



INDUSTRY ROUNDTABLE

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INNOVATION, LEADERSHIP DEVELOPMENT CHALLENGE WNY MANUFACTURERS



JIM COURTNEY

Manufacturing executives talked about the importance of innovation, development of workforce training resources and why corporate culture matters during a wide-ranging Industry Roundtable discussion last month at Hodgson Russ LLP.

BY DAN MINER
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It's a fast-changing world out there, and companies must keep up with the pace of technological change if they want to remain competitive.

But there are plenty of approaches within that broad philosophy, according to a panel of manufacturing executives who met April 20. The event was part of the Business First Industry Roundtable series,

sponsored by Hodgson Russ LLP and held at the law firm's downtown headquarters.

Michael Rayhill, president of Jiffy-tite, said that while innovation is central to the company's continued success, it works best when it comes from employees.

"As long as they understand that if we all have a common goal and solid culture, then they're empowered" to come up with innovative solutions, he said.

Jiffy-tite, which makes quick-connect fluid couplers and

fittings for hybrid and electric vehicle engines, has facilities in Lancaster and Batavia.

Warren Hoy is the plant manager at Dupont's Yerkes Tonawanda factory. He said positive disruption often comes from new people coming into an established operation who can suggest changes or improvements with fresh eyes.

"The importance of creating a culture is actually tied to having new people come into the plant or the operation who weren't afraid of something new," Hoy said.

Change might work best when it bubbles up from the shop floor or research labs, but sometimes it also requires buy-in from the affected portions of the workforce. Marjorie Bryen, president of Hard Manufacturing on Grider Street, said she's wary about the attitude of her experienced employees.

Managers have to be "positive about it, be encouraging that it's not going to change the world tomorrow but we have to embrace it," Bryen said. "We'll go out of business if we don't."

► WNY MANUFACTURING FACTS

Sources: Buffalo Manufacturing Index, New York State Department of Labor, Business First research

69.9

Buffalo Manufacturing Index in January, up from 58.9 in December

51,643

People employed in manufacturing positions in WNY

9,687

Total jobs at region's five largest manufacturers

6

Number of publicly traded manufacturers with WNY headquarters

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► **We've talked a lot about workforce over the past couple years. I'm wondering if that conversation has evolved at all with any of the new initiatives that have either been proposed or come online?**

TONY STAUB

President, Staub Machine Co. Inc.

What we perceived a number of years ago (was) there was not much emphasis on workplace training and that has certainly changed. There's been a lot of talk in many areas and many facets of that. For us, it's still a challenge to find qualified work. In fact, sometimes we're not even looking for qualifications as far as hard skills, we're looking for soft skills. So we'll take a person who doesn't have experience and we'll try to train somebody like that.

► **A formal training program?**

TONY STAUB

Staub Machine Co. Inc.

Informal for us but we offer education options, so if someone wants training as far as skills that we need or frankly anything that makes them better, we'll pay for things like that.

► **Would you have considered training someone like that 10 years ago?**

TONY STAUB

Staub Machine Co. Inc.

We started this program for our company 10 years ago. We said, "Look, we believe in education and we will continue to pay up to \$2,000 per year per employee for training."

PETER COLEMAN

Executive director,
Buffalo Niagara Manufacturing Alliance

We stopped shedding jobs in the manufacturing industry here in 2009. In the five counties of Western New York, we have 67,000-plus manufacturing workers, down from a peak in the '70's probably right at 200,000. So that led to all the issues we have. The vocational programs were eliminated in the high schools, eliminated in the colleges, because it wasn't a draw. We are facing this gray tsunami. We're going to need to fill 20,000 positions over the next eight years. So we work closely at the BNMA with the state and we apply to be the operator of the workforce training center that's going to go in on the East

► CLOSER LOOK AT THE ROUNDTABLE

The Industry Roundtable on Manufacturing continues a three-year series of discussions with Western New York business leaders.

Throughout the year, decision makers from diverse industries meet for a discussion moderated by Business First journalists.

Excerpts are published three weeks after the roundtable.

Upcoming topics include family business, workforce development and apprenticeship programs, and health care.

Roundtable discussions, sponsored by Hodgson Russ LLP, are held at the law firm's Pearl Street offices in Buffalo.

