

*Your Resource Driving Manufacturing Innovation*



Landmark Manufacturing Study Results Released  
See page 2 for details

# John's

# Corner



John W. Lloyd, President & CEO

## Pennsylvania: The State of Manufacturing

As an advocate for manufacturing, I become confused and annoyed when I hear others talk of the demise of manufacturing. Many would have us believe that agriculture and tourism are the leaders of the Pennsylvania economy. Not true!

MANTEC and our six sister Industrial Resource Centers recently commissioned a study to learn precisely the current state of manufacturing. Leading the research team was Dr. Ned Hill of Cleveland State University, the foremost expert on manufacturing in the U.S. Dr. Hill and his team spent 12 months analyzing data and conducting eight CEO focus groups across Pennsylvania.

The study is now completed and can be found at [www.pamade.org](http://www.pamade.org)

Here are several of the key findings:

- Pennsylvania manufacturers continue to take seriously their role as wealth generators for the state and the nation.
- Manufacturing leads all other sectors of the PA economy, accounting for 13.6% of gross state product (GSP).

- Manufacturing provides family sustaining employment with an average annual wage of over \$52,000.
- With over 550,000 jobs, manufacturing still employs more Pennsylvanians than nearly all other industry sectors. Only health care, government and retail employ more people.
- Productivity in manufacturing dwarfs that of the non-manufacturing sector. Gross product per employee is approximately \$34,000 higher for Pennsylvania manufacturers than for non-manufacturers.
- To fight commoditization, PA manufacturers are innovating through new product development. Of the 16,054 patents issued to PA companies and universities in the last 10 years, nearly 60% were assigned to manufacturing companies.
- Every \$1 increase in final demand for manufactured products leads to a total increase in gross value of all industries of \$2.52, the highest multiplier for any industry in the state.

However, we must also face the reality that Pennsylvania's manufacturing sector is under siege. Way too many firms have either left the state or gone out of business. In the last 10 years 230,000 manufacturing jobs have been lost in PA. While Pennsylvania has programs in place to support industries like agriculture and tourism, manufacturers do not see support; rather they are faced with onerous taxes and regulations. The Pennsylvania corporate net income tax and corporate stock and franchise tax are among the very highest in the nation.

The only program dedicated to Pennsylvania's # 1 industry is the IRCs. And MANTEC and the IRCs have already been hit with severe cuts in support and are now facing even deeper cuts.

In the conclusion of the study, Dr. Hill reports, "Manufacturing is a sector that deserves continued public support and investment in the form of state tax and regulatory reform, employer-responsive workforce development programs, and a resource that can transfer knowledge about business growth strategies and management practices that fit the demands of small and midsized firms. The Industrial Resource Center program is a tested tool in the state's economic development toolbox." All of us at MANTEC are gratified by the opportunity to serve the manufacturers of South Central Pennsylvania to help drive growth and profitability.

## Get Involved!



Share your story with legislators encouraging them to invest in the important manufacturing sector. Contact Doug Keith for an easy way to write legislative letters. [keithdm@mantec.org](mailto:keithdm@mantec.org)



Dr. Ned Hill, leader of the “The State of Manufacturing: Challenges and Opportunities” spoke to South Central PA manufacturers about Driving Growth After the Great Recession. Comments included “Dr. Hill was very energetic and profound on his topic and had a great sense of humor.”

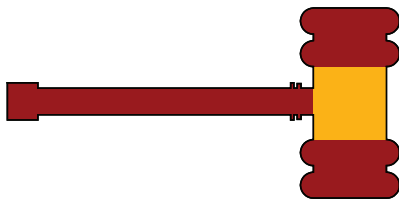
*Stay tuned for another visit from Dr. Hill!*



MANTEC, in conjunction with the World Trade Center of Central PA, coordinated manufacturing tours for Senator Mike Brubaker. Throughout the morning he visited Kalas Manufacturing (pictured above), MGS, Inc. and Sylvan Technologies, Inc., all based in Denver, PA.



