

# DEMEEP

Delaware  
Manufacturing  
Extension  
Partnership



GROWING | CONNECTING | BUILDING

# LETTER FROM THE CHAIR

Greetings!

2017 has been an exciting and transformative year for the Delaware Manufacturing Extension Partnership (DEMPEP). In January, we received notice of an award of five years of federal funding from the National Institute of Standards and Technology's (NIST) Hollings MEP Program. We are thrilled to continue our work in the state of Delaware, as an affiliate of the Hollings MEP program, to strengthen and support our small and medium-size manufacturers.



You may notice that the DEMPEP "look" is a little different. That's due to a rebranding process we undertook to better showcase what we do to help Delaware companies grow. This rebranding was intended to start a different conversation with our clients to identify opportunities that are more than just Lean and Quality Management Services (although we do that too!). We want to make sure that our clients are seeking growth and innovation and looking for opportunities to transfer technology and best practices from universities and national laboratories into their businesses.

We also have added a focus on ultra-small companies (those with less than 20 employees) to investigate alternate delivery models that are more compatible with the limited resources a smaller client has available. We believe we can add value to these companies by applying the same principles that work for larger manufacturers.

I hope you will be inspired, as I was, when you read the success DEMPEP and Romer Labs have had over the past year. To me, it was a perfect example of how training and a growth mindset can have a real impact on a business's bottom line. Keeping jobs in the state was an excellent payoff to the work Romer Labs did to become more efficient and effective in their processes.

DEMPEP is continuing to grow and develop our services, much like the clients we serve. We look forward to even more exciting changes in the future. Please contact us if you'd like to learn more.

Best wishes for a successful and profitable year.

A handwritten signature in black ink that reads "Kathy A. Janvier". The signature is written in a cursive, flowing style.

Kathy A. Janvier, Ph.D.

## Growing, Connecting, and Building Delaware's Manufacturing Ecosystem

The Delaware Manufacturing Extension Partnership (DEMEEP) 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 51 Manufacturing Extension Partnerships (MEPs) throughout the country. Some are run through partner organizations, while others are independent. DEMEEP 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, DEMEEP agents have access to the experience 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 DEMEEP as a trusted business advisor, that can help companies create (Lean) continuous improvement cultures, implement quality management systems, access new technologies, and grow new markets. Beyond this type of training and consulting, DEMEEP has access to the entire MEP network and resource partners to help companies find new ways to accomplish their goals.

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

## Our Capabilities

The below list is a sample of some of DEMEEP's most popular service offerings. However, DEMEEP 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.
- Transitioning to ISO9000:2015
- Six Sigma Greenbelt and Blackbelt
- Strategic Planning
- 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 Optimization
- Total Cost of Ownership
- 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





# Saving Local Jobs by Improving Processes

By Allison Hayes

With an increased focus on food safety, food and livestock feed suppliers look for the most effective way to test their products. One such example are mycotoxins, which are secondary metabolic products of molds, contaminating a wide range of crops and fruits. Such contaminated crops are toxic to humans and animals, and hence, a major health issue for the consumer.

Romer Labs in Newark, Delaware is a leading global supplier of diagnostic solutions for food pathogens, mycotoxins, food allergens, gluten, and GMO. Additionally, they operate four fully accredited service labs in Austria, Singapore, UK and the USA. The Newark, Delaware office employs a staff of approximately 40.

The Newark site is in the forefront of testing technology for contaminants in all types of foods and grains. Of the many various test kits they produce, one of the most demanded is the lateral flow test for aflatoxins, one of the most potent fungal toxins to affect crops grown in warm and dry ambient conditions. Aflatoxin can cause adverse illness or even death to the livestock that ingest it.

The lateral flow test strip is superior to other test kits on the market as it is easier to use, faster to give accurate test results and less expensive than competitor test kits. It also exceeds the strict USDA regulatory standards for contaminant detection. These testing strips are used around the world, and are produced right here in Newark, Delaware.

