

*Oklahoma Innovations* Radio Show

Air Date: October 11, 2009

Guests: **Roy Peters**, president, Oklahoma Manufacturing Alliance; and **Edward “Ned” Hill**, dean, College of Urban Affairs, Cleveland State University

[ Music ]

>> From the OCAST Radio Network, this is *Oklahoma Innovations*, a weekly science and technology radio magazine brought to you as a service of OCAST, the Oklahoma Center for the Advancement of Science and Technology. OCAST is the state’s only agency whose sole focus is technology, its development, transfer, and commercialization. OCAST mission is to identify and fund promising research in technologies that allow Oklahoma to compete in a global market economy from our own backyard. This program features some of the state’s most gifted and talented scientists, inventors, entrepreneurs, manufacturers, and business leaders who all have one common goal, developing technology-based economic growth for all Oklahomans. Now here are your hosts, Gary Owen and Steve Paris.

>> We are coming to you this week from Tulsa, Oklahoma at the Oklahoma Manufacturing Alliance is involved in 2009, the Oklahoma Conference on Manufacturing. Steve?

>> That’s exactly right, Gary. You know , we’ve been involved in -- with the Manufacturing Alliance, had a little different name early on, since about 1992. And the president of the manufacturing -- the Oklahoma Manufacturing Alliance, Dr. Roy Peters. Roy has been -- he’s been on the scene here in Oklahoma for quite some time. Not suggesting he’s of any age or anything, however he at one time was state director of vo-tech, vocational technical training --

>> Wow.

>> That was the predecessor for what we now call Career Tech. And now he is the president of the Alliance, the Oklahoma Manufacturing Alliance. He’s held that job for some years now, and we really have made a lot of progress in that area. Roy, we’re here at the conference, and of course by the time our listeners hear this, this conference will be over. But there’s some great things getting ready to happen here. And you, in your presentation earlier today, you talked about what the economy has done, and it’s been a world-wide event, but we’ve been hit pretty hard in the United States , manufacturing has had a difficult time, as has other sectors of the economy, things are not always that bleak, right?

>> That’s right. This has been an interesting and tough year for Oklahoma manufacturers, manufacturers in the entire country. As you mention, we do this conference annually and our conference last year was about September 28, almost exactly a year ago.

>> Things were really down then, right? From --

>> They were really just beginning to start going down, we were scared, that’s right. And people had to pull back a lot of labor, a lot of lay offs, we went from about 153,000 jobs, manufacturing jobs in Oklahoma down to about 136,000 manufacturing jobs. And in addition, a lot of people went to a 32-hour week or a 3-day week, really cut back on number of hours worked as well. But I think we’ve hit bottom and the free fall stopped maybe a month ago, and more manufacturers are talking about new orders coming in, new business, calling workers back, going from the 32-hour week back to the 40-hour week almost every day.

>> And you get, you have front line troops out there, we call them manufacturing extension agents. And they work for you, and they're out there working with manufacturers, and I'm sure they get a lot of good feed back from what's going on.

>> They do. I think -- we don't keep statistics like economists do, but we have a lot of front line experience, as you said. These 20 manufacturing extension agents are deployed throughout the state, and they are in manufacturing plants every single day, often multiple plants a day. And so they see first hand what the manufacturer is experiencing.

>> That's right. And I've heard some reports from some of your MEAs and I've heard you speak on a few occasions in the past where you've talked about, you know, the kind of messages you're getting from Oklahoma manufacturers, and you're sensing an up tick, and things are looking better right now.

>> We believe so. I was at a boat manufacturing plant last week and they had gone to a point of manufacturing just seven boats a day. Now they have ordered for an average of 15 boats a day. Very significant. Some luxury items are beginning to get new orders again, people are calling back workers which means new orders are coming in.

>> It's a good sign. Now let's talk about this conference. You've got some outstanding speakers, we heard one this morning, Ned Hill, who is from Cleveland State University I believe, and you've got others on line. Talk to us a little bit about what the people who attend can expect to hear.

>> As we build the conference format we direct it specifically for the manufacturing community. Now we have people here from Career Tech and higher education and banks and employment agencies and that sort of thing, but our target is the manufacturer. And we try to make it worthwhile for a manufacturer to spend their entire day with us. And we open as they're driving home they say to themselves or to their associate you know, this was really worth coming. And I hope we've done that with Ned Hill as you mentioned. Ned is an economist. He is the chair of our national manufacturing partnership advisory council, and that puts him in the room with a lot of really important people and groups and the manufacturing community throughout the country. We also have a number of break out sessions that we think are directed to the current need of the manufacturer. We still do a lot of lean manufacturing, and so we're kind of kicking that conversation up a notch. We're doing a good deal on helping manufacturers grow their business, a couple of different kinds of break out sessions for growing business. Helping them to find new products to take into the marketplace, and teaching them through break out sessions, again, in how to actually take that product into the marketplace. Not just the idea, but how do we get the product into the customer's hands.