Side, which will augment the local educators and state educators at the college level. As an industry, I think it's upon us now to go and market what those opportunities look like. With the training center, a large part of that is going to be outreach and targeting markets that we've had very little success in bringing in students. Women make up less than 20 percent of the workforce in manufacturing and related jobs. There's great engagement with young women in the middle school and they participate in tech events and stuff like that but it doesn't correlate over to high school. And the other underrepresented population it after African-Americans. So we go into our shops, a lot of gray hair, a lot of bald guys, a lot of white guys and they're getting ready to retire. That demographic has got to change dramatically.

DEAN PENMAN

President, Seal & Design Inc.

Our biggest issue from a recruiting standpoint is manufacturing jobs and middle-level managers within the production facility. So as you recruit and develop talent and they get good at their jobs, everyone wants to move up. So you end up promoting people who do a great job running equipment to managing a department that they were good at producing parts and they're not very good managers. They had no training; they had no skills. We do a great job of taking our best workers and making them managers and that's not always productive. So we've taken great people and put them in a position they're not going to be successful in unless we change the way they think and give them soft skills.

► **What do you teach them? What are the new skills they have to learn?**

DEAN PENMAN

Seal & Design Inc.

Some of them are organizational skills. Some of them are how to treat people, how to manage people, how to motivate people. Our outside consultant comes in and does the training; he does assessments. What motivates you? What fears do you have? We analyze the people

in the department and share that information with managers and that helps them understand how we're going to get that particular team member in the place we need them.

WARREN HOY

Plant manager, DuPont

Peter used the word "tsunami." I don't know whether I heard that term before, but I think it does describe a lot about what's going on in our plant in particular but our company in general. If you look at our plants across North America, there's a large percentage of people who are getting ready to retire in a couple years. We're in a period of maybe the second of a five-year wave where out of 600 people, we're probably losing 20 to 30 a year to attrition. That's both a challenge and an opportunity. The challenge is that's a lot of experience going out the door, so we have to have a way to capture that. The opportunity is that that's really a chance for us to look at ways we can do things differently, not necessarily replace every person who leaves. In terms of our hourly work force and replacing them, we've continued to hire. We're actually bringing on 15 new operators and that will total about 50 or so that we've hired since 2013. We have done pretty well recruiting. I think that's largely because we pay pretty well. The people we are largely bringing in are folks who got the experience working at other companies. At some point in the food chain, that's going to create tension because of the training that you're talking about. I think for our salary workforce, there's really a pretty big change going on. That is where we used to just develop from within, and typically you'd get somebody from another organization elsewhere in the company. Now we're doing a lot more external hiring. I've got two middle managers - one came from another company, one came from a military background. The challenge for us and the opportunity is finding new ways to blend all the different experiences and make the best of them. I'd say so far we've done pretty well being able to fill our needs. I'm always a little anxious, given that this wave is going to continue for a couple years, to make sure that we can continue to fill those needs going forward. So when the well runs dry, that becomes a big problem for us.



ALL PHOTOS: JIM COURTNEY

Marjorie Bryen, president,
Hard Manufacturing Co. Inc.



Peter Coleman, executive director,
BNMA



Terry Galanis Jr., president,
Sealing Devices Inc.



Warren Hoy, plant manager,
DuPont

INDUSTRY ROUNDTABLE



STEPHEN ZENGER

President/CEO, Zenger Group Inc.

We're a commercial printing company and we have the luxury of having a very broad entry-level base of employees. We have a substantial department that does kitting: taking multiple products, packing them into boxes and sealing those boxes and palletizing those boxes. Temp agencies provide people for that kitting department. We have a lot of churn down there so we bring in 10 temps. On day two, six of those temps are still on the floor and four are gone because they didn't show up on time or sober or whatever. And by the way, many of the people coming in from that pool are young and people of color, immigrants, African-Americans, Hispanic. Almost all of them are under 30 years old. Once they're in our environment, we can start to see the work ethic, how that emerges, their skill levels, their intelligence level. This process has been going on for about 36 months now and we have graduated from people who came in the door through that funnel - probably 10 to 12 employees on the main plant floor running high-tech, high-level production equipment. They come in and we train them, we assess them, we develop them. So for us, because of that broad entry-level base, we're

actually in a very good place in terms of our workforce because now we have a diverse workforce of younger folks who really appreciate the work they're doing.

