

# News

## Six Sigma success helps Electro and Communications Business navigate today's difficult market conditions

During a recent visit to 3M Austin Center, members of the 3M senior management team reviewed 17 Six Sigma projects displayed in a poster session. The 17 featured projects are representative of the 250-plus projects currently under way at 3M Austin, according to Jim Bauman, director, Six Sigma, Electro and Communications Business. The projects focus on three critical areas — growth, cost/productivity and cash improvement.

"The best part of the poster session was the opportunity to show how the results of the projects are making a significant financial impact in the businesses," Bauman said. "It's clear from the evidence in these projects that the process is working."

Following are summaries of eight of these projects.

### Reducing inventory

Kevin Reiche, black belt, Microinterconnect Systems Division, described how Six Sigma enabled his division to sharply reduce inventories of a key raw material, while maintaining strong customer service. Inventories of the material declined by more than 95 percent at the 3M Columbia, Mo., plant and by a similar amount at a sister plant in Singapore.

Inventory turns increased from a low 2.4 per year to a high of 86.6 per year. This inventory improvement increased cash flow by several million dollars. Three related projects, led by green belts Mike Hafften, Susan Lopez and Stan Scott, are under way to achieve significant cost savings through quality improvement, waste reduction and selling-price management.

### Cutting cycle time

Sylvia Propps, black belt, Telecom Access Division, discussed how Six Sigma resulted in a win-win situation for her division and a contract manufacturer. The project — accomplished with the assistance of green belt Ines Alonso — reduced the process cycle time of a key product from 4.5 days to one, while reducing weeks of inventories from six weeks to two. "As a result of the project, our division has achieved meaningful cost savings, while our supplier has freed up significant cash through inventory improvement," Propps said.

### Adding a million

Yvonne Mitchell, black belt, Electrical Products Division, reported on her team's efforts to increase operating income through a



From left, Pat Campbell, senior vice president and chief financial officer; Jim McNerney, chairman of the board and CEO; and Chuck Reich, executive vice president, Health Care Business (formerly executive vice president, Electro and Communications Markets), reviewed 17 Six Sigma projects displayed in a recent poster session held at 3M Austin Center. Shown with them here is Jim Bauman, director, Six Sigma, Electro and Communications Business. The 17 featured projects are representative of the 250-plus Six Sigma projects currently under way at 3M Austin.

selling-price management project — specifically, by making changes in the handling of customer requests for adjustments in selling prices. After the close of the project, the time it will take to process such requests will be reduced by 60 percent. Price guidelines will be established up front based on Electrical Products' business goals, strategy and current industry conditions. These guidelines will provide an overarching policy that marketers will use to formulate their decisions. By incorporating the guidelines and data into a Web-based application, Mitchell's team expects to increase operating income by nearly \$1 million through more effective price management, increased sales and faster response times in competitive situations.

### A success to be replicated

In the Electronic and Interconnect Solutions Division, Tom Koperski, black belt, led the Inventory Replenishment Cycle Time Reduction project team. With variable demand, frequent raw material quality problems and long cycle times, large inventories were required to meet customers' delivery expectations. The project team created a detailed process flow chart and found better ways to accomplish nonvalue-added activities. Additionally, production scheduling rules were rewritten to reduce lengthy setup times, and a new process for staging raw materials was developed. By reducing order cycle times by more than 10 days, inventories were reduced

by more than 50 percent, surpassing the initial goal. The project currently is being replicated at Electronic and Interconnect Solutions sites worldwide.

### Boosting operating income

Chris Colbert, black belt, Telecom Enterprise Department, reported on a source-of-supply project involving fiber-optic patch cords, which are used in local area networks and fiber distribution units. This cost/productivity improvement

project, which had the full support and participation of department employees in the United States, Europe and the Asia Pacific area, will produce a multimillion-dollar increase in operating income. The team reduced the unit manufacturing cost of fiber-optic patch cords by more than 50 percent through improved global sourcing effectiveness. Sourcing Operations selected regional suppliers for specialty products and outsourced the production of less-differentiated products to vendors in Asia. As an added benefit, increased competitiveness resulting from lower-cost manufacturing has opened up new market opportunities for the department.

### Reducing accounts receivables

Herendino (Dino) Hernandez, black belt, Microinterconnect Systems, discussed a project aimed at reducing the division's

accounts receivables. The goal was to reduce the division's U.S. days sales outstanding (DSO) by more than 10 percent and export DSOs by a similar amount. Globally, each day that a receivable is outstanding costs the division hundreds of thousands of dollars in cash availability. Hernandez's team reduced receivables by 24 percent. The team achieved this reduction by leveraging the division's strong relationships with customers. As a critical part of the control plan, the division reviews accounts receivable for every account each week.

### Strengthening sales

Barbara Buchan, black belt, Electronic and Interconnect Solutions, discussed a sales growth project involving a product sold to Agilent Technologies, Inc. Agilent employees provided input for both the process map's critical X's and the control plan. Tom Eager, key account manager and green belt, Electronic and Interconnect Solutions, respect-



Barbara Buchan

ed Agilent's desire for faster quote preparation and included this input in the process map. "The project has resulted in increased sales of the product and in a stronger relationship with Agilent," Buchan said.

### Achieving exciting results

Leading a new project in a mature market can be exhilarating or discouraging, depending on the team and the tools brought to bear. For Mark Griffin, black belt, Visual Systems Division, Consumer and Office Business, the 3M™ Multipurpose Transparency Film CG6000 sales growth project is exciting — and already producing results.

"Prior to the launch of this product, users with multiple printer platforms had to stock at least one kind of transparency for ink-jet printers and another transparency for laser printers and copiers," Griffin said.

"Often, they stocked several different films, such as one for monochrome laser printers, one for ink-jet printers and perhaps another one for plain-paper copier machines." 3M film CG6000 enables users to purchase just one transparency film,

which works very well in almost any printer or copier. The project's goal is to increase total Visual Systems film sales by more than 10 percent, specifically by increasing the percent of sales accounted for by this versatile new 3M film. As part of this effort, the team developed a return on investment calculator for key accounts that demonstrates the value of using this new film.



Mark Griffin



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