

# DE MEP

DELAWARE MANUFACTURING EXTENSION PARTNERSHIP



MANUFACTURING  
EXTENSION PARTNERSHIP  
National Network

## THE BIG CHILL

How DEMEP Helped a Local  
Manufacturer Save Thousands

## MARKELL ON MANUFACTURING

A Q&A with Governor Jack Markell

## PATHWAYS TO PROSPERITY PROGRAM

Delaware Tech's Dual Enrollment Program Readies  
Future Manufacturing Workforce

## LETTER FROM THE CHAIR

2015 has been a year of change for the Delaware Manufacturing Extension Partnership (DEMPEP). At the organization's February Board of Directors meeting, I was appointed as the new chair and Dr. Lora Johnson became vice chair as Dr. Mark Brainard took on the role of President of Delaware Technical Community College. I welcome this opportunity to serve DEMPEP and to continue to help advance manufacturing in Delaware. I speak for all of the board members when I express our thanks to Dr. Brainard for his innovative leadership as Board chairman and I know he will continue to support and partner with manufacturers in Delaware in his new role.

Another change for DEMPEP was Rustyn Stoops' appointment as Executive Director. Rustyn will continue with his work of reducing costs and improving productivity while maintaining quality to support DEMPEP's creative initiatives in the years ahead.

Among these initiatives is DEMPEP's support of the Advanced Manufacturing Program, held at Delaware Tech's Innovation and Technology Center. This year 40 students participated from two New Castle County high schools. The students were placed in paid summer internships and received hands-on, real world experience at Delaware manufacturing firms. The Governor and General Assembly continue critical support of workforce development and have provided funding in the FY16 budget to expand the Advanced Manufacturing program to southern Delaware this year.

DEMPEP also continues to help identify, develop and deliver national programs to help grow Delaware's small- and medium-sized manufacturers.

This year the DEMPEP board developed and approved a plan to invest resources into the development of a program to help reach the smallest, under-served manufacturers. This plan additionally authorized a market study to better align DEMPEP's products and services with the needs of Delaware manufacturers of all sizes.

DEMPEP has also established an ExporTech program designed to help expedite the entry of Delaware manufacturers into the global markets. This program was possible because of partnerships with several entities including Global Delaware (DoS), U.S. Export Assistance Center (USEAC), World Trade Delaware and the Small Business Administration (SBA). ExporTech was presented in April to favorable reviews.

As you evaluate your present and future business needs, please contact DEMPEP 302.283.3131 to receive a comprehensive list of services and programs that will support your goals.

Sincerely,

*Kathy A. Janvier*  
**Kathy A. Janvier**



### On the cover:

A Biltcare technician mixes raw materials in the mixing room.





DELAWARE MANUFACTURING EXTENSION PARTNERSHIP



## YOUR PARTNER IN MANUFACTURING

The Delaware Manufacturing Extension Partnership (DEMEP) is one of the state's "hidden" treasures. The 501(c)3 non-profit was created by Delaware manufacturers and the Delaware Economic Development Office in 1993 to help Delaware manufacturers stay competitive in a global economy.

There are 60 Manufacturing Extension Partnerships (MEPs) throughout the country. Some are run through partner organizations, while others are independent. DEMEP functions on behalf of Delaware Technical Community College, and is based at the College's Stanton Campus.

As part of the national network of MEPs, DEMEP agents have access to the experiences and knowledge of fellow agents across the country including the National Institute of Standards and Technology's (NIST) Hollings MEP partnership.

So what does this all mean to the small and medium-sized manufacturers in the state of Delaware? It means that they can look to DEMEP as a trusted business advisor, who can help companies create (Lean) Continuous Improvement Cultures and implement Quality Management Systems. Beyond this type of training and consulting, DEMEP has access to the entire MEP network and resource partners to help companies find new ways to accomplish their goals.