► **What's it like assimilating refugees or immigrant populations?**

STEPHEN ZENGER

Zenger Group Inc.

What we're finding, not to generalize, but first of all these folks are very hard workers. They're grateful for the opportunity to work. A lot of the folks coming in are Hispanic and they have varying degrees of language skills. So what we're finding is that some of the folks we have on staff who are Spanish and English speaking provide that translation. Language has probably been one of the biggest barriers. Another thing we're finding is multi-generational hiring. Usually the younger person in that situation has better English skills than their family member and they essentially act as a supervisor translator in real time. The benefits of hiring immigrants are they come in with a very, very strong work ethic. A very strong commitment to the job. They come in on time, they're courteous, they're grateful to

have the opportunity. Those are the people who end up having success and working through the plant into more significant and higher-paying positions.

NADINE POWELL

Business development, Buffalo Manufacturing Works

Our workforce is made up of those with engineering backgrounds, a good majority of them master's and Ph.D., engineers with very niche expertise in an emerging technology. So to staff up, we had to employ a local and national recruiting model. We've been very lucky. In our two years in operation, we've been able to find those across the continuum from our technician level all the way up to our technology leader. We got incredible local talent from the University at Buffalo, RIT, but we had to go as far as Rochester and Texas to find some more of our senior people. With that said, the perspective that I spend kind of all day with our manufacturing clients on manufacturing floors, all of our conversations start at a technology level. We're there to talk about applied research and development, how we can infuse technology into their operations to help them be more competitive. I

don't think I ever left a conversation with a manufacturer in Western New York where workforce has not come up as something that they wake up in the middle of the night concerned about. They always talk about the average age and the level of knowledge on their floor and how can you strategically plan for those retirements.

► **How would you characterize the effectiveness of the Buffalo schools program?**

NADINE POWELL

Buffalo Manufacturing Works

I'm very impressed with a lot of what the Buffalo Public Schools are doing. I know that's not something that's said a lot, but their career and technical education students are some of the best. We work with four Buffalo Public Schools right now and the caliber of talent is incredible. The students are with us after school, so they've actually opted in to extend their schoolday until 5 p.m. to be in our learning lab. They also join us on Saturdays. They bring their siblings, and their cohorts from school for 3-D print competitions. What they're really looking for is interactive, hands-on experiences. So we need to

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capture their enthusiasm and their imagination and also give them a tangible link. The graduation rate out of the CT program is excellent and many of the students that we had come through the learning lab are now in two- and four-year engineering-related programs

PATRICIA POTTS

President, Harbison Brothers Inc.

We clean out 55-gallon steel drums from the oil and chemical industry, so it's a very labor-intensive process and I hire primarily through the Urban League. These are individuals either on parole or they just got off of parole. I've even had individuals who leave the facility at 5 in the morning, take a bus in and start. And I see my role as teaching them to work. They call me the principal and I bring them in my little office and I make it clear what we expect. I have some incredible workers. I'm on the board of Journey's End and Refugee Services. We bring in the refugees, find them a home, get them set up in English classes, get the kids set up in school and find mom and dad a job.

BARRETT PRICE

CEO, Bear Metal Works

I'm a much smaller job shop fabricator and, yes, I've gone through your pain where we rightsize our business because it has downturned a little, but I do see it picking up. We have to train from within. I have a senior workforce and I have young staff, and bringing in new people isn't easy because the senior people think their jobs are being taken away and they're really scared to mentor and train somebody else to take their job even though it's going to help us in the long run. But I have to look at it differently and hire people who are cross-trained in different industries. Specifically, I've hired a new project manager who's also a CWI inspector, and if you're a certified weld inspector, how you can help train the new, younger kids along the way of techniques and let alone mentor them without being threatened by their jobs? So I'm hoping that the mentoring works. I believe it's worked for me and it should work for other people, too.

► **Have you had the experience of feeling like your company is a stepping stone?**

BARRETT PRICE

Bear Metal Works

We always are. Most people want a job for life. They have to realize, though, that you are going to be there only four or eight years and use that job as a stepping stone to the next one. There are much larger

companies that will pay much higher wages and we will lose them to that. So I have to continually bring in people who are qualified. It's inevitable; it always happens.

