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Innovation & Globalization at Power Drives

Innovation and Globalization are two of the main trends in manufacturing. It is easy to imagine how big multinational companies like Apple or Proctor & Gamble can handle innovation and globalization, but what about the small- to mid-sized manufacturers who face those same challenges? Believe it or not, there are small- to mid-sized manufacturers right here in WNY who are both innovative and global despite their size. A great example is Power Drives, Inc. (PDI) a 65 year old, manufacturing and distribution company headquartered in South Buffalo, with locations in Falconer, Rochester, Erie Pennsylvania and China. Louis Panzica is President and CEO of PDI.



Insyte: PDI has a manufacturing plant in China. Can you tell us a little bit about how you decided you needed to be in China?

Panzica: Well, like everyone else these days, Power Drives competes on a worldwide basis. So when one of our largest customers told us we had a global pricing problem, we realized that we needed to act. We attempted to partner with a competitor in India, but quickly realized that would not work so we connected with a Chinese supplier.

We developed a very good relationship with that supplier and solved our pricing issues. After that, the same customer asked if PDI would be willing to develop a presence in China to support their JV plants there.

It's like any business - you have to understand your customers' needs and where they're going. Then you've got to decide whether you're willing to take that journey with them. We were, so

we approached our Chinese supplier about partnering with them to manufacture in China in order to support this customer. Our plan envisioned about 70% of our output being sold to customers in China and 30% coming back to the US to support our plants here.

Insyte: Why did you decide to partner with your Chinese supplier?

Panzica: Doing business internationally has challenges - language and culture are obvious, but there are others. Dealing with government bureaucracy in China, for example, can be very difficult. For those reasons, we decided partnering was the best solution for us even though WOFEs (ed. note = Wholly Owned Foreign Entity or Enterprise) were already allowed in China.

Insyte: How has your partnership worked out?

Panzica: Well, we actually bought our partner out this year. The global economic downturn in 2009 forced him to take on additional partners in his business in China. His partners didn't like our development stage joint venture and were forcing him to divest. So we had to very quickly arrange to buy him out. Luckily, we've had a great relationship with our bank so we were able to make it happen.

Insyte: Trying to manage an international operation must present a lot of challenges, especially when you don't speak the language or know the culture. How have you done it?

“

...We have been able to foster innovation in our culture by giving our people the freedom to see opportunities and the authority to develop them.”

Lou Panzica, President & CEO

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Innovation Matters

by Benjamin Rand

In-no-va-tion, (*in-uh-vey-shuhn*) noun

1. the introduction of something new
2. a new idea, method or device: novelty

If you think *innovation* is one of those business buzzwords of the moment, think again. Innovation has been the foundation of American business for over 200 years - Eli Whitney, Thomas Edison, Sears & Roebuck, Henry Ford, Alexander Graham Bell, Steve Jobs are just a few of our most successful business innovators. Innovation leads to profitability as both common sense suggests and academic research proves. Notice that innovation applies to more than just new products or services. It includes new processes (interchangeable parts, the assembly line) and new strategies/business methods (catalog sales, iTunes).

So do you need to be the next Steve Jobs to succeed in business? Of course not. However, this does raise a critical issue. How does innovation happen? Many of us think that innovation is like getting struck by lightning - a random, unplanned, one-in-a-million event. If that is the case, then innovation cannot be planned or managed in any systematic way. Yet many of the business giants mentioned above were able to innovate again and again. For Whitney it was the cotton gin AND interchangeable parts. Edison had 1,093 patents in his name. Jobs followed the iPod with the iPhone and the iPad. Obviously, innovation is not a random event.

Take the case of John Nottingham, the co-founder of Nottingham Spirk, who has specialized in innovation for almost 40 years. You probably have several of his products in your own home. Like the Dirt Devil vacuum that helped bring down category leader Hoover. Or the Crest Spinbrush that utilizes toy technology for an extremely low cost electric toothbrush that has racked-up over \$5 billion in sales. Or Twist & Pour, a no-spill paint can that tripled Dutch Boy's sales in just six months. As the keynote speaker at the inaugural event of the Buffalo Niagara chapter of the Product

Development and Management Association (PDMA), Nottingham's message was that innovation is critical to your company's success - whether you are a market leader or a start-up, whether you are offering a product or a service - and it can be done by any business that is willing to take a hard look at what it does and how it does it.

