THE BOTTOM LINE
A global manufacturer deployed Oracle Inventory Optimization to reduce stock held at multiple worldwide locations and to impose discipline on inventory management practices in its business units. Nucleus found that Oracle’s solution supported the company’s business objectives of reducing safety stock while maintaining high levels of customer service.

- Cut inventory holdings 10 percent
- Supported postponement manufacturing
- Enabled parts sharing for production

THE CHALLENGE
A billion-dollar global manufacturer with six business units made and shipped products from multiple facilities around the globe. Each plant maintained and managed its own safety stock of materials and parts to support facility production.

Although the company’s supply chain strategy centered on providing a high level of customer service to ensure prompt delivery of ordered equipment, the company found that individual manufacturing sites and distribution centers held excessive stockpiles. Management decided that a multi-echelon (MEIO) approach to inventory could maintain steady production to meet sales forecasts and fill customer orders while at the same time reducing the overall holdings of parts, materials and finished products.

THE STRATEGY
The company was already using Oracle software for its business, including enterprise resource planning (ERP.). In fact, in 2010, the manufacturer had purchased Oracle’s Value Chain Planning suite, which included Inventory Optimization. That MEIO application uses stochastic optimization technology to determine the correct amount and placement of safety stock across multiple locations.
In 2014 the company decided to go forward with the Oracle application for inventory optimization (IO). Before activating the IO software, the company realized that it would have to train its inventory managers and supply chain analysts on how to use this tool. It engaged an outside consulting firm to provide the training.

The manufacturer decided to test this approach and deployed the IO tool first within one business unit during the summer of 2014. But after the chief financial officer (CFO) saw the impact on inventory reduction from the initial deployment, the decision was made to speed up deployment throughout the organization. By the spring of 2015 the manufacturer has deployed the IO software in four of six business units and it expects to complete the software rollout by the third quarter of this year.

**KEY BENEFIT AREAS**

Originally, supply chain executives promoting the IO adoption told management that they expected a 5 percent reduction in inventory holdings. But initial results suggest that goal may be understated. Preliminary results from the deployment in one business unit indicate that the manufacturer cut inventory by at least 10 percent while maintaining service level objectives.

Another key benefit for the manufacturer is the ability to now adopt a postponement strategy in manufacturing. Because the IO tool sets safety stock levels rather than using estimates from planners, the manufacturer has more confidence that it will have parts on hand to complete production of an equipment order. In addition, because of the MEIO view, the manufacturer can even draw parts from another facility if need be. As a result, the manufacturer can put off actual production until actual orders are in hand.

“If we can get everybody in the organization using this tool – and not base decisions on a gut feeling of history – we can have a forecast that we trust. That will reduce inventory levels.”

Supply Chain Manager, Anonymous Global Manufacturer

**BEST PRACTICES**

The biggest issue in adoption of this technology was trusting the numbers generated by the IO tool. Inventory managers at each plant had to accept the safety stock levels from an application viewed as a “black box.” Despite initial skepticism, the staff has grown more accepting of safety stock levels set on a quarterly basis.

At present the company conducts monthly sales and operations planning meetings to review prospective product orders and the safety stock levels. In the few instances where
sales orders have deviated significantly from the forecast, the inventory manager can readjust the safety stock levels. Otherwise the company sticks to the quarterly safety stock amounts set by the IO application.

CONCLUSION

By setting lower but more appropriate amounts for safety stock, the manufacturer will be able to increase inventory turns for both parts and products. The combination of reduced safety stock and higher inventory turns should free up working capital for the business. Although one business unit has cut inventory by 10 percent, the manufacturer thinks that other units may be able to exceed that number. As a result of the inventory reductions the MEIO tool should ensure the manufacturer’s continued profitability in a competitive marketplace for its products.