

## Industry vets talk technology & change

By Frank Esposito  
PLASTICS NEWS STAFF

ROSEMONT, ILL. — Opening up to new ideas often is easier said than done in the plastics processing arena. It extends beyond changing a company logo or altering the font on a business card.

Five industry veterans tackled the topic of innovation and change at the *Plastics News* Survival Boot Camp, Sept. 13-14 in Rosemont, Ill., as part of a panel led by Jack Avery, a longtime GE Plastics technology expert who now operates Avery Plastics Consulting in Salt Lake City.

Design is one area going under a change of position at many companies.

"Design is moving upstream as quickly as possible," said Mark Dziersk, vice president of industrial design for lagaOne80 Design, a Chicago-based product design firm. "It's time to start thinking about designing your own products and to stop seeing design as a small priesthood with unique thinking."

Officials at Bemis Manufacturing Co., a plastic goods maker in Sheboygan Falls, Wis., are taking the design trend seriously. The

106-year-old firm recently hosted 50 industrial designers for an all-day event.

"We heard a lot of great questions and ideas," Chief Executive Officer Peter Bemis said. "You can't put cold water on creative designs."

Change can transform, but it's not always easy. That was the case at Carlson Tool & Manufacturing Corp., a plastics machinery firm in Cedarburg, Wis.

"We had to let our people know that our previous mission was obsolete," said President Jerry Carlson. "Making really good molds wasn't what people wanted anymore. They now want complete solutions."

"But it took five years to get that through to a lot of our people who thought I'd really lost it. A lot of us have smart people in our organizations, but they need to learn to think differently."

At injection molder Donnelly Custom Manufacturing Inc. in Alexandria, Minn., President Ron Kirscht and other executives made the decision to "drill down deeply" with its customer base.

"We want to do every transaction with a few customers instead of a few transactions with every-

one," he said. "Our customers don't want to go to parties or to a ball game or play golf. They want solutions to problems."

With \$28 million in 2006 sales, Donnelly now has more sales and more employees — but fewer customers than it did when Kirscht joined the firm in 1991.

Mar-Lee Cos., a maker of plastic parts and molds in Leominster, Mass., began to reinvent itself in 2001 and now focuses on emerging technologies and specialty products, according to President and CEO John Gravelle. The firm's sales now are growing at a rate of 15 percent per year.

"It's important to look for a specialist in an area where you're weak," Gravelle said. "You also need to understand how much growth can absorb. If you say you want to go from \$25 million to \$50 million [in sales], you need to maintain that excitement by doing new things."

Dziersk reinforced the idea that it's not enough to hire new people or install new machinery; it's what a firm does after that point.

"It's not about hiring two or three designers and putting them in a room in back next to the machines you're not using any-

more," he said.

Prior to the panel's roundtable chat, Avery ran down a number of new technologies affecting the processing market.

On the materials side, he listed the pros and cons of bioresins, long-fiber thermoplastics and nanomaterials. Bioresins, Avery said, are biodegradable or made from renewable raw materials, but also have caused concern about loss of physical properties in finished parts. There also are supply issues surrounding them, as well as concerns about the size of the composting infrastructure, he added. The materials will be used in the packaging industry for the near future, but need to be improved for industrial uses.

LFTs — which are reinforced with glass fiber by weight — can reduce component costs by 20-25 percent, but using them via inline compounding causes processors to take possession of the material. LFTs "give the opportunity to manufacture high-tech products, but it's more complicated and when you make it — it's yours," Avery said. "You can't blame material suppliers if something goes wrong."

Nanomaterials make use of silicate clay, graphite platelets or carbon tubes and can produce materials that are 100 times stronger than steel. But the market has been the victim of premature hype, with few of the 200

firms that call themselves suppliers being able to supply commercial amounts of product, he said.

Despite the hype, Avery said he believes the technology eventually will catch on in plastics.

For injection molding, Avery said that processors "need to pay more attention" to multimaterial molding, which can use up to six materials on a single part.

Sixty-five percent of multimaterial and coinjection molding work is done in Europe, with 10 percent done in North America. The processes offer design and performance flexibility, but tooling is an issue because it isn't always available, and it's more expensive because of its complexity.

In-mold decoration and labeling also are used more in Europe, though the processes can enhance productivity and drive differentiation with graphics.

Gas-assist injection molding currently is used by 15-20 percent of molders, but water-assist technology also "is coming on," Avery said, offering faster cycle times and lower warpage. But it requires larger tools and parts, needs more space and has drying issues. To date, it's been used in specialized auto parts.

"Any technology assessment must be global," Avery said. But, he added, "Technology by itself isn't the answer. It's how you use technology in conjunction with other manufacturing systems."