourced from Germany, Long sea freight lead times
- Expansive geographic footprint and limited PDC capacity
- Ever increasing customer service expectations
- Expensive transportation and stock out costs
- Long tail SKUs
- Long tail parts portfolio

The Challenge: Disruptions Add Complexity

Long lead times with high customer service level demands



GLC

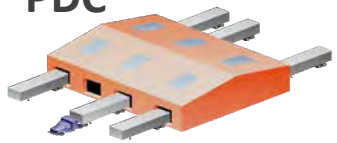
Supply Variability

Factors such as union strikes, weather and customs congestion can cause delays

Demand Variability

Unpredictable demand patterns arise with new model releases, recalls and unplanned wholesale buying

PDC



Production Constraints

Parts may be backordered due to material constraints or facility capacity

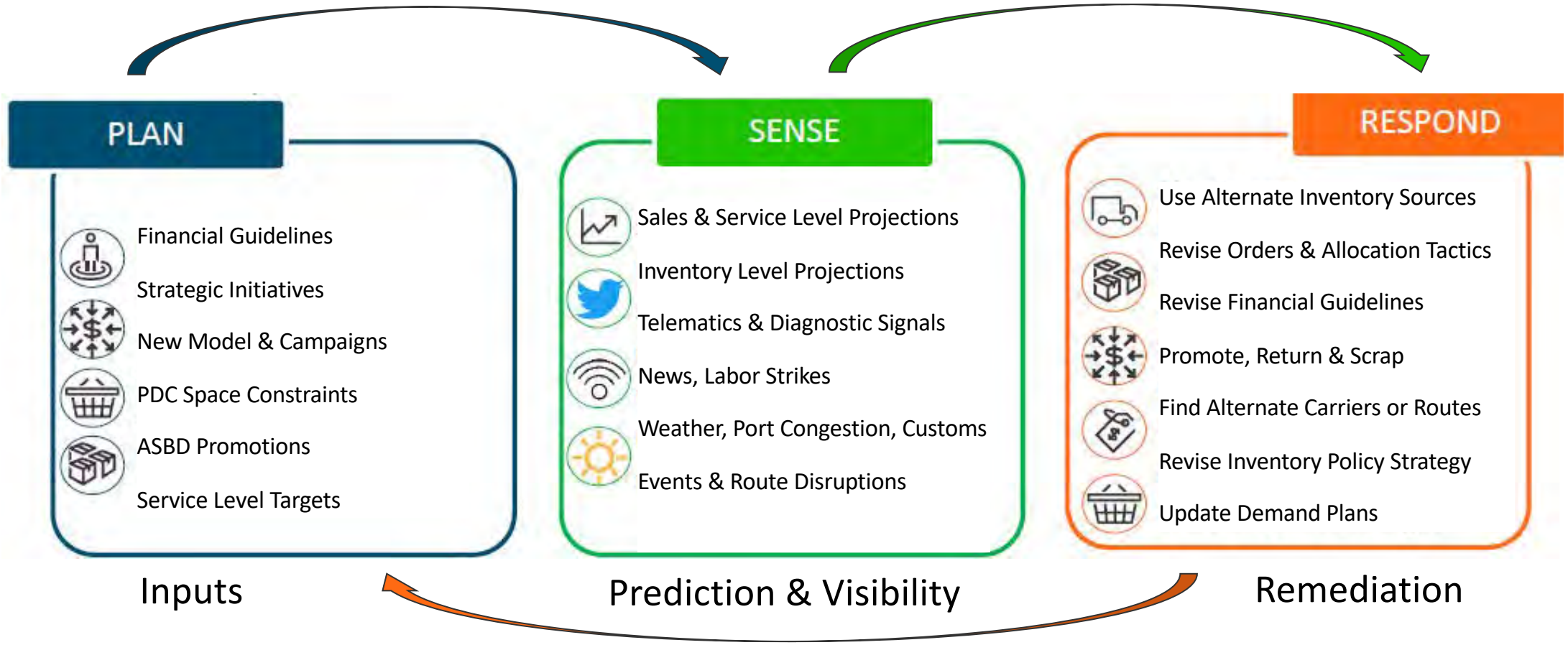
Sea Freight Sourcing

Commoditization, competition, tender management and increased volatility may cause extended lead times

Dealership

The Goal: The Autonomous Supply Chain

Reengineer processes around "Closed Loop Planning"