After the launch of the aflatoxin lateral flow test strips, the demand for these kits were outpacing the supply that the Newark lab could produce. It was then that Romer Labs began a partnership with the Delaware Manufacturing Extension Partnership (DEMEP). DEMEP is a National Institute of Standards and Technology (NIST) accredited Center that uses a comprehensive holistic approach to business improvement. The Delaware MEP operates as a recipient through Delaware Technical Community College in partnership with the United States Department of Commerce, NIST, the Delaware Office of Economic Development, and the Delaware State and local Chambers of Commerce.

*"This improvement added value without adding any additional resources."*



Romer Labs asked DEMEP to help them improve efficiencies in the production laboratories.

"There was a real possibility that the production of the test strips could be moved to other Romer production sites," said Tim Lawruk, Senior Director of Production & Procurement for Romer Lab's Newark facility. Lawruk wanted to keep those jobs in Delaware – and DEMEP was there to help.

Initially, a group of 15 employees went through a Principals of Lean Manufacturing workshop (POL). Companies trained in Lean manufacturing begin to change from the inside out. Many of DEMEP's customers report that after going through the training, they experience a complete culture change. POL is also seen as the most successful way to make sure every employee, no matter what position they hold, is trained and on board with this transformative way of doing business.

Lean changes the focus of management to optimize the flow of products and services

through "value streams" that flow across technologies, assets, and departments.

The workshop was well received and the attendees were able to embrace the concepts immediately at the Newark site. Some employees had been doing their job the same way for 15 years, but gained a completely new understanding of ways to improve and make their jobs easier.

The next step was to complete a value stream map to help identify and understand key objectives, measures, actions and overall priorities of the aflatoxin lateral flow test strip production process. First, a current state map was created to see exactly how the interactions of each individual sub process effected the overall production flow. Next, a future state map was created to provide a vision of how optimal production flow would look. A comprehensive action item list was created to give the company a road map to achieving the future state.

With a good understanding of where the opportunities for improvement were, a





5S event was held. It focused on ways to improve the efficiencies of the test strip production labs output. A 5S event is a workplace organization method that helps companies to organize workspace for efficiency and effectiveness by identifying and storing items. Lawruk said the company saw a huge impact from this process.

As the training took place, the process for manufacturing the test kit began to change and improve. Within a year, the cycle time was cut in half. In 2016, the company produced 5,000 test kits. In 2017, with sales forecasted to triple, 7,500 kits have been produced in just the first 90 days of 2017 alone. This improvement added value without adding any additional resources.

Additionally, while attending DEMEP's Lean Six Sigma Greenbelt training, Lawruk and Procurement Coordinator Michael Butkus worked on a project that focused on the production and quality control processes of the test strips. Through their data analysis, they found many redundant and unnec-

essary steps that did not add value to the product. They were able to eliminate those steps and cut the time to market in half and realizing a savings of \$50,000 a year in material and labor cost.

Through process flow improvements, the company was also able to double inventory turnover, which meant less money had to be allocated to keep items on hand.

Finally, cross training was completed so that key positions and skills were shared by more than one employee, creating security for the company, and making jobs more interesting to staff.

"Our work with DEMEP had a huge impact on how we run our business," said Lawruk. "It's been visible to all levels of management throughout our organization. It ultimately saved jobs in Delaware."



**TOP:** DEMEP Business Specialist Kelly McKeown consults with Tim Lawruk of Romer on ways to enhance productivity.

**RIGHT:** Kelly McKeown discusses equipment renovations with Bilcare's Tom McDonough.

**BOTTOM:** Robert Sobieski, Vice President of Field Operations; Kim Sobieski, Purchasing and Inventory Manager; and Jim Jones, DEMEP Specialist stand at Sobieski's newly expanded warehouse in Elsmere, DE.





# DEMEP's Value to Delaware Manufacturing

By Senator Christopher A. Coons



Before entering government, I spent eight years working for an advanced materials manufacturer in Newark, so I've seen first-hand the importance of manufacturing to

Delaware and the country. Since I entered the U.S. Senate in 2010, I've found no federal program that has a greater impact and return on investment to the manufacturing sector than the Manufacturing Extension Partnership (MEP) program.

As I've traveled up and down our state visiting manufacturers large and small, I've heard a common theme: the profound impact that the Delaware MEP has had on their business. For years, the Delaware MEP has helped our state's manufacturers implement process improvements and product innovations that allow these businesses to reduce costs, grow, and create jobs.

