

# MAN AND MACHINE— NOT MAN VS. MACHINE

People—finding, onboarding and keeping them—may be the single biggest technology challenge facing manufacturing companies today. Some insights. **BY DALE BUSS**

MANUFACTURERS MAY BE NEARING the ultimate primacy of maker machines. But that era won't arrive without human collaborators, because there's still no technological substitute for the experience, ingenuity and adaptability of the men and women who work in America's fast-evolving factories.

Sophisticated technologies such as A.I., the IoT and Big Data are disrupting practically every industry these days. Yet, a more urgent concern for most mid-size manufacturers is

technologies and so many things they can do with them.”

## Sparse Labor Getting Sparser

Manufacturers face two huge obstacles in that regard: a sparse labor market and the retirements of their most experienced workers. Many are retraining workers to harness the new technologies that will keep their companies in business. But first they had to sell employees on automation.

“We said that no one would lose their jobs through automation,” said Nick Santoleri, COO of Rockline Industries, maker of coffee filters and wet wipes. “We would do it through attrition, reskilling and training. You do that instead of letting equity go. No one believes it, of course. Then you walk the talk and you continue to put all of your investment in training and retraining of the workforce.”

Derrick, a maker of slurry separators and other solids-control equipment, wanted to multiply its 10 robots to automate more painting and assembly. “We explained we had to be competitive,” said Tom Silvestrini, executive vice president. “By doing this we were going to grow the company. But we created our new department for robots out of six guys, including four former welders, who are designing the next generation of fixturing for them.”

Another challenge has been figuring out how to transfer the priceless institutional knowledge of internal processes, operations and factory-floor hacks of upcoming retirees. “We experienced that in the tool room,” said Jeff Waechter, CEO of Wegmann Automotive, a maker of wheel-balance weights. “The folks there were pretty senior. So we started



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**—Elaine Bedel, Indiana Economic Development Corporation**

having enough human makers to run the new stuff, agreed business leaders gathered for a *Chief Executive* roundtable cosponsored by the Indiana Economic Development Corporation (IEDC).

“There's got to be a mindset change in manufacturing today to opportunity and innovation,” said Brad Rhorer, senior talent programs officer for Conexus Indiana, a not-for-profit organization promoting advanced manufacturing and logistics in the state. Manufacturing workers “aren't just welders any more. There are all these

an apprenticeship program, and they took to teaching the younger guys. But it also worked the other way. It was a huge success.”

Yet, many companies still face a dearth of skilled senior workers, such as Schleifring Medical Systems, a medical-equipment manufacturer. “The equipment we have is technical, and the problem we have is when we bring in new people, they don’t understand machining or materials or cutting tools,” explained CEO Mark Swisher. “We offer [high wages], but that doesn’t mean they come.”

### Addressing Absenteeism

Many manufacturers also struggle to get employees to show up on time—or at all. “But you can’t drop your standards or expectations because when you do that for one or two people, then you’ve lowered the standard for other people as well,” said Matt Jones, Wegmann’s vice president of operations.

Such challenges are leading CEOs to cast their recruitment nets ever wider. MPW, a provider of industrial-cleaning equipment and services, hired a handful of people out of halfway houses and also seeks potential employees with language barriers. “These are pools that have talent, will be loyal and work hard for you if you’re willing to deal with some of the issues,” said Jared Black, president.

Indiana has helped widen the pipeline in various ways, including a pilot program to train female ex-convicts for welding jobs, and an initiative called Invets that helps fresh military veterans find and train for manufacturing jobs—and nixes state taxes on veterans’ pensions.

Governor Eric Holcomb also established a “workforce cabinet to create the right education and put in place a system where, if you graduate from high school in our state, you’re employable,” said Elaine Bedel, president of the IEDC. The state is also working with community colleges and technical schools to fill the talent pipeline and helping manufacturers expand paid high-school internships.

Demonstrating that factories aren’t the dirty, backward workplaces of the past is another way manufacturers are working to lure talent. In Elkhart, Indiana, local employers sponsor a “manufacturing day” to

expose kids as young as eighth grade to tech-enabled facilities. Wellsville, Pennsylvania-based Pennex Aluminum distributes information about jobs and salaries to middle-schoolers and their parents. And Wegmann is helping create a new tool-and-die-making class at its local high school in Tennessee.

### Accessing Ambition

Keeping current workers on track is equally critical. Some employers are trying tough love tactics. Rite-Hite Products established a 90-day probation period that checks new workers weekly on metrics such as quality and attention to detail. “If they’re not making progress toward that, we have to cut them loose,” said Pat Ginn, director of manufacturing for the maker of loading-dock equipment.

Others encourage workers to envision themselves as leaders. Allied Mineral Products worked with a community college to create a course of training on the company’s equipment and processes. “It also gave us a carrot with [workers] to say, ‘Show us you want to be a leader and we’ll put you through this program and advance your knowledge and skills,’” said Andy Ferguson, plant-engineering manager for the company. “Younger folks especially were all over it, and it’s helped us to identify some good potential leaders.”

MPW celebrates and promotes managers who specifically “develop people beneath them and promote from within,” Black said. And Heraeus Medical Components has launched an internal executive-leadership program that includes internal mentoring. “It gives people a chance to partner with colleagues in the course of their work,” said Tamara Longsdorf, quality director. Efficiency is key, she said, “so you don’t have to dedicate a lot of time each week to the program.”



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