### Our Mission

"We provide cutting edge services and leverage our partnerships, community connections and technology resources to enable Delaware manufacturers to innovate, create more jobs, increase their profitability and successfully contribute to Delaware's economy."

### Our Vision

Grow and transform manufacturing in Delaware, leading to new jobs, profitable companies and renewed pride in our manufacturing sector.

To learn more about DEMEP's services and training, visit [www.demep.org](http://www.demep.org) or call 302.283.3131.

## DEMEP SERVICES

The below list is a sample of some of DEMEP's most popular service offerings. However, DEMEP is able to bring together resources to provide any type of training that a manufacturer may need.

- Principles of Lean Manufacturing with Live Simulation
- Value Stream Mapping
- 5S Workplace Organization and Standardization (Creating a Visual Workplace)
- Set-up Reduction/Quick Changeover
- Total Productive Maintenance (TPM)
- Performance Measurement for Lean Enterprise
- Leadership for Value Stream Management
- Poka-Yoke (Mistake Proofing)
- Tools and Techniques for Problem Solving
- Team Building for a Lean Culture
- Standardized Work
- Cellular/Flow Manufacturing
- Lean Office & Administration: Value Stream Mapping for Non-Production Processes (Office Value Stream Mapping)
- Pull/Kanban
- Practical Statistics Tools
- Design of Experiments
- Essential Leadership Skills for a World Class Enterprise
- ISO9001 Overview of the Standard
- ISO9001 Internal Auditing – A Process Approach.
- Six Sigma Greenbelt and Blackbelt
- Strategic Planning
- (DRG) Driving Revenue Growth
- First Line Supervisory Training
- Health & Safety
- Health & Safety Training
- Lean Product Development: Reducing Time in New Product Development
- Lean Product Design: Reducing Cost in New Product Development
- 3P: Production, Process, Preparation
- Supply Chain
- A3 Report Writing
- ISO 14000
- ISO/TS 16949 – 2002: The new global automotive QMS standard
- Additional ISO Course Available Upon Request
- Innovation Engineering Jump Start, For Small & Mid Sized Companies



Governor Markell meets with students during Manufacturing Week 2014.

## MARKELL ON MANUFACTURING

*We asked Governor Jack Markell to share his thoughts on the state of manufacturing in Delaware. Here's what he had to say.*

Why is manufacturing important to Delaware?

Manufacturing is important because growing the industry is a great way to supply Delawareans with opportunities to obtain good paying jobs. Beyond that, the state also benefits from growing the industry because it accounts for such large share of private sector research and development. This means that when we are able to attract more manufacturing firms and jobs to Delaware, we not only enhance the quality of our labor market, but we improve the climate for new innovation and entrepreneurship in the state as well.

In 2009, Delaware's manufacturing sector was significantly impacted. Numerous manufacturing plants were closed or downsized including the loss of two automotive plants. What is Delaware's strategy for rebuilding the manufacturing sector?

The primary strategy my administration has adopted to rebuilding our manufacturing sector has been to develop the skills of our workforce. Companies today have the option to locate operations anywhere in the world- so to convince them that Delaware is the best option, we need to be able to provide them with a level of talent that they cannot find anywhere else. Programs such as the Manufacturing Pathways initiative, which we partnered with DEMEP, the DSCC, and



Del Tech to build, are key to achieving our goal of turning Delaware's workforce into one of the most talented in the world.

Every state in the nation, as well as foreign countries, are seeking manufacturers to expand, relocate or start-up within their borders. Why should a manufacturer choose Delaware?

Manufacturers should choose Delaware because our workforce offers a base of talented applicants to choose from. We have the second most PhDs per capita of any state in the nation, and are home to several high quality institutions of higher learning which are renowned for their engineering programs. The work we are doing in building workforce development through career pathways and other initiatives will only serve to enhance this quality.

From a market accessibility perspective, we have close proximity to several major transportation hubs – major international airports, ports, rail lines, and highways. Delaware is situated in the heart of the eastern seaboard, with 40% of the U.S. population within a 500 mile radius.