Mercedes Benz Supply Chain Journey

Implemented in Mexico

BlueYonder

SAP S/4HANA

alteryx The Thrill of Solving

+ableau

Initial Blue Yonder USA integration 2016

BlueYonder

blueprism

Mercedes-Benz StockPro

Implemented in Canada

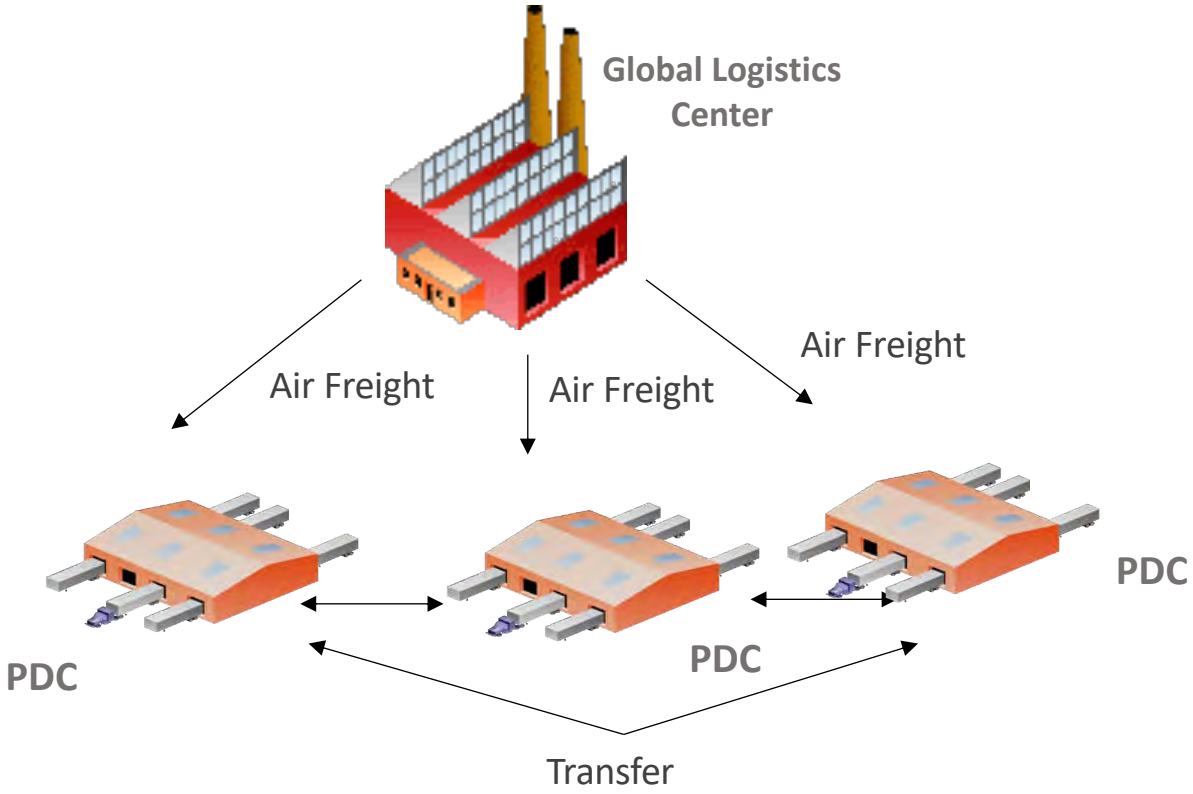
BlueYonder

BlueYonder

