



NJMEP

MANUFACTURING MATTERS

WINTER 2019

Helping New Jersey Manufacture Success

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MANUFACTURING DAY: 2019 RECAP AND THE WINNERS ARE...

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WINTER 2019

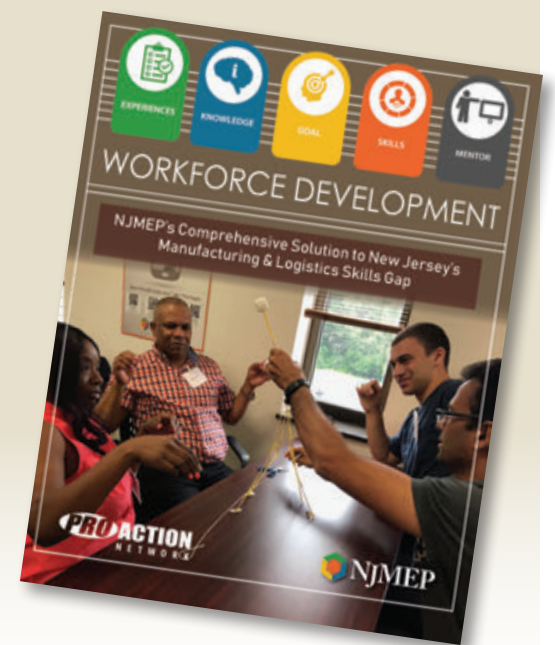


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“MADE IN NEW JERSEY” MANUFACTURING DAY

WHAT YOU MIGHT HAVE MISSED



MEG DAY



Manufacturing Day has come and gone. Yet the impact of the celebration can still be seen. Every year the New Jersey Manufacturing Extension Program (NJMEP) hosts Made in New Jersey Manufacturing Day on the first Friday in October, and 2019 marked the most successful event to date. Celebrated nation-wide, NJMEP created a way to focus on and honor manufacturers and progress right here in the state of New Jersey. On October 4th, over 500 business leaders from the manufacturing, logistics, and related industries came together at The Marigold in Somerset New Jersey to showcase the new, true face of Manufacturing.

The NJMEP team began their day about an hour before sunrise. Everyone was excited to kick off the eighth annual New Jersey Manufacturing Day. Doors opened up at 7:30am and attendees began to arrive in droves. It quickly went from a quiet early Friday morning to the hustle and bustle of the largest Manufacturing networking event New Jersey has to offer. The breakfast and first networking session started the day. Attendees had the opportunity to speak and share ideas with like-minded individuals and learn more about each sponsor that helped make the Made in New Jersey Manufacturing Day celebration possible.



MANUFACTURING DAY 2019 — IN THE MORNING

After breakfast and the first networking event settled down, it was time to gather in the ballroom where NJMEP CEO, John W. Kennedy, PhD, sponsors, Senator Linda Greenstein, and other state legislators welcomed attendees. They spoke about the current state of the industry, challenges, and future plans. John W. Kennedy began by addressing the audience with a sense of optimism about the industry's future. Once he reached the NJMEP Impact section of the presentation that showed over \$3 billion in increased sales and revenue his sense of pride was impossible to ignore. Over \$4.16 billion in realized value goes a long way and the 36,951 jobs created and retained since 2000 was a figure that touched everyone in the room that day.

Representatives from Crowe and Withum, two platinum sponsors of Made in New Jersey Manufacturing Day 2019 followed John W. Kennedy in expressing how important the celebration was to the industry. President & CEO of NJBIA, Michele Siekerka took the stage next, reiterating that same message while also providing a little insight into the history of the New Jersey Business & Industry Association and the role their organization plays in strengthening business here in New Jersey.

New Jersey Legislators had a chance to speak in the morning presentation. Senator Linda Greenstein spoke about the current state of Manufacturing in New Jersey and future plans on how to make New Jersey more attractive to these kinds of businesses. She shared how the Manufacturing Caucus made impressive progress over the past year. Showcasing successes and even making mention of an exciting Legislative Bill Package that could result in permanent state funding for NJMEP.

Amy Eskilson, President of Inrad Optics had a chance to address MFG Day attendees. Amy shared her experience working with Vistage, a private advisor board for CEO's, executives, and business owners. She was able to speak about her experiences with the group and how collaboration is essential in today's business landscape, a critical component of Manufacturing Day as well.

James Hoffman, a STEM teacher from Newton High School and the coach of the Newton High School first varsity robotics team had a special Keynote speech to share. He brought with him students from the robotics team to share their experiences and their hopes for future employment. The students were passionate about their love for technology, and how they see engineering and robotics being a segue to an exciting future career. Their words shook the audience to their core. Many manufacturers in the crowd thought the talent pipeline

was all but lost. Hearing the passion these students had about their industry was breathtaking and inspiring. Hoffman's students then went on to show off a robot that the team engineered. This was far from a science fair robot, this was a massive, heavily engineered robot that served a very specific purpose.

Manufacturers in attendance immediately saw an opportunity to reach out to these students after their presentation. During the breaks, manufacturers were seen walking up to the students, speaking to them about their skills and knowledge, and explaining to the students what their company does in New Jersey. Business cards



were handed out and connections were made. These kinds of networking opportunities are far and few between. Manufacturing Day created a platform for local businesses to connect to young people with exceptional skills. Skills that these businesses are actively seeking.

Part of the MFG Day celebration was recognizing the Made in New Jersey Honor Roll. These awards are presented to stand out New Jersey legislators and community members that played critical roles in helping NJ manufacturing progress forward over the past year. Senator Vin Gopal, Former Manufacturing Caucus Chair and Senate Majority Conference Leader, and Chairman of the Military and Veterans' Affairs Committee; Senator Linda Greenstein, Manufacturing Caucus Chair and Representative of the 14th legislative district in the New Jersey Senate Affairs Committee; John Harmon, President, African American Chamber of Commerce of New Jersey; and Phillip Singerman, Associate Director for Innovation and Industry Services at the National Institute of Standards and Technology (NIST) were all presented as Made in New Jersey Honor Roll recipients. Along with these individuals, specific organizations and institutions were recognized as well. These included Essex County College; Rowan College at Burlington County; and NJ Department of Labor Apprenticeship Team.

(Left) Newton High School Robotics Team showing their robot to Assemblyman Clinton Calabrese at MFG Day 19

(Below left to right) Michele Siekerka, President & CEO of NJBIA, Amy Eskilson, President of Inrad Optics, Assemblyman Andrew Zwicker and Senator Linda Greenstein.





BREAKOUT SESSIONS AND INDUSTRY PANELS

The NJMEP team received an overwhelmingly positive response from each and every one of the breakout sessions that took place throughout the day. Breakout session themes ranged from Industry 4.0 to the resources available to help New Jersey businesses grow. The list of the morning and afternoon sessions are available below.

Understanding the Impact of Industry 4.0 - A Discussion on Avoiding the Risks of Adoption

Real Solutions to Serious Workforce Problems

The Value of Blockchain for Manufacturers Involved with Food & Beverage Manufacturing

Women in Manufacturing: a Roundtable Discussion on Why Manufacturing Matters to You and Why You Matter to the Industry

The breakout sessions were led by manufacturers that have experienced and overcome these challenges or are currently living through these disruptions. Industry experts sat in to offer an informed outside perspective.

After a break, the second breakout sessions started up. Themes remained focused on relevant industry trends and providing actionable information for manufacturers in attendance.

An Overview on the NJ Resources Available to Help Your Business

Real Solutions to Serious Workforce Problems

Understanding the Impact of Industry 4.0 - A Discussion on Avoiding the Risks of Adoption

Manufacturers and business leaders that sat in on these industry-specific breakout sessions were pleased with the amount of actionable information they were able to accumulate. These were not sales presentations, instead, panels were made up of industry leaders with the knowledge to share. Q&A time allowed attendees to share their own experiences and speak with those leading the discussions. Real-world examples were given to showcase how many manufacturers are going through similar challenges and disruptions, but there are solutions. Manufacturing Day is focused on celebrating the industry and its progress however NJMEP ensured MFG Day 2019 was also about providing new opportunities to help the industry progress even more.

MANUFACTURING AWARD WINNERS

The winners of the Manufacturing Award winners were broken up into two parts. One in the morning and the second that took place in the afternoon presentation. Each company that took home an award are listed, here.

NJMEP's Made in New Jersey Manufacturer of the Year Award Winners!

MANUFACTURER OF THE YEAR - START-UP
Succhi, Inc

MANUFACTURER OF THE YEAR - SMALL
(50 employees or less)
eMachineShop

MANUFACTURER OF THE YEAR - MEDIUM
(51 - 250 employees)
Puratos Corp.

MANUFACTURER OF THE YEAR - LARGE
(251 or more employees)
Thorlabs, Inc.

MANUFACTURER OF THE YEAR - INNOVATOR OF THE YEAR
Westlock Controls

MANUFACTURER OF THE YEAR - MANUFACTURING CARES
Broadway Industries

These manufacturers have proven themselves to be stand-out entities in New Jersey. Providing for their employees, pushing the boundaries on progress, and contributing to the local economy. NJMEP is honored to have the opportunity to present these businesses with Manufacturer of the Year awards and recognize their efforts over the past year. Every one of these manufacturers represents forward steps in this vital industry.

MANUFACTURING DAY 2019 IN REVIEW

NJMEP's MFG Day 2019 was the largest, most successful event to date. This national celebration of the manufacturing industry has a special place in the hearts of New Jersey businesses. NJMEP does all it can every year with the help of its sponsors to ensure Manufacturing Day makes an impact in the Garden State.

A culmination of business leaders collaborating, relevant and educational discussions on how the industry can progress forward, sharing actionable information with the businesses that contribute so much to the New Jersey economy, and recognizing stand-out businesses is all part of the celebration. Keynote speakers, invaluable breakout sessions, and the Manufacturer of the Year awards are all rolled up into one day, but these aren't the only aspects that make MFG Day such an impactful event. Sometimes it takes bringing the best and brightest industry, government, and community-centric minds together in one place before progress can be made.



MADE IN NEW JERSEY HONOR ROLL SPOTLIGHT

MANUFACTURING DAY 2019

Manufacturing is a massive catalyst for economic development here in New Jersey and across the nation. The industry is an essential component of gross domestic product. According to the NJMEP 2019 Industry Report, New Jersey manufacturing industries produce \$141 billion in annual output. This puts the industry in the sights of politicians, legislators, and educational organizations on both the national and local stage. Those in government and higher education play a vital role in supporting the industry and at Manufacturing Day 2019 NJMEP honored those that help drive this critical industry forward.

The **MADE IN NEW JERSEY HONOR ROLL** is set aside for influencing voices. Individuals and organizations that go above and beyond to assist in the progression of the industry, along with the people that create critical legislation as well as support this legislation in order to help New Jersey manufacturers move forward unimpeded are worth celebrating.

This year's list of **MADE IN NEW JERSEY HONOR ROLL** award recipients has proven themselves to be essential partners in the development of manufacturing here in the Garden State.

MADE IN NEW JERSEY HONOR ROLL RECIPIENTS LIST



SENATOR VIN GOPAL
Past Manufacturing
Caucus Chair

Senate Majority
Conference Leader

Chairman of the Military and
Veterans' Affairs Committee



SENATOR LINDA GREENSTEIN
Manufacturing Caucus Chair

Representative of the 14th
legislative district,

New Jersey Senate Affairs
Committee



JOHN HARMON
President, African American
Chamber of Commerce of
New Jersey



PHILLIP SINGERMAN
Associated Director for
Innovation and Industry

Services at the National
Institute of Standards And
Technology (NIST)



CLINTON CALABRESE
District 36

'Rookie of the Year'



**COUNTY COLLEGE
OF MORRIS**



**ESSEX COUNTY
COLLEGE**



**ROWAN COLLEGE
AT BURLINGTON
COUNTY**



**NJ DEPARTMENT
OF LABOR**

Apprenticeship Team



NJEDA

Manufacturing Policy
Academy Team Lead

Every individual and organization included in the **MADE IN NEW JERSEY HONOR ROLL** played a vital role in supporting this critical industry. The New Jersey manufacturing industry depends on advocacy at the highest level of local government and is reliant on educational institutions to provide students with the right experience and knowledge. NJMEP is proud to have the opportunity to give these people and entities the recognition they deserve for the work they've done for the industry.



It's time to celebrate the most influential and progressive manufacturers in the State of New Jersey. NJMEP's Made in New Jersey Manufacturing Day 2019 took place on October 4th and six manufacturers walked away with the title of Manufacturer of the Year. Categories included Start-Up, Small (50 employees or less), Medium (51-250 employees), Large (251 or more employees), Innovator of the Year, and Manufacturing Cares. Each one of these manufacturers proved themselves to an independent group of judges as the most deserving and impressive set of manufacturers New Jersey has to offer.

From start-ups to large manufacturers, award-winning innovators and businesses giving back to their communities, these six extraordinary businesses stood-out among their peers as exemplary organizations.

MANUFACTURER OF THE YEAR - START-UP Suuchi, Inc

Women-owned and operated, Suuchi, Inc has transformed the textile manufacturing. They live and breath customization, and in a world obsessed with custom, they shine as an industry leader. Founded in 2015, Suuchi has already taken their industry by storm. Their team has grown to over 150 employees and is now exploring other innovative ways to make an impact. Textile manufacturing isn't their only venture. Suuchi Inc. developed a complete end-to-end solution for their clients.

Taking that same concept of being an end-to-end solution for their customers, Suuchi developed proprietary software, The Suuchi Grid to connect brands with their shop floor. Having this seamless access to the shop floor revolutionized how this manufacturer conducts business. Full design manufacturing transparency is now at the customers' fingertips. The Suuchi Grid acts as a communication hub with the team to ensure no email goes unread or avoidable delays impact the production process.

Suuchi, Inc was named Start-Up Manufacturer of the Year. Their innovative nature, exceptional growth, and ability to thrive in a highly competitive industry here in the United States makes them stand out.



MANUFACTURER OF THE YEAR - SMALL (50 EMPLOYEES OR LESS) eMachineShop

This small manufacturer is taking huge steps forward. Combining digital technology and robust manufacturing expertise, eMachineShop secured its spot as Small Manufacturer of the Year. To compete in such a competitive business environment, eMachineShop had to take an innovative approach to supplying custom parts for businesses, engineers, and inventors worldwide. Besides offering manufacturing services like CNC Milling, Turning, Waterjet Cutting, Injection Molding, and 3D Printing from over 50 different materials, they took a 21st-century approach to provide manufacturability analysis and pricing.

eMachineShop provides free CAD software designed to save hours, days, or weeks when it comes to the process of ordering custom parts. They even accept CAD files that they can then implement into their CAD file quoting system so customers can receive quotes and pricing at unparalleled speeds. Free shipping, quick turn times, groundbreaking use of proprietary software all culminate into a transformative manufacturing company based right here in New Jersey.

NJMEP is thrilled to have an opportunity to recognize such a unique business and showcase their successes to the state of New Jersey. eMachineShop is pushing the boundaries of what people think when they hear the word manufacturing. Digital applications, personalized customer service, new manufacturing technologies like 3D Printing, and CNC Milling, Turning, Waterjet Cutting, and Injection Molding all added up to eMachineShop's spot as Small Manufacturer of the Year.