PETER COLEMAN

Buffalo Niagara Manufacturing Alliance

It's not healthy, though. The real cost of onboarding a new employee is massive. If I was to go to someone today and say, "I can get you a qualified welder, but you need to pay me \$20,000." I can go back and show you that you spent that much money and more to onboard that person because you're training them within and now you're taking your high skilled labor and putting them in a training mode so they're not contributing to your throughput anymore.

MICHAEL RAYHILL

President, Jiffy-tite Inc.

We've had the same positive experiences, we've had the same negative experiences where you hire someone in the morning, you train them, you orient them, they go out for lunch and they don't come back. Or they have a great job for a week and they seem to be assimilating and then they just don't call in on Monday. It's a hardship and I think, frankly - this sounds really cruel - we're all churning the bottom of the barrel right now after the '09 recession. They stay at Jiffy-tite for two weeks and they go to Staub for two weeks or someplace else because they're not the people who come in on time. They're not the people who respect other individuals. But that's not our biggest challenge. Our problem is in the middle. It's skilled trades, it's machinists. It's not necessarily the four-year degree people. And I was very encouraged when the first round of Buffalo Billion was announced that one of the four pillars of the first round of Buffalo Billion was workforce development. I poured myself into what was called the Advanced Manufacturing Institute, which became Buffalo Manufacturing Works. Now, four years hence, I'm disappointed. We made great progress with facilities like Buffalo Manufacturing Works, which is a state-of-the-art facility with fabulous talent in it, and I haven't perceived the same progress in workforce development. Now I'm hopeful again with people like Peter at the helm of BNMA. But because of that, we've had to institute on-the-job training and it's been very costly in the trades area, in the machinists area.

► **Peter, does the training center represent substantive change for the**

skills-trade workforce?**PETER COLEMAN**

Buffalo Niagara Manufacturing Alliance

If we can grab the talent, it does. So again, it's just not the BNMA. As the operator, we formed a non-profit with Catholic Charities, Buffalo Urban League and Goodwill Industries because we understand that the wrap-around aspect is going to be critical to go and target the market. So our whole outreach perspective is going to be massive. This is going to be a huge marketing effort where we need to engage manufacturers, show the kids cool stuff, apply opportunity where they're working with their hands. That outreach is transformational but it's going to take us a couple years to get the kids to a point where they're productive. We're opening in the fall of 2018. Until that time, we have to promote the programs at ECC and Alfred State. They're going to be our educational partners. You look at the success of the Buffalo CTE (Career and Technical Education) program; if you took away their graduation rates, the graduation rate in the city of Buffalo would be dramatically lower. The success that's coming out of the CTE program is really a boost. I think that's where the superintendent has said that every school is going to be a CTE program now. So you have Burgard, which is focusing on high skill trades. You have Hutch Tech, which is more of an engineering feeder. You have South Park, which I think may be more construction trades. We're going to be using national standards. The curriculum that's taught will be audited through assessments that will be driven through industry so these stackable credentials that will be audited by a third-party, so there will not be social promotion. It won't be like a high school where you're graduating from high school today in the city with an eighth-grade math and reading level.

MICHAEL RAYHILL

Jiffy-tite Inc.

Several years ago, we made this commitment. We realized that students in general don't know what jobs are out there and they especially don't know about the industry in our region. And if we don't promote that actively by inviting students to come in periodically, they won't know it. So we started with Burgard and Hutch Tech and even the suburban schools, to invite them in in large groups - 30, 40 at a time. We usually give them very young, energetic employees to be their tour guide and they're blown away. They come away saying, "I didn't know you could do this in Western New York." We have good jobs here for people out of high school. We have good jobs for people who go to a two-year school.

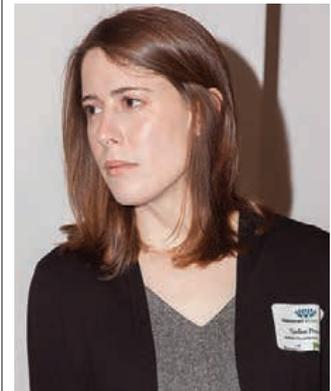


ALL PHOTOS: JIM COURTNEY

Dean Penman, president, Seal & Design Inc.