>> Roy, I almost made a grievous error here because we normally talk about the over-arching purpose of the alliance, and I've kind of left that out. That's my fault, not yours. But I would like to talk about that, the concept of we're here to help Oklahoma manufacturers be competitive in a world market. That's kind of the gist of why we're here, helping them to stay around and employ Oklahomans. Is that right?

>> That's exactly right. The founders of the Oklahoma Manufacturing Alliance felt that we needed to do more to help the existing Oklahoma manufacturer compete. We don't involve ourselves in the recruiting of companies to Oklahoma, the department of commerce does a great job with that, the local chambers do a great job with that. But our real and only focus is helping

that existing manufacturer get better and stronger. We want that manufacturing firm not only to stay in Oklahoma, but to grow in Oklahoma as well.

>> Well that leads me into the next question. You know, a lot of folks think of Oklahoma as being oil and energy and agriculture, and not much of anything else. And that's not true. Manufacturing plays a major role in our economy.

>> That's right. As I mentioned there are still about 140,000 people employed in manufacturing. It's about 1% of our gross state product, which is a very high number, actually. And manufacturing jobs are good jobs. They typically pay more than the average wage, certainly more than some in agriculture or some in the service sector. Most manufacturers provide benefits, manufacturing is both urban and rural. We have as many really good rural manufacturers as we do urban manufacturers. In fact, we breakdown the manufacturing sector to be about a third in Tulsa, about a third in Oklahoma City, and I'm saying a third in the Greater Tulsa, Greater Oklahoma City, and then the remaining third are out in the rural communities of Oklahoma.

>> And it's not unusual to have a manufacturing facility of maybe four or five employees. But they do a very unique service and a job in maybe a small community in Oklahoma. And it could be one of the mainstays of that community.

>> That's correct.

>> And so it's very important to all of us. You know, there were some awards given out during this conference recognizing some things that -- or some individuals and some groups and manufacturing facilities that have just really excelled in Oklahoma. Talk about some of those if you would, please.

>> Well, as we identify award recipients we look for manufacturers that are leading the pack. They have discovered ways to work on their business to make them better than their competitors are. Last week I was at one of our award winner's, Tracker Marine in Miami, Oklahoma. Tracker is owned by Bass Pro. Tracker could be in any state. They have chosen to stay in Oklahoma and to expand in Oklahoma. They make an extraordinarily high quality product, and they have gone through enough Lean that we could call them a truly transformed company.

>> You talk about Lean Manufacturing.

>> Lean Manufacturing. Their employees literally can put on a clinic as you take a tour through on what a good business should look like. And again, they are very, very competitive in their business. An interesting award recipient was Choctaw Defense, owned by the Choctaw Nation, and again, a very, very competitive manufacturer, and one that is committed to providing good jobs, I believe they employ 140 people in their various plants. They actually have three locations, in Atoka, Hugo, and McAllister. And they do a lot of defense contract work as well.

>> One of the things we don't have to worry about -- because sometimes manufacturers for economic reasons will leave and go to another part of the country. And we don't like to lose those. Nobody likes to lose those, and that doesn't happen often, thank heavens, but Choctaw Defense is probably going to be right here in Oklahoma because the Choctaw nation --

>> They are local.

>> There you go, and they're not leaving, big part of Oklahoma's economy.

>> One that I want to mention quickly is Wilco Machine and Fabrication in Marlow, Oklahoma.

>> That's southwestern Oklahoma.

>> Southwestern Oklahoma. Notice a common thread here, all three of these manufacturers are in rural Oklahoma. And that's -- that's very coincidental that's not intentional. But we -- we think it's pretty neat. I visited this morning with the vice president of Wilco, and he tells me that their business has actually done pretty well, and sometimes manufacturers are a little bit sheepish when they say that because so many of our brethren have not done well, but Wilco very aggressively entered the international marketplace, and they're an oil and gas producer, a product producer, rather, and they are exporting to a number of foreign countries, specifically in Africa. So again, they're a very, very exemplary company that we're very, very proud of.

>> Interesting.