MANUFACTURER OF THE YEAR - MEDIUM (51 - 250 EMPLOYEES) Puratos Corp.

In business for over 30 years, Puratos may not be a household name, however they are considered a "hidden secret" in the food sector. Puratos is regarded as one of the most highly advanced manufacturers in the nation. They have poured resources into innovation hubs and centers, upgrading their manufacturing operations and workforce development programs. A strong sense of community and superior industrial resources led to Puratos positioning themselves as global leaders in food manufacturing.

To maintain the Puratos standard of excellence and to continue moving forward as a whole, the company remains committed to investing in their local area. A \$10 million innovation hub is being built right across the street from their manufacturing facility. Furthermore, all innovation and distribution centers are located near their South Jersey facility. This enables the manufacturer to keep ideas flowing seamlessly from one facility to the next.

"The Manufacturing Day event itself was fantastic and well attended," Nihal Raval, Sight Director at Puratos Corporation stated. "It had really good keynote speakers and sponsors that made the event possible. Most of all, NJMEP did a great job bringing the entire event together, manufacturers, sponsors, and legislators. It's very value-added and important to understand how the industry is performing as a whole."

Raval continued, "[The award] means a lot to Puratos. It's a nice recognition of the work Puratos is doing. The plant has been here for a year and the benefits we provide to our employees along with our investment into our community is important to our mission. The recognition by our peers gives us a platform to share this story."

With operations and continuous improvement efforts paying off in a 96% compliance rating in their recent SQF audit and scoring a 0 for non-conformances, Puratos business strategy is proving to be a success. All this work added up to Puratos being named the Medium-sized Manufacturer of The Year at NJMEP's Manufacturing Day 2019.



MANUFACTURER OF THE YEAR - LARGE (251 OR MORE EMPLOYEES) Thorlabs, Inc.

Thorlabs isn't just a manufacturer, they are a driving force behind the progression of science and engineering in photonics. The company is comprised of a comprehensive ecosystem that includes design, manufacturing, assembly, sales, and support to respond rapidly to customer needs. Growth is a constant and to manage this growth, they keep as many business units as possible located on their industrial campus. New Jersey is home to six of Thorlabs' manufacturing business units, which together produce over half of all Thorlabs' products and services. They even purchased two separate companies that were originally located in Canada and Arizona and relocated those resources to New Jersey.

Manufacturing capabilities at Thorlabs continue to expand, considerably. In the last 12 months alone, Thorlabs'



machine shop accepted delivery of 10 new machines which brought the total CNC capabilities up to 55 spindles. Its topics business unit has double its CNC optics fabrication capacity, and presently their fiber business unit is expanding its manufacturing footprint to accommodate its market expansion. This manufacturer is the epitome of an economic powerhouse for the state of New Jersey and earned their spot at Large Manufacturer of the Year.

"It's an honor to be recognized as NJMEP's NJ Manufacturer of the Year because manufacturing is and has always been a core element of Thorlabs' identity," said Tyler Morgus, Thorlabs Business Unit Leader. He continued, "Thorlabs' expertise in manufacturing facilitates our ability to answer customer questions about how our products will perform in their unique applications, and in some cases, allows us to develop unique solutions. This benefit is realized because we know every aspect of our product, from the design to how it is manufactured to how it is marketed and sold. It also keeps our supply chain short, which allows us to react rapidly to changes in our customers' needs,"

MANUFACTURER OF THE YEAR - INNOVATOR OF THE YEAR Westlock Controls

Innovation is at the very core of Westlock Controls business. They invented an industry with the introduction of the Switchbox. Their innovative products coupled with an astonishing On-time Delivery record and minuscule quality issues make them stand-out from the crowd. Westlock Controls takes tracking data extremely seriously and this captured information allows them to continuously improve and takes massive innovative leaps forward.

Their products are evolving to meet the needs of customers while also implementing improvements at the company level down to the product level to stay ahead of trends. Often they see competitors copying their technological improvements. Instead of reacting to market shifts, Westlock Controls is controlling the pace of innovation in their field.

Westlock Controls was founded on innovation. From the very first switch box and the bright yellow beacon to their unique exceptional approach to supply chain development, progress is the lifeblood of this forward-thinking. If there's a problem they fix it. If there isn't a solution, they find or make one. Open and clear communication between staff and decision-makers, as well as accountability processes in place to keep leadership transparent and on track has lead to creating an innovation culture. Westlock Controls was awarded Innovator of the Year and the work they've done and continue to do with transforming their industry is estimated to the fact that the award was well deserved.

MANUFACTURER OF THE YEAR - MANUFACTURING CARES Broadway Industries

Broadway Industries ensures that their success is used to help promote awareness, increase prevention, and encourage early discovery and treatment of diseases. An incredible program pioneered by Broadway



Industries has helped them donate tens of thousands of dollars to charities to help fight breast cancer, diabetes, heart disease, and skin cancer. Through their incredible awareness line of specialty bags, the manufacturer helps pharmacists give back by not only promoting disease state awareness but by also donating a portion of these bag sales toward research to find cures.

Charitable contributions are only highlighted by the incredible success of Broadway Industries as a manufacturing leader in New Jersey. They manufacturer protective packaging for the moving, storage, home improvement, healthcare, food service, grocery, and textile industries. Broadway Industries even supplies pharmacy bags to over 90% of the 22,000 independent pharmacies in the US.

The company's massive success and footprint in the pharmacy market allowed Broadway Industries to raise an incredible amount of money to put toward their cause. A focus on high-quality manufacturing standards, strategic partnerships, and spectacular initiatives like the awareness line of specialty bags, Broadway Industries proved themselves as a Manufacturing Cares champion at the eighth annual Made in New Jersey Manufacturing Day.

"Broadway is thrilled to have been nominated in two categories this year, and to have won the Manufacturing Cares award. Broadway prides itself on manufacturing quality products and on giving back to the community. For example, Broadway donates a portion of the revenues it earns from selling its line of awareness pharmacy bags (patent pending) to national organizations that fund research efforts to find a cure for diseases such as breast cancer and diabetes. At the local level, Broadway teamed up with The Community Food Bank of NJ and donated packing materials to help the association's fight against hunger and poverty. The entire Broadway team greatly appreciates winning the award, and thanks NJMEP for having an award category that not only recognizes excellence in NJ manufacturing, but also recognizes companies with programs in place to help others," said Steve Kohn, Broadway Industries President and CEO.

NOMINATIONS ARE NOW OPEN for New Jersey Manufacturer of the Year 2020

AWARD CATEGORIES INCLUDE:

**MANUFACTURER OF THE YEAR -
SMALL** (50 or less employees)

**MANUFACTURER OF THE YEAR -
MEDIUM** (between 51 and 250 employees)

**MANUFACTURER OF THE YEAR -
LARGE** (251 employees or more)

**MANUFACTURER OF THE YEAR -
YOUNG/START UP** (in business 5 years or less)

MANUFACTURING CARES

INNOVATOR OF THE YEAR

**RAYMOND HOPP AWARD
FOR EXCELLENCE**

MADE IN NJ HONOR ROLL

AFFILIATE MEMBER OF THE YEAR

If you know a New Jersey manufacturing company that shows industry-leading attributes, reach out to Peter Okun at pokun@NJMEP.org or Michael Womack at mwomack@NJMEP.org or fill out an application at: www.njmep.org/2020mfgnominations/



THE DEADLINE TO NOMINATE IS JULY 15TH, AND SELF-NOMINATIONS ARE ENCOURAGED

Your review of NJMEP's milestones, events, and services throughout 2019. This is the chance to look back before moving forward into 2020. Relive some of the most exciting moments the New Jersey manufacturing industry had to offer. Come learn more about the newly developed service offerings and workforce development opportunities that were implemented throughout the year.

Milestones

2019/2020 STATE BUDGET LINE ITEM

For the first time since 2008, NJMEP holds a Line Item in the State Budget. NJMEP secured \$500,000 in funding from the state. It is only a third of what NJMEP requested but is still a massive step forward to see the state once again support this critical organization. The opportunity to request additional funding through the Supplemental Funding Process remains.

USDOL REGISTERED APPRENTICESHIP PROGRAMS AND PRE-APPRENTICESHIP

NJMEP secured the "Growing Apprenticeship in Nontraditional Sectors" (GAINS) grant and the "Pre-apprenticeship in Career Education" (PACE) grant in 2019. These funds have helped support multiple workforce development initiatives to give New Jersey manufacturers access to a newly cultivated pool of talent and structured apprenticeship programs.

The Industrial Manufacturing Production (IMPT) Apprenticeship, IMPT Food Apprenticeship, Technical Sales Apprenticeship, and Pre-Screen testing initiative have all begun in 2019 and will continue throughout 2020.



NJMEP and Essex County Community College developed a partnership to offer college credits to employees enrolled in NJMEP's USDOL Registered Apprenticeship program. Employers can now offer their apprentices the opportunity to continue their education after they graduate from the apprenticeship program. Intended to provide businesses with a way to upskill and retain employees, NJMEP's Registered Apprenticeship program both started and expanded over a single year.

An in-depth look at the Bridge to College Credits program is available on page 34. Find out how the program works, the benefits to employers and workers, and see how any manufacturing or logistics operation in the state of New Jersey can take part.

MANUFACTURING CARES VIRTUAL FOOD DRIVE

Nearly 270,000 children in New Jersey are food insecure. NJMEP, Employment Horizons, and the Commerce and Industry Association of New Jersey (CIANJ) campaign every year to collect food for the Community FoodBank of New Jersey. This team brings together manufacturers and the local community to donate non-perishable food items or make direct contributions to the Community FoodBank.

In 2019, the Manufacturing Cares Virtual Food Drive raised \$7,247. That's 21,741 meals provided to food insecure New Jersey children.

To donate visit, njmep.org/manufacturing-cares/food-drive

Manufacturers, local businesses, and the community as a whole have incredible potential to make a real impact.

NJMEP HIGHLIGHTS:



Anyone, especially those in the manufacturing industry has to only give a little to make a massive difference in someone's life. A few dollars can go a long way in the Manufacturing Cares Food Drive.

NEW JERSEY OFFICE OF ECONOMIC ADJUSTMENT (OEA) ASSISTANCE FOR STATE GOVERNMENTS PROGRAM (CYBERLINK)

NJMEP in partnership with NJIT and NJII is spearheading an initiative to promote cybersecurity and educate New Jersey manufacturers about new cybersecurity requirements that are intended to preserve the aerospace and defense supplier network. In 2019, NJMEP secured a spot in the OEA grant to provide CyberLink support to New Jersey manufacturers.

Manufacturers are being supported through this time of economic diversification, business development, and expansion. NJMEP will be providing cybersecurity certifications to individuals that complete the remediation Bootcamp curriculum. Companies are engaged across all CyberLink activities through workshops, 1:1 meetings, and complimentary business assessments to identify shortcomings for businesses that must comply with new minimum cybersecurity rules and regulations.

NOTICE FOR FEDERAL FUNDING OPPORTUNITY (NOFO) ROUND TWO

NJMEP secured federal funds to help support the continued development of training, workforce development, and upskilling programs specifically designed for New Jersey food manufacturers as well as businesses nationwide. \$992,050 has been allotted to expand NJMEP's food manufacturing and business development services. These funds have been invested into a varying array of business growth services, new food safety and production training offerings, and a nationwide in-depth self-paced online training program for food and beverage manufacturers.

Food and beverage manufacturing requires a unique set of skills. There are countless rules and regulations that apply to the companies in charge of producing products intended for human or pet consumption. To provide the most comprehensive service to every manufacturer in the state, NJMEP sought out additional funds to expand their food services. Opportunities developed through the NOFO funding are available by contacting the NJMEP Food Team.

Events

STATE OF THE STATE

2019 brought New Jersey the 3rd annual State of the State Manufacturing Summit. It took place at the Trenton War Memorial in Trenton, NJ. The event began by NJMEP CEO John W. Kennedy taking the stage to welcome manufacturers, legislators, and STEM firms. The conversation quickly turned to discussing the topics that have a direct impact on New Jersey manufacturers.

- Minimum Wage
- Taxes
- Apprenticeships
- Industry Success
- Competition
- Education
- Workforce Development

State of the State continued by focusing on the primary concerns of the state's manufacturers. This was an opportunity for these businesses to hear from legislators and business leaders on how they plan to support the industry.

Speakers included...

- Michele Siekerka, President and CEO, NJBIA
- Senator Linda Greenstein
- Steve Sweeney, New Jersey Senate President
- Gail Friedberg, Vice President of ZaGO
- Tony Russo, President, CIANJ
- Tim Sullivan, CEO, NJEDA



MANUFACTURING DAY

Each year NJMEP hosts the 'Made in New Jersey' Manufacturing Day. Coinciding with National Apprenticeship Day which is held on the first Friday of October, manufacturers use the day to show the public the true face of the industry. In New Jersey, NJMEP's 'Made in New Jersey' Manufacturing Day is the largest networking event of its kind. Businesses from all over New Jersey come together to review how far the industry has come and meet like-minded professionals to spark collaboration and drive business forward.

Manufacturing Day is a time to recognize stand-out manufacturers taking incredible steps forward. Five manufacturers took home the coveted "Manufacturer of the Year" title in 2019. Every winner from this year's 'Made in New Jersey' Manufacturing Day can be found on page 12

Business owners, representatives from the state, and individuals that are working to inspire students to pursue a career in the advanced manufacturing industry presented keynote speeches. These keynote speakers addressed the concerns of the industry and offered solutions to their mounting challenges before they gear up for the new year. Breakout sessions were spread out throughout the day where manufacturers could learn about the topics that interest them.

Take a look at all the panels, below:

- Understanding the Impact of Industry 4.0 - A Discussion on Avoiding the Risks of Adoption
- Real Solutions to Serious Workforce Problems
- The Value of Blockchain for Manufacturers Involved with Food & Beverage Manufacturing
- Women in Manufacturing: a Roundtable Discussion on Why Manufacturing Matters to You and Why You Matter to the Industry

Over a dozen exhibitors from a wide range of industries were on location. They set up booths to share their services with the over 600 individuals in attendance. Running a manufacturing facility requires a unique set of partners. Those that exhibited their services at the Eighth Annual Manufacturing Day all have extensive experience meeting the specific needs of New Jersey manufacturers.

For a more in-depth look at the Eighth 'Made in New Jersey' Manufacturing Day, turn to page 5.



JERSEY GUYS GOLF OUTING

A beautiful day and the giving nature of the New Jersey manufacturing community led to the Fourth Annual Jersey Guys Golf Outing breaking records. \$23,000 was raised on July 26th for the Bob Beaman & Tony DeSantis Scholarship fund. This scholarship is open to Active-Duty, Veterans, and their Families. The money goes to helping selected individuals pursue vocational training and education.

Over 100 people came out in support of the Bob Beaman & Tony DeSantis Scholarship. Golfers had chances to win raffle prizes and competitions including, closest to the pin and longest drive. Dinner was included and attendees even had the chance to sink NJMEP CEO John W. Kennedy in a dunk tank.

Special thanks to the Minebrook Golf Club in Hackettstown for hosting the event. Without the event sponsors, the Team Eagle Foundation, and all the incredible work Bob Beaman and Anthony DeSantis put forth throughout their lives, none of this would have been possible.



