CASE STUDY

Automotive Manufacturing

Supply Chain Intelligence

From 5 production stoppages a quarter to zero - in 90 days.

Tier-2 automotive component supplier · 3 plants · 280+ active SKUs · 40+ OEM and Tier-1 customers

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1. Overview

A Tier-2 precision component supplier serving automotive OEMs and Tier-1 manufacturers was experiencing 4–6 unplanned production stoppages per quarter - each averaging 8 days of lost output. Their procurement team of seven managed 280+ SKUs and 40+ vendor relationships using SAP reports and weekly Excel reconciliations. On-time delivery stood at 78%, well below their contractual SLA of 95%.

The breaking point came in Q3 when a single raw material shortage - a specific grade of cold-rolled steel sourced from only one qualified vendor - triggered a simultaneous stoppage across all three plants lasting 11 days. Two OEM contracts triggered penalty clauses. The root cause signal had been in the data for three weeks. No one was looking.
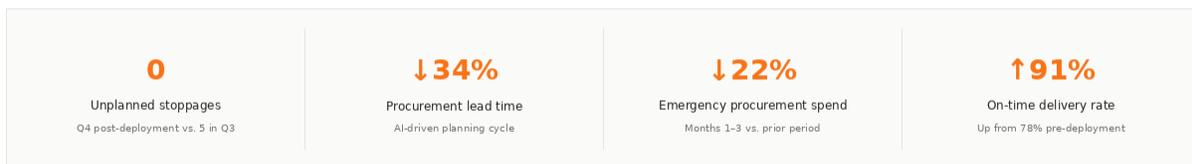
2. Key Results

0	**↓34%**	**↓22%**	**↑91%**
Unplanned stoppages	Procurement lead time	Emergency procurement spend	On-time delivery rate
Q4 post-deployment vs. 5 in Q3	AI-driven planning cycle	Months 1–3 vs. prior period	Up from 78% pre-deployment

Figure 1: Key outcomes - first 90 days post-deployment

3. Challenges

Single-supplier dependency
18 of 280 SKUs sourced from one vendor. No performance tracking. Failures only visible after impact.

Procurement vs. production mismatch
Reorder points set on 12-month averages — not current OEM call-off volumes. Systematic misalignment.

No forward visibility beyond 14 days
SAP reports showed current stock only. No mechanism to project supply risk 6+ weeks ahead.

Emergency procurement as normal budget
22% of monthly procurement spend went to spot market buys at premium cost. Treated as unavoidable.

Figure 2: Four core supply chain challenges driving production risk

Single-Supplier Dependency with No Visibility

18 of 280 SKUs depended on a single qualified vendor. There was no tracking of supplier performance trends - only a reactive call when deliveries were late. By then, the production impact was already locked in.

Procurement Disconnected from Production Schedules

The planning team set reorder points based on 12-month rolling averages. When OEM call-off volumes shifted, procurement continued buying to stale parameters - creating systematic misalignment between orders placed and what production actually needed.

No Forward Visibility Beyond 14 Days

SAP standard reports showed current stock and open orders. There was no mechanism to project supply risk 6+ weeks ahead - meaning every shortage was discovered at the last possible moment when intervention was limited.

Emergency Procurement as a Budget Line Item

22% of the monthly procurement budget went to emergency spot market orders at premium cost. This was treated as an unavoidable operating expense rather than a solvable planning failure.

4. Our Solution

We connected directly to their SAP instance and two supplier portals via read-only API. No data migration, no process change on day one. Within 72 hours, our demand forecasting model had ingested 18 months of production history, OEM call-off patterns, and supplier lead time actuals - and generated its first set of forward-looking risk alerts.

Modules Deployed

Demand Forecasting	**Raw Material Planning**	**Supplier Risk Tracking**
Multi-Plant Inventory Sync	**Procurement Recommendations**	**AI Assistant**

Implementation Timeline

Day 0-2	Week 1	Week 2	Day 18	Ongoing
Connect & Ingest	**Risk Calibration**	**Procurement Workflow**	**Full Go-Live**	**Optimise**
SAP + supplier portals connected	14 SKUs with single-supplier risk flagged	AI recommendations in approval queue	AI Assistant live across all 3 plants	Models refine on actual vs forecast

Figure 3: Five-step implementation - Day 0 to full optimisation

How It Works - Key Capabilities

- **Supplier monitoring:** Supplier risk scoring tracks on-time delivery rate, lead time variance, and order accuracy for all 40+ vendors in real time - not just at point of failure
- **Demand-driven procurement:** Raw material consumption prediction links production schedules to forward raw material needs - replacing static reorder points with dynamic planning
- **AI recommendations:** Procurement recommendations generated daily - quantity, timing, and preferred vendor - with one-click approval workflow for the procurement team
- **Unified visibility:** Multi-plant inventory sync gives a single real-time view across all three plants - stock imbalances detected and flagged automatically

- **AI chatbot:** AI Assistant answers natural language queries: 'Which raw materials are at risk this week?' in seconds rather than hours of report-pulling

5. Results - Before & After

Area	Before	With Innovacio
Production stoppages	4–6/quarter, avg 8 days each	0 in 90 days post-deployment
Supplier risk visibility	Zero — found at point of failure	Real-time scores, 6-week forward view
Procurement planning horizon	14 days maximum	6–8 weeks with confidence intervals
Emergency procurement spend	22% of monthly budget	↓4% and declining
On-time delivery to OEM	78% — below 95% SLA	91% and improving
Single-supplier dependency	18 SKUs, no alternative	6 remaining — 12 now have backup suppliers

Figure 4: Before and after - six key operational metrics

What Changed - In the Team's Words

The procurement team stopped spending their mornings checking supplier emails and started reviewing AI-generated risk alerts that told them exactly which vendors needed attention and what action to take. The production planning team stopped losing days to unplanned stoppages. The ops director stopped explaining penalty clauses to the finance team.

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> We had the data in SAP the whole time. The shortage that stopped our lines for 11 days was visible three weeks earlier - we just weren't looking at the right signal. Now the system tells us what to look at before it becomes a problem.

- Rajiv Menon, VP Operations · Sterling Component Works

6. See It in Your Operation

We connect to your ERP and show you - within a 30-minute demo - exactly what your supply chain looks like through our platform. No commitment, no setup required from your team before the call.

Innovacio Technologies AI in Supply Chain	Book a Free Discovery Call 30 minutes · No commitment · Your data	Phone Email Web	+91 90072 71601 hello@innovaciotech.com innovaciotech.com