Upgrade in Process

Our Primary Use-Cases

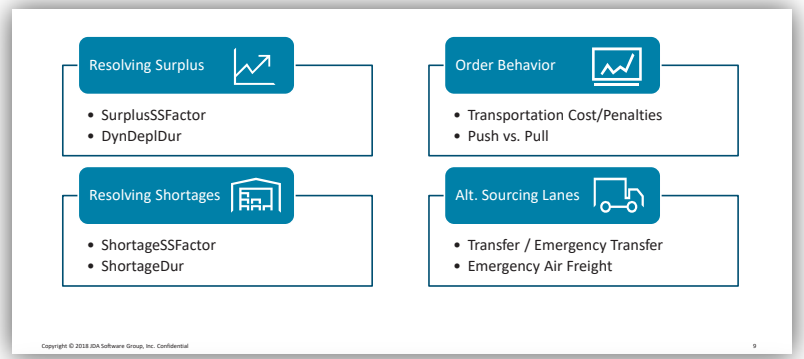
A Response Management tool

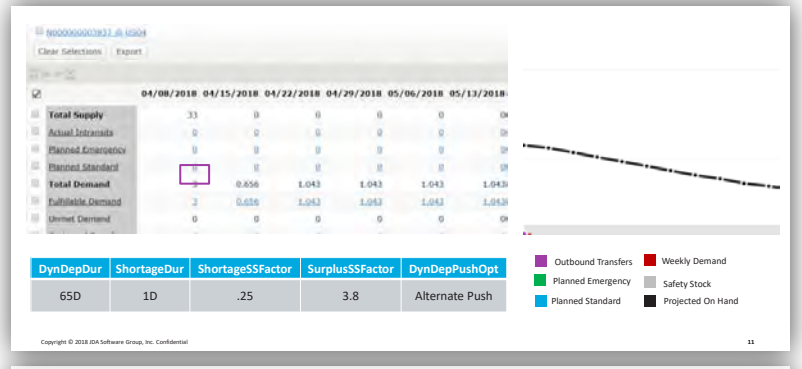


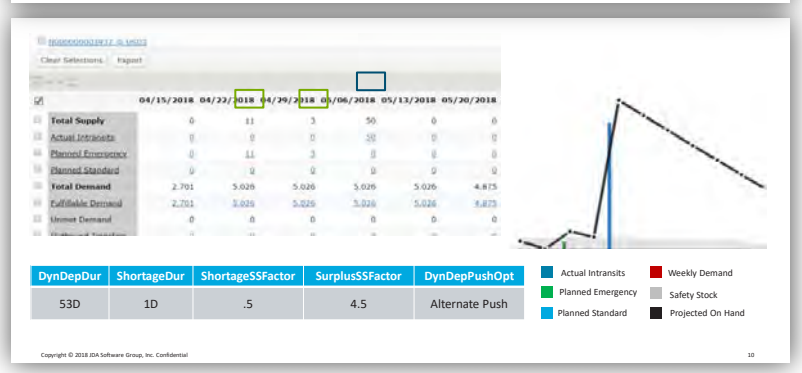
- Resolve Shortages – Service Level Control
- Resolve Surpluses – Inventory Level Control
- Constrained Parts Management