So, how can you make your company more innovative? First, stop thinking of innovation as a random, one-time event like the proverbial lightning strike. You will have the most success in driving sales and profitability when innovation becomes part of your company's DNA. When all your people are thinking critically about what they do and how they do it, innovation will begin happening at every level. Second, set goals for innovation and measure progress. These goals and measures can come in many forms. According to McKinsey, the most widely used innovation measures include: sales from new products/services; R&D spending as a % of sales; # of ideas in the pipeline; sales of new products/services as a % of total sales; ROI from new products/services. Third, create innovation champions who can bring tools and techniques for innovation into your business. These champions should ensure that innovation is top-of-mind throughout the company and they can support the innovation goals of each department or business unit. The Innovation Engineering Leadership Institute (IELI), a partnership between the University of Maine, the national Manufacturing Extension Partnership and Eureka! Ranch International, offers formal training in these tools and techniques culminating in an Innovation Black Belt. Contact us for more information.



Lou Panzica continued from page 1

Panzica: Working with our people in China really hasn't been a [cultural] problem. We have PDI team members going back and forth from the US to China on a regular basis to train there. Our people love it because our Chinese employees are great and really want to learn. We sent one technical operator over who happens to have a goatee and a lot of tattoos and the Chinese treated him like a rock star, following him around and writing down every word he said! For his part, he came away feeling like our China operation was a great addition to PDI. He brought that sense back to our facilities here and it really lessened the tension. Many US employees had seen the China plant as a threat to their jobs here.

We've also done a number of other things from a management perspective, like installing the same management tools, metrics and scorecards that we use in the US plants so we can manage China just like we do our plants here. We're also implementing a virtual factory system, starting in the US but eventually including China, which will let us see what's happening in all of our facilities, on a real time basis, right down to individual work cells.

Insyte: Okay, you've got global customers and global operations, so what keeps PDI in WNY?

Panzica: The practical reason is that we started life as a distributor and WNY was our territory. We have a lot of customers and relationships right here that we've developed over 65 years and the distribution piece of our business is very strong here. But this is also home for us. I know it will sound corny, but I was born and raised in WNY and I'm committed to staying here...I graduated from Lake Shore Central High School and SUNY Fredonia...I've had the chance to travel all over the world and I usually can't wait to get home.

Insyte: Let's talk innovation. PDI recently won the 2011 Innovate Buffalo Niagara award for your Diesel Warming Product. Your lead engineer was honored by the Niagara Frontier Intellectual Property Law Association. Can you tell us about the genesis of this product?

Panzica: One of our OEM customers came to us and they had a big locomotive order going to Tibet and they wanted us to design an auxiliary heat unit for them because these locomotives were going to reach very high altitude-17,000 feet at temperatures of minus 40 degrees Fahrenheit. Without these units, you basically have to keep the diesels running all the time or they will get so cold that they can't be easily restarted

or they may even freeze the engine block. Well, the units were very successful and we were discussing this project with one of our Board Members who said "Gee, where else can you sell them?" And that's how we got started.

Insyte: Is innovation an important part of PDI's strategy?

Panzica: We have not made innovation key to our strategy but we do want the PDI brand recognized for innovation. Should it be a key component of our strategy going forward? Yes, it really should be. When we were developing the diesel warming product during the economic downturn, it gave us something to focus on and to look forward to. "When we come out of this [downturn], we're really going to have something." It positioned us for growth and created excitement in our business.

Insyte: So let me get this straight. You've gone global with operations in China which PDI now owns and runs. You have a unique, award-winning new product that's energy efficient and environmentally friendly. You have other joint ventures going with local partners. But you're not innovative?

Panzica: Well, innovation may not be explicitly recognized as a key initiative in our strategy, but I guess it really is a part of our DNA. We have been able to foster innovation in our culture by giving our people the freedom to see opportunities and the authority to develop them. That's where our best ideas come from.

Insyte: If you could change one thing in WNY, what would it be?

Panzica: One key thing would be implementing the energy proceeds bills signed by the governor. There are nearly 700 megawatts of hydropower that are earmarked for WNY. When that power isn't used, NYPA sells it and keeps the money. The new bill calls for that money to go into a fund for economic development in WNY. That fund would be a tremendous asset for our area. And that power should go to local companies, too. That's a real advantage for this region and would help attract other companies.

Insyte: What originally brought you to PDI?

Panzica: I had started an outsourced CFO consulting practice at a local CPA firm and PDI was a client of mine. I started putting in more time and getting involved in operations and one thing led to another until they offered me a full-time position. After I was aboard, the owner started looking for an exit strategy, so I raised my hand and the rest is history.