>> We got just about a minute. There's a concept that I want you to give a quick explanation for. We're going to have you on later to talk about it maybe somewhere down the road, but next generation manufacturing, what does that mean?

>> Next generation manufacturing means that we cannot compete in a commodity marketplace producing low cost, low priced products that almost anybody else can compete. So we've identified several elements that make a manufacturer a next generation manufacturer, and you know, generally these are folks that are innovative, they've embraced workforce concepts that are modern, and they are people who are working on their business, not just working in their business.

>> Dr. Roy Peters, our guest this segment on *Oklahoma Innovations* with the Oklahoma Manufacturing Alliance. When we come back we're going to be talking with Ned Hill who was one of the key notes at this conference. And so stay with us, on *Oklahoma Innovations*.

[ Music ]

>> Imagine not being able to see your daughter on her wedding day, or experiencing your grandchild's first smile. An estimated 1 and 3/4 million Americans over age 50 have developed a loss of vision or blindness due to age-related macular degeneration. And of course more than 200,000 Oklahomans living with diabetes, 90% will develop eye disease. With the support of the Oklahoma Center For the Advancement of Science and Technology, an Oklahoma company is developing innovative treatments for blinding eye diseases. The research will improve the lives of people across the nation, create new treatments that are more comfortable for patients and prevent vision loss. OCAST is looking for Oklahoma researchers serious about investigating new treatments and products that improve the quality of life and the economy for Oklahomans. For more information call OCAST toll-free at 866-265-2215, or visit their web site at [ocast.ok.gov](http://ocast.ok.gov). Investing in science and technology, it's good for your health.

[ Music ]

>> Now in its 14th year, this is *Oklahoma Innovations*, on the OCAST radio network.

>> One of OCAST's strategic partners is the Oklahoma Manufacturing Alliance. Steve and I are broadcasting this week from the 2009 Oklahoma conference on manufacturing. And this is an event that we attend every year, and this year I tell you Steve, we've got -- you and I had a chance to listen to the morning key note, Ned Hill. Fascinating analogies of manufacturing

across not only Oklahoma but the U.S. and before the interview is over I would like to get him to talk about the automotive industry, because I thought that was a really fascinating analogy there.

>> Yes. Ned had some very interesting things. Dr. Edward W. "Ned" Hill, dean of the Maxine Goodman Levin College of Urban Affairs at Cleveland State University, and as Gary mentioned, he was the key note speaker this morning at the Oklahoma manufacturing Alliance 2009 conference here in Tulsa. And Ned, welcome to Oklahoma.

>> Steve, it's a pleasure to be here.

>> Well, we're proud to have you here, and I was very interested in what you had to say this morning. But before we go into that, we need to know a little bit more about -- I mean, you're not from Oklahoma, you're from Ohio I take it?

>> That's right, the other O.

>> The other O? There you go, both play football. Some play it better than others, I'm from Cleveland, so we still have an amateur team playing in the NFL, but we'll live with it.

>> We forgot to tell our listeners that Ned has a great sense of humor, but you're going to find that out here in just a minute. But tell us a little bit about your background.

>> Well Steve, I'm Ph.D. came out of this little vocational technical school down the road from Harvard, it's called Massachusetts Institute of Technology. --

>> MIT, huh?

>> MIT.

>> Wow.

>> I'm both -- doctorates in both economics and urban planning, so that's how you can be the Dean of an urban school and still do a lot of this work on manufacturing issues. I am -- do tons of work -- I'm an economic development specialist, but before coming into -- back into academics, I ran my family's company for five years. We were in wholesale retail footwear in New England, and if you're in Ohio and you really want to understand how economies change as I do, that's the core of what I do, you know, you latch on to manufacturing pretty quickly. Because Ohio is the fifth or sixth largest manufacturing state in the country. And if you do manufacturing in Ohio doesn't take too long to get interested in the auto industry. And before that I did work in the savings and loan crisis, so that means that part of what I was talking about today was also some financial instruments that we're trying to invent to kind of jump start both the aerospace industries and the automotive industry.

>> Well your subject really wasn't about what happened in the last year, but --

>> -- away from that.

>> You did, and I'm going to pull you just very briefly here. Give us kind of an overview from your position. I mean, we know that a year ago things were really looking bad, they're not looking great today, but they're much better, are they not?