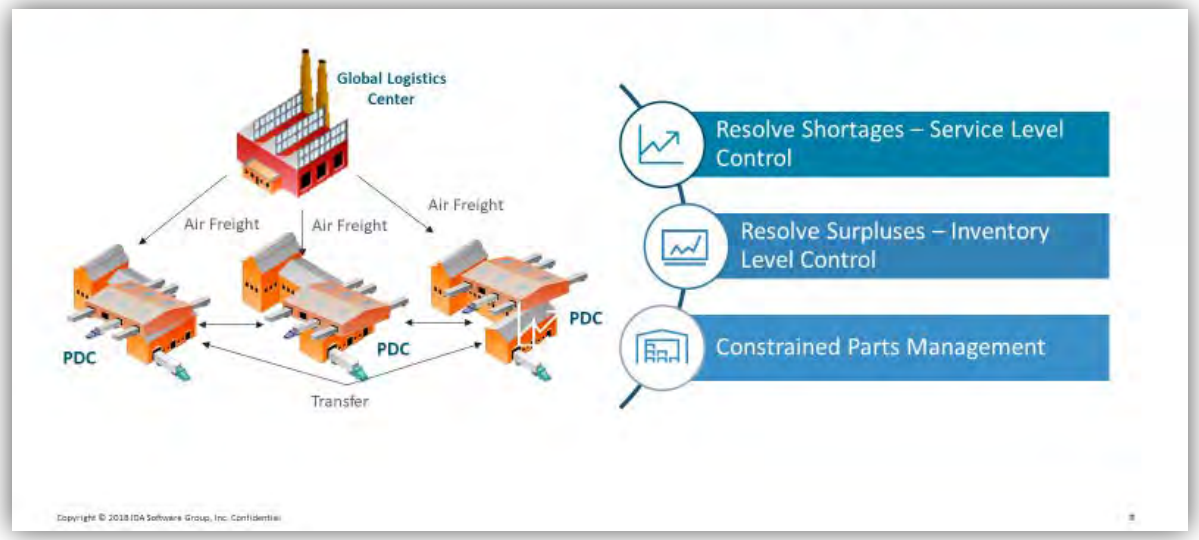
Blue Yonder Replenishment Planning

Dynamic Deployment







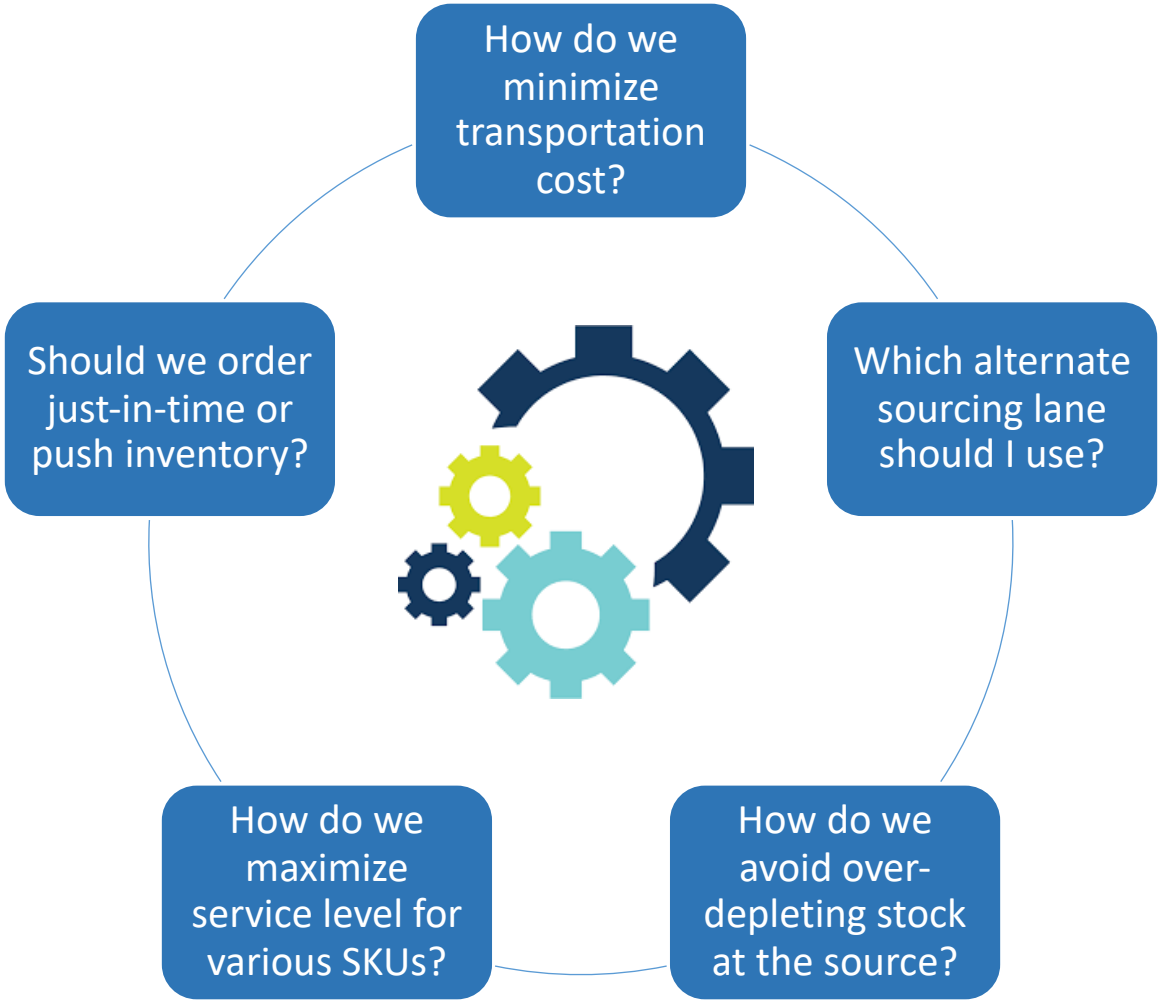


Mercedes-Benz uses Dynamic Deployment to stock balance inventory to improve fill rates

The Solution: Dynamic Deployment

Identify risks and respond at the lowest cost

- Dynamic Deployment identifies and resolves inventory shortages and surpluses across the network and suggests the most cost efficient solution
- Optimization Algorithms run nightly and adjust as needed as system data changes
- Majority of moves execute automatically while exceptions are reviewed and approved by planners