Finally, our Manufacturing Extension Program is an active and inclusive member of our manufacturing sector. DEMEP is always working on new strategies to help our companies remain at the

cutting edge of their fields- seeking new ways to help them improve their product quality, workforce productivity, and business profitability. The government of the state of Delaware has a great relation with DEMEP and its members, and the lines of communication are always open.

So many manufacturers have moved to low wage rate countries. How can Delaware's manufacturers compete against those markets?

Competition from abroad is always going to be something that the industry and our state and our country is going to have to contend with. Where our advantage lies is in the superior quality of our workforce, in our system of developed and stable legal protections for new innovations, and our reliability in preserving supply chain continuity.

Companies are beginning to recognize these benefits in a way that they may not have appreciated in the past, and have begun to "reshore," bringing their facilities back to America to take advantage of these benefits. In Delaware, we are seeing this first hand. In recent years, several companies have chosen to relocate operations from outside the country into Delaware. We will continue to compete for this business, and, if we continue to improve upon the advantages outlined, will continue to win.



# The Big Chill

How DEMEP Helped a Local Manufacturer Save Thousands

*By Allison Hayes*

DEMEP Business Specialist Kelly McKeown discusses equipment renovations with Bilcare's Tom McDonough.

Thomas E. McDonough, interim president of Bilcare Research Inc., comes alive on his manufacturing floor. On a recent tour of the facility, he points out the pellets that become scalding hot bun-shaped lumps before being melted and rolled into sheets of plastic that are then carefully trimmed to customer specifications. The plastic will turn into the plethora of credit cards and gift cards that fills most wallets in America.

Bilcare is also an innovation-led packaging solutions provider that partners with the pharmaceutical industry and others to deliver effective and affordable packaging solutions. Bilcare's manufacturing facilities and R&D centers are spread across Europe, USA and Asia. These facilities, together with a global sales force, help the company serve a large global customer base, including local and international pharmaceutical companies.

The machines at Bilcare's Delaware City facility run 24/7, with the equipment working just as hard as the employees manning it. One broken part could cost the company thousands. Under McDonough's leadership, the company is making sure that doesn't happen. Helping him with that endeavor – the Delaware Manufacturing Extension Partnership (DEMPEP) – an organization committed to helping Delaware's manufacturers improve their global competitiveness through comprehensive business improvement tools.

Bilcare initially turned to DEMPEP for help developing an in-house ISO9001 auditor team. Later they sought assistance with developing a Lean manufacturing culture within the Bilcare organization. This Lean culture helped the employees develop the skill set for identifying and eliminating waste within the company. The waste they were training to identify were processes and procedures that did not add value for Bilcare's customers. This freed up valuable time and resources that can be spent on satisfying the needs of their customers.

Eventually, Lean training and implementation made its way to the maintenance practices on the shop floor. It was during this phase of the implementation that the magnitude of energy consumption began to appear as an obvious opportunity to everyone and the notion of seeking out ways to reduce energy consumption began.

To assist in this endeavor DEMPEP brought in one of its partners – the University of Delaware's Mid-Atlantic Assessment Center – to perform a full energy audit. The energy audit looked at all of the company's systems from boilers to chiller systems, and provided a report with a list of 11 recommendations as well as cost of implementation (including potential hidden costs).

With the results of the audit in hand, Bilcare began to implement the recommendations that could be done without seeking capital. For the remaining recommendations, the company be-

A Bilcare technician cuts plastic cardstock to customer specifications.





Plastic calendaring (large sheets of cardstock) being prepared for production.



