



Spirit AeroSystems Reduces Inventory by 16% With LeanDNA, Calling the Platform a “Game-Changer”

The world’s largest aerostructures manufacturer needed to ensure timely delivery of highly customized products despite the challenges of a globalized supply chain.

Background

Today’s manufacturers have to grapple with complex supply chain challenges brought on by the COVID-19 pandemic, a globalized supply chain, geopolitical issues, growing demand for customization, and more. One industry particularly impacted by these challenges is aerospace and defense, due to its global market and discrete manufacturing requirements.

Spirit AeroSystems is one of the world’s largest manufacturers of aerostructures for commercial airplanes, defense platforms, and business/regional jets. Customers include Airbus and Boeing, among others, with Spirit providing around 70% of the content for every 737 aircraft. Headquartered in Wichita, Kansas, Spirit has locations on four continents. The company uses LeanDNA across 8 of their sites, with plans to roll it out across their three newest locations in the near future.

Problem

Spirit AeroSystems work with LeanDNA began in 2018, when it started rolling out the platform to optimize its supply chain, reduce inventory, and improve business outcomes. The initial engagement’s goal was to reduce excess inventory and free up cash.

Prior to LeanDNA, Spirit relied on manual processes including cumbersome reports and spreadsheets that were rigid and not adaptable to the current fast paced environment.

OVERVIEW

Industry

Aerospace Manufacturing

Revenue

\$4B

ERP Across Sites

SAP

Key Challenges

- Increased complexity of materials procurement, inventory optimization, and production scheduling
- Constantly changing customer requirements which flow down through the supply chain
- Wrangling reports and synthesizing information had become full-time jobs, preventing proactive supply chain management
- Reporting processes lacked standardization and accountability, making it hard for executives to get a comprehensive view across all sites
- Project management processes were manual



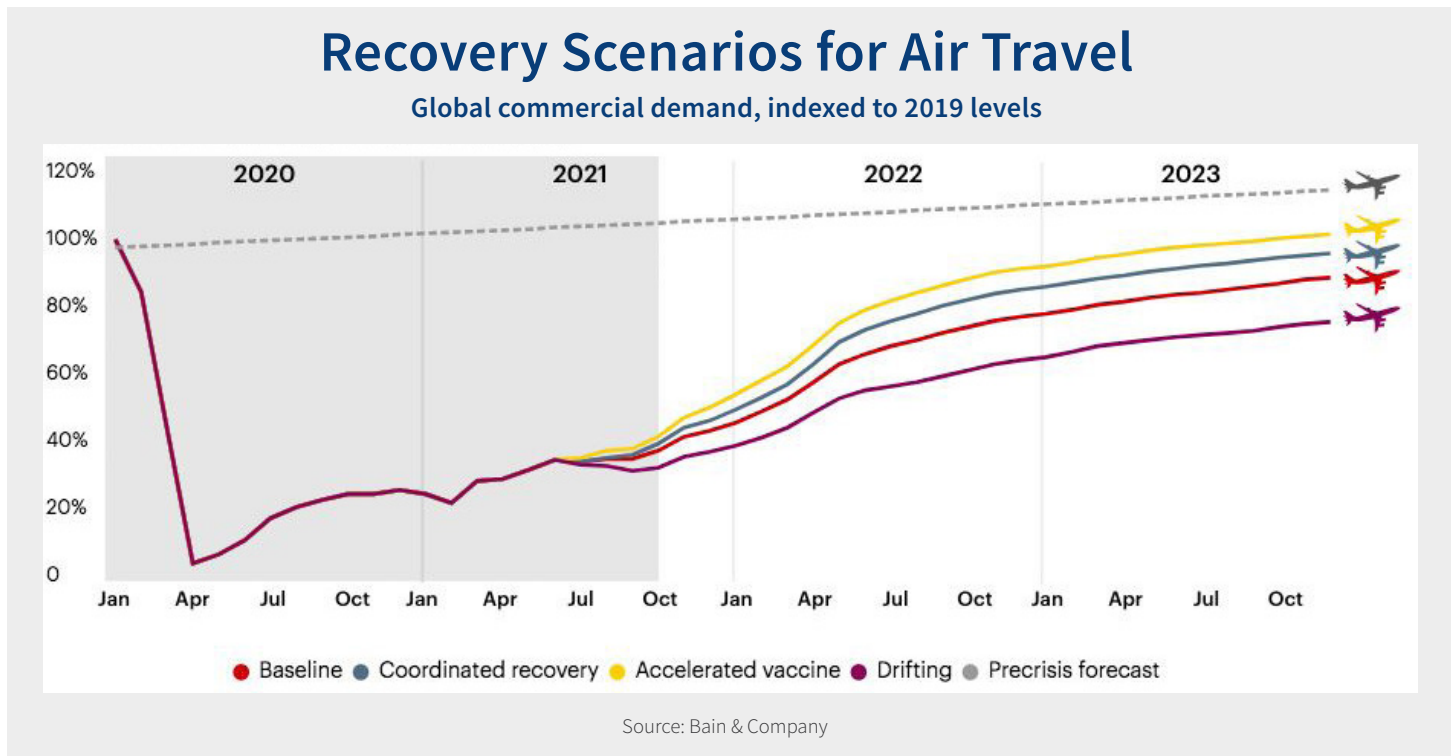
LeanDNA’s modern, factory-focused solution gave us the insights needed to adjust inventory, streamline supplier collaboration, and improve on-time delivery for our customers globally. With our Supplier Innovation Award, we proudly recognize and celebrate LeanDNA’s people and products.