Is Your Website Selling For You?

Five Tips for Generating More Sales Leads by Robert Kosobucki

Generating quality leads from your website is a matter of getting the right people to visit your website, and then motivating them to contact you.

1. Less is More - To generate sales leads a website needs to engage visitors in three seconds or less.

- *Fast Read* - Develop a short concise statement of what you do, how it relates to the visitor, and how you are different than competitors.
- *Just the Facts* - An engineer needing part specs is not interested in your company's 100th year anniversary.
- *Prove It* - Persuade visitors that you can do what you say by using case studies, testimonials, or how-to information.

2. Intuitive Website Organization - Make it easy for visitors to quickly find what they are looking for.

- *Intuitive Navigation* - Visitors use multiple navigation links. Locate navigation links where visitors expect to find them. A 'C' layout consists of top, left side and footer navigation links.
- *Inviting Graphical Layout* - You have 3 seconds to persuade a visitor that they can find what they are looking for. Use headlines, captions, bulleted lists and photos to invite interest. Avoid using large blocks of text.
- *Search Box* - 60% to 90% of visitors use the Search box; if you have one!

3. Win the Google Search Game- Search Engine Optimization or SEO is just one element to bringing visitors to your website.

- *Meaningful content with keywords* - Keywords are the words and phrases that people type into the Google search box. Use their terminology, not your company's internal terminology. Don't be afraid to use unusual terms that less knowledgeable, but still serious customers might use. Also don't forget to use keywords in downloadable documents.
- *Site Map* - Remember to have your programmer add a site map page. The Site Map is used by the search engines to index your website pages.

4. Complementary Marketing - SEO alone won't generate enough sales leads. You must also drive visitor traffic to your site using additional marketing activities such as listing your company in trade publications, industry association directories, and online trade directories. Purchase industry-specific email lists to send emails that invite people to visit your website. Ask other related sites to link to your site.

5. Measure Results - Add Google Analytics code onto your website to track key performance indicators that measure how well your website is working. Useful information includes:

- *Number of visitors* - by day.
- *Keywords* - used to find your site and which pages are visited. Use those insights to guide how you enhance your site content.
- *Visitor Source* - Domain names of servers from where visitors came to your website can point to companies that need your services.

Need someone to help get all this done on your website? Then give Insyte Consulting a call at 716.636.3626.

Bob Kosobucki is a Consultant with Insyte Consulting. He specializes in helping companies to sell more, develop more products faster and beat the competition.

'Minor' Glitches On the Production Floor Driving You Crazy?

It May be Time to Rethink Your Rules of the Road.

Give Us a Call to Discuss How We Can Bring You Results With A Fast Payback.



716-636-3626 or bshepard@insyte-consulting.com

Six Best Strategies Identified

The Next Generation Manufacturing (NGM) Study is a national survey developed to help small-to-mid-sized manufacturers across the United States better define strategies and business objectives necessary for global competition. Last year, more than 800 manufacturers across the country participated in the study - a national research effort coordinated by the American Small Manufacturers Coalition (ASMC), conducted by the Manufacturing Performance Institute (MPI) and supported by Insyte Consulting and other Manufacturing Extension Partnership (MEP) centers nationwide.

Rate the importance to your organization's success over the next five years

(rated 4 or 5 on a scale of 1-5 where 5= highly important)

	2009	2011	%-point change
Process Improvement	86.2%	86.6%	+0.4
Customer-focused innovation	84.6%	84.0%	-0.6
Human-capital management	76.7%	77.7%	+1.0
Supply-chain management	68.3%	72.2%	+3.9
Sustainability	35.1%	59.2%	+24.1
Global Engagement	46.2%	50.4%	+4.2

The NGM Study evaluates manufacturers across six best practice areas known as the "next generation strategies,":

- Customer-focused innovation;
- Engaged people/human capital acquisition, development and retention;
- Superior processes/improvement focus;
- Supply-chain management and collaboration;
- Green/sustainability; and
- Global engagement.

These six next generation strategies provide a road map for success for U.S. manufacturers. The NGM Study identifies trends affecting the industry, assesses manufacturers' views of the six strategies today, and compares the current data to the first NGM Study conducted in 2009.

The results provide small manufacturers with meaningful data to measure progress and define and implement strategies to better lead them into the next generation.