*"DEMEEP helped us to increase profits and improve capacity so we can hire more employees."*

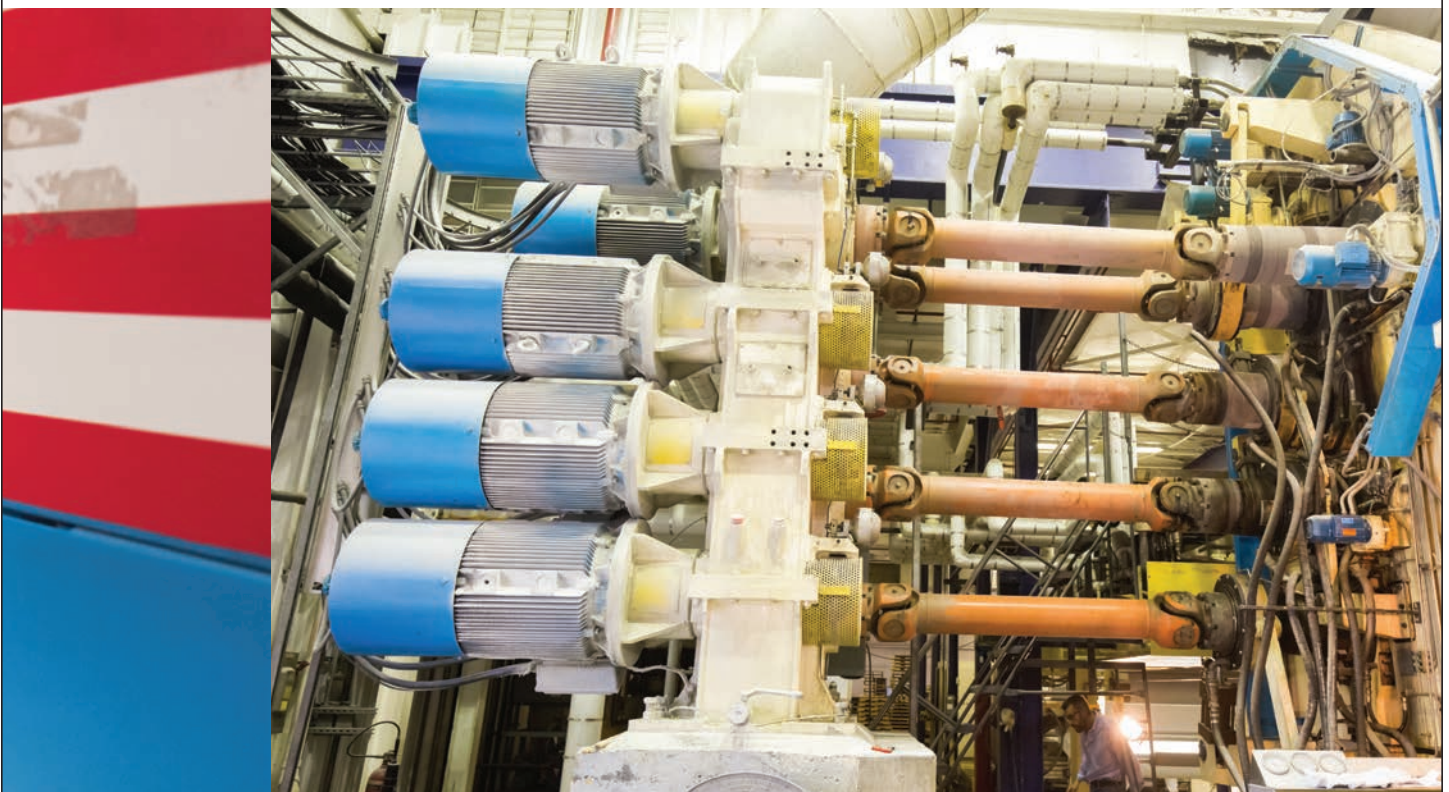
gan to explore – with DEMEEP's assistance – state and other grants to assist with the capital cost of replacing the older inefficient technologies. Recently, Bilcare successfully received a state grant for a chiller system upgrade, which is currently being implemented. The grant provides over \$100,000 for the company to use to upgrade their chilling systems. The rest of the funds will come from Bilcare, but the cost will be made up by the efficiency of the chillers in about a year. In addition to the financial savings, the conversion to new chillers will have a positive impact on the environment compared to the older technology.