SOUTH JERSEY MANUFACTURING CAUCUS

2019 marked an important milestone in the representation of New Jersey manufacturers located in the southern half of the state. The Manufacturing Caucus is a Bi-Partition group of legislators that have come together to focus on and address the concerns of manufacturers throughout the Garden State. Up until 2019, the Caucus was held in the north, hindering many manufacturers located in the south from taking part.

On Friday, October 25, New Jersey legislators and South Jersey manufacturers came together at Rowan College at Burlington County (RCBC). It quickly became apparent that South and North Jersey manufacturers both have concerns over finding new manufacturing workers.

The day consisted of two panel discussions, where manufacturers could address the legislators. Many of the conversations centered around the challenge of keeping their manufacturing operations moving forward in today's business climate of rigorous global competition and a lack of qualified job candidates. A call for more tax incentives on capital equipment and easier access to programs intended to assist manufacturers doing business within the state was also presented to the Manufacturing Caucus.

Holding the Manufacturing Caucus in southern New Jersey proved extremely fruitful. An issue was presented that many northern manufacturers don't face, the lack of public transportation. One South Jersey manufacturer stated that they can't run a second or third shift because public transportation shuts down at 5:00 pm and there aren't enough routes that allow employees to travel to work.

For a more in-depth look at the South Jersey Manufacturing caucus, turn to page 44.

Manufacturing Caucus Accomplishments, so far™

- Passage of the 'Securing our Children's Future Bonding Act - Supporting CTE Schools
- Funding Support of NJMEP - 2018 & 2019
- GAINS & PACE Pre-Apprenticeship & Apprentices Program Bills
- Workforce Development Job Training Bills
- Manufacturing Policy Academy Support
- Sales Tax Exemption Bill - S-515



NJMEP Expands to Provide Solutions to Manufacturers 21st-Century Needs

Manufacturing is a moving target. Business needs grow and evolve. To continue providing the best possible services to clients, NJMEP must grow and evolve along with the industry. There are four areas in which NJMEP paid particular focus to over the past year.

APPRENTICESHIPS / TALENT ACQUISITION

Through the funding provided by the GAINS grant along with NJMEP's acquisition of exceptional talent from the recruiting and workforce development world, the NJMEP Pro-Action Education Network™ was able to take massive strides forward in 2019. For more on the Pro-Action Education Network™, turn to page 33.

Each month NJMEP Pre-Screen testing where job seekers can come into the office and be assessed on their manufacturing abilities and general aptitude. These candidates are then shared with local manufacturers to help in their recruiting efforts. You can read more about the first success story on page 42.

NJMEP's USDOL Registered Apprenticeship program is moving forward at full steam. 2019 brought about the creation of four separate Industrial Manufacturing Production Technician Apprenticeship cohorts. These cohorts are collections of multiple manufacturing companies that each sponsor at least one employee to take part in an apprenticeship class. To learn more about the Pro-Action Education Network™ and the USDOL Registered Apprenticeship program, turn to page 38.

FOOD MANUFACTURING

With over 1,100 Food and Beverage manufacturers in the state of New Jersey, NJMEP began ramping up efforts to offer more to these businesses. An entire team was assembled that specifically focuses on providing solutions to the unique challenges these manufacturers face.

A new Online Food Safety program has been developed to ensure food and beverage manufacturers have easy access to training. Employees can participate in five self-paced online food safety training courses. These courses include cGMP Requirements & Readiness; Food Allergens; Food Defence; Food Recall and Withdrawal; and HACCP. NJMEP collaborated with the MEP National

Network to offer these programs nation-wide as well. Food and Beverage manufacturers across the country can now take part in the self-paced online food safety training program.



New Cybersecurity Workshop

NJMEP has greatly expanded the business growth programs and in-person educational workshops to support the New Jersey food and beverage industry. These businesses have a massive responsibility. Their products are designed to be consumed by humans and pets. A properly trained staff is essential. To ensure a company continues to grow, management must be well-versed in best practices, especially those that refer directly to a food and beverage manufacturing operation.

CYBERSECURITY

Cybersecurity is no longer a hypothetical. "What if" turned into "when will an attack will occur". NJMEP is facing this threat head-on. Manufacturers now have access to a dedicated network of resources that work together to create the best defense against cybercriminals.

It takes an all-encompassing business strategy to create a truly cyber-secure manufacturing operation. Both physical and digital threats must be assessed and addressed. Every member of a manufacturing operation that handle any kind of digital technology, from the shop floor to the c-suite, must undergo proper cybersecurity training. Reaction plans must be put into place to give organizations a step-by-step guide on how to handle a cyber breach. No matter how prepared a business may be, a business is never 100% secure.

New cybersecurity regulations are imminent. These rules and regulations will have a direct impact on

countless manufacturers throughout the state. NJMEP is now hosting educational training courses on what a manufacturing operation must do to become compliant. NJMEP has taken a proactive approach in 2019 by providing manufacturers with all the resources they will need to face this accelerating threat.

OPEN ENROLLMENT AND EDUCATIONAL WORKSHOPS

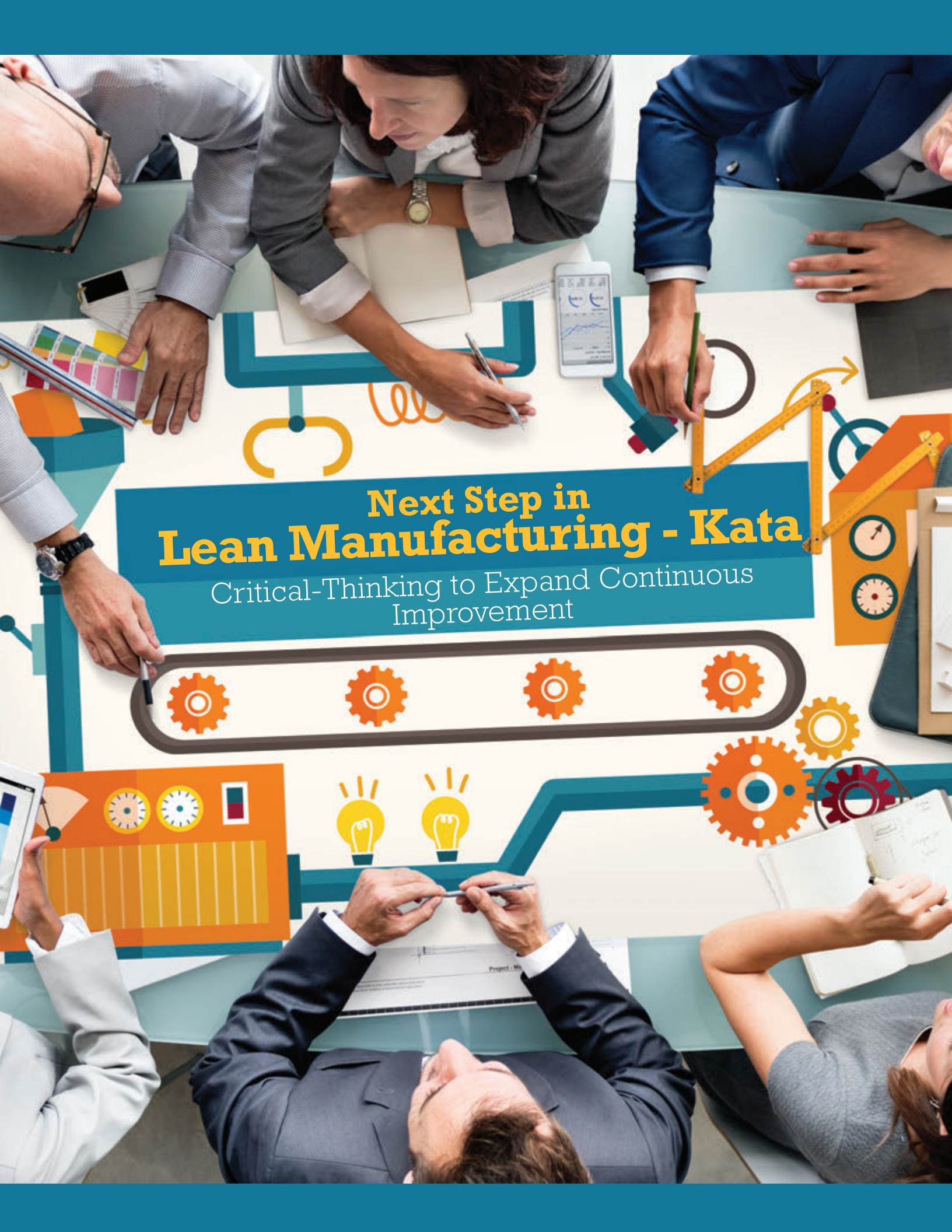
The development and implementation of the NJMEP Pro-Action Education Network™ provided the necessary resources to bolster Open Enrollment and Educational Workshops in 2019. There is a plethora of new Open Enrollment and Educational Courses being offered. NJMEP put in a massive effort behind providing New Jersey manufacturers with training to meet any business need.

Both the number of courses along with the subject matter has been greatly expanded. New food-focused courses, cybersecurity workshops, business growth management training, and Manufacturing Skills Standards Council certification opportunities have been taking place. NJMEP continued to provide critical training like Lean Manufacturing seminars and Six Sigma certifications on top of these new opportunities.

2019 was host to a varying array of industry-centered milestones, events, and educational workshops. Throughout the year, NJMEP works feverishly to offer manufacturers access to resources they need to compete in New Jersey and around the world. These businesses faced new challenges while overcoming imposing obstacles. NJMEP remained committed to its mission and will continue to do so throughout the new year. 🌈



Lean Manufacturing Training



Next Step in Lean Manufacturing - Kata

Critical-Thinking to Expand Continuous Improvement

“Why is our lead time so long?”

If you’ve asked this question on the shop floor, more than likely you were met with blank stares by your employees. Open-ended questions like this are overwhelming, so employees try to find quick answers that don’t address the problem. They don’t have a starting point to form an answer.

But what if you asked a question with a specific, achievable goal?

“What steps can we take to reduce lead time by 3 days?”

You’ve then provided your employees with a measurable goal in the form of a question. Your workers may feel empowered to answer with some hands-on suggestions for incremental changes, such as reducing setup steps or combining workstations. This, in turn, could not only reduce lead time but significantly eliminate wait times and inventories.

This approach is often described as Kaizen, or “continuous improvement,” which serves as the backbone for lean manufacturing. Kaizen uses the Plan, Do, Check, Act (PDCA) problem-solving cycle to encourage manufacturers to use small ideas to solve big problems, such as costly, time-intensive changeovers.

These methodologies are the building blocks of Kata, an innovative, lean way of thinking described in the book by Mike Rother, *Toyota Kata: Managing People for Improvement, Adaptiveness, and Superior Results*.

Like previous approaches to Lean, Kata seeks to enable organizations to gain and sustain competitive advantage through a cultural aptitude for process improvement. Kata is built on many of the principles and concepts that have been central to Lean for decades.

You may be thinking – “I thought that is what lean manufacturing and Kaizen was” – and you are partly correct. The difference between Kaizen and Kata is that Kata involves a mental approach focusing on critical thinking and problem-solving skills as opposed to physical changes in the environment. Anyone with a lean background has learned that Kaizen is loosely translated as “change for the good.” Complementary to

that is Kata – “small routines that allow us to continually improve.” Kata is the continuous improvement aspect of Lean Manufacturing.

	Method to Implement (e.g. kanban, poka yoke, 1x1 flow)	Means for Skill Development (e.g. Instructional League, Toyota Kata)
Where is it applied	To a process	To a person
Why use it?	For a better process performance	To grow desired mindset and habits
Who does it?	An expert on the method	A learner, with a coach
When are results seen?	As soon as possible... get it done	Gradually... learner grows incrementally
How does it work?	Project that changes process	Frequent practice of instructional drills

The difference between lean manufacturing approaches and Kata.

With manufacturing evolving at an incredible pace thanks to developments such as Artificial Intelligence (AI), labor skill gaps, and the Industrial Internet of Things (IIoT), Kata gives manufacturers a lean strategy to help them grow with these developments. It empowers employees with the skills they can use to continuously improve, adapt, and generate ideas for a strategic, competitive advantage.

How many of you have gone through lean training, maybe done some value stream mapping, some 5S, and Kaizen events? How well have you sustained the gains from lean? Maintaining lean tools and techniques may be difficult. Managing for Daily Improvement (MDI) is the missing link in lean culture transformation efforts. While Kaizen events and continuous improvement projects provide breakthrough results, these are often not sustained. The key to sustainment, as well as 100 percent involvement, resides in the power of MDI.



THE POWER OF DAILY TEAM HUDDLES:

- Using a “Business Status Sheet” to drive daily improvement
- Leader standard work to create accountability within the team structure
- Problem-solving thinking; how to align your organization so that the right problems are solved at the right level

MDI is by far the most important tool that drives accountability and problem-solving minute-by-minute, hour-by-hour, and day-by-day.

Teamwork is critical as are the daily huddles.

Small Steps Lead to Big Results for Manufacturers

Toyota is known as the most successful early adopter of Kaizen and the originator of the “continuous improvement” philosophy for manufacturers as part of its innovative Toyota Production System. This approach helped the company create vehicles famous for their reliability while eliminating production waste, time, and energy resources. Toyota’s “plan slowly and act quickly” philosophy helped create the Prius hybrid, which positioned the company as the leader in hybrid technology. More than 80 years after the company’s founding, Toyota is the world’s largest automaker.

Kata builds on Toyota’s “continuous improvement” success model, so other manufacturers can learn from its example. This approach has become increasingly popular with manufacturers who want to move beyond short-term production goals to empower their workforce to implement daily, sustainable process improvements.

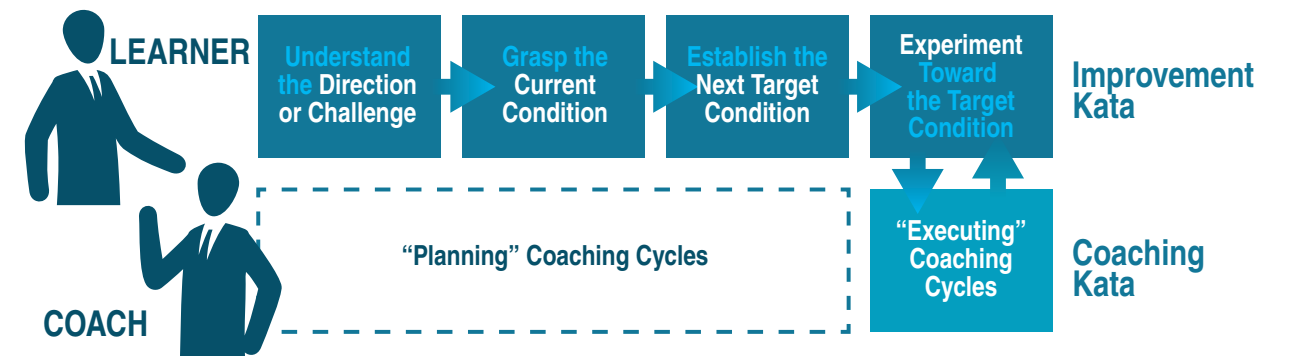
How to Integrate Kata Within Your Facility

By integrating Kata as part of your manufacturing best practices, your employees can successfully overcome obstacles and develop more confidence and systematic thinking to solve problems.