Parameter Management

Just to name a few

Resolving Surplus

- Surplus Factor

Resolving Shortages

- Shortage Factors
- Shortage Duration

Order Behavior

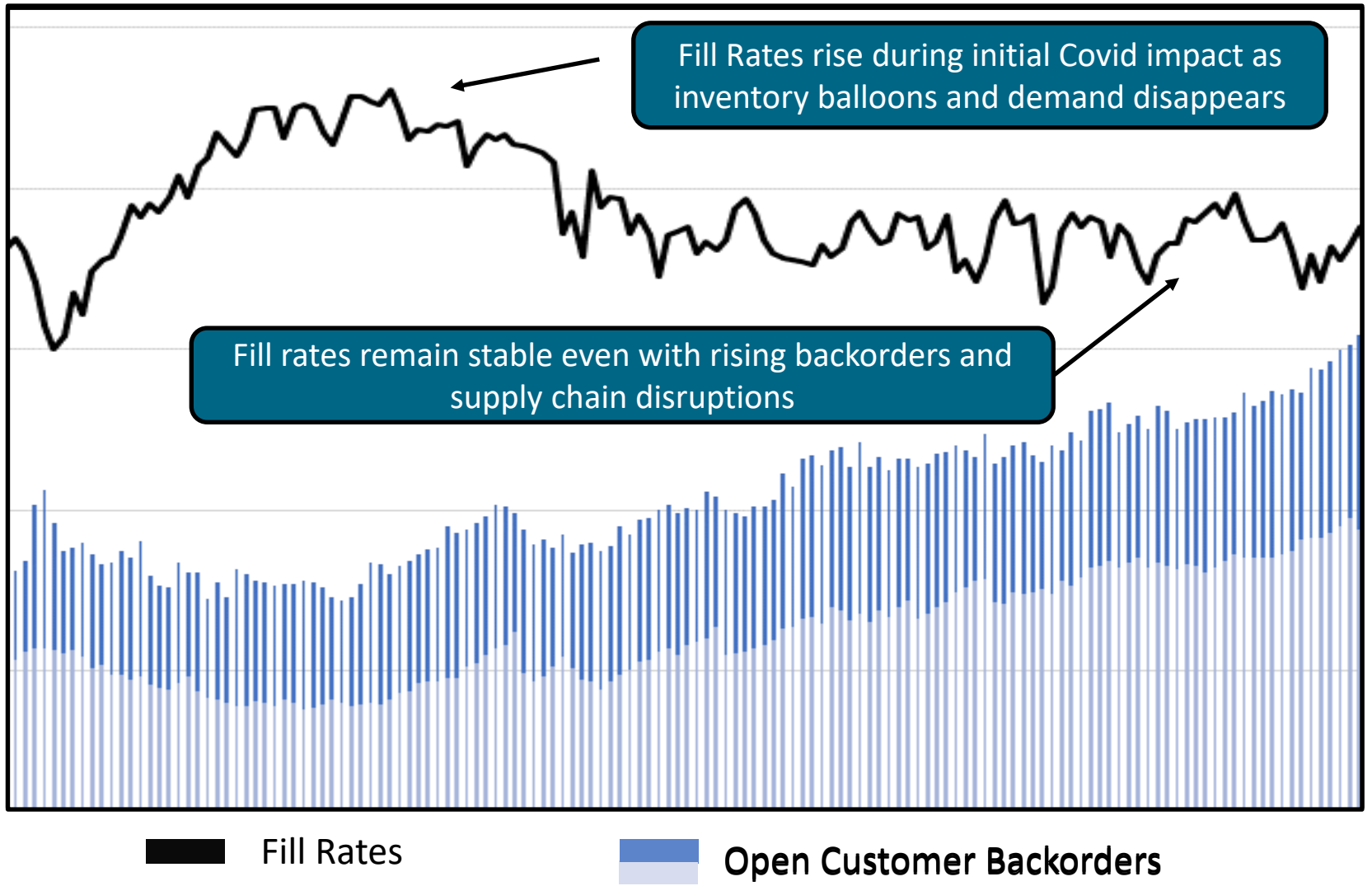
- Transportation Cost/Penalties
- Push vs. Pull

Alt. Sourcing Lanes

- Transfer / Emergency Transfer
- Emergency Air Freight

COVID-19 Performance

Customer Service Level Trending



Future Roadmap

Connected Supply Chain will be the foundation for the future

Transportation Systems

Implement Transportation Management Solution and integrate into supply chain planning systems to further optimize operations

Demand Sensing

Leverage demand signals from real-world events and variables to decrease information latency and improve forecasts

Supply Chain Modeling

Prescriptive analytics, scenario modeling, and machine learning to optimize inventory, labor planning and minimizing the “cost-to-serve” our customers.