What exactly is the Manufacturing Extension Partnership program? The MEP was established in 1988 to provide federal support

for rebuilding the U.S. supply chain. It's the only public-private partnership dedicated to providing technical support and services to small and medium-sized manufacturers. Since its creation, the program has evolved, but the core mission has remained the same: to maintain a national network of local centers with the expertise to enhance the productivity and technological performance of U.S. manufacturers. Today, the MEP program has centers in all 50 states and Puerto Rico that provide manufacturers access to professionals with the latest business skills such as value-stream mapping, just-in-time inventory management, and quality control.

The MEP program has shown a remarkable return on investment, with the latest studies suggesting that it helped manufacturers generate nearly \$18 in new sales and \$27 in new investments for every federal dollar spent. In 2016 alone, MEP centers nationwide interacted with more than 25,000 manufacturers and created or retained close to 87,000 jobs, generating more than \$9 billion in new sales.<sup>1</sup> The additional tax revenue from the increase in economic activity generated by the MEP program is

nearly nine times greater than the cost of the program. In other words, the MEP program more than pays for itself.

The success of the MEP program is rooted in the fact that it provides manufacturers with a honest broker they can sit down with and discuss the challenges and goals of their business. The reality is many small business owners do not have the time or resources to keep up with the latest business practices or technology trends. This is especially true for rural manufacturers who can find it difficult to get access to private business consulting. In fact, more than 98% of manufacturers in the U.S. have fewer than 500 employees and 75% have fewer than 20 employees.<sup>2</sup> It is this bottom-up approach that makes the MEP program so critical for sustaining and strengthening American manufacturing.

The United States isn't the only country that understands the importance of federal support for the supply chain. Many of our ma-

jor competitors like Japan, Germany, and Canada have also made long-standing and significant investments in programs and services that support small and medium-sized manufacturers. In fact, each of these countries outspends the United States as a percentage of GDP in support of their manufacturing extension programs.<sup>3</sup> To ensure that the U.S. remains competitive in the global economy, we must continue to support programs like the MEP.

Fortunately, Congress has a history of doing so, having provided nearly thirty years of continuous support for the MEP program. In keeping with this trend, in 2016, I authored the bipartisan Manufacturing Extension Partnership Improvement Program Act, which enhanced the MEP program's ability to better serve more small and medium-sized manufacturing companies. This bill was included in the American Innovation and Competitiveness Act and signed into law by former President Obama in 2016.



## Mountaire Farms is the Employer of Choice



Mountaire Farms is the seventh largest poultry company in the U.S. and a time proven industry leader, committed to our communities, including providing excellent jobs at our various facilities in Delaware.

Mountaire Farms is strongly dedicated to the recruitment, selection, growth, and advancement of employees based on individual merit. We provide equal employment opportunities to all people without regard to race, color, religion, sex, national origin, age, or disability. We are continually expanding our recruiting efforts and seek to maintain a workforce of committed individuals from diverse backgrounds.

For employment opportunities at one of our modern facilities, please visit the "Career" page on our website, or apply in person at one of our recruitment offices in Millsboro, Selbyville, Seaford or Salisbury.

Millsboro: 29005 John J. Williams Hwy. – Selbyville: 55 Hosier St.

[www.mountaire.com](http://www.mountaire.com)



But we shouldn't stop there. Continuing to grow and expand the U.S. manufacturing sector will also require greater coordination between government and industry to ensure that we're supporting new industries in advanced technologies and that our workforce is equipped with the right skills for tomorrow's manufacturing jobs.

That's why I've continued to make supporting manufacturing a top priority in the Senate. In fact, this year I introduced legislation that increases the R&D tax credit for businesses that perform both research and manufacturing in the U.S. and another bill that encourages manufacturers to source more from domestic suppliers.<sup>4</sup> And as co-founder of the Manufacturing Jobs for America Initiative and co-chair of the bipartisan Senate Competitiveness Caucus, I have found many opportunities to work with my Republican colleagues on legislation to support R&D and spur domestic manufacturing.

We must continue to champion investments in manufacturing and federal programs like MEP. It is an honor to represent Delaware in the United States Senate and to work with colleagues of both parties to advocate for manufacturers. I'll continue to fight for the Manufacturing Extension Partnership program because Delaware manufacturers—like manufacturers across our country—are innovators and job creators who deserve the full support of the federal government.