Key study findings:

- As the baby boomer generation prepares to retire, nearly six out of ten U.S. manufacturers may experience senior leadership changes in the next five years - a five percentage point increase over 2009 data.
- Due to an aging workforce and gap in skilled labor, professional training and development is needed to prepare manufacturers for the next generation.
 - 61 percent of manufacturers stated they have the leadership and talent to drive world-class process improvement, whereas only 42 percent believe they have the same level of expertise for global engagement.
- While most manufacturers have the business systems and equipment to support current requirements for the six strategies, few have state-of-the-art business systems and equipment for long-term support.
 - 14 percent have state-of-the-art systems and equipment to support process improvement, the highest percentage among all strategies.
- Companies that prioritize the six "next generation" strategies are outperforming their peers.
- Small manufacturers have more difficulty implementing components necessary for next-generation success.
 - 41 percent of small manufacturers have business systems and equipment able to at least support current requirements for global engagement vs. 65 percent of large manufacturers.
 - 10 percent of small manufacturers have talent and development programs to drive world-class human-capital management vs. 33 percent of large manufacturers.
- Sustainability is increasingly important to manufacturers, with 59.2 percent of manufacturers reporting that sustainability is important or highly important to their future, up from 35.1 percent in 2009.
- Many are responding to customer demands for greener products, while others recognize cost-control opportunities in the form of reduced energy consumption and the re-use of materials.



Value Stream Mapping for Make to Order

by Phil Celotto

The Lean Manufacturing trend that has swept through industry over the last decade may have left some businesses behind. Many companies that work in a Make to Order (MTO) or Engineer to Order (ETO) type of industry have rejected the Lean manufacturing approach assuming that Lean does not apply to their business. The truth is Lean manufacturing can provide a significant impact for MTO businesses if approached with the proper perspective.

The method to initiate a Lean improvement for these types of industries starts with a Value Stream Map (VSM). The map is a pictorial representation of all the steps both value added and non-value

added required to bring a product from raw material to shipment. Developing a VSM starts with the current state and involves capturing every step in both the material and information flows.

The current state map is beneficial, as it provides an opportunity for agreement on how material is processed, when information is transferred and where problems and delays occur. However, the primary benefit of the VSM is developing the future state. The future state defines how product could be produced

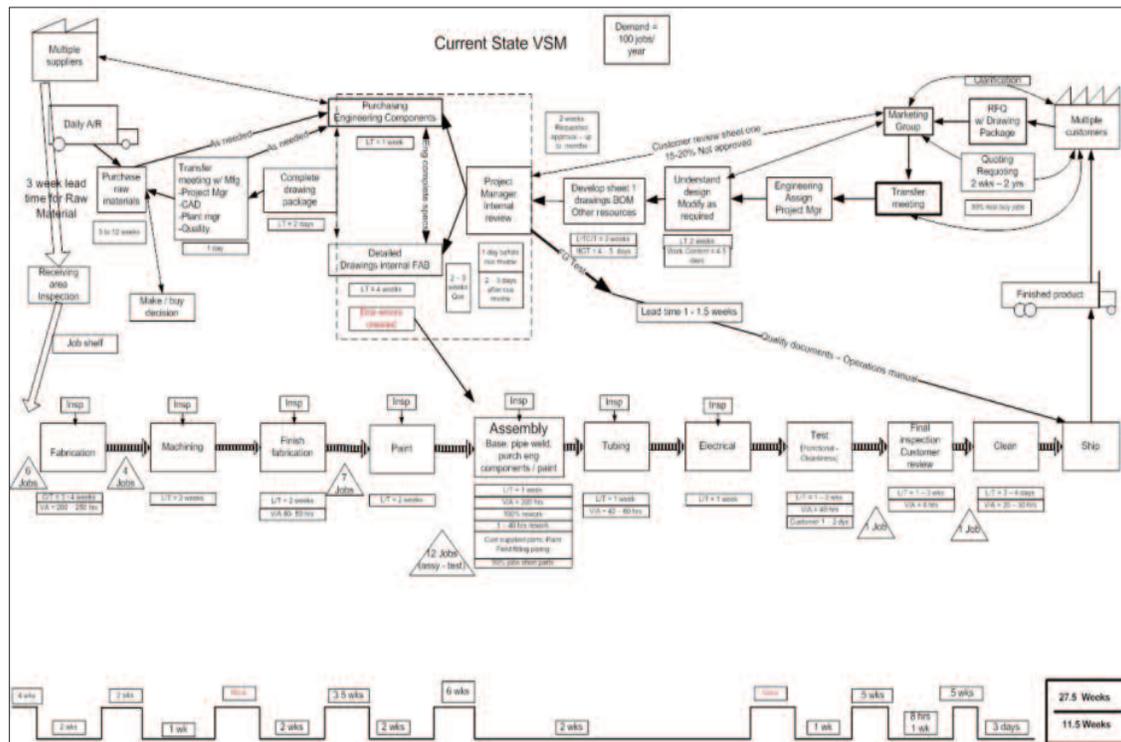
with less waste and delay; it also provides a road map of the improvements needed to achieve the envisioned process.

