

THE BOEING COMPANY – METALS FABRICATION

4-Step Process to Influence Make/Buy Decisions

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The Boeing Company, a \$101B multinational corporation, is the world's largest aerospace company. In support of Boeing's Fabrication 2025 effort, Boeing Defense, Space, & Security (BDS) along with Boeing Commercial Aviation (BCA) and Boeing Global Services (BGS) is seeking to bring Enterprise capabilities to Global Industrial Champion level performance by fully utilizing space and equipment. The Boeing Metals Fabrication Tauber team was tasked with developing data-driven improvement strategies and tactical opportunities to help BDS and the Enterprise Metals Capability set the stage for increasing value.

The team developed a four-step process that identifies opportunity for driving value across: optimal cost, supplier performance, internal capability and capacity, and strategic value. The first step utilizes a machine learning algorithm to identify opportunities between current price and optimal market cost. Second, supplier performance ratings filter based on historical part quality and delivery performance. Next, the process assesses available capacity and capabilities by each manufacturing site. Finally, a strategic value assessment accounts for internal fabrication cost, part complexity, and strategic goal alignment.

To validate the four-step process, the team performed a pilot program across multiple sites and platforms. The team identified a \$4.2M total opportunity for savings annually in the supply base by analyzing 279 metallic parts from the F/A-18 Super Hornet, P-8 Poseidon, and AH-64 Apache programs. Of these parts, 5 were selected as insourcing candidates, delivering 72% savings.

Additionally, the team quantified the impact of process implementation to BDS Metal Fabrication's transformation to Global Industrial Champion to encompass a total impact of \$49.7M.

Finally, the team created an implementation strategy that aligns with both current and future enterprise-wide requirements, with three key recommendations to address current limitations. The four-step process was handed off to the BDS Design-Make-Buy focal and will be used to efficiently and effectively identify future value capture enterprise wide.