MANTEC welcomed guests to our new home- 600 North Hartley Street, Suite 100 York, PA 17404- at an open house and ribbon cutting ceremony.



Martin’s Chair, Inc. in New Holland, PA crafted the new State Senate gavel after the previous one cracked. The cherry gavel had a 14 inch long handle with an 8 inch tall head. After 2 hours on a hand lathe, it was a near replica of the original.

# Working With the Best



Roger Kipp, Vice President of Marketing and Engineering of McClarin Plastics in Hanover, PA and MANTEC Board Member was appointed by Governor Rendell to be a member of the Pennsylvania IRC Strategic Advisory Board. The Board oversees the seven Industrial Resource Centers (IRCs) of Pennsylvania that were established to help small- and medium-sized manufacturing enterprises to respond to changing

markets, new technology and the competitive pressures of today’s global economy. Additionally, Mr. Kipp was recognized as the national “Thermoformer of the Year.”

Larry Smeltzer, Vice President of Operations at Littlestown Foundry in Littlestown, PA was selected as winner of the William Frishmuth Award from the Aluminum Division of the American Foundry Society Division Council. The award was named to honor the foundrymen who in 1884 made the aluminum casting that forms the Apex of the Washington Monument.

Congratulations to the following organizations for their recognition as the best. We are proud to work with you.

## Best Places to Work for in PA 2010:

- Cargas
- Fulton Bank
- Gettysburg College
- Glatfelter Insurance Company
- International Marketing
- LMA Consulting
- Stoner
- York Traditions Bank

## Top 50 Fastest Growing Companies in 2010:

- Advanced Cooling Technologies
- Ameri-Tec Mechanical, LLC
- AquaPhoenix Scientific, Inc.
- ASK Foods Inc.
- Farmers Pride Inc. DBA Bell & Evans
- Greiner Industries
- Herley Industries
- HVAC Distributors, Inc.
- Mauell Corporation
- Military and Commercial Fasteners Corp.
- Precision Custom Components, LLC

## Best Law Firms:

- Barley Snyder

# LEAN and Clean

You can't spell clean, without lean. The goal of LEAN is to eliminate waste of non-value added activities. Clean seeks to reduce non-value added materials. The two applications complement each other perfectly. SPX Cooling Technologies in York, PA quickly adopted both LEAN and Clean principles into their organization and are a showcase for efficiency.

SPX is a leading full-line, full-service cooling tower and air-cooled condenser manufacturer. When Glen Comegys started at SPX three years ago as the new plant manager, he knew there would be a major undertaking to get the York plant operations in order. The plant was operating with 40% efficiency and the business was struggling. SPX was at a crossroads to change the organization.

The new management philosophy removed barriers and got all employees involved in the process. The culture changed as all staff cross trained in job descriptions and the workforce was led by head staff, not supervisors. Along the way they celebrated successes. They did great work and were ready for the next step.

MANTEC, in conjunction with PennTAP, put together a LEAN, Clean and lighting assessment project. SPX employees dove right in with a 5S project. Standardized tool boxes, visual tags and all processes were defined for each work station. Through their hard work, SPX was able to increase throughput efficiency in the facility by 30%. In their industry, this was not enough to meet customer demands.

The cooling industry is highly regulated by environmental agencies. Customers of SPX require knowledge of green and



Glen Comegys leads a LEAN Working Group tour wearing his new LEAN and Green Manufacturing Team sweatshirt.

sustainability regulations. This is where the clean portion comes into play. SPX is pursuing Green Supplier Network (GSN) certification. GSN helps companies stay competitive and reduce their environmental footprint.

The three largest materials used in the SPX process are plastic, pallets and cardboard. Through LEAN and clean the amount of plastic scrap being generated in the manufacturing process has been reduced by nearly 40%. Employees initiated recycling programs for all three materials. What was previously thrown away generated \$90,000 in 2010. Since 2008 the waste stream was reduced by 90%.