While smaller manufacturers may not have the level of strategic resources like Toyota, they can apply the same methodologies of Kata, including:

- Developing new habits and allowing people to think differently about problems and goals
- A way of working, and of working together
- Using scientific thinking as an ingredient to make teams and organizations more effective and successful
- Developing a culture of continuous learning and improvement at all levels through deliberate practice

THERE ARE TWO MAIN ELEMENTS WITHIN TOYOTA KATA AND EACH HAS ITS OWN SET OF STARTER KATA: IMPROVEMENT KATA AND COACHING KATA



Implementation of Kata begins with Starter Kata. Starter Kata focuses on small protocols and processes that, when practiced early and often, help manufacturing employees learn faster and teaches them to work more collaboratively. The two main elements of Starter Kata are Improvement Kata and Coaching Kata.

The Improvement Kata & Coaching Kata don’t just model a way of working, they also include structured practice routines to make their pattern teachable and transferable. This is a way to build improvement capability into an organization and make effective empowerment possible.

The Improvement and Coaching Kata help employees:

- Understand the direction or challenge
- Grasp the current condition
- Establish the next target condition
- Experiment toward the target condition

By integrating Kata as part of your manufacturing best practices, your employees can successfully overcome obstacles and develop more confidence and scientific thinking to solve problems.

Advice on Starting Kata

Here is some advice on how you can achieve a successful Toyota Kata deployment:

- Find processes that look like good practice fields, where the improvement challenges are meaningful to participants and the Process Analysis Kata is straightforward to apply, so learners are likely to enjoy success from their early efforts.

- Communicate openly with coaches and learners this is about building their skills and shifting their mindsets, and they will be asked to persevere through initial awkwardness and ineptitude—as is normal in skill-building. Remember: People seem most willing to try new things when senior leaders go first.
- For participants whose managers are not directly involved in Kata practice, ensure those managers understand the skill development approach and agree to support it.
- Ensure participants have a solid baseline awareness of Kata’s intent and mechanics before starting practice, so correct practice of the routines will be possible.
- Establish coach-learner relationships where mistakes can be made safely and corrective feedback will be valued.
- Don’t ask people to practice where effective coaching is unavailable, because then people naturally just practice their existing habits.
- Find a way to ensure practice sessions are happening frequently—ideally daily—and that the improvement and coaching skill patterns are being practiced correctly.
- Gauge whether proficiency with these skills is growing by watching the degree of actual process improvement, then adapt accordingly. 🧩

What is Kata in Lean?

Kata is not a replacement for Lean tools and techniques. The Kata model builds systematic thinking skills that, when practiced, will make the learner a better problem-solver.

Kata develops new skills

A “Kata” is a set of practices that help develop a new habit or skill. A Kata Learner works through a set of practice routines and reviews with a Kata Coach what has been done, what has been learned, and what are the next steps.

Throughout the process, small, incremental changes are made and tested and learning incorporated in working toward the larger vision or challenge. This practice is most commonly discussed as kata in martial arts (the term “kata” is of Japanese origin) but is easily observed in many sports, music, and other areas where a “learner” works with a “coach” to improve a skill.

Kata supports Lean

In the world of Lean, the Improvement Kata and the Coaching Kata combine to form a similarly powerful method for building the skills of problem-solving.

Kata doesn’t compete with Lean tools and techniques such as:

A3	The process is a simple way of getting a problem, an analysis, a corrective action or an action plan written down on a single sheet of large paper.
Value Stream Mapping	A lean technique used to track the flow of materials and/or information required to deliver a product to the end customer.
5S	A lean manufacturing tool often used at the start of a lean manufacturing improvement process to optimize the workplace and ensure a safe working environment. 5S provides a solid foundation on which a lean manufacturing process can be built.
Total Productive Maintenance	A system of ensuring ‘zero-downtime’ of equipment, emphasizing production operator involvement in equipment maintenance.
Standard Work	A definition of the most efficient methods for producing a product using the available equipment, materials, and people.
Kanban	A process of continuous supply of parts and supplies so that operatives have what they need when they need it.

and so on...

It is a way of training and supporting the members of an organization in approaching problem-solving using scientific thinking. As such, Kata can be applied to increase the effectiveness of any Lean tool or technique by grounding it in logical, systematic thinking that delivers rational, provable results.

Approaching problems in business scientifically allows us to come to well-reasoned, logical solutions and discuss them effectively with others by being able to demonstrate precisely how the solutions were tested and evaluated against relevant criteria.

PRECISION TEXTILES GOES THROUGH A LEAN TRANSFORMATION

Background:

Precision Textiles manufactures and distributes interlining products. The company offers woven, nonwoven, and knitted fusible; needle punch and fiberfill; top fuse and sew-ins interlinings. Additionally, it provides adhesives, taping solutions, stretch linings, mattress and pillow encasing allergen-proof fabrics, and mattress protectors. The company caters to Filtration, bedding, automotive, and apparel markets. Precision Textiles was founded in 1987 and is headquartered in Totowa, New Jersey.

Challenge:

The cluttered environment of the factory floor and machine shop mitigated their process flows and could negatively impact production and the quality of work.

Solution:

Precision Textiles recognized the need for Lean training in order to avoid hurting their overseas and domestic position with major customers. Precision Textiles embarked on their Lean journey with the help of NJMEP. The first step in the journey consisted of an on-site assessment and a recommendation on how 5S System techniques followed by the introduction of Lean concepts can help all production workers.

The 5S system is a Lean process that is organized around the following ideas: Sorting, Setting in Order, Shining, Standardizing and Sustain. The goal is to create specific places for paperwork, tools, and equipment so that they can be located within 30 seconds. The 5S process relies on employees taking control of their work areas and suggesting and implementing improvements.

The Training Allowed Participants to:

- Describe the difference in workplace appearance and functionality before and after 5S process has been applied
- Perform an in-depth audit of workplace organization and standardization
- Organize the workplace by applying the concepts of sort, set-in order, and shine
- Standardize procedures to maintain and control an organized workplace using visual controls
- Describe how 5S can help to improve workplace environmental health and safety
- Experience firsthand how 5S system reduces waste and improves productivity and quality

Results:

Satisfied with the training, Precision Textiles began applying lean processes to the manufacturing floor. Floor level training and improvements have helped minimize the time spent traveling between different work stations and around misplaced equipment, resulting in increased work efficiency. They’ve worked at sustaining the changes they’ve made and to continually find new ways to make the process better, cleaner, and faster.

OVER THE PAST YEAR, THE COMPANY HAS INCREASED SIGNIFICANT GROWTH GAINS, INCLUDING:

INCREASED SALES:
\$1,300,000
COST SAVINGS:
\$150,000
SAVINGS ON INVESTMENTS:
\$50,000
WORKFORCE PRACTICES:
\$99,000
EMPLOYEES RETAINED:
5

Mohammed Kovangji, Director of Operations said, “Precision Textiles has seen growth in both sales and employee size since working with NJMEP. Our staff has put into practice lean manufacturing skills, and the training has had a lasting impact on our company’s day-to-day routine. 5S is far more than just straightening up and cleaning. It involves reviewing and re-thinking each employee’s activity and making sure their work area supports their work. NJMEP’s assistance has proven vital to both our short and long-term successes.”

Cybersecurity as a Business Strategy

Manufacturers face a constant onslaught of cyber threats, most of which go undetected until it gets past down to customers or up to suppliers. Cybersecurity isn't just an I.T. problem, it must be woven into a company's business strategy.

Between June of 2018 and June of 2019, 50% of manufacturers surveyed in the 2019 M&D Report faced a cyber breach or attack. Cybersecurity and cyber threats have evolved in tandem. Cybersecurity is no longer just preparing or preventing hypothetical attacks. Today, manufacturers must defend against attacks that are going to happen.

Incorporating Cybersecurity into a Business Strategy

The manufacturing industry is a prime target for cybercriminals. These businesses are associated with countless private and public sectors; pharmaceuticals, defense, transportation, retail, other manufacturers. The Department of Defense, in particular, has become a catalyst for pushing forward cybersecurity regulations. Often, a business might not even be aware of how ingrained they are in a specific industry because of the lack of transparency throughout the supply chain. New rules and regulations are being developed to ensure manufacturers are more prepared to respond and defend against cyber threats. A single weak link in the supply chain can hinder countless organizations' ability to conduct business as usual or much worse.

It takes much more than a webinar, hiring a cybersecurity expert, or bringing on a new IT provider to create an environment that can fend off and bounce back from cyber attacks. To truly become cyber secure, a manufacturer must incorporate cybersecurity into its business strategy.

PwC released the 2019 Digital Insights survey and it showed that 77% of the trailblazing businesses that took part said their cybersecurity teams communicate with senior executives regularly. This communication and connectivity are essential to provide a true sense of the company's risk level related to core business practices. Cyber attacks do not discriminate, either. They don't single out executives or a person working on the shop floor. They breach and infect an entire organization.

To truly secure a facility and be able to recover from a cyber attack quickly with minimal damage, it requires complete organizational buy-in, a new mindset, and 21st-century practices and procedures.

An entire organization must be educated on the threats and potential damages a cyber attack can cause. From the shop floor to the c-suite, everyone must undergo the necessary training to avoid a breach. Reaction plans must be developed that give businesses a clear road map on how to efficiently and effectively handle the slew of potential cyber threats when one occurs. Physical and digital threats are everywhere. Often when it comes to cybersecurity, businesses don't consider the physical threats. Training and education to identify these physical threats are just as, if not more important than protecting digital assets.

Cybersecurity is a Business Problem

Each supplier and every customer stands to suffer if a manufacturer falls victim to a cyber attack. This suffering doesn't just include missed orders or opportunities. Often a supplier or customer may not know a manufacturer has been infected until it is far too late. Business could be running as usual for months until a cyber breach is detected. This means that every email, every file shared, or service provided poses a substantial risk of spreading malicious software to those connected to a manufacturer. Manufacturers could unknowingly be infecting their supply chain and every customer while the malicious software simultaneously steals precious intellectual property or private data.

By infecting suppliers and customers, business damage can expand far beyond the scope of what the malicious software caused. Long-lasting business relationships and public trust can be destroyed.

The cost of a cyber breach, without having a way to identify, eliminate, and effectively communicate and inform suppliers and customers can lead to a catastrophe. This isn't an exaggeration. Any owner knows how challenging it is to restore a damaged business relationship. Many companies may not be able to recover from damaged business relationships, an unknown amount of downtime, and an unplanned IT overhaul.

Incoming Cybersecurity Regulations for DoD Supply Chain

The United States government is taking massive steps forward to protect our nation's cybersecurity. Both private and public sectors are under constant bombardment from global cyber threats. In 2019 and beyond, any organization will benefit from developing a business strategy focused on remaining cyber secure. However, those in the DoD supply chain will be at risk of losing contracts if they don't comply with NIST 800-171.

New cybersecurity standards and regulations are coming. The NIST 800-171 Special Publication is a suite of business solutions that combine Hardware, Software, Security and Response plans that are required for Department of Defense (DoD) contractors or subcontractors. No matter the level involvement manufacturers have within the DoD

space, NIST 800-171 compliances will be required. Furthermore, these rules and regulations are scalable and the best line of defense for a business regardless of its supply chain or industry. On top of defending against cyber breaches, having a reaction plan in place is essential.

No matter how prepared a business may be, a cyber threat can sneak through and wreak havoc. NIST 800-171 cybersecurity requirements is an all-encompassing cybersecurity process designed to seamlessly meld with a company's business strategy.

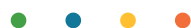
NJMEP is the leading expert on these new rules and regulations and has the capacity and expertise to address New Jersey manufacturer's cybersecurity compliance concerns. Subject matter experts and a pool of industry resources are standing by to help create a customized solution that makes sense for your business.





By: Andrew Frazier, MBA, CFA

The current business environment is faster paced and more competitive with customer expectations much higher than ever before. New technologies have been and continue to disrupt markets and change entire industries. Even with the advent of 3D printing, these trends are just now starting to impact small and mid-sized manufacturing companies due to longer lead times and development cycles for manufactured products. Make no mistake, this wave of change is coming — and it will be traumatic for manufacturing companies that are not prepared. The only solution is evolving to have a growth mindset rather than being comfortable with just maintaining or surviving. Given the rapid state of change happening around us, standing still is equivalent to moving backward or getting totally left behind.



Fortunately, there is still time to act successfully if you focus on growth in the following areas...

- Personal Knowledge
- Organizational Effectiveness
- Understanding of Target Market

First and foremost, a personal focus on continually achieving growth of knowledge in many areas is necessary because a business can only progress as far as the owner is prepared to take it. As the leader, nobody is more committed to or will have a greater impact on the future success of a business. They must be prepared, knowledgeable and capable of doing what is required. Their most important area for personal growth is in the knowledge and understanding of business best practices. Unfortunately, many manufacturing company owners are underprepared in the key disciplines of marketing, business strategy, and financial management.

My Small Business Pro (SBPro) Critical Path for creating a sustainable business is based on the owner being able to transition through the three essential stages of...

- **Working IN your business** – developing market for products and services
- **Working ON your business** – optimization of systems and capacity building
- **Working ON THE FUTURE of your business** – market expansion for high growth

Initially manufacturing company owners work within their business as an employee/supervisor to create and deliver a viable offering. However, they must hire a supervisory level and learn new skills to develop into a competent manager focused on improving the business. The next and most difficult step is evolving into an effective leader of managers and focus on future growth and sustainability of their business. Working with manufacturing company owners, I generally find them stuck in one of two scenarios...

- They have supervisors that are not motivated because the owner has not developed the understanding and skills necessary to be a competent manager. This is evidenced by focusing on daily activities and a **lack of quantitative measures and performance reporting**.
- They have managers who are not empowered due to the owner's micromanagement and an inability to delegate effectively. This is evidenced by **managing managers rather than coaching them**. This makes it very difficult to hold them accountable.

Organizational growth predicated on personal knowledge gained in order to develop a stronger culture, optimize processes/systems, and increase capacity is a critical. Sustainable companies continually improve their effectiveness and efficiency which results in low costs and higher profits. They also need to increase scale, which affords them the ability to expand leadership team capabilities and opportunities for employee development. In the current environment, US manufacturing companies must be better organized and more flexible than ever before in order to compete successfully.

Last, but not least is growth in understanding of the target market in terms of their challenges, needs, and opportunities. Lack of growth in this area can result in focusing too much energy on the wrong types of customers and prospects. It can also lead to unexpected decreases in orders when customer needs and technologies change, especially when manufacturing capabilities are not developed to compensate for new product requirements. In addition, manufacturing companies run the risk of commoditization of their products, which results in having to compete on price—which reduces profitability and can lead to certain death. Increasing scale by growing revenue and profitability creates a vibrant organization where there are more opportunities for employees and there is enough overhead capacity to hire professional managers.