Patricia Potts, president, Harbison Brothers Inc.



Nadine Powell, business devel., Buffalo Manufacturing Works



Barrett Price, CEO, Bear Metal Works

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ALL PHOTOS: JIM COURTNEY

Michael Rayhill, president,
Jiffy-tite Inc.



Tony Staub, president,
Staub Machine Co. Inc.



Stephen Zenger, president/CEO,
Zenger Group Inc.

We have great jobs for people with four years or beyond. These are the opportunities that exist right in your backyard.

BARRETT PRICE

Bear Metal Works

I believe that at the eighth-grade level, if you can bring them into a manufacturing plant when they have to choose a career, they get that fire-engine moment. That's when they sit on a firetruck or they see some sparks flying in a weld shop or they see some robotic welding going on or some kind of machine moving or technology. It creates the moment when they say, "Yes, I want to do that. I want to learn a skill." That's where we have to catch our kids because they're only seeing what they see on their phones and bringing them into your shops or plant is the best thing to do.

MARJORIE BRYEN

President, Hard Manufacturing Co. Inc.

I have the good fortune of being in a small company but one that has a lot of loyalty. So my challenge when I got to this shop three years ago was a lot of gray hair and a lot of people who had a lot of loyalty and couldn't picture not working, even though they were 70 years old. So doing the changeover happened and it was a little painful, but it's OK. But part of that changeover, at least on my plant side, has been a lot of young, energetic new blood that has come in that isn't happy with the status quo. So the challenge that we all have to deal with is this millennial. In manufacturing it's the same problem. They're not coming in and thinking, "I'm going to get this job and I'm going to do the same job for 30 years." The new people that we're hiring in are trying to figure out how to build their careers. They want to stay with me, which is great, but I need to give them opportunity to grow, learn, cross-train and develop. So it's a great opportunity for us.

TERRY GALANIS JR.

President, Sealing Devices Inc.

The newer people coming in, they like the technology. They like that it's computer controlled. They like that we've invested in all those kinds of operations so we get new equipment, we have the latest stuff. It's easy to get people in there now and they're excited about it. They're teaching us new things to do with that equipment that we spent a lot of money on and they're excited about it. So going forward, I think if we just keep our heads, keep investing in our businesses, you're going to see a lot easier way. And there's a culture, there's always a business culture. I'm very optimistic. I don't see any problem hiring people.

► How do you approach the integration of technology in your business?

TERRY GALANIS JR.

Sealing Devices Inc.

Embracing it all the time. There's always equipment out there. Every series of technology improvements is twice as fast as the one before it. So you have to keep your eyes on it all the time. I don't like to buy a piece of equipment until I absolutely have to because I want to get the latest technology because it will change so quickly. Even the people we work with, we get them involved. They were all inspired about getting it. They know that if we put technology in, we don't have to hire as many people going forward and that will make their profit-sharing plan a little easier to make every year. The talent is in there; you have to find it. But you have to create a corporate culture that they can see coming in, that new people can see what you're doing.

MARJORIE BRYEN

Hard Manufacturing Co. Inc.

On technology, it's a lot about attitude, too. I think it's how the leadership embraces the technology and getting the buy-in, not throwing it down someone's throat but not raising a fear level. Again, it's sort of generational – "I've always done it this way. Why are you making me do it some way new?" But I think being able to be positive about it, be encouraging that it's not going to change the world tomorrow, but let's embrace it. We have to because we'll go out of business if we don't.

WARREN HOY

DuPont

The importance of creating a culture is actually tied back to having new people come into the plant or the operation that weren't afraid of something new. It's difficult, as you say, because people only see it one way. But somebody who's coming from a different company or even a different plant within the same company typically is coming in with a different perspective and is generally challenging people about, "Hey, I've seen it work this way." Again, as we blend those talents together, you tend to get the best of all of it. But that's with every revitalization, rejuvenation of workforce – it's so important.

► It's always interesting to hear how many manufacturing leaders make decisions about the technology that they bring into their businesses.