Glen commented that "We achieved these results by engaging every employee at the plant in developing and implementing new ways to handle materials." He added that these processes "will keep us ahead of the curve as environmental regulations tighten and customers only want to do business with companies that demonstrate excellence in environmental stewardship."

**Pictured left- LEAN Certification Graduates:** Front Row (l-r) Ken Powell- Aquatic; David Blain-McKonly & Asbury, LLP; Tammy Cooke- MANTEC; Dorene Edgerton- Tooling Dynamics, LLC; Duane Howard- Adhesives Research, Inc.; Beth Rudy- Scantron; Mark Robertson- MANTEC  
Back Row (l-r) Dave Freimuth- MANTEC; Harry J. Shuler- YTI Career Institute; Chris Cutshall- Tooling Dynamics, LLC; Joe Margelot-Voith Turbo, Inc.; Michael Ebersole- Fenner Drives; Lisa Mason- Perform Group LLC; Douglas W. Fisher- AFS Energy Systems, Inc.; Sean Neiderer- Littlestown Foundry, Inc.; James Kimber- Glatfelter; Tonya Nye- Topflight Corporation; Matt Reed- Adhesives Research, Inc; John Wilson- Tooling Dynamics, LLC; Chris Weiler- Fenner Drives

**Pictured Right- LEAN Champion Graduates:** Dave Freimuth- MANTEC; Roger Briggs- FCI USA, Inc.; Ronald Smith- Vectron International; Brian Cunningham- Scantron; John Zeppos- Tech Cast, LLC; Mark Robertson- MANTEC



## Have branches in other states?

Tell Manufacturing located in Lititz, PA requested LEAN assistance for their Houston, TX location. Dave Freimuth, LEAN Development Manager, conducted a LEAN Principles course and a Value Stream Mapping project in Texas. While there Dave set up the local resources to assist Tell Manufacturing continue its LEAN initiatives. MANTEC is a resource for your organization, even if it goes beyond the Pennsylvania borders.



# MANTEC Manufacturing Awards

The MANTEC Manufacturing Awards were designed to recognize manufacturers excelling in the Next Generation Manufacturing (NGM) Strategies. A collaborative study across the United States concluded that leaders who adopt and integrate these strategies into their business plans will have a significant advantage over their competition. Nominations were open to all manufacturers, MANTEC partners and consultants to self-nominate or submit a company for consideration. For the inaugural year 21 companies were nominated in the six categories. MANTEC recognized seven organizations for their outstanding work. [Nomination information for 2011](#) will be available in June- watch your email!

For more information the NGM strategies go to:  
[www.mantec.org/ngm.cfm](http://www.mantec.org/ngm.cfm)



Pictured left to right:

## Excellence in Workforce

Interface Solutions, Lancaster, PA - Jeff Barrall

## Excellence in International Trade

C.L. Sturkey, Lebanon, PA -  
Chris and Mike Tarsa

## Excellence in Sustainability

Solar Innovations, Pine Grove, PA -  
Anthony Hertz

Excellence in Continuous Improvement  
Stoner, Quarryville, PA - Mike Fasano

## Excellence in Technology Acceleration

Topflight, Glen Rock, PA - Patty Britton

## Excellence in Sustainability

Glatfelter, York, PA - Jack Leland

## Excellence in Supplier Development

Flinchbaugh Engineering, York, PA - Steve Shank

# HR Resource at Your Fingertips

The HR for Hire program was created for manufacturers that do not have full-time or qualified Human Resource personnel. The program can be whatever you want it to be based on your current situation and needs. MANTEC's certified HR professionals provide on-call professional advice and support. HR for Hire gives you peace of mind when it comes to employee disputes, critical company policies or HR compliance/reporting issues.

Recently, Interface Solutions' Lancaster-based plants were working on restructuring and developing long-term post-recession growth strategies. They required specialized HR expertise and consultation to implement human resource initiatives and were able to use the HR for Hire program. Through the efforts of this program, Interface Solutions received specialized guidance during the restructuring planning and implementation of the human resource initiatives.