<sup>1</sup> MEP client survey, FY2016.

<sup>2</sup> U.S. Census Bureau, Statistics of U.S. Businesses.

<sup>3</sup> Stephen Ezell, Robert Atkinson, "International Benchmarking of Countries' Policies and Programs Supporting SME Manufacturers," ITIF, 2011.

<sup>4</sup> Invent and Manufacture in America Act cosponsored by Senator Pat Roberts (R-KS) and the Made in America Deduction Enhancement (MADE) Act cosponsored by Senator Shelley Moore Capito (R-WV).



**K**uehne Chemical Company, located on River Road in New Castle, is a producer of sodium hypochlorite otherwise known as bleach. Kuehne is the largest producer of bleach in the Mid-Atlantic region and our Delaware Plant services water and waste water municipalities as well as many industrial users, distributors, pool companies, and packagers up and down the I-95 corridor from North Carolina up to Pennsylvania and New Jersey. Kuehne has always been an innovator, and in 1999 we installed a first of its kind, state-of-the-art brine electrolysis process for producing bleach. This is now becoming a standard across the world and is commonly referred to as a BTB process (Brine to Bleach). That spirit of innovation and change remains today as we constantly search for more sustainable ways to produce bleach to meet our customers and communities expectations.



#### Quick Facts about Kuehne:

- 48 employees across 2 sites in Delaware
- 120 employees Company wide
- Includes our own Transportation Fleet
- Jobs in Manufacturing, Transportation and Engineering
- Family owned and operated for nearly 100 years

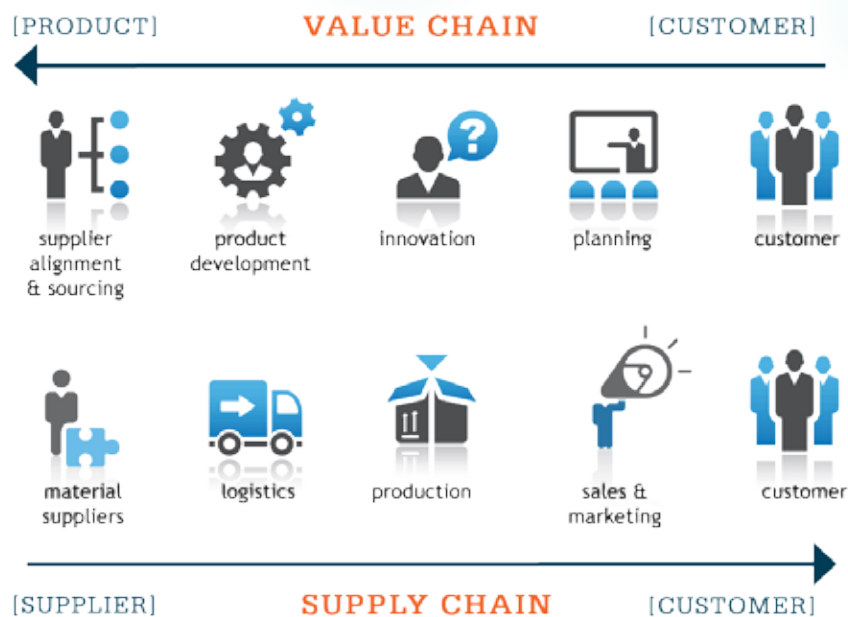
For more information please visit us at: [www.kuehnecompany.com](http://www.kuehnecompany.com)



## WHAT ARE YOUR SUPPLY CHAIN WEAKNESSES?

Risk is everywhere. It doesn't sleep. It often shows up uninvited and at the most inopportune time. Manufacturers most trusted resource, the NIST-Manufacturing Extension Partnership, provides a step-by-step roadmap to help manufacturers **address risk, increase visibility and create supply chains that function at optimum capacity.**

We'll show you how to apply constraint theory concepts that address risk, and account for total cost of ownership, so you may make informed sourcing decisions that increase the flow of products from suppliers to customers, using a value system model.



To learn more about Supply Chain Optimization,  
visit [www.demep.org](http://www.demep.org) or call 302.283.3131.