Growth is important for all businesses to be sustainable, but it is especially critical for US manufacturing companies during this time of rapid change in technologies. Business owners must grow their personal knowledge to surround themselves with a competent management team and be capable of leading effectively. Personal knowledge of business best practices will lead to growth in organizational effectiveness and efficiency, which increases profitability and builds capacity. Then, growth in a manufacturing company's understanding of the target market enables proactive partnering with the customers who value their offerings the most to avoid surprises and increase profitability.



Andrew Frazier, MBA, CFA is President and COO of A&J Management and a NJMEP Resource. He also wrote "Running Your Small Business Like A Pro – The More You Know, The Faster You Grow" a guide for helping small business owners create a sustainable enterprise which can run without them. 🌈



MANUFACTURING CARES VIRTUAL FOOD DRIVE

Helping Feed Hungry New Jersey Children

Nearly 270,000 children in New Jersey are food insecure. NJMEP, the Commerce and Industry Association of New Jersey (CIANJ), and Employment Horizons campaign every year to collect food for the Community FoodBank of New Jersey. This team is working together to bring in manufacturers and the local community to donate non-perishable food items or make direct contributions to the Community FoodBank.

NEW JERSEY VIRTUAL FOOD DRIVE

Every dollar donated can provide three meals for those in need. Any contribution, whether physical food donations or a single dollar goes directly to help ensure no child goes without a meal.

To donate visit,
njmep.org/manufacturing-cares/food-drive

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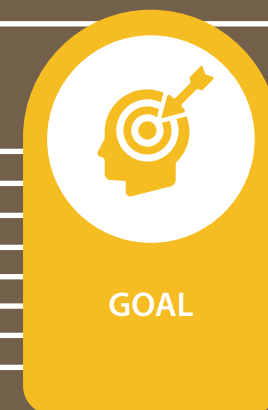
Our rates are highly competitive on loans and lines of credit. Decisions are made right here, on a local level. We handle every detail so the process is fast, efficient and easy for you.

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MEMBER
FDIC



WORKFORCE DEVELOPMENT

NJMEP's Comprehensive Solution to New Jersey's Manufacturing & Logistics Skills Gap





SKILLS

New Jersey Registered Apprenticeship Program A Bridge to College Credits

The Bridge to College Credits - NJ Manufacturing Workforce Development

Employees enrolled in the NJMEP Industrial Manufacturing Production Technician Registered Apprenticeship Program can continue their education in Essex County Community College A.A.S in Mechanical and Manufacturing Engineering Technology program. Apprentices are eligible to earn up to 8 credits through their time with NJMEP and will have direct access to Essex County Community College upon graduation from the Registered Apprenticeship program.

The credits are applied towards the Associate of Applied Science in Mechanical and Manufacturing Engineering Technology. This is part of a 2 Plus 2 program (two years at Essex County College and 2 years at NJIT). The credits awarded cover Fundamentals of Engineering Design (2 credits), as well as credit for two approved technical electives (3 credits each). Students can also earn an additional four credits in

engineering graphics and computer aided design depending on their portfolio and CAD certifications.

The program Essex County Community College designed, in partnership with NJMEP, focused specifically on education that will be directly applicable to the day-to-day work of a manufacturing production technician. Because of the education provided by the NJMEP Registered Apprenticeship program and their on-the-job training and experience, the Associates program is accelerated. Instead of 62 total credits to receive a degree in Mechanical and Manufacturing Engineering Technology, apprentices will potentially only need to complete a total of 50 credits. General education credits from other community colleges are applicable to further accelerate the program as well.



Classes include Electronic Circuits: DC and AC, Technical Writing, Statistics for Technology, Machines and Controls or Computer Numeric Control, advanced mathematics and even more relevant fields of study.

These classes are credited after successful completion of the NJMEP Registered Apprenticeship Program. Thanks to the Community College Opportunity Grant (CCOG), if an individual makes less than \$65,000 a year, they can enroll in Essex Community College at no charge.

In order for employees to contribute more to their companies, Essex County Community College has a partnership and is offering students access to NJIT. After successful completion of an Associates degree Bachelor's degree in Mechanical and Manufacturing Engineering Technology, students will be immediately accepted into NJIT where they can work on a Bachelor's degree related to their field. NJIT recently invested \$50 million into an advanced manufacturing innovation center where students can get hands-on with the latest manufacturing technology to further bolster their understanding of the industry and their trade.

To ensure this program is beneficial for both employers and students, Essex County Community College put in the time and effort to work with NJMEP in designing a curriculum and schedule that will meet employer needs. Classes can be taken together as a Cohort so apprentices can remain in their Registered Apprenticeship group to continue collaborating and working together to succeed throughout their schooling.

Course schedules can be built around the Cohort's work schedule to avoid any interruptions to their full-time job. Furthermore, Essex County Community College will work with the students in order to lay out a road map to graduation.

The NJMEP IMPT Registered Apprenticeship Program Overview

The Bridge to College Credits is currently available for employees enrolled in the Pro-Action Education Network™ Industrial Manufacturing Production Technician (IMPT) Registered Apprenticeship Program. This program is for workers that have been employed for at least 30 days and is designed to greatly expand their manufacturing knowledge through a mix on in-class instruction, hands-on learning opportunities, and on-the-job training.

Employers will begin noticing the ROI from the program even before the 1.5 year program concludes. Those enrolled are able to immediately apply the lessons they learn in the classroom to their work. Along the way, employees will be tested to receive industry recognized credentials.

Industrial Manufacturing Production Technician Program at a glance...



1.5 Year Program – Every step throughout the IMPT Registered Apprenticeship program workers develop critical skills to contribute more to their company.

2,736 hours of On-the-Job Training – NJMEP works with employers to develop an On-the-Job training program so apprentices can seamlessly apply what they're learning in the classroom to their day-to-day roles and responsibilities.

264 hours of Related Technical Instruction – Industry experts lead lectors and hands-on training exercises in the classroom to deliver a well-rounded and relevant education to all apprentices. RTI is supported by the Gains grant and requires no additional investment from the employer*. (RTI funding support ends in February 2020)

Fundamental Technical Education – Apprentices will acquire the OSHA 10 certification, learn blueprint reading, visual inspection, measurement, first aid & CPR training and so much more!

MSSC Credentials – Apprentices will be guided through all four modules of the nationally and industry recognized MSSC Credentials. Modules include Safety Awareness; Production and Process; Maintenance Awareness; Quality Assurance.

PRO ACTION
NETWORK



The Employer Benefits

Employers throughout the state are actively seeking ways to increase employee loyalty and at the same time are constantly working to ensure their staff have the appropriate skills to contribute to their organizations. Manufacturing skills have all but disappeared. To cultivate the critical knowledge and know how needed to properly contribute to a manufacturing operation on a larger scale, additional training and education is required. Through NJMEP, employers have access to the IMPT Registered Apprenticeship Program and with this new partnership with Essex County Community College, students have the option to continue their education after the IMPT program concludes.

Registered Apprenticeship Program, company's can...

- Improve employee loyalty
- Cultivate a more capable workforce
- Give employees access to college credits toward the new Essex County Community College sponsored Mechanical and Manufacturing Engineering Technology program
- Develop employees ready to take on larger, more critical responsibilities within an organization
- Bolster a business by employing highly qualified and highly skilled individuals

The IMPT Registered Apprenticeship program is currently available at a reduced cost to employers.

Register before February 2020 and receive complimentary Related Technical Instruction.



Workforce Development and its impact on NJ Manufacturers

New Jersey has a robust manufacturing, logistics, and STEM presence. These companies are on the forefront of progress. Yet the lack of a talent pipeline and the difficulty of training current employees to prepare for the next levels of employment or succession planning is holding industry back. Workforce development is absolutely critical in order for New Jersey to maintain its competitive edge and keep these economically boosting industries moving forward. Without a talent pipeline to depend on, the programs to help upskill a workforce, and the right partners to assist New Jersey businesses to continue thriving well into the future, companies will continue struggling to overcome the Skills Gap on their own. NJMEP is providing a way to alleviate these challenges for businesses throughout the Garden State. 📦

Start A Life-Long Career at No Cost to You

Industrial Manufacturing Production Technician

Start your career and provide for yourself and family. There are countless career pathways that go unexplored. Don't get caught up in the idea that there's only one way to make a living. The New Jersey manufacturing industry is waiting for you.

New Jersey has a range of manufacturing careers to explore, from advanced optics to traditional mechanics and production environments. All it takes to get in the door is the right support, training, and guidance.

An Industrial Manufacturing Production Technician career can last a lifetime

All the Benefits of the Industrial Manufacturing Production Technical Pre-Screen Testing...



- ✓ No Charge for Job Placement
- ✓ No Charge for Pre-Screening Testing
- ✓ No Charge for Resume Support
- ✓ No Charge for Interview Support
- ✓ No Charge for Industry Relevant Training
- ✓ No Charge for Education
- ✓ The Opportunity to Drive Your Career Forward



Give NJMEP a call or send an email today and begin your journey.

Contact a member of the NJMEP Pro-Action Education Network™ today!

Patricia Moran,
Director of Apprenticeships:
Tel. 973-998-9801
Cell 908-642-0122
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The New Jersey Manufacturing Extension Program (NJMEP) provides people the opportunity to get connected with manufacturers from across the state and provides the necessary support and training to get started.



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Workforce development in New Jersey is a challenging obstacle to address. A shortage of the right skills is making it incredibly difficult for manufacturers to locate that perfect hire. Often manufacturers are forced to leave job descriptions on multiple job boards that end up going unanswered. Worse yet, many times candidates reach out but have none of the applicable skills these businesses require. It can be easy to think that there just aren't workers available.

A change in thinking has led to looking within. Upskilling workers or hiring an individual with the right personality and train them to fit a specific position are both viable options. However, manufacturers are busy. Pulling an experienced manufacturing professional away from their day to day responsibilities to train a new hire can be taxing on a small or medium manufacturing enterprise. To address the workforce challenges facing New Jersey

manufacturers, NJMEP developed the Pro-Action Education Network™.

Through a three-pronged approach, the Pro-Action Education Network™ combines educational institution networks support for employers while supplying the right resources and insights to the potential talent pool and the current workforce. The goal is to bridge the skills gap and provide New Jersey manufacturers with the right partners and talent.

The Employer Advantage - Apprenticeships

Building skills, building confidence, building the future through recruiting and training is the most disruptive challenge employers are facing. The apprenticeship model allows employers to take charge of building a pipeline of highly-skilled and highly-motivated workers. The NJMEP Registered Apprenticeship programs offer a flexible training solution aligned with national industry standards and your company-specific needs.

NEW JERSEY WORKFORCE DEVELOPMENT

The Employer, Educational Institutions, and the Employee



The Pro-Action Education Network™ is ideal for employers that have...

- Jobs that are difficult to fill with the right candidates
- Positions that have a high turnover
- Occupations where a highly-skilled workforce is retiring soon
- Challenges motivating employees
- Positions requiring skills that can be learned on the job
- Difficulty attracting new and more diverse talent pools.

Apprenticeships Include

Technical Sales

- 1-year program, 2,000 hours
- Focus on Sales and Technology
- Registered with USDOL
- 156 Sales Classroom Hours
- 25 Online Hours

Industrial Manufacturing Production Technician (IMPT)

- 1.5 Year Program
- 2,736 Hours of On-the-Job Training
- 264 Hours of Related Technical Instruction
- Registered with USDOL
- Foundational Manufacturing Program
- 4 MSSC Credentials
- Food IMPT option available

For manufacturers looking to upskill their workforce, the NJMEP Apprenticeship program is an ideal solution. For businesses interested in locating new workers to join their ranks, reach out to a Pro-Action Education Network™ professional today and learn about the talent pipeline NJMEP is creating for New Jersey Manufacturers.

Orientation to Apprenticeship - A Guide for Educators

Industrial professions continue to wrestle with a stigma. The only solution is to educate the public on what a manufacturing career can offer. A critical component of NJMEP's Pro-Action Education Network™ is educating the educators. Educators include school administration as well as parents. Parents and teachers hold an incredible amount of influence over the decisions their children make when it comes

to their future careers.

- There are plenty of benefits when it comes to guiding students toward an apprenticeship.
- They can earn industry-recognized credentials while accumulating no debt.
- Compensation is higher in manufacturing when compared to other entry-level positions.
- Hands-on training and experience is a marketable skill set and provides secure employment.

And this is just the start.

Registered Apprenticeship Programs even stack up against college programs. There are even similarities that high schools and parents may not have realized.

- Both are regulated and accredited or registered with governmental agencies
- Apprenticeships must adhere to industry-recognized standards; many college programs do, too
- Apprentices and college program graduates receive a recognized, certificate or degree
- Apprenticeship and college instructors are credentialed craftsmen
- Both will have competitive entrance requirements

Parents and educators understand manufacturing has come incredibly far over the past two decades. Manufacturing is an advanced industry, making use of innovative and transformative technologies. Benefits and compensation are competitive with nearly every other industry.

Make your Future - New Jersey's Manufacturing Industry

Many people entering the workforce might not know that the manufacturing industry is a viable source of employment. The industry has largely been ignored by high schools and conversations with parents. These jobs are available, especially in the United States. These are jobs where people can create and innovate. These opportunities offer competitive salaries and great benefits. People in manufacturing make a difference in New Jersey and the rest of the world.

Over the next decade, New Jersey will need to fill more than 250,000 manufacturing jobs. Many will go unfilled because people don't have the right skills and employers can't locate qualified workers. The manufacturing workforce in

CONTINUED FROM PREVIOUS PAGE

New Jersey employs over 1 million people and 30% of those are women. There are more than 16,000 manufacturers and STEM firms which has a \$49 billion impact on the economy. The average annual salary for a manufacturing worker is \$92,046 and over 80% of the 1 million manufacturers currently employed are ages 45-65 years old.

As the current workforce nears retirement, employers are actively seeking individuals with the right skills and know-how to contribute to their business. As high schools eliminate shop classes, it has been incredibly difficult for students to acquire the skills these employers need. NJMEP's Pro-Action Education Network™ is ready to bridge this skills gap.

The USDOL Registered Apprenticeship Program offered by NJMEP's Pro-Action Education Network™ gives employers the opportunity to higher individuals based on drive and train them to fit their manufacturing operations.

If manufacturers need new workers but can't find people with exactly the right skill set, a Registered Apprenticeship program is the best option. 🧩

JOIN OUR INDUSTRY PARTNERSHIPS and STRENGTHEN MANUFACTURING in NEW JERSEY

Industry Partnerships bring together business leaders from your sector to discuss workforce needs and operational challenges that affect the bottom line.

BENEFITS:

- Build a pipeline of incoming, qualified talent
- Access government leaders and resources
- Get established services and support



industrypartnerships.nj.gov
njip@dol.nj.gov | 609.292.2468

NJMEP Finds Qualified Candidates for Your Manufacturing Operation

Advanced Manufacturing Pre-Screen Testing

Creating a talent pipeline for New Jersey manufacturers has been a primary goal for NJMEP over the past few years. The introduction of the Growing Apprenticeship in Nontraditional Sectors (GAINS) grant allowed NJMEP to take these efforts to an entirely new level. A new push to pre-screen interested manufacturing applicants is giving New Jersey manufacturers access to a knowledgeable group of potential new hires.

