

The new auto balancing act: EV, hybrid, and ICE

As OEMs rebalance electric vehicle (EV) ambitions and expand extended-range electric vehicle (EREV), Hybrid, and internal combustion engine (ICE) programs, volatility is increasing. Availability has given way to affordability due to inflation, tariffs, and interest rates—forcing rapid shifts in powertrain mix, trims and sourcing, without disrupting production.



► The Problem

OEMs lack the multi-tier visibility and agility needed to balance fluctuating EV, EREV, Hybrid, and ICE demand—leading to shortages, delays, excess costs, and unstable production schedules.

Supplier Capacity Gaps

- ✗ Legacy suppliers struggle to flex between ICE, Hybrid, EV, and EREV components
- ✗ New battery, electronics, and software suppliers lack automotive scale and readiness

Mix and Spec Volatility

- ✗ Rapid shifts in powertrain mix drive frequent engineering and sourcing changes
- ✗ Part mismatches increase as options multiply

Supplier Fragmentation

- ✗ Hybrid, EV, and EREV programs introduce new, unproven suppliers
- ✗ Limited visibility into battery, electronics, and software readiness across tiers

Disruption Blind Spots

- ✗ Tier 2/3 issues discovered too late
- ✗ Premium freight and fire drills to avoid shutdowns

► The Solution

OEMs need a connected, AI-enabled planning and execution layer that continuously balances EV, EREV, Hybrid, and ICE demand—sensing supplier risks early, adapting to mix shifts, and keeping production stable as market conditions change.



Multi-Tier Visibility and Collaboration (Blue Yonder Network)

- + Real-time insights into supplier readiness
- + Early warning for risks in lower tiers



Supply Chain Command Center

- + Detects disruptions (capacity, delays, shortages) early
- + Supplies optimized mitigation actions



AI-driven Demand and Supply Planning

- + Synchronizes sourcing, production, logistics
- + Adapts quickly to demand swings, spec changes, and volume shifts



Connected execution

- + Transportation Management (TMS): Reduces premium freight by optimizing inbound flows
- + Warehouse Management (WMS): Ensures parts accuracy, sequencing and availability
- + Order Management (OMS): Provides dependable promise dates and orchestrates fulfillment



► Value Benefits

- + No last-minute fire drills or premium freight
- + Early detection of supplier delays and quality issues
- + Stable schedule execution and fewer bottlenecks
- + Faster response to EV, EREV, Hybrid, and ICE demand shifts
- + Stronger continuity across global supply tiers
- + Higher confidence in software, electronics and battery supply readiness

► See how Blue Yonder's automotive supply chain solutions can work for you.