On the sweltering shop floor, it's hard to believe that there are chillers plugging away at all times. Making plastics, says McDonough, is a "battle of hot and cold." A finely tuned balance of hot oil,

steam and cold water is always at work in the finely-tuned process.

McDonough is looking forward to seeing the carefully studied impact of new chillers become a reality. And he's not finished. Future planned projects include switching to energy efficient lighting, updating boiler systems, and growth oriented projects that will increase the company's human capital – a major priority for McDonough. DEMEEP will be with Bilcare every step of the way—not only in helping them to connect with the right resources, but also in training employees on a variety of topics such as quality systems, Lean manufacturing and more.

Things are certainly hot – and cold – at Bilcare Research.







Dear Students,

Last year I wrote to you about "The Future of Manufacturing in Delaware." I told you about our commitments to growing Delaware's workforce through training initiatives in fields like advanced manufacturing, information technology, and bio science. Through the work of Delaware Tech, Delaware Manufacturing Extension Partnership, Delaware Manufacturing Association, the Department of Labor, and the manufacturers themselves, we were able to create a career pathway to help students at New Castle County Vo-Tech and William Penn High school get a head start on a career in advanced manufacturing.

This year, we are happy to announce an expansion of that program into Sussex County. In the coming school year, the students of Woodbridge High School will be able to participate in the same training courses others have enjoyed, and be able to obtain paid internships at some of the leading companies in this field.

We are excited to be able to expand this initiative and anticipate it will remain one of the best resources available for workforce development in Delaware. With the forces at work in the modern economy, early training to develop skills in emerging industries like advanced manufacturing will be key to promoting the success our next generation.

I wish you the best with this edition and moving forward.

Sincerely,

**Jack A. Markell**





# HIGH SCHOOL STUDENTS FIND PATH TO SUCCESS THROUGH PATHWAYS TO PROSPERITY PROGRAM

For Charles Wideline, a William Penn High School junior, the Pathways to manufacturing dual enrollment program at Delaware Tech changed his mind about the future. After finishing the first year of the program, he plans to attend college to study engineering or manufacturing, something that was decidedly not part of his plan just 12 months ago.

*"I've witnessed a motivated group of students who are gaining a leg up for the future."*

"Students like Charles are exactly why this program was needed," remarked Paul Morris, assistant vice president for workforce development at Delaware Tech. "It opens their eyes to the many options available to them beyond high school," said Morris citing the data on dual enrollment programs which have been shown to increase the chances students will obtain a college degree. Morris worked closely with President Mark Brainard, Governor Markell, the Department of Education, Delaware legislators and its manufacturing community to help create the manufacturing pathway program as an option for Delaware

high school juniors and seniors. "We need all of our high school graduates contributing to Delaware's economy and this program prepares students for today's in-demand jobs and provides them with a foundation for the next step in their education."

Last fall, Delaware Tech piloted the manufacturing program with the Colonial and New Castle County Vocational Technical School Districts. Students gain hands-on training through the College's Innovation and Technology Center in New Castle and real world experience through a paid summer "craftsmanship." Participants will graduate from high school with Delaware Tech credit, industry credentials and a jumpstart on a career in manufacturing.

"I've witnessed a motivated group of students who are gaining a leg up for the future," said Cassandra Freeman, a Delaware Tech counselor who works with dually enrolled students like Joe Zecca, another participant from William Penn High School, who enjoys the hands-on teaching that occurs in his manufacturing classes. Zecca will graduate from high school with a diploma and several manufacturing certificates that make him instantly employable. He plans to continue his education and said he is looking forward to finding a well-paying job in the field.

The program expands to Sussex County this fall, serving students from both Seaford and Woodbridge High Schools. It's just the first of several career pathways currently in development as part of Governor Jack Markell's Pathways to Prosperity Initiative. They include allied health, business,

Students in the Pathways to Manufacturing program work both in the lab and in the classroom.