Additionally, Interface Solutions' Lancaster-based plants implemented cellular manufacturing in their facility in an effort to streamline operations and abandon the assembly line mindset and principles. All these changes required some basic training for supervisors and cell leaders. Interface Solutions asked MANTEC to review their handbook and key policies to make sure they were compliant and competitive to the industry standards.

“Interface Solutions did not have all the HR expertise to properly manage our people. MANTEC's HR for Hire program was the perfect solution. We were able to call upon MANTEC for a variety of situations including restructuring, training and general guidance. Interface Solutions' Lancaster-based plants would not be as far along in being a team-oriented organization without the assistance provided by MANTEC.”  
~Jeff Barrall, VP of Technology

Contact Kent Keller for more information on HR for Hire. 717-843-5054 x239 or [kent@mantec.org](mailto:kent@mantec.org)

## ASI Continues to Grow

Advanced Scientifics (ASI) – a global leader in the manufacture of single use systems for the lifesciences and healthcare industries – completed its latest expansion project. This is the fourth major expansion in the last nine years and added 5,000 square feet to the existing 20,000 sq. ft. of Class 10,000 Clean Room and an additional 10,000 square feet of warehouse space.

The Millersburg facility is recognized for its manufacturing excellence and its provision of life critical products to the global community. Some of the largest lifesciences manufacturers and healthcare suppliers select Advanced Scientifics to design, prototype, and manufacture standard and custom products. ASI expects the current and anticipated future growth of disposables within the cell therapy market to provide huge opportunities and applications which will highlight the capabilities of ASI products and employees.



Networking during the Advanced Scientifics Open House

MANTEC has worked with the leadership of Advanced Scientifics since the 1990's on many varied projects including:

- ISO 9001 Quality Management System and Registration
- Facility Renovation and Plant Layout
- Workers Compensation Cost Containment
- HR Assessment and an Incentive Compensation System
- Package Design for Transport
- Sales Lead Generation

We are proud to contribute to ASI's success.

## R&D Tax Credit Myths

**Myth #1-** The R&D tax credit applies only to basic research.

**Myth #2-** The R&D tax credit is only for new products and doesn't apply to the manufacturing process.

**Myth #3-** The R&D tax credit is only for the Fortune 500.

You may qualify for these important credits and MANTEC has the resources to help you obtain them. Before you file your taxes get more information. Contact Leigh Ann Wilson at wilsonla@mantec.org or 717-843-5054 x223

## Aim, then Fire

As you hopefully are bouncing back from the recession, make sure you have your marketing plan in place. One MANTEC client recently engaged in market research to qualify new prospects. The research identified the best fit potential markets and profiled the ideal customer. Additionally, customer-oriented value propositions were developed to help reach the target audience. The work produced 17 qualified leads and resulted in new sales- \$18,000 from one new client. If you are ready to Aim, contact Fred Botterbusch on how lead generation can benefit your business. He can be reached at fred@mantec.org.

### Interested in Innovation?

MANTEC launched a video where Fred explains Jump Start to drive your innovation. To view this video, visit our Media Room at [www.mantec.org](http://www.mantec.org).



To launch this video, scan the QR code with your smartphone using one of these readers: i-nigma ([www.i-nigma.com](http://www.i-nigma.com)), BeeTagg ([www.beetagg.com](http://www.beetagg.com)) or search your APP store for other QR Readers.

## Innovation and Trade Showcase- March 24

[www.mantec.org/events.cfm](http://www.mantec.org/events.cfm)

## BGS Round of Applause

Congratulations to Legacy Athletic based in Hanover for being selected as a Pennsylvania Industrial Development Authority loan recipient. This will allow them to acquire, renovate and expand an existing building in Penn Township. They project creating new jobs within the next three years.

Brenneman Printing Inc., based in Lancaster, PA was awarded the Lancaster County government printing business for 2011. They were among 80 printers to respond to the request for proposal. Congratulations to their successful bid. PS- Great job printing this newsletter as well!

