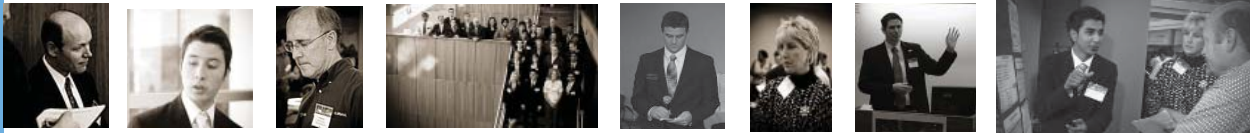


# MANUFACTURING Matters

## Manufacturing--New Opportunities Ahead *by Karen Hatke*



The Dauch Center's 2010 Fall Operations Seminar, held on September 17 on the Purdue West Lafayette campus, debunked the notion that the manufacturing segment of the U.S. economy is stagnant. Participants were heartened and energized by glimpses of the innovation and initiative that worldwide leaders in manufacturing with roots and markets in Indiana are utilizing to survive this recession. This year's conference, "Manufacturing – New Opportunities Ahead," was very appropriately named as concepts such as global markets and supply chains, lean journeys, empowering worker teams, and sustainability were mentioned often as proactive approaches that all businesses can apply to some degree. Adding the value of the Krannert School of Management to the equation, Interim Dean Gerald Lynch, said in his welcome remarks, "It is important for manufacturers to utilize universities to think ahead for them in the rapidly changing technology and markets, which helps us at the same time to prepare students for the real world environment." The specific role that the Dauch Center plays, such as the Global Supply Chain Management Initiative (GSCMI), was confirmed in Director Ananth Iyer's overview of the Center's recent collaborations that followed.

**Lean thinking, leveraging global markets and suppliers, and having agile and flexible organizations for survival were the common themes** of the day, and that message was clear and consistent thanks to the excellent speakers from Aero Engine Controls, Delphi Electronic Systems, Eaton Corporation, Cummins Engines, John Deere, and Duke Energy.

We asked Don McCreary, a first-time attendee and speaker, for his comments about this new experience for him, and they mirror the comments of other attendees. Don is the director of entrepreneurial education programs for NeuPath Engineering Services in Kokomo and was also involved in the

Greater Kokomo Economic Development Alliance's recent collaboration with the Dauch Center to develop a way to attract new manufacturers to the Kokomo area. This collaboration, with the financial support of Duke Energy and Wal-Mart, developed a unique database tool that showcases the Kokomo area's abundant supply chain possibilities. Successfully being used today by the Alliance, its features were presented at the seminar by Don and the Alliance's director, Jeb Conrad. With this unique experience with the Dauch Center under his belt, Don anticipated a quality first operations seminar and was not disappointed. He was very impressed with the depth and breadth of the organizations represented. The main point that stayed with him was that successful lean supply chains require well crafted and nurtured employee buy-in, participation, and goal setting, which he felt reverberated in all of the presentations. It was a wonderful networking opportunity to meet others involved in local and global industries too, adding that the contacts made with other companies about the Kokomo Alliance's tool, as well as Neupath's services, were invaluable.

Already impressed with the Center's capabilities and its students who worked on the supply chain tool, Don thought the full engagement of students, including the student internship poster competition, was added value to attendees, and commented, "It is obvious that the students are exposed to a tremendous amount of real world experience and challenges before they enter the workforce, which is assuring to prospective collaborators and employers like me who attended. I look forward to working with them in the future." According to one of the 2010 student poster contest winners, Jennifer Spriggs, the students would emphatically agree with Don's assessment, "I can't think of a better opportunity for students to interact with a variety of companies and leaders than conferences like this; the chance to hear what they have to say firsthand was invaluable. Thank you for that opportunity!"





## Manufacturing--New Opportunities Ahead

### A New Initiative

By Heather Owens MBA 2012  
DCMME Center Graduate Asst.



**Matthew Caddell, Director of Programs for Aero Engine Controls,** spoke about the formation and expertise of the Rolls-Royce and Goodrich Corporation

joint venture.

Rolls-Royce is the second leading provider of aircraft engines. Its competitors have in house control systems, and in an effort to be more aligned with the competition, Rolls-Royce created the joint venture two years ago. Aero Engine Controls' purpose is to be the world's foremost provider of engine intelligence through engineering solutions and quality products. The main products of Aero Engine Controls are electronic engine controls, fuel pumps and units, and engine health modeling.

While Rolls-Royce is a European based company, Goodrich is U.S. based. Aero Engine Controls is able to leverage resources in both regions. The key market for the joint venture is the Department of Defense. Mr. Caddell stressed during his presentation that innovation is key. The material and design innovation for engines has plateaued, so it is up to Aero Engine Controls to enhance functionality and efficiency.