>> It's better. I actually have done a lot of work on the recession. I mean, if you come from Cleveland, we were the place that predatory lending came through like a chain saw, and so in -- there are lots of things that happen on the ground that the people really believed in free, fair, and fluid all-knowing financial markets, we said they were mishugina back then, we'll see how many

of your people know -- listeners know Yiddish. I was going say something else, but you've got a bleep button. But September 15, I looked into the abyss. And you know, I was dealing with a very conservative Senator, Senator Voinovich and part of a conference call saying you know, vote for tarp, vote for stimulus, because we could be in 1936.

>> Exactly. Not that we lack them, just we didn't have many choices.

>> There was no choice. In massive federal spending is what we had to do, and I was on the side of yes, we need to spend a trillion. And I was meeting with people in the White House last week arguing that there's got to be a second step to the stimulus, even though politically it's not acceptable. Now here's the tricky part. Two years down the road when we're out of this mess public policy will have to do a 180 and get back to being fiscally conservative, dealing with the mess, and you know, the problem with the stimulus is that a lot of this stuff is the equivalent of public policy crack, because they don't want to see those flows cut off. But that's, you know, in terms of where we are in the economy, third quarter, we all expect the bottom, we got the bottom third quarter. Fourth quarter of this year we're expecting slow growth, around 2% growth in GDP. Next year we're expecting 2.2% growth in GDP, and then after that it will pick up. Here's the tricky part. You don't sell lots of cars until GDP growth is at 2.5%. In Europe, it's a full percentage point behind this. This global recovery is being led by huge stimulus spending on the part of the United States, Canada, and China. If China wasn't our partner in this we would be in a very difficult place. Like that leads to some interesting public policy -- foreign policy discussions, but nothing we're going to talk about today.

>> Well let's apply that or let's talk about that as it relates to manufacturing. Because you're talking manufacturers here today and you're a student of manufacturing and a professor, teacher also. Your message today, it was somewhat complex, but you made it I think very understandable, and if you can, give us a bit of an overview of what your message to the manufacturers was today.

>> Some of your listeners are going to listen to your interview with Roy Peters, and there's a little bit of an overlap in some of the --

>> A little bit, that's fine.

>> Right. The most important message is in time, at all times, businesses have to work on their business just not in their business. They've got to take the strategic view. If you don't pay attention to strategy you aren't running your business, your customers are running the business or the fates are running the business. The second thing that I spend a lot of time talking about was I actually gave the companies here a template and said figure out what your business is.

>> You did.

>> You an innovative global innovator, are you a global process company that really is the silver standard, those people run global businesses very well. Are you a lifestyle business, which most American small businesses are. That's what the whole idea to become a small business owner is, so you get to control your destiny and have some span of control. Pointed out the fact that that was the model of post World War II, but right now lifestyle businesses in a global economy forces you to up the food chain to be a -- you know, being really good at managing the business or being an innovator, or you get forced down the chain to the type of company called a one-trick pony, which means you've got one sales relationship, and when that changes you're in deep doo-

doo, or the worst is just being a job shop and an auction market, which we consider dead and dying companies.

>> Dead and dying. And you mentioned lifestyle, you mention your father is a lifestyle --

>> Oh absolutely. And did very well with it, yeah.

>> I'll tell you what, we've got to take a break here, Steve. We'll come back and talk with Ned, he's got a lot of great stuff to stay. When we return on your science radio magazine, *Oklahoma Innovations*.

>> This is *Oklahoma Innovations* on the OCAST Radio Network.

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>> Research and development, technology transfer, and commercialization, creating high paying jobs in Oklahoma is what OCAST is all about. This is *Oklahoma Innovations* on the OCAST Radio Network.

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>> Steve and I are coming to you from the 2009 Oklahoma Conference on Manufacturing, and we have a great guest we're going to get back to in just a moment. But you know Steve, when we had Dr. Roy Peters on a while ago he was talking about some of the 2009 governor's manufacturing leadership awards, and one company that he wants able to squeeze in that we wanted to give credit to out of your hometown of Muskogee.

>> Out of my hometown of Muskogee, and Leroy's wife is from there too. Acme Engineering and Manufacturing is family-owned business founded in 1938. I tell you what, I know a lot of

people who worked at Acme Engineering over the years. They manufacture industrial blowers among many things, and they were recognized at the 2009 Oklahoma conference on manufacturing. So all you fine folks down in Muskogee, we just wanted to recognize Acme and say what a great company they are.

>> Is this the company that's in all those Roadrunner cartoons?

>> Actually, not. They've got the same name --

>> Beep, beep!

>> No, that's different, anyway.

>> Yeah, their products -- Acme Engineering of Oklahoma, their products work.

