**Engineering Better Outcomes** 



Within just six months, the client experienced a **full 100% ROI**, and Belcan continues to drive even greater returns.

Success Story / White Paper

Client Supplier Support Program

#### Background

What began as a concept between client Executive Supply Chain Leadership and Belcan Operations, has since materialized into a standalone program. Expert-level supply chain advisors are rapidly deployed onsite to client suppliers upon demand to quickly address near term tactical and operational objectives and then develop and execute longer term solutions for improved supplier performance.

#### **Client Partnership**

The client is one of the largest aircraft engine OEMs in the world with billions in annual revenue.

Belcan has been a services provider to the client for many years with legacy outsourced support centered on product design engineering from within Belcan's four walls. Over the last decade, Belcan has scaled service offerings to include manufacturing, supply chain and quality engineering capabilities addressing quality, delivery, and cost from onsite at the client and supplier facilities.

#### **Program Origin**

In early 2017, Belcan responded to a request from the client by beginning to develop an on-call tactical team of supply chain experts that could continually deploy onsite at various suppliers as a direct extension of client operations. As is the case with many, if not all, manufacturing organizations, supply chain constraints are inevitable and quickly disrupt company commitments. However, very few proactively invest and prepare to respond quickly. Existing client workload, limited capacity, and or resources can be barriers to rapid response. Belcan's goal was to formally mobilize a group of highly skilled resources for the client who could step in with a moment's notice and address supplier production and delivery gaps where needed.

#### Resourcing

The select Belcan advisor team is made up of diverse and seasoned professionals. Included are former A&D executives and organizational leaders. Past roles include Quality and Sourcing Directors, Global Operations Managers, Procurement and Sourcing Leaders, Continual Improvement & Turnaround Specialists, and Manufacturing Chiefs etc. All are sourced with the skillset to execute hands-on at the operator level and communicate across supplier organizations (including c-suites) to overcome barriers and shape outcomes.

#### **Program Scale**

In June 2022, the client invested with Belcan to stand up a pilot program focused on improving select supplier performance. Belcan established an initial core team of advisors managed by a single client point of contact. The advisors seamlessly embedded with the client's supply chain organization, alleviating bandwidth constraints and providing immediate onsite hands-on assistance at the supplier(s). Due to project success and client demand, this team size quickly increased within a 10-week period. By September 2022 Belcan was at a steady state for an additional year. Success of the Belcan support model spread internally at the client, resulting in additional organizations requesting the same scope of support. In November 2023, the client requested that Belcan double the number of resources and Belcan ramped accordingly.

#### **Program Spin Off**

In December 2023, the client requested that Belcan restructure the team to provide support across various internal organizations and meet client customer requests. Belcan responded and immediately established a dedicated project management team and client appointed lead. The client has since included the Belcan team on critical internal organizational charts and included them in day-to-day operations. This approach allowed the client to reduce internal silos across their supply chain organization and leverage the Belcan team as an initial solution to address common pain points. To date, the client continues to fund the project and utilize the Belcan team to drive supplier delivery assurance and performance.

Service Offerings	Delivered when
Improve Delivery Commits/Rates	Suppliers in distress require hands-on support to get parts out the door on time.
Delivery Compression	Variables outside of a supplier's control are driving a compressed timeline for parts delivery to the client.
Delivery Assurance (small lot of hardware)	Onsite support is needed to chase down parts (communicate parts status, anticipated delays, and track through shipment).
Supplier Exit / Supplier Right Size	Hands-on support is needed to transition work from one supplier to another.
Client Shoulder2Shoulder	High-visibility suppliers with critical parts need support where the direct client and end customer are also active and engaged.
Status Update/Delivery Assurance & Surveillance	Effective communication between the supplier and client needs to be established or improved.
NPI / Transfer to New Supplier	An existing client-produced part is being transferred to new supplier.

#### **Collaborative Approach**

The success of this project is driven by consistent communication and governance. Belcan established a dedicated and structured team with weekly report outs to capture progress. Belcan leadership and project management meet with the client on a weekly basis to ensure frequent voice of the customer and maintain a feedback loop to quickly address critical items or escalations.

#### Sample Governance Framework:

Participants		Activities
- Client Leadership - ISP Leadership - Client Managers - ISP Managers	Steering Commitee (Quarterly)	- Strategy / Planning - Performance Summary - Savings / Business Case Sign Off - Agreement Review - Risks / Escalations Review
- Client Managers - ISP Managers - Client Leads - ISP Leads	Service Management Team (Monthly)	- Speed / Precision KPI Review - PPV KPI review - Part Supplier KPI Review - Volume / Capacity Planning - Risk/Escalations Review
- Client Leads - ISP Leads - ISP Resources - Subcontractors - Client Suppliers	<b>Operations Team</b> (Weekly / Daily)	- Volume / Capacity Planning - Day-to-Day Communication

## **Case Studies**

Supplier engagements under the program's scope gave Belcan numerous opportunities to showcase our deep manufacturing expertise and our ability to work seamlessly with the client and their suppliers to measurably improve a range of high-priority issues across the supply chain.

> Within just six months, the client experienced a **full 100% ROI**, and Belcan continues to drive even greater returns.



# Min-Max Inventory Supplier Development with Ongoing Support & KPI Improvement

#### **About the Client**

- An aerospace OEM asked Belcan to help select suppliers streamline inventory and WIP responsibilities for min-max programs.
- Participating suppliers make non-serialized parts in large quantities from sheet metal, etc.

#### **Client Challenges**

- Suppliers rolled out a min-max program that didn't comply with client's requirements and did not commit to maintaining min-max part contract requirements.
- Tradeoffs existed between meeting inventory goals and limiting inventory costs.
- Inaccurate information from the supplier appeared in key reports.
- A key supplier experienced manpower and machine shortages throughout factory.