### A New Look

By David McDairmant MBA 2012  
DCMME Center Graduate Asst.



**Richard Sepeta, a plant manager and director of Delphi Electronic Systems Mexico operation,** spoke to the conference

attendees regarding recent organizational changes at Delphi. A mix of forced and proactive changes have allowed Delphi Electronic Systems to lower costs, improve quality, and deliver products in a timely manner.

The model Delphi uses to drive value is threefold. First, policy deployment drives strategy, execution, and follow-up. Secondly, the operating system is how problems are solved and solutions implemented. Finally, cultural change is a process of learning and development that builds an organization that is continually improving. These three targets work together to provide added value to the customer.

The journey to lean manufacturing is an ongoing process at Delphi. Though there is more work to be done, significant progress has been made in lowering costs, improving quality, and delivering products on time. This process will continue as Delphi ensures internal improvements are tied to providing value to the customer.

### A New Model

By Saurabh (Sonny) Choudhury MBA 2011  
DCMME Center Graduate Asst.



**Steve Blanco, Vice President of Manufacturing from Eaton Corporation,** focused his entire presentation on the implementation of Senior Kaizen approach in Eaton

Manufacturing. He started with an overview of the firm and the lean philosophy used within the company, with the two most important factors in lean implementation being sustainability and team engagement. Steve spoke on specifics of Senior Kaizen Implementation that he was part of. The initiative started with a current state performance analysis on safety, quality, delivery and cost. After analysis on current process, the Kaizen team recommended various corrective actions but in a more disciplined and prioritized approach. The team also made sure there were standard routines of reviewing the recommendations. This way the team achieved immediate impact in strategically important areas with high buy in from the employees.

In order to make a sustainable difference in manufacturing, companies need to understand the area where major needs are, engage the team, prioritize the solution and make sure the individuals are accountable for the results.

### A New Partnership for Duke Energy By Tony Fisher, MBA 2012, DCMME Center Graduate Asst.

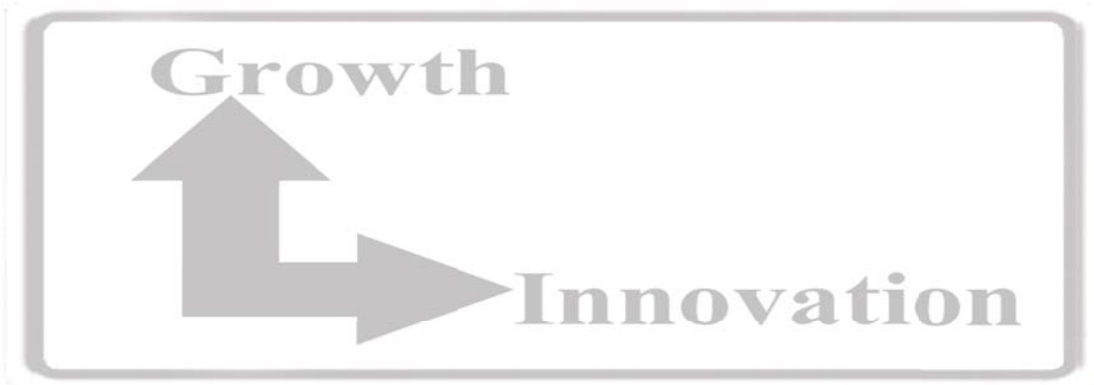


**Laura Sheets, Business Relations Manager for Duke Energy,** presented materials intertwined with Job Conrad and Don

McCreary's presentation concerning the Greater Kokomo Economic Development Alliance (GKEDA) and the related Supply Chain Tool being developed to provide new opportunities in Indiana. As a financial partner in this initiative, Duke Energy has helped GKEDA get to where it is today. Duke Energy is a Fortune 500 company headquartered in Charlotte, North Carolina. Duke Energy invested in GKEDA to both help the local community, and also to

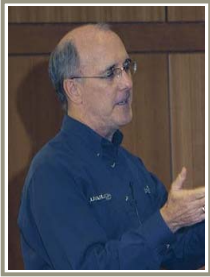
expand their business in Indiana. Ms. Sheets explained that in order to grow their Indiana customer base, Duke Energy must work within its territory boundaries and grow its business from within. Ms. Sheets is excited and optimistic that GKEDA and the Supply Chain Tool will allow greater access for existing businesses to find new opportunities for their business growth, which will result in exponential returns for Indiana and Duke Energy.





### A New Agenda

By David McDairmant MBA 2012  
DCMME Center Graduate Asst.