>> Their products work, exactly. They're a great company. We're back talking with Ned Hill, Dr. Hill, of course, as we mentioned from Cleveland State University, is Dean there. And he -- he -- we've been talking about his message to Oklahoma manufacturers, and we kind of cut you off at the last segment because we had to take our brake, Ned. So what I want to do now, you mentioned those five different types of companies. And we were talking about your father, I think we -- he ran one of those companies that you refer to, what we know call a lifestyle company, is that right?

>> Uh huh.

>> And what was the outcome of his business?

>> Well, it was pretty ugly. No, not really. I ran the business for five years, with my sister. We're second generation. And our specialty was we took factory-damaged shoes -- we were a factory outlet before anyone else -- and sold them at good discount and did quite well with it. Now that was the business model that worked for a long time. However, when the companies take their production off shore they don't bring in their mistakes. So we had six stores and national wholesale business, and so we had to make a decision about where the company is going to go. So I went to the family with several business plans, and they said no, we want to do the thing that's got the least amount of risk, we want to stay exactly the same as doing what we're doing now, because we know how to do that.

>> And we kind of know that now that is almost the kiss of death, right?

>> Exactly. I never fired my family before, it was tough. But what I did was I resigned on the spot. I said you're going to lose a million dollars -- this is back in 1984, within the next 18 months. There's this little company called Kmart that if we start selling the same shoes they do, and I've been hearing about this little company out there called Walmart. So we have to do something dramatically differently. We don't -- about four different -- five different business plans -- no, four different ones, and then doing them exactly the same.

>> Right.

>> And at that point I left the business. The business was sold, we lost the million dollars actually within a year.

>> Wow.

>> But I knew this was going to happen. So this is strategic thinking. So I took -- I separated all the real estate from my family and the company, secured my dad and mom's pension, and made

certain that I had a parachute on my back, which actually is go back into teaching in economic development, which is my passion anyway.

>> There you go. So you're talking from personal experience here --

>> Absolutely.

>> -- of what these manufacturing owners can go through if they make the wrong decisions, and that's --

>> And also if they don't act to control their own destiny. If you're sitting there at the, you know, say you're a huge part of GM's supply chain, well I'm sorry, you're the puppet on the end of a string.

>> I thought your key note also was applicable to a lot of business, not just the manufacturing, but you had a lot of great bullets. One of the things while we have time here, I want you to talk to our listeners about because I'm sure that there's a lot of misunderstanding about the automotive industry. You had a great analogy about the shift in where the industry is going in the states, typically Detroit as you mentioned is typically the American hub for the auto industry. Where is it going now?

>> Well there's two things to pay attention to. There's not one U.S. auto industry any more. There's an old domestic and a new domestic industry. New domestic, yes, it tends to be foreign-owned, but the car I own, an Accura TL is 95% Ohio content, not just United States content. And so what we're seeing is the brain cells of the industry, shipping is moving out of Detroit, looking somewhere between Columbus and Cincinnati, Ohio. Why? Because that's where Honda has their R and D facilities, where they specify 10 of their 14 U.S. made -- 10 of their 14 automobiles. And Toyota and Lexus specify a large number of their automobiles in Georgetown, Kentucky, right outside of Cincinnati's airport. Their culture is that they want the tier 1 and tier 2 supplier sharing a bench with their engineers because they've got a closely related supply chain. Very different from the culture of the old domestics, where they control the parts, especially doing an Internet auction, and quality and cheap wins. And it tends to down play the manufacturability of the part. And so it really means that what we found in the auto supply industry is just in time supply chains, one around the assembly plant, which is a 250 mile radius, I don't think Oklahoma is going to get an assembly plant, but that's just me. And the other is just in time supply chain around the R and D facility. They have to take the time it takes to develop a new car down from three to three-and-a-half years down to two and two-and-a-half years. That's going to require co-location. You know, there is a cluster around the assembly plants around the shores of Lake Erie, Canada, and the United States that's losing market share. A separate cluster that kind of revolves around the intersection of I 70, I 75, that's Indiana, Ohio, Kentucky. They're gaining market share. And then there's the southeastern cluster, mostly foreign transplants. But again, around I 75. VW is building a brand new plant in Chattanooga around it. And then the final cluster is in Mexico. Originally intended to supply the Mexican Central American market, Ford put a lot of money in Hermosillo to have a competitive threat to discipline the UAW. That's auto strategy 101.

