Supplyframe

How Supplyframe Accelerated Procurement Transformation For a $30 Billion A&D Manufacturer

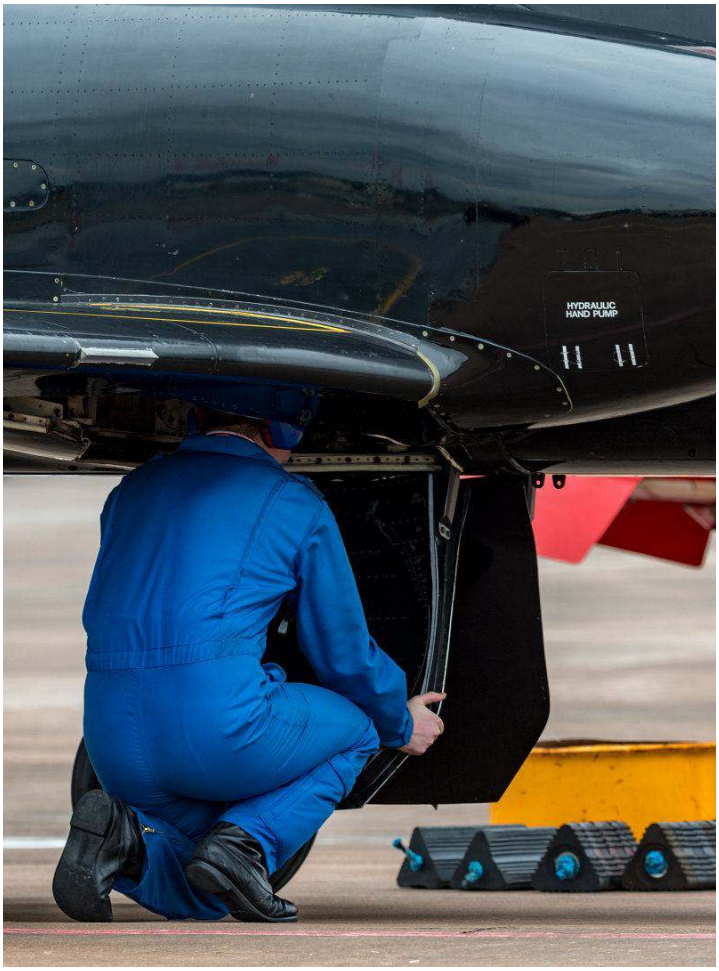
Sample BOMs Demonstrate Immediate Value

Supplyframe developed a proof of concept (POC) process to validate the savings with data from one of the company's most prominent business units.

To demonstrate the immediate and ongoing value of Supplyframe's solutions, our teams examined a sample BOM from the aerospace and defense manufacturer.

Within minutes, we discovered significant issues that could affect the assurance of supply and inventory. Two components were immediately identified as obsolete, while another was within three years of EOL status, making it high-risk for long-term sourcing.

We also noted significant discrepancies between the lead times in the Material Master (MM) and those available from manufacturers in the Supplyframe solution. These were our findings:



18 components on the list had a longer published lead time than the MM

The largest gap was 220 days between the MM and the manufacturer lead times

46 components showed shorter lead times than the MM.

Supplyframe shared its BOM analysis with the company, which delivered an annual cost savings of approximately 4.0%, or $360,000, compared to the market prices the company had been paying.

Many organizations, including this one, use prior purchase orders to establish lead times, which leads to unreliable sourcing and procurement timelines due to how often these change. This becomes evident when an otherwise static BOM is connected to Supplyframe's real-time intelligence on over 600 million components.

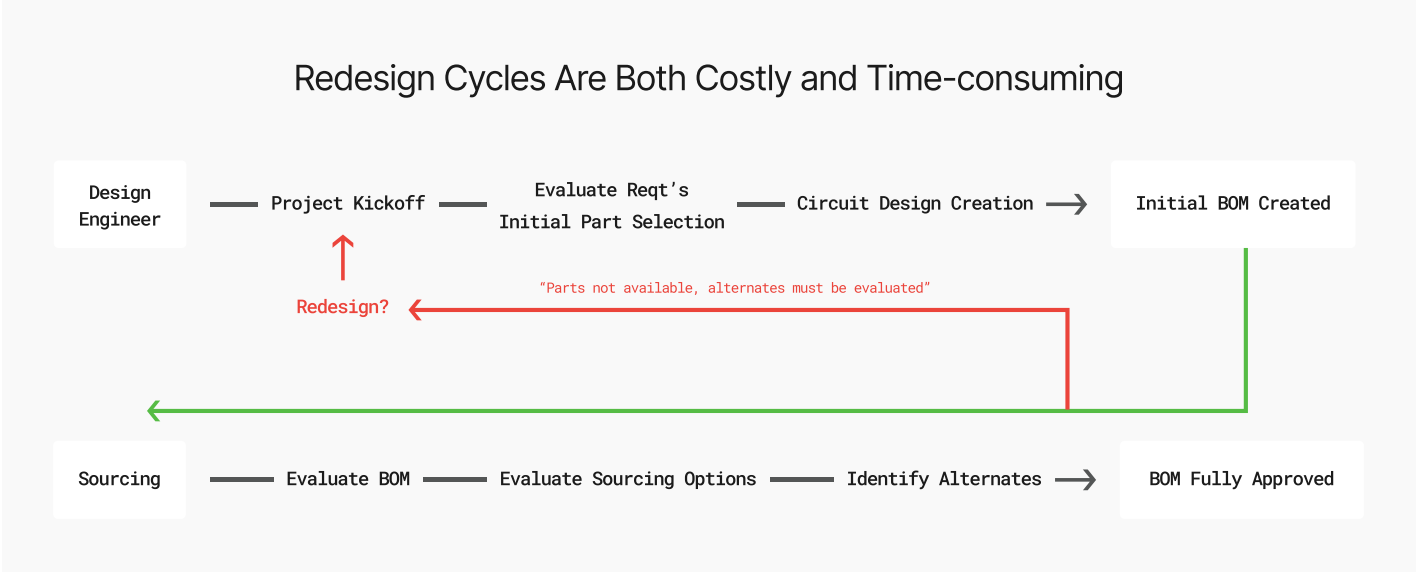
Following this, we examined six additional BOMs and discovered similar risk mitigation and cost savings opportunities. It became clear that this was critical information that the manufacturer could not surface from their existing approach.