Although the method is straightforward, difficulties and confusion can arise when developing maps for the MTO or ETO situation. In a repetitive environment data is gathered on process steps such as cycle time and changeover. Trying to

those for a high volume business.

Methods used to address these concerns depend on the situation. When developing the current state it is beneficial to understand and record the value added time of an operation and compare with the time it takes to complete the work. The disparity between these numbers will provide an indication of the most wasteful processes and the great

est opportunities for improvement. Be sure to include floor personnel in the mapping effort as it will ensure that an accurate understanding of rework or other wastes are captured. When the right personnel are included the current state map will provide an



collect such data for a MTO can be difficult or impossible as the processes may change with each order. Waste is also more difficult to see due to a less structured environment where flow is difficult to visualize. Additionally, quality issues might not be effectively captured.

The future state also presents special challenges. The idea of cellular production and supermarket systems are not always the right approach for the MTO enterprise. The tools needed to eliminate waste may be quite different than

understanding where waste exists that can be agreed upon by all involved.

The focus then shifts to eliminating the waste as part of the future state. There are pitfalls and misconceptions here as well. An operation may have a queue of work waiting or an operator may be busy, but that does not mean the operation is 100% efficient or effective. For example:

- Is there waste in looking for parts and tools or clarifying engineering

Value Stream Mapping continued from page 6

- requirements?
- Are there continual interruptions to the work being done?
- Do customer changes frequently come in after the work has been started?

These are the types of issues which may not be obvious when constructing a VSM with the typical perspective.

Pay close attention to how much work is released for production. Consider if the resources are spread too thin resulting in poor efficiency, overcrowding and chaos on the production floor.

There are many examples where production is flooded with work in an attempt to ensure machine efficiency and show progress to the customer. In effect the opposite occurs as the resources for the constraint are pulled in many directions. An example is a large equipment manufacturer. Typically 2 assemblers would be assigned to an assembly which was most efficient with handling material