>> There you go. Which probably explains why Oklahoma has lost a GM plant a couple years ago in Oklahoma City, and also there was kind of a false start. We had China coming to Ardmore, Oklahoma a couple of years ago, and they were going to put a facility there. And that kind of went away.

>> Yeah. The supply chain wasn't there to let it work. And the other thing is, you know, you can't let something as big and as difficult to manufacture as an automobile be driven totally by public subsidy. The market does work on Tuesdays and Wednesdays.

>> There you go. Outstanding. We're going to talk about some terms here that you used this morning, and these are terms you use as you talk to manufacturers. And unfortunately I'm not going to be able to use every term that you've put out there, we just don't have time. But one that I've heard a lot over the years, technology push.

>> Correct.

>> Give us a concept of what that means and how it relates to manufacturing.

>> It's the next new thing. Technology push means someone invents some sort of brand new gee whiz technology or piece of science, and that's going to push out a whole new raft of products which is going to disrupt and destroy existing companies and existing products. That's what the big bet is of all the technology programs, the TBED programs, which I know your listeners paid attention to. It's part of the mix. But what we've seen is that most of the technology integration actually takes place on the other side, which is technology pull. Because market demand works. So someone takes an existing product, renews and refreshes it with a good dose of technology, and they're off to the races. There's an Oklahoma company I met with today that makes window blinds, interior window blinds. Seems like a standard product, has really nice quality in it. Well, he's adapting a whole set of micro electronic technologies to automate the blind -- we don't sell blinds any more, we now have blind systems.

>> Oh, there you go.

>> Got a system. You can charge extra for a system. But it's actually a smart way of really seeing how you know, electronics, controls, and sensors can take something which seems to be as highly crafted as a high-end window blind and suddenly turn it into something where there's a margin in intellectual property that involved with that, it's going to protect the margins and the employment of the company.

>> Interesting.

>> Very good. You mentioned a couple of other things I was going to ask you about. The -- and the way you explained it earlier, I'm going to try to get you to explain that again because you talk about epic-making changes in innovation. And we've got just a couple of minutes here. And you already mentioned disruptive technologies. Tell us how that plays into the overall scheme of things, because epic-making --

>> Epic-making is a term that actually -- we invented. I'm using the we, it's my research group. But it's something that's so fundamentally disruptive to society that it creates whole new series of markets or an echo system of markets. And so you could think about the internal combustion engine combined with the interstate highway system, reoriented all of the way we live, which created the home building industry, furniture, and just goes on and on from there. The same thing happened with the electric motor, which allowed large factories to move from big cities and belt-drive systems to the factory that we see today. The integrated circuit was the epic-making invention of the 1960s that really allowed the coast to grow up and a whole raft of telecommunication products came out of that little IC.

>> Yeah.

>> By the way, there's a cute little story there. William Shackley invented the integrated circuit. He invented it in Short Hills New Jersey in the AT&T lab. Why and how did he go to -- did Silicone Valley become the IT center of the world.

>> He went home to visit his mother. He got venture capital from Fairchild and they said come to the west coast, you have to be close to us, they wanted him in Los Angeles, and he thought the peach orchards were really cute in San Jose, and that's where mommy was.

>> Now think about Seattle and Microsoft. Right? Bill Gates was originally a company in Albuquerque, New Mexico. Right? He went -- why did they end up in Seattle? His mother wanted him home. So economic development strategy is states be nice to mom.

>> Mom, I'm going to be home this weekend.

>> Very good.

>> Oh man, I tell you what, we are running out of time in this segment, but you have been a great guest, and Steve and I really enjoyed your key note this morning. I'm sorry we didn't have more time to spend with you, but you have an opportunity to check out some of the stuff, his material will be on the Alliance web site, is that right?

>> That is correct --

>> We'll be back with more on *Oklahoma Innovations*.

[ Music ]

>> This is *Oklahoma Innovations*, on the OCAST Radio Network.

>> > The stress of finding a job after college is compounded for recent graduates entering a tough job market. But thanks to the Oklahoma Center For the Advancement of Science and Technology more students connect with the state's most advanced technology companies while earning income and valuable on the job training. Through the OCAST R-and-D intern partnership program, students gain experience in the industry, work with mentors, and operate specialized instruments. Intern training leads to starting salaries 12% higher than Oklahoma's average per capita income. OCAST is investing in Oklahoma's best and brightest. Creating jobs, investing in our future. That's what OCAST is all about. OCAST is seeking intern partnership opportunities that will allow Oklahoma students to gain hands-on experience in science and technology careers. For more information call OCAST toll free at 866-265-2215, or visit their web site at [ocast.ok.gov](http://ocast.ok.gov). The future of Oklahoma looks bright.