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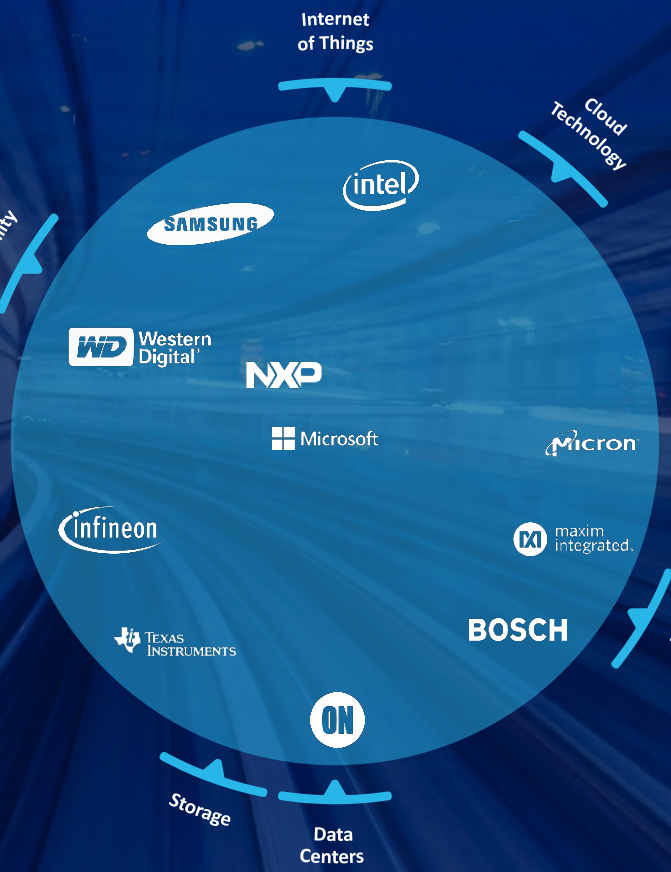
State of Industry – "Industry Morphing"

"Future of the automotive industry will primarily be marked by opposites such as electric drive versus combustion engines, autonomous driving versus driving pleasure, vehicle ownership versus shared mobility and humans versus robots"

Dieter Zetsche,
Chairman of the Board, Daimler

Auto/Industrial



Hi-Tech/Semi

"Micron Bets $3 Billion on Autonomous Vehicles. Those vehicles will have many sensors on them, and they will have to be like data centers on wheels."

Sanjay Mehrotra
CEO, Micron

"Every business will become a software business, build applications, advanced analytics and provide SaaS services."

Satya Nadella
CEO, Microsoft

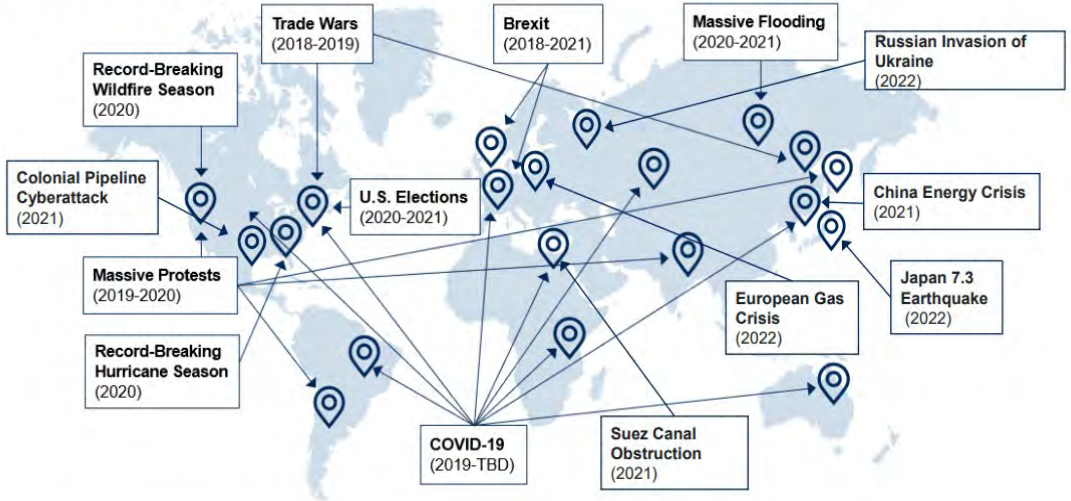
Consumer Electronics

"We are a Technology Company"