MICHAEL RAYHILL

Jiffy-tite Inc.

It's foundational to the culture. In fact, I hate to think they wait for me to decide what technology to bring into the business. First of all, when I say it's foundational, our growth is all based on innovation. It's not based on making more stuff, selling more stuff; it's based on innovation so we don't stay stationary. With that as a foundation, when you bring new people in, we have a culture we're it's OK to fail. We put a young person with a senior person, someone who's done it the same way for three decades, and they argue. And I've been up in engineering when the young guy is telling the old guy, "We have to use the robot," and the old guy is saying, "We need an indexing cable." And then we finally get the product and it's a combination; it's the best of both. It has the reliability and the serviceability of the old technology but it's got the speed and flexibility of the new technology.

► You're saying that these capital decisions are less about brainstorming in the boardroom and more about what your workforce and what your business are telling you?

MICHAEL RAYHILL

Jiffy-tite Inc.

That's right. As long as they understand that if we all have a common goal and solid culture, then they're empowered to do that. Obviously, if they don't know what you're trying to do, they might make the wrong decisions in investments. And then you spend all your time saying no, we're not going to do that, we're going to do this instead. And they don't understand why. If you spend a lot of time communicating so everybody understands what your goal is and you encourage people to collaborate and fail, then they'll make the decisions for you; you won't have to make them.

BARRETT PRICE

Bear Metal Works

In our industry, we go to trade shows and continually see what new equipment is out there to help us do the jobs faster – meaning, yes, there's an investment and it's a large one to make that decision, but the automation means, OK, we need a younger person with computer skills to run that machine. We still have an operator to replace another machine, but the newer technology does require some skills and we're hoping the new kids can learn these skills to run the machines for us so we can produce a product faster.

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Zenger Group Inc.

Speaking to culture, I think it's important for the folks who are on the floor to have exposure. We have a very open-door policy in our plant. We'll let our competitors through our plants. When you open your door like that, you say, "We're going to have a success on our own merits." So I don't tend to look at competition in my industry as a threat but much more of an asset to keep myself and my team honest and innovative. Every time you have that collaboration and that interaction, you get ideas about how things could be done in a better way. That makes our industry better as a whole. But you have to have a culture of having confidence in yourself and the ability for your team to get out of the plant and see what is going on and what is possible out there. So that's a cultural thing.

NADINE POWELL

Buffalo Manufacturing Works

Manufacturers implement technology many times as a result of the projects we've done. There's criteria that you see in the dynamics when you're working with a client that kind of speaks to the success they're going to have in implementing technology. Sometimes we'll walk into a manufacturing (facility) where we'll immediately get a feel of closed-door, not-made-here mentality and not being open for kind of that infusion of innovation from multiple sources.

TERRY GALANIS JR.

Sealing Devices Inc.

You have to remember: One of your biggest supporters is your employees who after hours are going to talk to their friends about what they do and they're saying, "Oh, yes, we're doing this at our company." That makes recruiting very easy because they say, "My sister works there" or "my brother" and "I like what you're doing." Those are the kinds of things that you really need to figure out what's going on outside the business for you.

DEAN PENMAN

Seal & Design Inc.

We have the same type of culture so it's a huge investment in new equipment, new technologies. We have a leadership consultant come in and talk to our managers. And when they interviewed everybody, one of the things they all came back with was what are they most impressed about and that's the reinvestment in the company. So that gives them a good feeling of sustainability and growth and pride. And then we challenge all of our managers and, as part of the review process, (asking

them) "What did you do to improve the efficiency and the capabilities in your department?" So if they need a new machine, they've got to go out and research it and then they present me with a report. "Here's what we need, here's my return on investment, here's my cost." Then we make a decision whether we're going to do it or not. I tell them all that if I'm the smartest person in the room, we're in big trouble.

WARREN HOY

DuPont

The other part of this is bringing investment into a plant. We're at a point now we have to be renewing our facilities. We're running about double the investment compared to the last year or two compared to five years ago. And that's replacing stuff, tearing things down that were mothballed years ago. We're in the middle of a fairly significant renovation in a power house, parts of which were shut down back in the '90s. So I'm looking at old coal bins and things like that. We're just doing the right thing by cleaning out the facility and removing some of these things that we're not using anymore and investing in some new equipment and new technology. It's always a challenge, kind of like having an old car: You don't have a car payment. If it lasts another month, that's great, but at some point you have to bite the bullet and either make some overhauls on what you have or go out and just get something new.