[ Music ]

>> Thank you for joining us on this week's edition of *Oklahoma Innovations*, Gary Owen and Steve Paris coming to you from the Oklahoma Manufacturing Alliance sponsored 2009 Oklahoma conference on manufacturing, and we want to give you their web site address, because the guest that we have on the show this week has some interesting information that we think you'll enjoy if you're in business, whether you're in manufacturing or any other kind of business, there's some really good stuff there from Ned Hill. The alliance web site is Oklahoma - it's actually Oklahoma -- [alliance.com](http://alliance.com) [www.okalliance.com](http://www.okalliance.com). Our guest this segment and the last couple of segments is the Dean of the Maxine Goodman Levin College of Urban Affairs at Cleveland State University. Want to mention he's an author, and he's an expert on the U.S. economy. And he was the morning key note here at conference discussing the current conditions

of the economy, of course, and what the future looks like. And really trying to offer Oklahoma manufacturers recommendations on what to do and how to prepare for the future. Steve?

>> Well, you're exactly right, Gary. You know, Ned came up with a term this morning, I'm sure he didn't come up with it this morning, but he mentioned it to us all, called managerial schizophrenia. And I think the whole -- the audience just about came unglued. What a great term. Explain what that means.

>> Steve, we're so used to focusing on the day-to-day parts of our business, and we're so used to -- especially the progressive companies, to -- who really know how to do continuous innovation, but it's all highly customer-focused innovation, and what we found out those companies do a great job and do everything right, but they miss the technology that's going to knock them out of the park. They mix the -- they miss the evolution of the product that just kills them. And we initially started seeing this in the fashion and retail business, but it happens in manufacturing all the time. So you've got to be schizophrenic. And this is kind of the same as working on your business as well as in your business. So what you have to do is while paying attention to having a customer focus is got to be part of your company. And part of your brain is the owner and the manager that also looks for the disruptive. Because if you don't find it and deploy it, your competitor will. And then you know, you're just DOR, which is an important technical term called dead on the road.

>> Dead on the road or dead a-- not dead on arrival, but dead on the road.

>> Right.

>> Very good. One of the things that you mentioned, and I don't know if this concept still holds true. Some years ago we were talking here about manufacturing here in Oklahoma, and it was mentioned by someone, I don't even remember who, that said if you don't innovate and change your process or find something new or you know, get -- update, modernize every four, four-and-a-half years, you're probably going to go out of business because of the competition.

>> Yeah, I don't know exactly what the periodicity. I say periodicity to show you that I've got a Ph.D.

>> There you go

>> All right, look, there are a couple of things you've got to pay attention to. First off, your listeners might want to read Clayton Christenson's book the Innovator's Dilemma. It's one of the ultimate, great business books. Really well written, I read it before I went to bed at night, but then again I'm a nerd. But it's a really well written book, and it talks about this. The other thing that we have to pay attention to is that when we talk about innovation quite often we think about a product or a technology. It's way too small. You can have an innovation in your process, you can have an innovation in your value proposition, in fact that's your most [Inaudible] taking a straight -- I bang out a chunk of metal and throw it over the wall to I solve a problem for you. So there is a technical innovation, a product innovation, a process innovation, and a change in your value proposition. I don't care where it comes from, all that's important. Think about what was Starbucks big innovation, right? It -- I mean, the machines came from Italy, the coffee beans came from God knows where, the barristas came out of an attitude farm, but the innovation was consistency, quality, and a customer experience.

>> There you go.

>> It's called innovation. You also mentioned something about lean manufacturing, and I thought another time when you drew a lot of laughter from the crowd. Talk about lean. Give you a term there.

>> Yeah, well this is a -- there's great confusion out there among companies, particularly those who are in any financial pressure between lean and anorexia.

>> Yeah, let's talk about -- there you go. Lean manufacturing, give kind of a quick run-down of what that is.

>> Well, lean manufacturing means -- first off, it's not based on firing everybody in site. That's anorexia. It is -- lean's foundation is continuous improvement. Second foundation is measuring your process. Third is making certain that you listen to people on the line because they know more about the process than you do. And the fourth part about lean is relentlessly improving not just speeding up the process, which is getting rid of waste, but also focus on improving the quality of the product. Very interesting. Honda, which just won the best plant in North America award for the East Liberty, Ohio plant. They have gone through a very large managerial change in Honda North America, why? Because they thought that they're getting away from the focus of quality and process. Not only did they think they did, but they also think Toyota did. And all you have to do is look at the results down in San Antonio, the wasted money in Mississippi, yet Toyota did lose focus, but here's Toyota also recognized they didn't commit second coup, but they did make -- they're making large changes in their process, really focusing on the quality aspect.