**Tom Easterday, Executive Vice-President at Subaru of Indiana Automotive,** spoke last year to a broad Purdue audience about Subaru's best in class environmental

standards, having the first plant in the world with zero landfill deposits. This year, Mr. Easterday gave an overview of Subaru's strong safety standards and record.

Mr. Easterday spoke about the computer modeling software that Subaru uses to design manufacturing processes. He showed an example of how the program allowed a task to be designed that allowed people from 5'0" to 6'2" to be comfortable and safe in installing the component. This software allows each task in the manufacturing process to be designed to be not only as efficiently as possible, but also to be safe and ergonomically sound.

In his remarks, Mr. Easterday also spoke about the process for regular review of safety standards and practices, and what management at his firm does when an injury occurs. Each executive is assigned on a rotational basis to assess safety standards and practices in each area. Recommendations are made which can then be integrated into the current standards. If an injury does occur, or even a close call, the cause that led to the injury is determined, possible solutions proposed, and then a final solution is implemented. These processes allow safety levels to be continually improved, resulting in healthier, more productive employees. Tom Easterday is proud of the safety record at SIA, and attributes much of their continued success to dedicated management involvement and caring regarding the importance of safety in the workplace.

### A New Type of Leader

By Heather Owens MBA 2012  
DCMME Center Graduate Asst.



**Michael Molnar, Director of Environmental Policy and Sustainable Development at Cummins,** presented as part of the 2010 Fall Operations panel on New

Opportunities in U.S. Manufacturing. Cummins has been a presence in Indiana for many years, as it was founded in Columbus, Indiana in 1919. It is the largest manufacturer of diesel engines, however this makes up only a small portion of the company overall.

There are three legs of sustainability: Business, Global Society and Environment. Mr. Molnar suggested that the long-term global strategy for manufacturers of any size should consider the life cycle of the products and how sustainable their processes are. Sustainability should not be limited to the standards of laws and regulations. Companies should consider how they can take leadership roles in sustainability and be proactive in their search for more resourceful processes. Mr. Molnar also stressed that sustainability is not only about factors such as natural resources, but is about the most valuable resource a company has: its people. Mr. Molnar reminded us that productivity and innovation are key to leveraging these factors.

### A New Opportunity

By David McDairmant MBA 2012  
DCMME Center Graduate Asst.



**Patsy Sebben, manager of the service parts organization of John Deere's joint venture partners at the Construction**

and Forestry Division, gave a riveting presentation on how global trends and applied technology have presented John Deere with opportunities to innovate solutions in construction and agriculture. She explained that past global trade trends from 1990 to 2007 have more than quadrupled, demonstrating how interconnected the world is becoming. Coupling this fact with economists' estimate that by 2020 the top six emerging countries will account for more absolute GDP growth (\$8 Trillion) than the top six developed countries (\$6.8 Trillion), provides support that companies must adapt to these global changes. Along with the opportunities that arise with globalization, Ms. Sebben pointed out companies must be cognizant of opportunities and threats, such as new competitors entering the market.

The second part of her presentation centered on how applied technologies are giving John Deere a competitive advantage. Ms. Sebben illustrated different technologies being utilized by John Deere, that improve efficiency and lowers costs of production, and ultimately allows them to service customers more quickly and accurately. John Deere has incorporated specific technologies into their production processes such as robotics, SMART tools, and manufacturing execution systems.

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## Purdue Alum Gives Back



It was early spring when Gene Ivnik first reached out to Center managing director, Mary Pilotte. He was

looking for ways that he might re-connect with his alma mater. After a few phone calls it became apparent that Gene could be a tremendous help for students entering the workforce, looking for positions in operations and manufacturing management.

Gene is a retired "Business Leader &

Motivator" with 40 years in the Consumer Products Industry. He created and implemented Customer Driven organizations through sound strategic planning, employee development and career planning, the establishment of effective metrics, and original design.

His career has included such well-known companies as Johnson & Johnson, Abbott Laboratories, Sherwin-Williams, Bissell, Inc., and for the last 14 years President of Aerofil Technology, Inc. (A premier contract packaging company). Mr. Ivnik earned his Bachelor's Degree in Industrial Engineering from Purdue

in 1969 and worked on his MBA at Loyola University in Chicago, Ill. He resides in St. Louis, Missouri and is married to his wife (Kaye) of 40 years. They have four children and nine grandchildren.

Gene spent an afternoon in September conducting coaching sessions with Krannert MBAs' and both parties commented on what great experience it was. A special thanks to Gene Ivnik for helping give back to Purdue and the Krannert School of Management!

Thank you Center Partners and Sponsors!



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