

# Bell Helicopter Redesigns Its SIOP Process

The Sales Inventory Operations Planning (SIOP) process that hums along today at Bell Helicopter serves as a testament to how i2 tools and practices can improve a company's profitability and ability to capitalize on growth opportunities. Just a few years ago, the aircraft manufacturer was struggling to manage an increase in demand without the necessary supply to fill it.

Because of its supply-side constraints—the business includes both building helicopters and supplying parts for existing ones—simply increasing production was not an option. Its extensive mix of military and commercial aircraft models required a supply chain capable of delivering a wide variety of parts and materials, typically in relatively small volumes, but on a timetable that optimized both inventory efficiency and customer-delivery schedules.

Bell recognized that it needed to improve manufacturing scheduling and planning, especially the management of constraint-based production planning, to maximize growth opportunities.

Before it implemented new-generation processes and solutions from i2, Bell was an organization composed of divisions that operated in silos, which were only minimally linked together. "We were still using spreadsheets," recalls Mark Ferrell, the leader of the company's enterprise planning team for supply chain integration. "There were lots of walls and barriers among divisions. There was no way we could quickly know how operations were aligned to the financial plan. We had to learn the rules of the road of sales inventory operations planning. But we have learned what questions to ask and how to work in a collaborative environment."

Bell realized it had to reorganize to more effectively balance supply and demand, produce more accurate build plans and support the SIOP process. The company wanted to create an SIOP process that would enable consistent alignment of operations with the financial plan, and offer "what-if" scenarios to see how different decisions would affect profitability.

It quickly learned that the key to a good SIOP process can be summed up in one word—communication. "Communication is what SIOP is all about," notes Ferrell. "Tribal knowledge is still the key ingredient to decision making."

To begin eliminating disparate data and silos in the organization, Bell established special teams to examine its business processes, to redesign certain metrics and to clean up data in its material resource planning (MRP) systems. The teams were assigned to five center-of-excellence

(COE) production units. Those teams used i2 Factory Planner, which was integrated with Bell Helicopter's legacy supply chain systems, to anticipate potential mismatches between part and material supply and to analyze the throughput demand of each COE.

"These [teams] are our forward observers," Ferrell said. "They use Factory Planner to see what is coming down the pike and to align us, so that when the time comes to put a job in work, the material is available, the schedules line up to meet customer demand and we can keep ourselves on schedule." The teams meet on a monthly schedule, one per week, leading up to the executive review meeting, where the final decisions are made. Ferrell said that the process works in large part because each meeting is owned by a senior executive. "We examine the tradeoffs across various centers of excellence—tradeoffs between supply and demand—and where we need to assign our capacity. This gives us a holistic view of our environment. A good SIOP meeting can be painful. We have many iterations of our plan, and we learn as we go."

To help with the vital communication of data and decision-making at the company, Bell uses large display screens so resource planners can easily project and review the output of Factory Planner and related tools. The tools and the graphical interface allow them to create the reports they need and to facilitate decisions during the review meetings. "We selected i2 because of the graphic capabilities of the system," Ferrell said, "and because i2 was totally committed to the process and gave us everything we asked for."

Bell also used i2 Demand Manager for data tracking and reporting, for capturing demand and supply projections and for forecasting and for performing what-if scenarios. "For complex what-if scenarios, at the aggregate level, we use i2 Supply Chain Strategist," says Ferrell. "What used to take four-to-six weeks, we can now do in one week." With Supply Chain Strategist, information about different scenarios—such as the capacity investment required, the revenue cost and the margin potential—is available immediately.

i2 solutions are enabling Bell Helicopter to manage one of the strongest growth periods in the company's history, with 2005 revenues of \$1.6 billion. "We've sustained a 15 percent growth rate even in the midst of increased parts demands from the military," Ferrell said. "SIOP is a journey. We use the tools from i2 as enablers for discussion in our SIOP reviews." Because there's a single version of the truth, consensus is usually right around the corner.

—John Kadlecik