>> Very good.

>> You've got to work at this every single day.

>> Yeah.

>> It's not something you just do one time and forget it.

>> No, good and lean is culture.

>> Yeah, well and that goes to the point. When you teach -- like, when the manufacturing alliance teaches lean manufacturing they're usually teaching it to the entire company.

>> Absolutely.

>> Maybe not all at once, but at different times till everyone is brought into the process.

>> And Steve, the other thing that's going on, the alliance is doing this quite well here in Oklahoma, is to realize that product innovation, the suite of services that they offer in product innovation starts from a base of continuous improvement. You can not do continuous product innovation if you don't have world class process.

>> There you go.

>> When you stack Oklahoma up against other states where -- how -- as far as economics, as far as product delivery, as far as change with the times and innovation, how do we stack up?

>> That's one, Gary, I really can't answer. Because there's nothing worse than getting a consultant who trundles from airport to airport with the exact same solution on a jump drive, sits the night before in their hotel room and says the unique attributes of place X, insert name here --

[ Multiple voices speaking ]

>> This is -- all I can say is I have been, you know, I have worked with the alliance in national forums now for four years. The quality of the people and the quality of the extension agents is just superb. And the other thing that I like is they've been among the nation's leaders in expanding this broader suite of services to go from process to product innovation. All those are wonderfully good signs. And you know, I have been here before, OCAST supported SSTI, the State Science and Technology Institute in Oklahoma City, and there I found one of my favorite buildings in North America, which is the Cowboy Hall of Fame.

>> Oh really?

>> I'm just in love with that place.

[ Multiple voices speaking ]

>> Well it's authentic, it comes from the prairie, and it is one of the greatest experiences I've had. So it's easy to get me back.

>> That's great to hear. You have an approach to innovation you call -- has to do with failure. Short time, talk about --

>> Yeah, it's actually not mine, it's Doug Hall's who was working with people in the state; it's fail cheap, fail fast, fail often. Innovation can't be the home run. It's ones, it's singles, and the other thing is you can do innovation and bankrupt your company. So you have to make certain that you can keep your cost controlled. So that means you don't do a stage gate process, you don't do a brain -- brainstorming session. It's got to be continuous as it rolls on out. And so that means you have to have processes in place so that you are innovating constantly. So that's fail often. Got to do it cheap so it doesn't bankrupt the company. And you can't penalize yourself for failure, because failure is the bedrock of success.

>> Very good.

>> Well, we're -- where are you going now? You're here in Oklahoma talking to Oklahoma manufacturers. You travel a lot, I take it?

>> I do a little bit. I leave tonight, and I'm actually going to visit a plant before I leave, Cheryl Hill's plant. Not a relative. I'm going down to Dallas where --

>> We know Cheryl, she's been on this program a few times.

>> She's fantastic. And I chair the national ad advisory board for the MEP, and we're working on a white paper on the future of manufacturing in the United States.

>> Yeah, MEP. What a great program. I mean really.

>> Well, I am a fan. I was in Washington last week pitching for all the great successes it's provided to the American economy.

>> Yeah, run by NIST, the National Institute For Standards in Technology. MEP has been around for how many years now?

>> Oh, goodness, that's a specific question. I think it probably -- I know that Pennsylvania and Ohio which pre-dated the U.S. program were late '80s.

>> Late '80s. Okay, very good. Well we've sure been -- we've sure enjoyed having you on our program. It's did not --

>> A lot of fun.

>> Really eye opening, some of the information you brought to Oklahoma.

>> Right. And next time you come back you don't have to put on the big sound and lightening show -- lighting show you put on last night. I'm impressed by the state as it stands.

>> Well there you go. And by the way, that didn't happen all over the state, that happened just in the eastern half.

>> Oh, just -- you put that on, a localized event.

>> Just for you.

>> Well again I want to give the web site address, [okalliance.com](http://okalliance.com). [www.okalliance.com](http://www.okalliance.com).

>> At the back end of my slide show is the link to my faculty web site, which has got, you know, more academic trivia than you care to go through.

>> Steve and I have got to get out of here. Thank you for joining us on this week's edition of *Oklahoma Innovations*. Have a good week.

[ Music ]

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