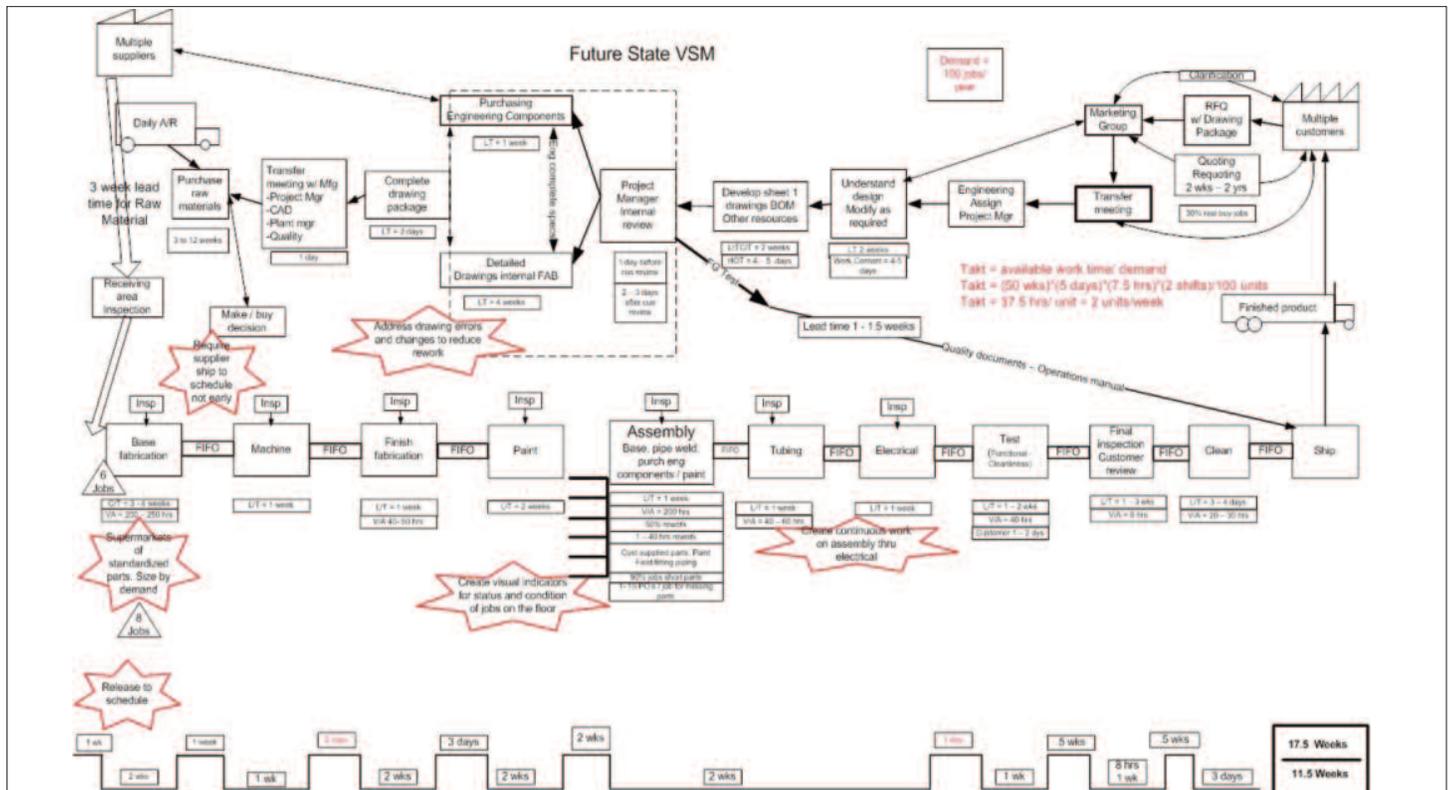
and tools. However, when the number of jobs grew, assemblers would be assigned one job each. This created a great deal of waste and inefficiency such as sharing of equipment and cranes and a great deal of wasted motion. The future state to this situation was to limit the work released. This provided greater throughput and shortened lead-time on the production floor and more time to address engineering concerns before release to production.

When attempting to address the concerns identified in the current state be creative and look for new ways to eliminate the waste. Make use of your team's experience and don't be limited by looking for typical Lean solutions. For example, if forced to batch for processing operations such as heat treat, is the start of the cycle waiting for the product to queue up and therefore causing delays in the entire flow? A better alternative may be to start the process cycle at a set time and create a buffer of material before the process to ensure it

is as full as possible.

In summary, developing Value Stream Maps can help any company to realize where the problems are and develop methods for improving on the current situation. The important item to remember is to use the maps in a way that allows everyone to see where the waste and delays exist and develop solutions to address them. Do not feel restricted to only the tried and true solutions and be creative in your problem solving. Above all, always focus on eliminating the waste in the process.

Phil Celotto, Insyte Consultant, is a Lean Bronze Certified Practitioner through SME, AME and the Shingo Prize, a certified Professional Business Advisor through MEP University, a certified trainer in lean manufacturing initiatives and is certified as an ISO 9000 Provisional Lead Auditor and an ISO:TS16949 Provisional Lead Auditor.





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Upcoming 2012 Events

April 26 Business First Power Breakfast

“Manufacturing Success in Western New York” - Co-sponsored by Insyte Consulting, this event will feature a panel discussion from four distinguished manufacturing executives from the Western New York Community.

- 7:30 - 9:30AM at Salvatore’s Italian Gardens
- Participating companies include the Ford Stamping Plant, Perry’s Ice Cream, Curtis Screw and Koike Aronson.
- To register, visit: www.bizjournals.com/buffalo/calendar

May 16-17 2012 Venture Forum

A collaboration of Bright Buffalo Niagara and the Center for Economic Growth’s Upstate SmartStart UNYTECH Venture Forum.

- Angel & Venture Capitalist Networking Breakfast
- Over 30 early-stage company presentations from across New York and Canada in the energy, life sciences, IT and advanced manufacturing sectors.
- Keynote Address: “Building an Innovation-based Entrepreneurial Ecosystem”
- “Partners in Innovation - Best Practices in University-Startup-Corporate Collaboration” UNYTECH program
- Closing Networking Reception at the Buffalo Yacht Club
- To register, visit: www.brightbuffaloniagara.com

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