# Solar is Hot!

In President Obama's 2011 State of the Union Address he said, "instead of subsidizing yesterday's energy, let's invest in tomorrow's." Some local companies have already done so by installing solar panels.

Henry Molded Products in Lebanon, PA has created a sustainable facility over the past 45 years. In November HMP made another major stride in that direction by installing 960 photovoltaic panels to cover approximately 90 percent of its new high energy efficient warehouse roof. HMP took advantage of PA Sunshine grant dollars to help offset the cost of the project. The project was an overall benefit in five areas: grid peak load was decreased; alternative green energy is being produced; sREC credits are being sold for revenue; taking advantage of the Alternative Energy Investment Act; and reducing HMP's carbon footprint.

Lafferty Lumber in Lemoyne, PA saw value in adding marketability to its organization through solar panels. The grants made it economically feasible. 360 panels cover a warehouse roof and are now providing 21% of the energy used by the milling machines. Lafferty Lumber expects to save \$10,000 annually on electricity bills.

Eudell Bivens, President of Lafferty Lumber, stated "MANTEC presented us with the solar panel idea and after careful review it was a no brainer to pursue the project. As a long time client of MANTEC, we have greatly benefited from MANTEC's first rate service and access to resources and opportunities."

Prices for the solar panels are beginning to fall, making it cost effective to install solar panels without grant dollars. The box on the right explains reasons to install solar panels. **If you have additional questions contact your Professional Business Advisor directly or MANTEC at 717-843-5054.**

## Why Install Solar PV and Why Now?

- Generate revenue from sale of sREC's
- Hedge against rising on-peak electric prices
- Achieve company sustainability
- Reduce carbon footprint
- Receive a 30% Tax Credit as a Treasury Grant (extended through 2011)
- Qualifies for MACRS depreciation goals
- A growing solar industry provides local jobs and economic development opportunities

**Average PV System ROI = 3-5 years**



Solar panels installed on the Henry Molded Products warehouse roof in Lebanon, PA.

### PV System Sizing Chart

System Size	5 kW	100 kW	200 kW	1,000 kW (1MW)
Annual KWH Production	6,000 KWh	120,000 KWh	240,000 KWh	1,200,000 KWh
Sq. Ft. Needed	500 sq. ft.	10,000 sq. ft.	20,000 sq. ft.	100,000 sq. ft. (2.3 acres)

## Sustainability Round of Applause

Electron Energy Corporation based in Landisville, PA received funding from the Department of Energy (DOE) in support of its clean energy technology commercialization project. The Electron Energy project focuses on Vehicle Technologies using High Performance Permanent Magnets for Advanced Motors. The DOE program specifically benefited small innovative companies with the "staying power" they needed to develop the processes that are necessary to reduce the manufacturing costs for their products and enable manufacturing at scale. Overcoming cost and scale challenges is critical for small businesses to successfully bring their ideas to the marketplace.



[www.mantec.org](http://www.mantec.org)

Your Resource Driving Manufacturing Innovation

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MEP | Affiliate

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## Over \$5 Million Reasons to Work with MANTEC

MANTEC has worked with Die-Tech in York Haven, PA for 13 years. Projects varied from LEAN to top line and always had an impact on the organization. Are you leaving money on the table by not working closely with MANTEC?

Number of Projects in 13 Years: 34

Value of Consulting Services Performed: \$337,702

Bottom Line Impact\* Resulting from MANTEC Projects: **\$5,300,500**

Return on Investment: **15.7 to 1**

\*Bottom Line Impact: As reported by the client to an independent federally-contracted third-party survey entity since the year 2000, defined as cost savings + savings on investments made and avoided + 15% of new and retained sales.

The average ROI for all MANTEC projects 2008-2010 is 13.9 to 1.

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### Keep Us Informed on Your Company News!

Contact Leigh Ann Wilson at  
[wilsonla@mantec.org](mailto:wilsonla@mantec.org) or 717-843-5054 x223