MICHAEL RAYHILL

Jiffy-tite Inc.

By the way, if you're faced with that decision, please buy a new car. Several of us in the room would appreciate that.

► **How does the decision to make a product work at DuPont?**

WARREN HOY

DuPont

That's a bigger question than I can answer. I go back to an interaction I had with one of our business leaders a couple years ago. We were having a number of challenges in the plant operation and I still have a very clear memory of him sitting on a chair across from me saying, "What do you need?" And I was able to articulate a number of different changes we needed to make. Some of them related to personnel; some of them related to equipment. And much to his credit, he's been delivering on it. So I think it's being able to clearly articulate that need: Here's what we'll get for it. And I think the next step is you have to be able to deliver

along the way. You're not going to get a \$10 million investment and go, "Oops, sorry, it didn't work." You build credibility through delivering on a \$100,000 project, a million-dollar project. And when those deliver, you can start to play for the bigger ones.

► **What are the skill sets required to run a manufacturing business? Are they different than in the past?**

STEPHEN ZENGER

Zenger Group Inc.

A manufacturing leader today really has to be focused on innovation because that is the differentiator. When you're talking about competing, we don't compete as much in the global economy but a lot of the folks around this table do. And the only way you compete and win in the global economy is to be innovative, to have a better product produced in a better way. When you think about what's going on or what the future industry looks like and you see a trend that's scary, my whole take on it is if I see something that scares me, that's where I run. I run to the thing that scares me. Figure out why I'm scared about that and be ahead of the trend in beating or even deploying that particular strategy in my organization. It's about being disruptive.

MICHAEL RAYHILL

Jiffy-tite Inc.

Every one of us is competing in a global economy. And I think innovation is an enabler, but the skill set you're trying to get to, for us anyway, is creating value. Because whether you're in a service industry or servicing industry or the information industry, it's about creating value.

WARREN HOY

DuPont

If I look back in time, a lot of the manufacturing kind of followed almost a military structure. If you go back to people who came out of World War I and World War II, those tended to be people who moved into manufacturing leadership or business leadership, and traditionally it was a hierarchical structure. Lots of layers, management. I can remember earlier in my career that a plant manager in one of the facilities had a gold hard hat. You always knew when the plant staff was in the building because he had a gold hard hat, which is so completely opposite of anything I would ever do. But that was the hierarchy. The plant manager made a decision and the next layers

of the organization went around implementing it. I think getting people involved in the decision-making and owning part of it has been really important and, Dean, you made the comment of not being the smartest guy in the room and I absolutely agree with that. When I got to the plant a couple years ago, I got to the point where I would say crazy and stupid stuff to my staff to see if they would disagree with me. And it finally happened. I finally pushed them hard enough that they said, "That doesn't make sense." I said thank you. You want to have that live dialogue and that debate to get the best of people's ideas. We have a tagline on our site mission that says, "Focus, finish and have a little fun doing it." It's developing that focus, making sure you cross the finish line on the work you're doing. And let's face it, a lot of us spend a lot of our day at work and we want people to enjoy coming to work and having a laugh or two.

PETER COLEMAN

Buffalo Niagara Manufacturing Alliance

Communicating is important. So you get to this idea of the millennial, too. The millennial wants to know why they're doing something. They're just not going to do it anymore because you tell them. Being able to communicate what your strategy is, the how and the why. "This is how we're going to do it and why we're going to do it and you're going to give me guidance back." Be a humble servant.

TONY STAUB

Staub Machine Co. Inc.

We make parts. We make more parts than we ever made before and we make them with less people. So if I back up 20 years or 30 years and I had to make the parts that I'm making today, I would need five, six times as many employees as I have now. So do I need less people going forward? Well, probably not because I'm going to be manufacturing more. But what I do need are more highly skilled. I need people who can talk to the customer, who could innovate. I need people who could program, who can do quality control. I need those skills and I need computer skills to go with that, too, because we're not turning handles anymore; we're now pushing buttons.