Advanced Manufacturing Pre-Screen Testing allows recent graduates, underemployed, or dislocated workers to start driving their careers forward. Manufacturers benefit because they can feel confident the applicants that pass the Advanced Manufacturing Pre-Screen Testing process have the fundamental skills needed to begin contributing to an operation. NJMEP is working to create a talent pool of qualified candidates that employers can hire and keep their facilities fully staffed.

Pre-Screen Qualification and Assessment

Participant's going through the Pre-Screen Testing process are assessed using the Bennett Mechanical Aptitude Test. Alongside mechanical aptitude testing, individuals receive exams focused on basic math. Reading comprehension is included in the Pre-Screen Testing process as well. The Bennett Mechanical Aptitude Test is designed to assess logical reasoning, thinking, and basic mechanical understanding. Including the basic math assessment allows for manufacturers to gauge a person's ability to understand the critical mathematical aspects associated with a manufacturing career. Communication, written and verbal is a valued asset in a manufacturing operation. To ensure pre-screened candidates have the most to offer New Jersey manufacturers

all three of these tests are included in NJMEP's Pre-Screen Testing process.

The skills gap has been a looming problem facing manufacturers across the nation. New Jersey is in a prime position to make impressive strides forward in strengthening the manufacturing talent pool. A highly populated state with industrial roots and an educated workforce actively seeking employment is creating the perfect storm of new, competent, and skilled manufacturing workers. Still, manufacturers are struggling to find the right hires for their job openings. With the current workforce nearing retirement, New Jersey businesses need assistance finding the right in-

dividuals to meet their needs. By pre-screening individuals, NJMEP helps manufacturers reduce the time it takes to find qualified job-seekers.

Time to Rebuild

Rebuilding the manufacturing workforce starts with finding qualified candidates for current job openings. However, the work doesn't end there. Upskilling these qualified candidates throughout their career can increase loyalty to their employer as well as providing them the necessary education to contribute even more to their place of business. NJMEP's Pre-Screen Testing process can be followed by NJMEP's USDOL Registered Apprenticeship Program. 🧩





Massimo Zanetti Beverage USA the NJMEP Pro-Action Secures New Employee Through Education Network™

BACKGROUND

Massimo Zanetti Beverage is a fully vertically integrated company, dedicated to producing the best cup of coffee possible. From planting to harvesting the coffee cherries on their own farms all the way to roasting, manufacturing, and distributing their product around the world. Coffee lovers traveling the globe will be able to find at least one of their brands on every continent.

Four generations of global coffee influence and tradition have led Massimo Zanetti Beverage to become an expert at their craft. A workplace culture focused on producing the highest quality products possible is instilled in all of its employees as product quality is still a top priority. To maintain this standard for excellence, the workforce must be trained and knowledgeable. Maintaining a steady flow of employees, however, was an entirely different challenge.

CHALLENGE

Massimo Zanetti Beverage has a facility in New Jersey and much like manufacturers from around the globe, finding new hires has been difficult over

the past decade. It takes a lot of people to be able to sell 120,000 tons of coffee each year and without a robust workforce, it would be an impossible goal to achieve.

In the United States specifically, manufacturing as a career was all but forgotten. Shop classes began to disappear and trades developed a stigma keeping high school graduates at bay. This caused a ripple effect that broke down the manufacturing talent pipeline and manufacturers like Massimo Zanetti Beverage were left without any new, qualified individuals to assume the roles of retiring employees.

SOLUTION

NJMEP connected with Massimo Zanetti Beverage and introduced them to the newly developed workforce development initiative, the Pro-Action Education Network™. This connection was made possible thanks to a recommendation made by the USDOL. Encompassing multiple workforce development programs, the Pre-Screening Assessment subsection of the Pro-Action Education Network™, specifically focused on building a talent pipeline for New Jersey manufacturers, caught the

attention of the beverage manufacturer.

Prospects including recent high school graduates, dislocated workers, and underemployed submit their resume and sign up to take the pre-screen testing. After the test, results are assessed and individuals are given options about the career paths they can take. If they are prepared and ready to assume a new role, they are connected to a manufacturer currently seeking new hires and are prepared with support from NJMEP.

RESULTS

Massimo Zanetti Beverage was able to:

- Hire a new worker for the New Jersey facility
- Retain new worker for over 30 days
- Enroll the new worker in NJMEP's USDOL Registered Apprenticeship Program
- Review the new employee assessment conducted by NJMEP
- Trust that the new hire was suitable for the position

- Rely on NJMEP to conduct an accurate review of the new employees' current skill set
- Turn to NJMEP and enroll the new employee after 90 days of employment into the IMPT Registered Apprenticeship Program

Following the Pre-Screen testing conducted by NJMEP's Pro-Action Education Network™ team, the new employee, Christopher, was identified as having the appropriate knowledge and demeanor to contribute to the Massimo Zanetti Beverage organization. Understanding that this specific manufacturer was currently seeking new hires, NJMEP worked to secure an interview between Massimo Zanetti Beverage and Christopher. The interview proved to be successful because nearly immediately an offer was extended and subsequently accepted by Christopher. Christopher has now been working with the company in excess of 30 days. Massimo Zanetti is now enrolling Christopher in NJMEP's Industrial Manufacturing Production Technician USDOL Registered Apprenticeship Program. 🎉



THE MANUFACTURING CAUCUS

New Jersey Legislators and Southern New Jersey Manufacturers Meet

On Friday, October 25, New Jersey legislators and South Jersey manufacturers came together for the Manufacturing Caucus. It was hosted at Rowan College at Burlington County (RCBC) and a common theme was the difficulty of finding new manufacturing workers.

Senator Linda Greenstein, Senator Oroho, Senator Thompson, Senator Troy Singleton, and Assembly Women Carol Murphy were in attendance. These legislators were excited and interested to hear what South Jersey manufacturers had on their minds and to discuss new ways that government can help support their business.

MANUFACTURING AND BUSINESS GROWTH IN SOUTH JERSEY

The room began to fill at 10:00 am. The audience was made up of a mix of industry leaders, small business owners, reporters, and New Jersey legislators. Senator Lindsay Greenstein opened up the day by outlining the agenda. Two panels have been put together which focus on the state of manufacturing in southern New Jersey.

THE FIRST PANEL KICKS OFF

Right before 11:00 am, the first caucus took their spot at the front of the room and begin explaining the challenges they face while doing business in South Jersey. Workforce development was brought up almost immediately. Businesses are struggling to find and attract workers to their facilities and even if they do, retention is dismal. This is a pressure that was felt by every manufacturer in the room that day. Every business has a unique story about their workforce challenges but they all shared a common theme. Finding people to work in their facilities has become increasingly difficult, nearly impossible some said. Worse yet, one manufacturer mentioned even when they do find people they

cannot be retained. Manufacturers are cherry picking employees because the workers are well aware that their skills are scarce and can keep hopping jobs. These businesses pleaded with the Caucus to institute more workforce development legislation to jumpstart interest in manufacturing as a career.

Tax incentives and green initiatives were also brought up. These New Jersey manufacturers were asking for specific tax incentives that focus on capital investments to help them purchase critical equipment. One manufacturer mentioned that without state implemented green initiatives, many companies in Europe wouldn't even consider purchasing their products. It isn't easy remaining competitive in today's business climate. Small and medium-sized manufacturers need more tax incentives to purchase expensive equipment. Innovative machinery and systems will help to alleviate some of the workforce deficiencies but not all. Exporting goods to other countries is a massive boost for the manufacturers making the products as well as the New Jersey economy. Without state-supported green initiatives, European companies refuse to do business with New Jersey manufacturers. Addressing these two issues could prove to have a massive impact on local manufacturing companies' bottom lines.

The final point that was brought up at the first panel discussion was centered around the lack of public transportation in South Jersey. This was a concern the caucus hasn't heard before. Specifically a South Jersey issue, a manufacturer explained that they can't operate a second or third shift effectively because public transportation in the area shuts down at 5:00 pm. The legislators in the room took a pause and spoke amongst themselves before addressing the audience and saying how this was a potential workforce factor they haven't considered in the past.

THE SECOND AND LAST PANEL OF THE DAY

The second panel took their spot in front of the legislators after a break for lunch. This was much smaller, made up of one manufacturer and NJMEP's CEO John W. Kennedy. The manufacturer began by referring back to the workforce concerns the first panel presented. He said, "Manufacturing facilities should be made out of glass so people can see inside". It's an industry filled with high-tech equipment and systems. Kids need to see what manufacturers make. They need to see examples. Legislators agreed and brought back up funding that has yet to be released which has been put aside to create more workforce development programs throughout the state, in partnership with County Colleges in the area.

Following up from his first set of comments, the manufacturer went on to explain that even if programs do exist that are intended to help manufacturing companies remain competitive, red tape will stop them from being utilized. Hundreds of pages of paperwork will immediately turn any manufacturer off from participating in programs designed to help their business.

NJMEP CEO, John W. Kennedy was asked to sit in on this second panel. His insight into the current state of manufacturing was an invaluable addition. The point he was waiting to make was that most manufacturers aren't located in underserved regions of New Jersey. Most of the initiatives and funding are only available for businesses in these areas. Manufacturers would move to a neighboring state like P.A. in order to take advantage of their incentives rather than relocate to



crowded cities like Newark in order to receive support from New Jersey. This concern resonated with the caucus. Kennedy continued on by saying the state needs to look at the current business culture and improve to make it a more attractive state for manufacturers and business as a whole.

The Manufacturing Caucus began to wind down and Senator Greenstein offered some final remarks. She promised that the caucus will continue working vigorously to make New Jersey a more attractive and supportive place for manufacturers to do business. After reviewing the topics that were discussed, the points the manufacturers presented, and the impact the caucus has had up until this point, she asked if anyone in the audience wanted to say a few final words.

Multiple manufacturers raised their hand and one by one approached the legislators. Some were business owners, some were there as representatives for their company and each thanked the caucus for taking the time to listen to the needs of South Jersey manufacturers. All wanted to continue doing business in New Jersey. However, they reiterated many of the concerns the two panels expressed. More notes were taken by the legislators and after the final manufacturer was finished speaking, the caucus was adjourned.

Manufacturing Caucus Accomplishments

Manufacturing in the state of New Jersey requires the support of legislators. Incentives, funding support, workforce development initiatives, and infrastructure are all tied into what makes a state able to compete on the global stage. The Manufacturing Caucus has been able to make some headway in the past few years. Below is a list of some of those accomplishments.

- Passage of the 'Securing our Children's Future Bonding Act - Supporting CTE Schools
- Funding Support of NJMEP - 2018 & 2019
- GAINS & PACE Pre-Apprenticeship & Apprentices Program Bills
- Workforce Development Job Training Bills
- Manufacturing Policy Academy Support
- Sales Tax Exemption Bill - S-515

RCBC hosted the first South Jersey manufacturing caucus and it was clear that more of them are needed to ensure these businesses have a voice on the public stage. NJMEP will continue doing its part to ensure manufacturers are represented and legislators continue supporting this essential industry in the state of New Jersey. 🌈



Supporting the Industry

Manufacturers Come Together and Step Forward

The National NIST-MEP Network alone provides a 14.4:1 Return on Investment national and 15.3:1 in New Jersey.



New Jersey business leaders must increase legislator awareness about the importance of manufacturing and STEM in the state. The NIST-MEP National Network is key to industrial health and a driver behind financial prosperity in the United States and New Jersey. MEPs like NJMEP are enabled to provide more support to local businesses when they have buy-in from state legislators.

Showing NJ state government that people support the industry goes a long way toward encouraging decision-makers to develop pro-business legislation to support New Jersey manufacturers. In order to see positive change, New Jersey's manufacturers must work together with legislators, educators, and the public. Throughout the development of career pathways, apprenticeship programs, telling the true story of manufacturing, the revenue it generates will go a long way in securing the industries' future in the United States.

Every petition signed helps keep New Jersey legislators informed about the importance of manufacturing in the

state. NJMEP needs your signature to present to these governing bodies and show that support for the manufacturing industry in New Jersey extends far and wide.

NJMEP and the NIST-MEP National Network made incredible progress in 2019. A few of these achievements are listed below:

- 100% Bi-Partisan Support from our Federal Delegation for NIST-MEP & a \$145 million National Budget
- The continuation of a Bi-Partisan NJ Manufacturing Caucus led by Senators Linda Greenstein and Steven Oroho
- GAINS & PACE Pre-Apprentice & Apprentice Programs & Bills
- Workforce Development Job Training Bills
- Passage of the 'Securing our Children's Future' Bonding Act – supports CTE Schools
- Sales Tax Exemption Bill – S-515
- Hosting one of the top-rated MEP Center in the nation in NJMEP
- Returning NJMEP to the Annual State Budget

NJMEP has struggled to secure state funding since the financial crises in 2008. State support has only just begun to trickle back. This funding is set aside to develop vital workforce development programs to assist New Jersey manufacturers in bolstering their talent pipeline. Additionally, state funds allow for the development of new, innovative initiatives to support manufacturers with their 21st-century business needs. 🌈

Please sign the NIST-MEP / NJMEP Support - State & Federal Delegation Petition today by visiting, www.NJEMP.org/nj-support/



HUNGRY FOR KNOWLEDGE AT FOOD DAY 2019

NJBIZ and NJMEP Host Event Specially Designed for
New Jersey Food & Beverage Manufacturers



Food Day offers a snapshot of the food and beverage manufacturing industry in New Jersey. From the companies that produce and manufacture ingredients to the businesses that help make sure the industry can thrive, all are represented. Each can have a voice. These businesses employ over 30,000 individuals in the state with payroll well over \$1 billion. Food manufacturing has a massive economic impact.

NJBIZ and NJMEP hosted Food Day on November 4, 2019, to give this often overlooked industry a chance to share what they do with others in the business.

Food Day for Networking and Industry-Relevant Education

Food Day comprised of multiple networking opportunities, giving food and beverage manufacturers the chance to meet with like minded individuals and entities. Breakout sessions that provided essential educational opportunities took place throughout the day as well. These breakout sessions included presentations from the FDA on FSMA and Preventive Controls, giving business first-hand knowledge about critical rules and regulations that impact their business. The morning sessions included a discussion on the marketing and business strategies

New Jersey food manufacturers can use to help them thrive here in the Garden State.

Breakout sessions continued throughout the morning. After the first round of educational sessions concluded, the second round of sessions began. These were focused on two extremely important topics in the food and beverage space, cybersecurity and workforce development. NJMEP's very own Patricia Moran, Director of Apprenticeships addresses the packed room in the breakout session centered around workforce development. She began by discussing the value of creating a talent pipeline and NJMEP's strategy to cultivate a pool of new manufacturing workers.

Ray Martinelli, Cybersecurity and Supply Chain Specialist, took to the second room filled with attendees. Cybersecurity is essential in the food and beverage industry. These businesses are responsible for the health of millions of individuals in the state of New Jersey, nationwide, and around the world. Ray spoke about the importance of keeping a manufacturing facility secure and how Blockchain technology comes into play.

As lunch was served, manufacturers and exhibitors took a quick break. Attendees were able to enjoy the spread made available by NJBIZ and NJMEP. They had the option of staying on the showroom floor or participating in the "Branding & Advertising for Disruptive Food Trends," led by Norris McLaughlin. Participants were able to enjoy their lunch while learning about the branding and advertising strategies they can utilize to drive their business forward in a complex and highly competitive 21st-century food and beverage manufacturing market.