–Jim Cocca,
VP of Supply Chain Execution,
Spirit AeroSystems



The company needed help solving common, discrete manufacturing challenges, including timely delivery of highly customized products; increased reliability on globalized supply; and dramatic rate changes. They lacked automated processes to help them take action.

In 2020, the Coronavirus crisis shut down world travel and global commercial demand for aircraft plummeted. While demand has started to return in 2022, it hasn't reached the levels predicted in 2019.



Decreased airline industry demand led to an increased lifespan of airplanes. When airplanes last longer, this leads to canceled, deferred or changed orders. As customers needs change, Spirit responds by shuffling the master schedule and configuring the airplanes differently.

The Work

LeanDNA helps Spirit manage their inventory in real time and recommends actions to help optimize how they spend their money.

“With a strong understanding of discrete manufacturing challenges, we’ve built a solution that unites people and data to make smarter decisions in real-time across the entire supply chain,” said LeanDNA CEO Richard Lebovitz. “By taking a proactive approach to factory operations, organizations like Spirit AeroSystems will succeed in the current supply chain crisis and beyond.”

In 2022, Spirit is using LeanDNA in two important ways to get the right parts in the right place at the right time.

1. Providing visibility into demand and risk that either didn't exist before, or wasn't as clear previously.
2. Helping Spirit manage cash, which is essential.

Spirit's LeanDNAs portal is used by executives, internal managers, and external suppliers. The suppliers can access reports in the LeanDNA Supplier Connect portal which is essentially an inventory worksheet that gives suppliers data and signals on risk. It helps them determine when they are going to be in trouble with parts and when that will affect Spirit. Spirit is introducing 15-20 suppliers to LeanDNA every month with a goal of ending 2022 with over 300 suppliers using the LeanDNA Supplier Connect portal, which represents 50% of Spirit's supplier partners.



LeanDNA provides clear and concise reporting that is customizable for ease-of-use by the buyer or manager in the procurement function. The product offers easy-to-read illustrations visualizing how each Purchase Order movement impacts inventory. And, it provides recommendations to split purchase orders, in addition to rescheduling.

One thing the buyers and management at Spirit really like about LeanDNA is that you can see what each movement to that P.O. is going to do to inventory levels. The recommendations they would get with their previous method would only provide limited reschedule recommendations – in, out or cancel. They wouldn't get recommendations to split quantities which drives a lot of value.

As buyers work the inventory actions, not only can they see the impact of each part, they can also see the impact as a whole. The ability to filter down by program supplier and buyer is something that was never really possible before. For one, buyers never really saw the inventory trend. They would be told to reduce inventory a lot, but never had the whole picture to better understand their piece.

LeanDNA is the only tool that Spirit AeroSystem's suppliers use to get their reorder point forecast and demand data. It's helpful to have the shortage report and the line of balance that managers can plug and play delivery dates and then see how that's going to move the line of balance. This helps prioritize the work based on that supplier portal.

Results

The initial goal was to get up and running in ten weeks to start Spirit's continuous improvement transformation. However, the notable nine-week implementation period for four sites delivered crucial visibility into their inventory levels.

Spirit reports that LeanDNA has changed how their buyers manage workload and how the manager works with those metrics. Spirit not only achieved its initial goals, but also recognized a 16% decrease in inventory.

LeanDNA has been a game changer. It's bigger than just the supply chain, with Spirit relying on LeanDNA's data for business and financial planning.

Outcomes:

- **16%** decrease in inventory
- Improved financial planning
- Improved supplier collaboration, with **50%** of suppliers using LeanDNA by the end of 2022

Spirit AeroSystems uses LeanDNA to:

- See real-time inventory levels
- Standardize workflows across teams
- Automate prioritization of inventory actions to improve efficiency
- Provide shared synchronous views across network of buyers, planners, and suppliers
- Enable staff across supply chain to directly collaborate and resolve shortage issues

Key LeanDNA Dashboards:

- Inventory Burnoff
 - Provides a visual of inventory trends for any member of the organization to view
- Purchase Requisitions
 - Demand not supported by Purchase Orders
 - Visual of Aging Purchase Requisitions
- Material Shortages
 - Buyer Use
 - Supplier Use



Exceptional execution in supply chain is critical to Spirit's long-term success. Empowering procurement teams to make better daily decisions and standardizing their work across manufacturing sites will further our ability to meet and exceed customer expectations now and in the future.

–Jim Cocca,

VP of Supply Chain Execution, Spirit AeroSystems

