

Business Improvement Group, LLC

We Diagnose, Improve, Teach and Hand Over

B.I.G. representative case studies

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Not your typical consultants...

- We have a unique approach to turn tough business problems into Opportunities
- Partners with 100 years of combined operational experience as General Managers, C-level execs and consultants
 - A team of senior doers and operators that roll up the sleeves and get the job done No junior staff!
 - Our focus is manufacturing, logistics, supply chain and transportation
- Our clients usually work with one Partner, but we collaborate behind the scenes to bring our combined experience to bear
- Proprietary, 360 diagnosis designed to quickly identify the biggest challenges and improvement opportunities
 - Customized to the situation at hand. No cookie-cutter involved
- Network of distinguished associates with expertise in a broad range of industries and functions
- A real passion and energy to help companies improve
 - · We implement our recommendations and work at the source
- We get stuff done



Representative case studies arranged by topic

- Manufacturing
 - Productivity improvement
 - Waste elimination with no capital investment
 - Turn-arounds
 - Quality
- Supply chain and logistics
 - Distribution/fulfillment centers
 - Inventory reduction



Manufacturing

- Productivity improvement
- Turn-arounds
- Quality and ISO

Improved productivity by 20%, reduced scrap by 25%



- **Situation:** A 3D composites weaving company specializing in preforms and molding for the aerospace and defense industries required an increase in productivity on one product line for their second largest customer.
- **Action:** A team including the machine operators and mechanics was assembled. On the floor, the group was taught a sophisticated flow-charting process and the team identified sources of delay, waste streams and causes of waste. Action items were then prioritized.
- **Results:** Productivity improved 13% in one month and 19% in two months. Scrap went down by 25%. All shipments are now on time. The total hard expense was less than \$800.



Production line back on track

- Situation: A manufacturer of very large tracked specialty machines had introduced a new production line and on time delivery had fallen to 40%. The customers were up in arms. Cancellations and penalty clauses were being invoked.
- Action: Our analysis showed that cycle time standards were overstated and actual performance was even worse. A 'short interval control' regime was implemented on the floor together with the active use of visible metrics.
- **Results:** Installation discipline was restored and the assembly line was balanced. On time delivery improved to 85% in 10 weeks. Original production cycle times were reduced by 25% and overall productivity was improved by 35%. Capital expenditure was \$ 0.-.



Ensuring on-time delivery

- **Situation:** A mid-sized manufacturer of diesel fuel system components was providing poor on-time delivery service and building excess inventory across three U.S. based manufacturing and assembly plants. Production schedules were disjointed, and performance metrics were ineffective as tools for diagnosing performance problems.
- **Action:** A Value Stream based organizational structure was designed to pull product through to the assembly facility based on customer demand. A Sales, Operations and Inventory Planning Process (S&OP) was established to align production capacity and plans with customer production and product development needs. New metrics and a common set of definitions and rules for calculating and reporting performance were implemented.
- **Result:** Noticeable improvements were evident from initial implementation, with full recovery of required delivery performance achieved after 5 months. Gross inventory levels were reduced by 18%, scrap and rework costs were reduced by 20%. The Value Stream maps generated during the process formed the basis of further factory and process restructuring yielded additional benefits.



Aerospace division turn around

- **Situation:** A major manufacturer of aerospace components had merged three facilities into one and contrary to plan, lost 75% of the workforce because of the added commute. Prior to consolidation, the organization was run on 'tribal knowledge' with few documented processes. Deliveries were delayed and customers were 'up in arms'.
- **Action:** A Business Improvement Group partner took the senior leadership position and identified multiple immediate actions needed to stabilize the organization and regain the customers' trust.
- **Results:** 6 months into the turn-around, the business unit had 'turned the corner'. 80% of critical processes had been restored. Talent and systems had been upgraded. Margins improved by 20% and customers had gained confidence in the recovery process.