The organization's existing processes involved several extraneous steps that could be eliminated or streamlined with Supplyframe's DSI solutions. The organization's existing design-to-source process included external web-based searches, ad-hoc collaboration, and time-consuming research to reach an official BOM release.

In June 2022, Supplyframe began our engagement with a top-tier US-based aerospace and defense company with an annual revenue of $30 billion and close to 100,000 employees. The customer sought to evaluate Supplyframe as a solution for addressing their challenges in purchasing components and parts from hundreds of vendors and distributors worldwide.

The company's main concerns were how to reduce risk and assure supply availability for the company's many, varied bills of materials (BOMs). The company also wanted to negotiate lower prices for its purchased components.

Another concern was out-of-stock BOM parts, which required consultation with the product design team to evaluate if replacement parts from other sources could be swapped in with minimal or no redesign required. In the current process, the alternative components were often incompatible, necessitating a redesign and increasing the product's cost and cycle time. These delays in releasing the company's products contributed to staff burnout and strained the available resources for new products and initiatives.



To resolve these challenges, the company would need access to reliable, real-time intelligence that could help it make more informed decisions. The company needed greater visibility into lead times, pricing, and lifecycle status, including End-of-Life (EOL) components.

Access to comprehensive cost and risk data was necessary for the company to identify and purchase the right parts and guarantee on-time-in-full (OTIF) delivery. A formal way of collaborating with suppliers and parts manufacturers was also needed to identify alternate parts that could be delivered on time.

The situation improved in early 2023 when the company partnered with Supplyframe to manage its BOM validation process.

By taking a holistic approach, our teams were able to identify and eliminate nearly ten steps from the overall design-to-sourcing process by bringing external intelligence to the forefront and enabling teams to collaborate in real time within our platform.

This also operationalizes risk management during the design phase of a product's lifecycle. While many organizations have risk mitigation strategies to address key concerns like pricing, our findings reveal that overall visibility into risk is quite low and fails to address key factors like lead times or component lifecycle status.

Supplyframe's DSI Solutions also include a Risk Index score for each component on a BOM. This score is divided into several categories, such as stock, lead time, years to end-of-life, and more, which can be customized to reflect the organization's most pressing concerns.

This Risk Index lets teams quickly identify high-risk parts and immediately access functionally equivalent alternates within our solution. All of this serves the greater purpose of helping today's aerospace & defense leaders "shift left" and bring real-time intelligence to the beginning of the product lifecycle.

Digital Transformation by Shifting Left

The organization quickly saw the value and benefits a holistic transformation could provide. To address their concerns, they recognized the need to zoom out and seek ways to transform their processes from design through fulfillment.

After reviewing our POC's findings, the company transformed all four primary product processes: design, quotation, pre-production BOM analysis, and risk management.

In partnership with Supplyframe, the company is addressing all four fronts simultaneously. The addition of external intelligence allows the organization to shift left and harness insights at the beginning of the product lifecycle.

According to Supplyframe research, 80% of a product's lifetime risk is "locked in" during the design phase. Many of today's manufacturers lack the proper visibility to address this and are often faced with downstream supply issues due to fluctuating prices, inventory, or end-of-life status.

Supplyframe's Design-to-Source Intelligence (DSI) platform empowers today's industry leaders to "shift left" by incorporating real-time data and supply chain insights at the beginning of the product lifecycle. This leads to more profitable and informed decision-making as costly and time-consuming activities like redesigns, spot buys, and delayed market time are addressed or avoided entirely.

Access to Supplyframe's risk management information enables aerospace and defense organizations to identify optimal sourcing strategies for lifecycles that extend far beyond the length of other electronics designs. In an industry where sustainment is crucial, visibility and intelligence are key to better decision-making.

How Supplyframe and Siemens are Building a Digital Thread for A&D

A digital thread is a discrete, linked, traceable sequence of activities in the product or production lifecycle that is digitized and automated. Digital Theads build agile operations by facilitating a continuous, synchronized data flow. They also increase interdepartmental collaboration across assets and systems.

As a Siemens company, Supplyframe's real-time intelligence was recently integrated into Siemens Teamcenter, a leading product lifecycle management (PLM) solution. This is one of many integrations with other solutions on the Siemens Xcelerator open digital business platform, allowing today's aerospace and defense leaders to introduce key intelligence and visibility into their digital thread, including:

- **Minimized redesigns** during the product lifecycle by leveraging market intelligence to choose the ideal parts the first time, ensuring the sustainability of rapid production.
- **Reduced quoting timelines** by collaborating directly with suppliers on Supplyframe's platform and using historical market pricing to identify the best value of each part.
- **Automated BOM optimization** by identifying high-risk parts in seconds and selecting from pre-determined alternates that match form, fit, and function.
- **Cross-functional collaboration between design and engineering** with support for multiple users and messaging in the platform. Ideal for cross-functional collaboration.

Intelligence For What's Next

From real-time insights into component risk to streamlined procurement and effortless collaboration, Supplyframe's intelligence prepares the aerospace & defense industry for anything that could be on the horizon.

Learn more about how Supplyframe partners with aerospace and defense manufacturers today!