# HIGH SCHOOL STUDENTS FIND PATH TO SUCCESS THROUGH PATHWAYS TO PROSPERITY PROGRAM



Students in the Pathways to Manufacturing program from William Penn High School stand with instructors.

(continued) computer science, culinary arts and hospitality management, and engineering.

Markell recognized the support of Delaware Tech at a recent event, thanking Delaware Tech President Dr. Mark Brainard for his personal commitment to the "critical initiative." The state is dedicating more than \$1 million of its federal career and technical education funding over the next year to offer school districts grants to defray the cost of providing these programs.

"The manufacturing program has demonstrated the power of partnering our business community and college with school districts to create a curriculum that engages students in learning skills most valued in the economy," said Brainard. "Delaware Tech has an important role in these efforts given our work with industry. We look forward to taking part in other pathways to prepare students for jobs in other high-demand industries."

For the program's first class of manufacturing students, and the many who will follow in their footsteps, the future is full of possibility and potential.



## Quick Facts about Agilent Technologies in Delaware

- 700 employees at 2 sites, payroll of \$75M
- Jobs in Manufacturing, Sales, Service, Marketing, R&D
- Recognized for Innovation, Work Life Balance and Green
- Every employee gets paid time for community service



## Agilent Technologies

Located on Centerville Road in Wilmington and in First State Industrial Park in Newport, Agilent Technologies manufactures analytical equipment and consumables used by scientists all over the world. Customers use our products in chemical, energy, environmental, forensics and pharmaceutical applications to determine the content of their samples for R&D, QA/QC and Process Control. Our products have been used to catch doping at the Olympics for years. Specific products built in Delaware are Gas Chromatographs (GC), GC Mass Spectrometers (GCMS), Liquid Chromatography Columns and other peripheral devices used by chemists in their laboratories. We are #1 in our core markets with these products.



We have careers for Chemists, Buyers, Engineers, Technicians, Operators, Material Coordinators, Planners and many other career focus areas.

Visit us at [www.agilent.com](http://www.agilent.com)





Located in Dover, Delaware, Edgewell Personal Care is passionate about helping people be at their best when it matters most. The Edgewell family of brands has a product for everyone -- with well-established brand names such as Schick® and Wilkinson Sword® men's and women's shaving systems and disposable razors; Edge® and Skintimate® shave preparations; Playtex®, Stayfree®, Carefree® and o.b.® feminine care products; Banana Boat® and Hawaiian Tropic® sun care products; Playtex® infant feeding, Diaper Genie® and gloves; and Wet Ones® moist wipes.

We have careers for Supervisors, Engineers (Quality, Process, Mechanical, Electrical and Industrial) Production, Administrative, and Management.

#### Quick facts about Edgewell Personal Care

- 514 colleagues in Dover and continuing to grow
- Global team of 6,000 visionaries, doers & makers
- Portfolio of over 25 brands touching lives in more than 50 countries
- Over 80 years in Dover, Delaware

Visit us at [www.edgewell.com](http://www.edgewell.com)

## Procter & Gamble Dover Wipes Plant

What makes our site a great place to work and live?

Our PEOPLE— who are passionate & competitive and able to build capacity in the relentless pursuit of excellence.

And LOCATION— We are centrally located to many major cities enabling us to work hard and play harder!



Here at the Procter & Gamble Dover Wipes Plant, we are the makers of Pampers & Luvs baby wipes which we distribute to families throughout the United States, Canada, and Puerto Rico. Located in West Dover, our site was built in 1973 with approximately 5,000 square feet of the facility under roof. Since P&G acquired the site, our business production capacity has more than doubled to keep up with consumer demand and we directly employ approximately 185 P&G employees.



# Fueling Delaware's Economy



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Delaware City Refining Company LLC 4550 Wrangle Hill Road Delaware City, DE 19706