Connected - **100%** of all new vehicles by 2030 are expected to be connected
Autonomous - **50%** of passenger vehicles sold in 2030 could be highly autonomous
Shared - By 2030, **30%** of all miles driven will be shared miles
Electric - EVs would secure approximately **52%** of the total market share for new car sales by 2030

Ever since the start of COVID Pandemic, Disruptions have been the Constant/New Norm – Some have used it to accelerate Digital Transformation by 2-3 years

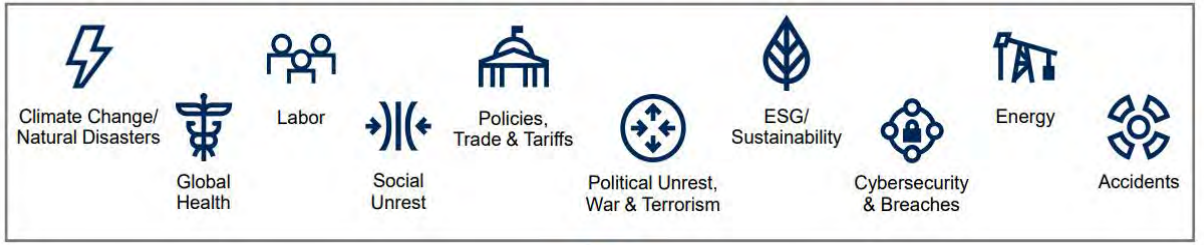
The Frequency & Magnitude of Disruption Is Increasing



Note: Unfamiliar risk events are events with which the supply chain has little or no helpful past experience, usually regional or global, high-impact events.
Source: Gartner

Gartner

But That's Not the Full Extent of Disruption ...



Competition & New Entrants | **Emerging Technology** | **Internal Change**

Total Disruption

Gartner

Source: Gartner Supply Chain Symposium, June 2022

How quickly can Supply Chain/Logistics answer the following questions:

CEO – “What is the impact and can we ship to our customers?”

CFO – “What is the impact on EBIT in the quarter and for the year?”

COO – “What can I produce?”

CSCO – “What suppliers are impacted, and what are our options?”

Legal – “What is our exposure with our customer?”

VP Supply Chain – “What is our current level of inventory and coverage? How much are we spending on premium freight?”

What Automotive companies need to move forward – Supply Chain Resilience

BlueYonder Azure

Priority	Enabling Capabilities	Solution	Anticipated Value
Minimize supply chain disruption, "illuminate supply chain network"	Real-time supply chain visibility and orchestration. N-Tier collaboration	**Control Tower**	– Planner Productivity by 30% ↑ – Reducing inventory by 10% ↓ – Expedited Costs by 40% ↓
Scenario Planning – Supply variability and Demand variability	Scenario Planning – Impact on cash flow, P&L based on different economic recovery outlooks	**Scenario Planning & Simulation**	– Planner Productivity by 45% ↑ – Reducing inventory by 15% ↓ – Expedited Costs by 75% ↓
Inflation and rising cost pressures. Cost control, working capital reduction. 55% of CEO's expect significant rise in Inflation	Inventory optimization. CEO's are investing in cost optimization, automation and efficiency improvements RIGHT NOW to counter inflation	**Inventory Optimization**	– Increase Service Levels by 10% ↑ – Reduce Inventory by 20% ↓ – Grow business revenue by 10% ↑
Risk Mitigation. Predict and manage risks. Risk-proof your supply –	Risk-proof your supply chain through supply chain network redesign, alternate suppliers, multi-shoring, regionalization	**Strategic Network Design & Optimization**	– Reduction in network operating cost by 12% ↓ – Increase in Service Levels by 10% ↑ – Reduced transportation costs by up to 25% ↓

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