

Strong Mfg. Growth Propels Massachusetts MEP

Business is brisk at the Massachusetts Manufacturing Extension Partnership (MassMEP). Three years of steady growth in the manufacturing sector with another underway has created new opportunities — but also bottlenecks — that need to be addressed by the state's small and medium-sized manufacturers.

"In terms of what we're seeing in Massachusetts, unemployment is under 5 percent and confidence is back," says MassMEP director Jack Healy. "When manufacturers invest in their business, we should see a real boom in our durable goods sector that is primarily involved in capital goods."

As a result, the biggest issue facing manufacturers in the state is the hunt for qualified workers to fill new openings and to replace a wave of retirees.

MassMEP is helping address the state-wide skilled worker shortage by developing partnerships with vocational schools, community colleges and institutions like Worcester Polytechnic Institute. It is assisting in curriculum development in basic skills subject areas to support CNC machinist training programs.

Workforce training programs throughout the state have "taken off like a shot," says Healy. Individuals who were recently unemployable are completing training and are receiving multiple job offers of between \$21 and \$23 an hour. "Employers can't take untrained people off the street," says Healy. "They need them to contribute right away."

As of March 2015, MassMEP's award-winning Advanced CNC Skills training program has graduated 675 students since the program began, placing 90 percent of its graduates in jobs.

With the strong economy, manufacturers are also having to address issues associated with adding equipment and capacity. This is a tough challenge for small companies. "We are still a long way" from having automation and smart manufacturing technologies be uniformly adopted throughout supply chains, says Healy.

Growing a manufacturing business also requires that companies go back to basics: by making sales calls

and working more closely with customers. Like the millennial generation getting stuck on digital devices and video games, manufacturing company executives are also addicted to their screens. Most have stopped traveling and fewer company presidents and CEOs are making sales calls or attending industry conferences, says Healy. They are missing their biggest opportunity of spending face-to-face time with customers. "When they are able to communicate what their product does and ask how they can add value to their customers, things happen," he notes.

There is plenty of proof of how such interaction pays off. The CEO of a Massachusetts injection molding company that made the thin red

straws taped to cans of WD-40 went to visit his customer. He learned that it would be nice to have the straw contained within the top of the dispenser. Upon his return home and working with employees the company developed a system of 16 injection molded parts that resulted in a straw snapped integrally to the can. It was tested against the regular straws taped onto a can. WD-40 found the new design was worth the extra money involved in the sale of each can of WD-40. The Massachusetts manufacturer received a better contract to produce the new device. "Manufacturers need to take advantage of their biggest opportunity for growth. They need to go out and ask their customer how they can really help them add value," says Healy.

MAPI: Fast-Changing Technology, Business Models & Cyber Security Pose New Risks For Manufacturers

Manufacturers need to understand that there are growing risks to their business from a variety of sources: from product innovation cycles that are speeding up; to IT security breaches; volatility of raw materials and supplies from destabilized countries; or even a boneheaded social media post. If companies do not keep ahead of challenges posed by new technologies and business models they risk losing their companies.

"The pace and impact of innovation coupled with cybersecurity risk, creates a risk environment that must be carefully managed," says Brian Clark, a partner with Deloitte & Touche and co-author of a study conducted with the Manufacturers Alliance for Productivity and Innovation (MAPI). "Product innovation can rapidly make existing products obsolete, potentially delivering considerable value to the innovator while leaving the unprepared facing competitive disadvantages."

The study finds that manufacturers face a complex set of "risks and disruptors" and that there is a "pressing need for the industry to evolve their risk assessment capabilities."

As much as new technologies are impacting product cycles, established manufacturers must address the threat posed by new competitors using data analytics along with a new generation of talented workers and executives who are thinking creatively about new business models that are meant to undermine them. Existing manufacturers need to understand the potential impact of these changes and the "leading practices in these areas that may set a company apart," says MAPI. "Supply chains are highly complex and continuously exposed to a variety of internal and external risks, and, if not managed carefully, can result in potential adverse impacts to manufacturers' sales and brand reputation," says the study. "Manufacturers should build resilience into supply chains to address critical vulnerabilities proactively as well as balance risk and costs to prevent or recover quickly from risk-related disruptions."

MAPI and Deloitte recommend that companies implement robust risk assessment programs that fit into their corporate cultures. "Since change

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