Impressions from Attendees and Hosts

"Connecting the manufacturers with other manufacturers and helping find new ways to improve their business," Robert Salamone, NJMEP Vertical Engagements Manager stated when asked what value manufacturers gain from participating in Food Day.

The same question was asked of businesses associated with food manufacturing, food manufacturers themselves, as well as industry influencers.

"[Food Day] brings together businesses, corporations, small businesses in the food space to learn and grow mutually," Janet Davis from JADE Consulting said.

Nicole Shaw-Provilloon, Founder/Co-Owner of Kurly Kurtosh added, "There's always room to learn more. The branding and advertising breakout session were massively informative, and learning about the apprenticeships available was incredibly interesting. It was exciting to hear the stories on how the exhibitors built their business and brands."

John W. Kennedy, NJMEP CEO included his take on what makes Food Day a valuable part of the New Jersey food manufacturing industry. "Food Day provides an opportunity for New Jersey's Food Manufacturers to come together and collaborate on industry commonalities, potential synergies, and best practices."

John continued, "It also serves as a destination for companies and individuals who work in accordance with the Food Industry to enjoy productive conversations and potential collaborations with Food Manufacturers. Lastly, Food Day can inform manufacturers on hot button issues such as Cybersecurity, Workforce Development, Business Growth, and Food Safety compliance."

Food Day 19 Comes to a Close

The afternoon offered attendees another round of breakout sessions where they could attend one of the presentations they may have missed in the morning. Educational sessions focused heavily on critical themes that are impacting food and beverage manufacturers today. Cybersecurity, blockchain, workforce development, business strategies, and marketing trend breakout sessions were received exceptionally well by the audience. Representatives from the FDA even hosted a second breakout session on FSMA rules and regulations and Preventive Controls. Manufacturers that took part received vital information from the governing body that develops the regulations themselves.

Food Day 19 was an incredible opportunity for those in the New Jersey food and beverage industry. Attendees had access to invaluable educational breakout sessions with plenty of time to network with their peers. Food manufacturing in the Garden State has a long and rich history. NJBIZ, NJMEP, and the over 1,300 New Jersey food manufacturers are ensuring this industry continues to have a strong presence in the state. 🍌



By the numbers: Dental benefits and your workforce



What a Healthy Smile Means for Your Employees – And Your Bottom Line

By Dr. Keith Libou, Chief Clinical Officer, Delta Dental of New Jersey, Inc.

Smart business owners make sure every cent that goes into the business delivers big returns. One investment that pays off in multiple ways is an employee dental benefits program.

Why? Because oral health is closely tied to overall health. Helping your employees keep their smiles – and bodies – healthy can boost productivity and reduce absenteeism – and can give you an edge in attracting and retaining employees.

Connection between oral, overall health

Regular dental visits help keep more than teeth healthy. There is a growing body of information supporting the relationship between oral health and total patient wellness. One study by the American Heart Association found that people who don't brush and floss regularly had three times the risk of dying from a heart attack, heart failure, or stroke.

Here's another interesting fact: People with dental benefits are more likely to practice those good oral hygiene habits.

Periodontal, or gum, disease is believed to play a role in diabetes, cardiovascular disease, cerebrovascular disease, low birth weight babies, and other systemic conditions. Dentists can detect the early signs of many serious medical conditions. Early detection and diagnosis often lead to better health outcomes. In fact, about 120

medical conditions can be detected by an examination of the mouth, throat, and neck. Signs and symptoms of diabetes, HIV/AIDS, leukemia, autoimmune diseases, and many oral cancers may be first detected through oral manifestations.

Nearly 9 out of 10 job seekers say better health, dental, and vision benefits are factors they consider when choosing a job.

HERE ARE FIVE WAYS DENTAL VISITS AND DENTAL BENEFITS CAN KEEP EMPLOYEES AND THEIR FAMILIES HEALTHIER.

Preventing cavities

Almost one in five children age 2-11 have untreated caries or tooth decay. It isn't just limited to children, either. Anyone who has teeth is susceptible. Untreated tooth decay can cause pain and tooth loss – and, for parents, additional time away from work at the dentist. Fortunately, good oral hygiene coupled with regular dental visits can help minimize (and even prevent) cavities.

Preventing and managing gum disease

Two hundred million Americans have some form of periodontal, or gum, disease. According to the American Academy of Periodontology, people with gum disease have nearly double the risk for heart disease as those with healthy gums. Gum disease, if not treated properly, may be a contributing factor of lung disease, high cholesterol, Alzheimer's disease, stroke, rheumatoid arthritis, diabetes, colon cancer, obesity, and premature birth.

Regular dental visits and professional cleanings, combined with proper dental home care, can help prevent gum disease.

Oral cancer screening

Oral exams play a crucial role in the early detection of oral cancers. More than 75% of oral cancers can be detected in a comprehensive oral exam. When detected early, localized oral cancer has an 82.7% five-year survival rate. However, survival rates drop to 28% once the disease has spread to other parts of the body.

Diabetes screening

Dentists are taking on a greater role for recognizing patients at risk for various systemic conditions, including diabetes. One in three American adults are pre-diabetic – and most don't know it. Dentists in certain states, including New Jersey (currently) and Connecticut (as of January 1, 2020), can now offer in-office A1c, or blood glucose, testing, which could lead to earlier diagnosis and treatment for many patients with diabetes and prediabetes.

During a prospective study of 500 patients – none of whom had a prior diagnosis of diabetes or prediabetes – this screening revealed that more than 20% were prediabetic or had diabetes. Delta Dental of New Jersey helped pioneer the development of dental office testing for diabetes, as well as having it be a covered benefit.

Preventing high-risk births

OB-GYN appointments are a routine part of pregnancy. But not everyone realizes that regular dental visits should be part of the prenatal regimen, too.

A mother's good oral health benefits both her and her baby—but pregnancy can make it harder to achieve. Increases in progesterone and other hormones can multiply production of dental plaque. That dental plaque can cause gingivitis, the first stage of periodontal disease. Periodontal disease that progresses can increase the risk for delivering a low birth weight or pre-term baby. It is critical for women to receive regular—and sometimes even extra—dental care during pregnancy. Good oral health during pregnancy means healthier mothers and infants.

PRODUCTIVITY GOES UP, ABSENTEEISM DOWN

Healthy employees are more productive and miss work less often. Good oral health plays a big role in their overall health.

Those with dental benefits are much more likely to visit the dentist than those without benefits. Nearly 2 out of 3 people who lack dental benefits don't visit the dentist as often as they should. Skipping dental visits can lead to painful oral health problems that can impact their work.

About 40% of chronic pain in the United States is due to oral-facial pain. Chronic pain is significantly associated with reduced performance at work.

Dental problems can also cause acute pain, which affects absenteeism. Each year, 164 million work hours are lost in the United States due to lack of dental care. Poor oral health also affects employees' children, keeping them from performing their best at school.

Dental benefits can help keep your employees healthy, productive, and on the job.

Dental benefits attract and retain more prospective employees

Nearly 9 out of 10 job seekers say better health, dental, and vision benefits are factors they consider when choosing a job. And 7 out of 10 say it's important that their prospective employers provide dental benefits.

When you include dental benefits in your benefits package, you expand your pool of job applicants. Offering dental makes your business more attractive. In today's competitive market, potential employees often weigh multiple job offers – and dental benefits can make the difference in your favor.

Dental benefits also promote retention. It costs on average \$4,000 to hire a new employee, according to a study by U.C. Berkeley. It takes considerable time and money to recruit and train new hires. Employee benefits, including dental, help keep your current workforce stable and satisfied.

Dental benefits also cost less than you may think. Some plans cost as little as \$12 per month per employee.

Here's the bottom line: Businesses and employees both win when dental coverage is included in the company's benefit package. That's something everyone can smile about.

Dr. Keith Libou is Chief Clinical Officer at Delta Dental of New Jersey, which offers dental plans for businesses of all sizes. www.DeltaDentalNJ.com.



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- ¹⁵ "The Cost of Hiring the Perfect Candidate vs. Training an Existing Employee," <https://fosteredu.pennfoster.edu/the-cost-of-hiring-the-perfect-candidate-vs.-training-an-existing-employee>



What is ISO 9001: 2015?

ISO 9001 is the international standard that outlines detailed requirements for a quality management system (QMS), risk-based requirements, and commitment. Businesses that follow this standard can prove that they can provide products and services in accordance with customers' regulatory requirements. The certification improves customer satisfaction through effective record keeping, implementing procedures aimed at improvement of the process, and ensuring product conformity.

The ISO 9001 standard was originally published in 1987 but the most recent version was released in September of 2015. Businesses that were ISO 9001: 2008 certified should have already transitioned to the 2015 standard by September 14, 2018.

ISO 9001 is a general standard that will benefit any organization. In its current version 9001: 2015 does not apply to any single industry, business size, product, or service. Instead, ISO 9001: 2015 provides the outline and process to give any compliant company the tools to improve their QMS, expand risk-based thinking, and ensure businesses have the procedures in place to maintain these critical processes.

Can ISO 9001 Certification Benefit My Business?

Maintaining and managing the quality of any product or service is the foundation on which ISO 9001 is based. A company must document responsibilities and procedures to achieve an effective level of quality and business management to comply with ISO 9001: 2015 standards.

Topics in the list below are included in the standard:

- Outlined quality management system requirements
- Clearly defined roles of management to maintain the management processes
- Business management including, Personnel, Human Resources, and Work Environment
- Documentation for product design all the way through to delivery
- Continuous improvement strategies, measurement, and analysis through internal audits, corrective, and preventive action

Businesses of all kinds can gain from the above-mentioned improvements. ISO 9001: 2015 provides an outline for organizations to create a clear and concise QMS, help customers remain satisfied with high-quality products, create an environment that encourages improvement, defined structure to manage risk, and reduce costs. Furthermore, satisfaction among management teams and employees will increase. Accurate documentation eliminates employees' confusion about who is responsible for what business processes.

The Seven Quality Management Principles of ISO 9001:2015 are:



Other popular ISO standards include:

- AEROSPACE
AS9100
- MEDICAL DEVICE
ISO 13485:2016
- AUTOMOTIVE
IATF 16949

ISO 9001 Standards

ISO 9001 is comprised of 10 sections companies must follow. After the introductory sections, six critical components make up ISO 9001.

Section 5: Leadership -

Top management must play an active role in the implementation of the QMS and processes.

Section 6: Planning -

Top management must have a structured plan in place to ensure the ongoing function and utilization of a company's QMS.

Section 7: Support -

All resources for the QMS must be managed effectively. All documents and records that support the process are required and outlined in detail.

Section 8: Operation -

Product planning, review, design, control of external providers, development and distribution of a product or service, and controlling noncompliant process outputs must be planned for and documented.

Section 9: Performance Evaluation -

Businesses must have a way to track the performance of the QMS.

Section 10: Improvement -

A continuous improvement plan for the QMS and risk management is required.

ISO 9001 - How to Get Started

There are two types of certifications. One is the certification of a company's QMS against ISO 9001, and the other is a certification that allows individuals to internally audit a company against ISO 9001 requirements.

For a company that wants an ISO 9001 certification, a recognized certification body must audit and approve a QMS. There is an incredible amount of moving parts when it comes to obtaining an ISO 9001 certification. From management support and identifying customer requirements of a QMS to an organization's ability to create and deliver a product or service within the guidelines of ISO 9001 standards, each process must be compliant. Businesses must define the scope of implementation of the QMS and the mandatory and additional processes and procedures that assist in product development and resource management are required to be documented.

After all the required documentation is completed to implement a continuous improvement QMS strategy, there are additional steps needed to achieve ISO 9001 certification:

Internal audit - Reviewing the QMS process and plan to manage the ability to manage and maintain records must be able to be effectively implemented.

Management Review - Management must complete a formal review of the process and resources assigned.

Corrective Actions - The root cause of any identified issues must be identified and documentation must be created to address how they were resolved.

Final certification happens in two separate stages:

Stage One - Documentation review - Certification auditors will check the submitted documentation to see if it meets all requirements of ISO 9001.

Stage Two - Main audit - Certification body auditors will review the steps being taken by a company to ensure they are compliant with ISO 9001 standards.

Ask an Expert if ISO 9001 is Right for You

Taking the step to become ISO 9001 certified is a challenge without the right support. NJMEP has ISO 9001 experts at the ready to support any New Jersey business interested in exploring ISO and the benefits it can offer an organization.

Asking a qualified expert if and how a business strategy shift like implementing ISO 9001 into an organization is the right move will be essential. Moving forward with an in-depth certification process without understanding the time and effort it requires on one's own is the wrong decision. NJMEP is equipped with the necessary experience to ensure an ISO 9001 certification process moves forward seamlessly. Additional funding opportunities are often available as well.

Contact NJMEP today to see if ISO 9001 will benefit your business. 



NAVIGATING AN INNOVATIVE WORLD

The world is constantly changing, and businesses need to adapt to survive. They are struggling to attract and retain the employees they need. They are dealing with fierce competition and customers always looking for faster, cheaper, better. They are dealing with new laws and regulations. Manufacturing companies are especially impacted by changes. It's vital to be as efficient as possible since they have the longest cash flow cycle. Manufacturing companies in New Jersey have unique challenges paying high property taxes, high labor rates, etc.

What should they do?

They should leverage the resources available to them. Manufacturing Extension Programs (MEPs) were created over 30 years ago to help stop the erosion of U.S. manufacturing jobs. There is a national network of MEPs with at least one in every state and Puerto Rico all with the same mission. The mission is to help manufacturers be more productive, profitable and globally competitive. The New Jersey Manufacturing Extension Program (NJMEP) advocates for manufacturing in New Jersey and works directly with NJ manufacturers to; find and train the people they need, improve processes, contain costs, and grow their top-line revenue.

Meet with an NJMEP Account Manager to learn about programs and resources

NJMEP Account Managers develop strong relationships with business owners and leaders by asking questions to understand the goals they have for their business and the challenges standing in their way. After listening to their passion and concerns, Account Managers work with business leaders to develop a comprehensive plan of action with both short and long-term recommendations. With hundreds of programs and resources available, Account Managers simply help business leaders implement the strategies that will be the most impactful for their organization based on their goals and needs. NJMEP Account Managers are out visiting their clients frequently and become a valuable trusted advisor for them. Partnering with their clients to solve problems, implement recommendations, and lead them to achieve their goals.

Here are just a few examples:

Finding and developing the right people

Many NJ manufacturers have said that they look out over the shop floor and see a sea of grey hair and a wave of retirements coming. They have a high average age and wonder where the next generation of workers and leaders will come from. Businesses haven't shifted from the abundance mindset to a scarcity mindset when it comes to available talent. They are trying to replace key employees with decades of experience. Candidates are simply not out there. NJMEP developed a USDOL Registered Apprenticeship program for manufacturers to upskill employees, provide them with an experienced mentor, and allow that legacy knowledge to transfer to newer employees. It's a change from the way things have been done but companies that have embraced this "new-old" concept and are already seeing the results for both the employees and the company.