#### **Key Outcomes from Belcan**

- Collaborated with the client and its suppliers to map out lean solutions, including new inventory management marketplaces with proximity to workstations and a Kanban program to improve inventory replenishment flow.
- Developed a set of recommendations and a roadmap for meeting min-max targets.
- Assisted supplier in improving KPIs over an 8-month timeframe.
- Ensured client's increased min-max targets were met by communicating with supplier leadership and helping ramp production levels to match demand.
- Created bar/pie charts showing week-to-week KPI changes for maximum transparency, which were used to track progress vs. expectations.

#### **The Belcan Difference**

- Seamless integration with both the client and supplier side, with boots-on-the-ground assessments, formation of cross-functional teams, and continued onsite support
- Close attention to the product delivery schedule, constant communication, and transparency about the risk of timeline changes
- Data-driven processes to allow for in-the-moment forecast adjustments and facilitate informed decisions



# Supplier Process & Bandwidth Improvement to Meet Sourcing & Delivery KPIs

#### **About the Client**

- An aerospace OEM asked Belcan to improve sourcing and delivery KPIs by analyzing and improving supplier manufacturing processes.
- Participating suppliers provide a range of components critical to the aerospace industry.

#### **Client Challenges**

- Suppliers did not adequately communicate with the client regarding parts status and recovery dates.
- Processes constraints at a certain supplier hindered their overall performance, especially the lack of lean principles on the factory floor and insufficiently optimized flow of manufacturing.
- These factors limited supplier bandwidth for meeting the client's current orders or at-risk areas.

#### **Key Outcomes from Belcan**

- Developed flow mapping for supplier manufacturing processes and revamped standard work instructions amongst supplier cross-functional teams.
- Improved supplier KPIs over the 12-month project amongst several core commodities and suppliers.
- Increased client's confidence in the suppliers' ability to meet contractual delivery goals and improved visibility of supplier performance by exceeding KPI goals.
- Transparently communicated supplier flow-down processes and procedures for the client by creating a supplier template and KPI trending graphs which included max FGI + WIP, OTD improvement, cost savings, lead time reduction, and quality performance.

#### **The Belcan Difference**

- Rigorous initial supplier assessments to establish benchmarks and lay the groundwork for data-driven, organization-wide improvements according to a detailed plan
- A prompt and flexible team with the ability to fly to client and supplier locations at a moment's notice, both domestically and internationally



### Supplier & Tooling Development for Significant Cost Savings & Improved OTD

#### **About the Client**

- An aerospace OEM asked Belcan to help suppliers recover more than 6 months of delivery fallout due to machine failure and loss of key personnel.
- Participating suppliers provide a range of fairings components to the aerospace industry.

#### **Client Challenges**

- The original supplier had major machine tool failures and chose not to replace it nor notify the client.
- The client found an interim supplier to fabricate fairings using another manufacturing process (electrical discharge machining, or EDM) in place of 5 or 6 axis mills being resourced.
- Manpower and machine shortages affected the dual-sourced suppliers.
- Delivery would be over 6 months after customer need-by dates, and quality was affected.

#### **Key Outcomes from Belcan**

- Pulled together an approved sourcing list and phased out the client's worst performing suppliers. Tooling and FAI schedules were communicated to the client's operations team on a bi-weekly basis.
- Collaborated with the client's engineering design team to successfully reverse engineer high-cost lathe machined fairings into a castings-specific drawing.
- Achieved 35% cost savings among 5 high-volume parts.
- Developed a set of recommendations and a roadmap for suppliers to achieve targeted finished goods, WIPs, and delivery dates.

#### **The Belcan Difference**

- Boots-on-the ground assessments at suppliers and rapidly initiated process changes and weekly communication that led to a 25% OTD improvement over a 3-month period in just the first phase alone
- Seamless collaboration with the client's engineering manager for joint assessment and implementation of an asset/tool tracker to hold suppliers accountable and improve client visibility



### Supplier Field Support & Roadmap to Address Unbalanced Cycle Times & Quality Issues

#### **About the Client**

- An aerospace OEM asked Belcan to help improve sourcing and delivery KPIs by analyzing and improving supplier manufacturing processes.
- The supplier provides a range of components critical to the aerospace industry.

#### **Client Challenges**

- Supplier demand and resource planning was ineffective and reactive, leading to them manufacturing to order rather than building inventory for key components.
- Outside vendor processing and batch sizes were not communicated as a bottleneck for final goods schedules.
- Unbalanced manufacturing cycle times were not matching client demand schedules.
- Quality yields were below industry standards, with defect levels exceeding an acceptable range.

#### **Key Outcomes from Belcan**

- Developed a set of actionable recommendations regarding factory floor inefficiencies throughout the WIP cycle, ways to improve key workstations, and areas with waste and dead time throughout assembly.
- Created a clear roadmap for achieving targeted production delivery improvement in a tight 1-month timeframe.
- Worked to improve outside vendor cycle times, making a positive overall impact on delivery improvements.
- Level loaded manufacturing process cycle times within the value stream to significantly reduce capacity constraints and sustain target production rates.
- Delivered a formalized recovery improvement plan with extended delivery forecast horizon, improving delivery performance.

#### The Belcan Difference

- Thorough on-site evaluation to help improve our understanding of the client's issues and constraints, followed by boots-on-the-ground assessments with the client and supplier stakeholders
- Deep manufacturing and quality expertise in-house, enabling creation of multiple high-level tools to track risks and assess progress

## See how Belcan's integrated and adaptive engineering services can work for you.



