

## Defense contractor protects its bottom line.

### Client:

A well-known high-tech engineering firm expanding its defense business internationally.

### Challenge:

As the company shifted its business internationally, it found a much more competitive market that complicated its product mix and pricing structure. This put tremendous pressure on margins, which management responded to by cutting costs through early retirements and layoffs. This caused a huge knowledge drain and loss of managerial control as many who left were senior managers. This was complicated by the company's matrix organizational structure, where engineering and manufacturing resources were shared across programs.

Scheduling became so unreliable that parts inventories were also shuffled between programs - usually according to which was furthest behind schedule - resulting in a destructive internal competition for parts and costly preemptive overloading by program managers.

To overcome these challenges, they brought in USC Consulting Group to help update and redesign their business processes.

### Process:

We began this project by working with the client's key managers on a root cause analysis to identify wasteful delays, mistakes and misunderstandings that increased costs. In the engineering design-services area, a cross-functional team was assembled to analyze the coordination and timing so essential to efficient material planning. They were asked to list their suggestions for improvement by priority, using ideas that came out of the focus group sessions conducted by USCCG during the kick-off phase.

The focus sessions, known as Employee Involvement Prototypes (EIP), were held to involve all participants in the change process, to explain project goals to them, and to gain their commitment. The sessions were also used to raise concerns about obstacles, and to solicit suggestions for overcoming them. "It was in the EIP sessions during that first week," said the engineering director, "that USCCG's ability to navigate us through the turbulent times that lay ahead became most apparent."

Another engineer noted that the USCCG team members were hands-on implementation specialists with the necessary technical skills. He said, “The consulting team acted as mentor, facilitator, conscience and catalyst for improvement. They were always careful to avoid finger-pointing and other negative behaviors that can surface when people are asked to comment on things not going as well as they could be.”

Relationships and structure were established for regular progress reports. Metrics were developed and readily adopted. The reporting system monitored and communicated changes, among the most striking: a 121% improvement in productivity accompanied by a 45% decrease in return of drawings for rework.

## Performance Results:

- 25% Decrease in Drawing Cycle Time
- 45% Decrease in Returns for Re-work
- 40% Increase in On-Time Releases
- 50% Decrease in WIP Inventory
- 32% Decrease in Build-Time
- 97% Decrease in Defects
- 121% Increase in Productivity

## Conclusion:

Commitment to goals intensified as everyone also saw a decrease in assembly build-time along with a significant drop in the number of defects. As the engineering director put it, “We had to get past the fear of being measured to embrace the attitude of continuous improvement.”