Factory turn around

- **Situation:** A electronic component factory was having serious financial difficulties and a new owner had just purchased the factory with the view to turning it around and expanding it.
- Action: A 'war room' was set up with all the factory's vital data displayed on the wall which were updated daily. A 'standing only' meeting was held every morning to walk the management team through the data and identify issues. All issued were tracked and actions identified with a specific person in charge of each issue and a dead line for resolution. In addition, a cash-flow model was developed tracking all in and outflows on a daily basis such that daily prioritization could take place.
- **Results:** The factory was cash flow break-even at the end of 90 days. The effort could then move to creating a factory growth plan.



Back from the brink...

- *Situation:* A 127 year old manufacturer of commodity products had become unprofitable and had lost their bank's support.
- Action: Business Improvement Group helped them find a new bank by acting as the "credibility witness", and then worked with the client to improve setup times, lower material waste, change their shift schedule, implement 5S and Lean, and design a simple Business Plan system incorporating all projects and metrics.
- **Results:** After eight months, the client returned to profitability and is now paying down their debt.



AS-9100 qualification under time pressure

- **Situation:** A medium-sized aerospace contract manufacturer needed to qualify a new factory in Germany, certify against AS-9100/EN-9100 and run manufacturing trials on an extremely tight deadline.
- **Action:** A BIG partner organized the project, Gantt Chart and interim deadlines, provided advice on the most effective way to write procedures and work instructions. Led the manufacturing trials, and led the data collection and report-writing efforts.
- **Results:** The factory was qualified on time. It soon started commercial production and became profitable within 15 months and became the company's most profitable division within 24 months.



Supply chain and logistics

• Distribution/fulfillment centers, cross docking operations



37% Productivity Increase

- **Situation:** World class 3rd party logistics provider was facing growing volumes, reduced productivity and increasing fines for missed quality KPI's.
- **Action**: A new flow process was implemented and a complete set of timely reports and meetings were instituted. Visible metrics were installed for the shift workers, warehouse management and the quality assurance unit.
- **Results:** With no capital investment, throughput improved by 37% in 12 weeks and quality KPI's returned to standard, thus avoiding mounting fines.



30,000 SKU DC back on track

- **Situation:** A manufacturer of construction equipment had recently consolidated a Distribution Center (DC) and performance was deteriorating significantly. Put away times were going up and picking and shipment accuracy was dropping.
- Action: A 2 week diagnosis was performed to identify the critical issues and a prioritized improvement plan developed. The team worked on the floor with individual workers to train, instill 'best in class' work practices and streamline work flows. Back orders were prioritized for put away. Visible metrics were installed to view, plan and control daily work schedules.
- **Result:** Within 60 days, put away was completed within the prescribed 24 hours (with flexibility built in to react faster for urgent orders). Picking and shipping accuracy returned to the desired KPI values.



Inventory reduction

- **Situation:** A large printing company had way too much paper inventory, but didn't understand why or how to fix it.
- Action: A diagnosis discovered that paper was ordered for each individual job rather than the combination of all jobs. A straight forward system to identify the needs over a one-month period was installed thus consolidating orders.
- **Results:** Paper inventory fell by almost 50% without incurring outages and the company was able to increase its cash position by several million dollars and stop using two outside warehouses.



Eliminated stock outs

- **Situation:** A manufacturer of molded rubber products for aerospace, industrial and automotive markets was experiencing a high rate of stockouts, expired perishable materials and 25% incomplete work kits at scheduled work order start date.
- **Action:** A Business Improvement Group Partner worked with the company's shop floor, stockroom, planning and supervisory personnel to design a material "pull system" based on visual management techniques to plan and prepare for the release of work orders to the shop floor.
- **Result:** Within 30 days of implementing the pull system, shelf life related scrap was reduced by 90% and incomplete kits were reduced to less than 2% of released orders. Further improvements were realized as the team became more comfortable with the new process.

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