Improving Processes

After meeting with an Account Manager from NJMEP, the next step might be a plant tour with a lean efficiency expert. That plant tour is a valuable second set of eyes. After the tour, the client is presented with a report with areas of improvement identified and the impact of implementing recommendations. Strategies like Lean Manufacturing, Six Sigma, and ISO have been a staple for NJMEP in helping manufacturers improve processes, production, quality, and profitability.

There are risks and costs for manufacturers to implement new technology and no shortage of technology salespeople. Trade shows are full of the newest equipment from robust ERP systems, collaborative robots, 3D printers, sensors, etc. However, business leaders need to be careful with their time and money. Manufacturers are leveraging MEPs as an unbiased resource to evaluate opportunities for new technology. Much like a plant tour with a lean expert, manufacturers can meet with a technology expert to discuss the pros and cons and potential impact without the pressure of a salesperson.

Cybersecurity

Cybersecurity is a growing concern with many businesses experiencing phishing attempts, malware, ransomware, and countless others. The Department of Defense has grown so concerned that it has set a minimum cyberse-

curity standard to be followed by any company in the DoD supply chain. The NIST 800-171 framework has been in place since 2017 however manufacturers are now starting to risk losing contracts. NJMEP is working with manufacturers to protect them from cyberattacks and breaches, financial harm, brand damage, loss of intellectual property and the potential loss of contracts.

Sales and Marketing

Many NJ manufacturers are struggling to grow with their revenues flat or even declining. For many, their top customers represent a significant percentage of their revenue. Driving sales is arguably the most important responsibility for a business leader. Without the demand for products and services, companies cease to exist. However, many business leaders express more willingness to spend on equipment than on a growth initiative. For growing companies, marketing is an ongoing investment. Businesses trying only to survive have difficulty making sound strategic decisions that will grow and sustain their business.

NJMEP helps manufacturers develop a growth plan and implement strategies to achieve growth goals. After understanding a manufacturer's industry, top customers, success stories, and competition, NJMEP can develop marketing and sales strategies to drive sales growth. The strategies could include building lists of prospective clients, outbound calling to schedule sales appointments, designing and developing websites, leveraging search engine optimization, and so much more.

Next steps

Innovation does not just mean the development of new products. Businesses don't need to invest in the newest 3D printer to be innovative. Manufacturers need to continue evaluating what is working and what is not, continue learning and evaluating new strategies and challenging their status quo.

If you haven't met with NJMEP recently, reach out to schedule your meeting today. We are constantly evolving and there are new programs and resources available to you.





Food Safety Modernization Act (FSMA) Overview

By: Juliana Canale, Food Industry Safety, Compliance & Regulatory Solutions Specialist at NJMEP



Since FSMA was signed into law by Barack Obama on Jan 4, 2011¹ there have been significant changes in the public health regulatory space for food and beverages through the FDA (U.S. Food & Drug Administration). We are quickly approaching a decade post signing date (Jan 4th, 2021) therefore it seems reasonable to reflect on the current regulations and involved organizations.

SEVEN RULES OF FSMA:

Preventive Controls for Human Food: Requires that food facilities have safety plans that set forth how they will identify and minimize hazards.

Preventive Controls for Animal Food: Establishes Current Good Manufacturing Practices and preventive controls for food for animals.

Produce Safety: Establishes science-based standards for growing, harvesting, packing and holding produce on domestic and foreign farms.

Foreign Supplier Verification Program: Importers will be required to verify that food imported into the United States has been produced in a manner that provides the same level of public health protection as that required of U.S. food producers.

Third Party Certification: Establishes a program for the accreditation of third-party auditors to conduct food safety audits and issue certifications of foreign facilities producing food for humans or animals.

Sanitary Transportation: Requires those who transport food to use sanitary practices to ensure the safety of food.

Intentional Adulteration: Requires domestic and foreign facilities to address

vulnerable processes in their operations to prevent acts intended to cause large-scale public harm.²

IMPORTANT ORGANIZATIONS FOR SUPPORTING FSMA:

FSPCA- In 2011, the FDA helped to establish a public-private partnership called the Food Safety Preventive Controls Alliance (FSPCA), created to provide Food Safety Modernization Act (FSMA) technical assistance and training programs. The FSPCA is managed by the Illinois Institute of Technology (IIT). IIT partners with the International Food Protection Training Institute (IFPTI) and the Association for Food and Drug Officials (AFDO) for training implementation.³


IIT- Established in 2011, the Institute for Food Safety and Health (IFSH) at Illinois Institute of Technology (IIT) is a world-class food science research institute that produces knowledge-based outcomes in the areas of food safety, food defense, and nutrition for stakeholders in government, industry, and academia.⁴

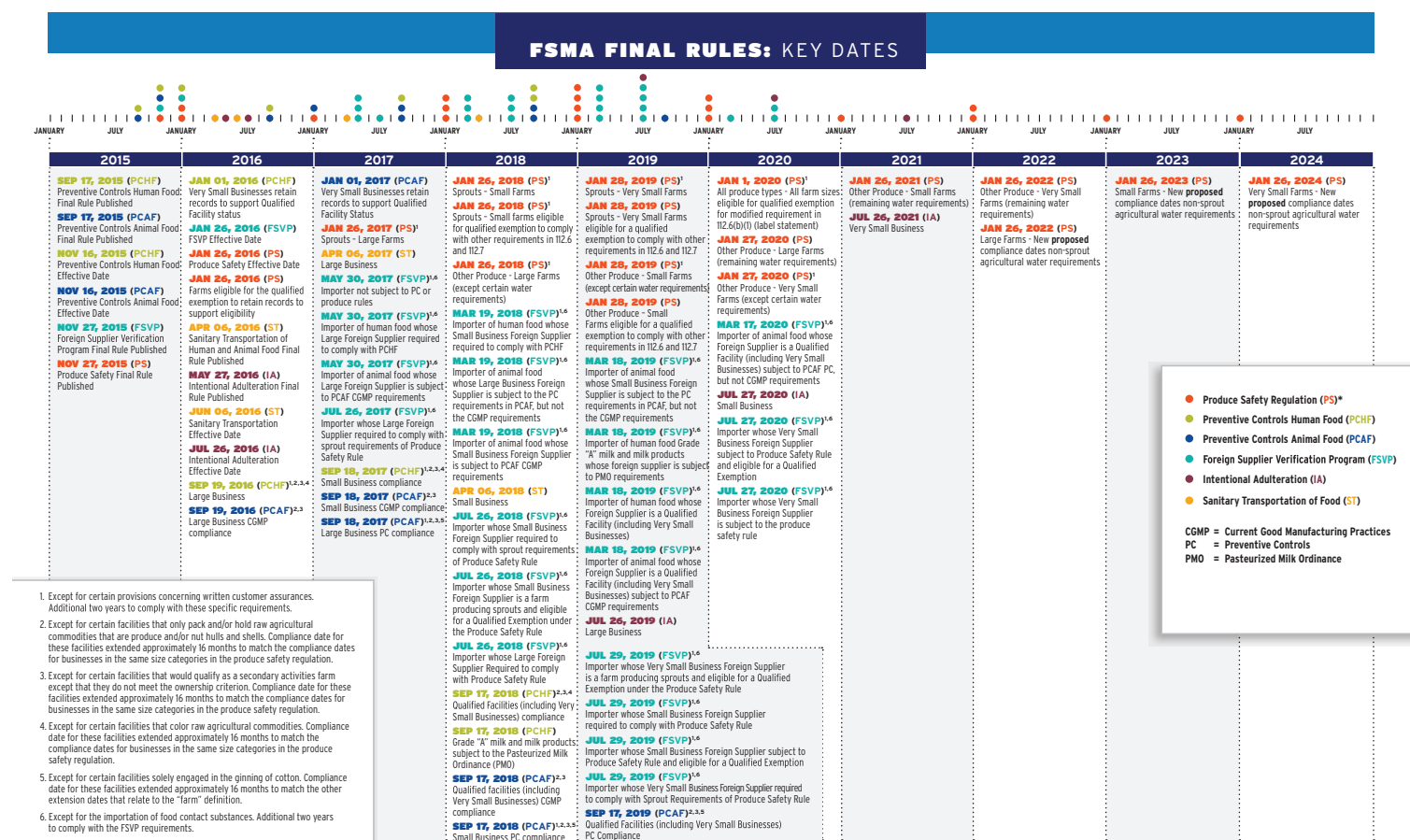
FUTURE TIMELINES & STRATEGY:

Please see the timeline below of compliance dates from 2015-2024.⁵ Based on this figure it is clear to see that 2018 and 2019 are both years with a significant amount of compliance dates, which means that the next couple of years moving forward are going to be critical for food and beverage manufacturers to ensure they are meeting regulatory requirements. Depending on what the manufacturer produces the number of FDA applicable rules will vary, so it is important to note that no two manufacturers will be alike, and each must be approached differently.

So, what does this mean for my clients?

- Regulations have not decreased and are aggressively moving forward with FDA FSMA compliance dates in 2018, 2019 and the next five years.
- Expect FDA inspections and enforcement intensity to increase based on the timeline.
- Food Safety training and consulting services through the NIST MEP National Network are excellent ways to help manufacturers ensure project management and content of regulatory requirements are being executed.

Please note that there is additional technical information available. If you would like more information, please email Juliana directly at jcanale@nimep.org. 



¹ Food Safety Modernization Act: Putting the Focus on Prevention by Margaret A. Hamburg, M.D. <https://obamawhitehouse.archives.gov/blog/2011/01/03/food-safety-modernization-act-putting-focus-prevention>

² Produce Safety Alliance- Food Safety Modernization Act <https://producesafetyalliance.cornell.edu/food-safety-modernization-act/>

³ FSPCA Information Document <https://www.ifsh.iit.edu/sites/ifsh/files/departments/fspca/pdfs/FSPCA-Info-Document-09-01-17.pdf>

⁴ About the Institute for Food Safety and Health (IFSH) <https://www.ifsh.iit.edu/about>

⁵ FDA- FSMA Compliance Dates <https://www.fda.gov/food/food-safety-modernization-act-fsma/fsma-compliance-dates>

2020 will bring along new and exciting challenges to the states manufacturers. Don't fall behind. Stay up to date with what NJMEP will offer these businesses this year to help keep

manufacturers thriving in New Jersey. NJMEP is going to be providing a wide range of the latest workshops and programs from Six Sigma training to the Registered Apprenticeship program. Below is a quick look at just some of the opportunities available to New Jersey manufacturers.

Business Growth Suite

Manufacturers must continually innovate, develop new products, explore new marketing avenues, adopt new business strategies, and proactively respond to shifts within their industry – to retain current customers, increase revenues, and expand into new markets.

NJMEP's Business Growth Suite of services (BGS) is a comprehensive catalog of various programs delivered by many of our key subject-matter resources; each with intimate familiarity with the nuances of the manufacturing and supply-chain industries.

PRINCIPLES OF LEAN MANUFACTURING

Implementing lean principles is extremely beneficial for manufacturing companies. The elimination of waste (muda), continuous improvement (kaizen) as well as pull-systems (kanban) will be illustrated in live demonstrations for practical, compressible knowledge of Lean Manufacturing. Lean manufacturing training is based on principles that can be implemented and will become the strong foundation of an organization and their employees.

SIX SIGMA

A disciplined, time-tested mythology that uses data analysis to understand process variability and identify process improvement opportunities. Attending Introduction to Six Sigma provides the opportunity to learn the basics of Six Sigma Project Management, become knowledgeable about the DMAIC (Define, Measure, Analyze, Improve, Control) road map to success, understand statistical process control charts (SPC), and learn how to improve customer satisfaction and profitability by reducing and eliminating defects.

Food

INDUSTRIAL MANUFACTURING PRODUCTION TECHNICIAN

The Industrial Manufacturing Production Technician Registered Apprenticeship program for Food focuses on production staff in the food and beverage manufacturing and related industries. Potential participants are incumbent workers with or without experience, formal education or new hires (High School graduates, veterans, the unemployed, workers without industry-relevant experience.) After graduation from the program

and with additional classes and certifications, they would eventually make a prime candidate for supervising and managing roles.

ONLINE TRAINING FOR FOOD AND BEVERAGE MANUFACTURERS

NJMEP is offering an online self-paced food safety training program. The training program is available nation-wide. The online courses offer supplementary education to anyone in the food and beverage industry. Save time by signing up for an online course and begin benefiting from expert instruction and relevant course materials, all available through the online portal! With this affordable, flexible offering, food and beverage manufacturers will be better equipped to tackle the numerous regulations, ensure public health, and safety.

Cybersecurity

As we advance into the new year, so do the times we live in. Every day there are advances in technology making it difficult for manufacturing businesses to keep up. Don't fall behind on cybersecurity in 2020 or a manufacturing business will. These two workshops are just a portion of what NJMEP is going to be focusing on in the new year.

DOD CYBERSECURITY BOOTCAMP - WHAT TO KNOW ON IMPLEMENTING DFAR

All Department of Defense (DoD) contractors and subcontractors must meet the Defense Federal Acquisition Regulation Supplement (DFARS) minimum security standards based on the security guidance in NIST Special Publication 800-171 or risk losing their DoD contracts. Come join us as we provide valuable assistance to manufacturers seeking assistance and guidance on implementing these standards and mitigating the risk of being un-secure and possibly outside DFARS compliance.

DOD CYBERSECURITY REQUIREMENTS - WHAT DO MANUFACTURERS NEED TO KNOW?

All Department of Defense contractors that process, store or transmit Controlled Unclassified Information (CUI) must have met the Defense Federal Acquisition Regulation Supplement minimum security standards or risk losing their DoD contracts. DFARS Safeguarding rules and clauses, for the basic safeguarding of contractor information systems that process, store or transmit Federal contract information.

Workforce Development

Every organization has a unique culture, processes, and challenges. When it comes to workforce needs, NJMEP always begins with a complimentary business assessment to determine a customized journey to success. Recommendations are made to improve a business and additionally determine if there are any applicable financing, loans, or grants available to help fund the cost of improvement initiatives. This includes assisting with the funding application process for loans or grant applications when applicable.

The Pro-Action Education Network offers opportunities for companies that are having problems finding qualified individuals to close the skills gap within their organization. Given the "multifaceted nature of skill gap," there are an equally diverse set of solutions that NJMEP offers to address it.

- **Pre-Apprenticeship and Foundational Credentials, MSSC, SME/ToolingU** – where you can bring someone on-board in the shortest period but requires additional training.
- **Open Enrollment 'Career Advancement' Training** – where incumbent workers can gain enhances skills to apply to their job – or- the next position at your organization.
- **On the Job Training (OJT)** – a must for new hires to gain the knowledge and insight to expand skills. Basic Learning and Shop math help, but experiential and hands-on performance factors stand out.
- **Apprenticeships** – the ultimate in building a team ready for the next levels, as you combined Foundational Learning with OJT with County College and built for the future. These are new members of your staff from the "get-go".
- **Train the Mentor** – a program that allows you to be more in control of new current staff to ensure consistent productivity gains.

Human Resources

In 2020, NJMEP is going to hold an Open Enrollment program on every first Tuesday of the month covering Human resource-related issues and concerns. There

will be a various number of topics that will be covered throughout the year, from Money Saving Secrets to Reducing Workers Compensation Cost and Interviewing Skills for Hiring

Events

MANUFACTURING DAY

National Manufacturing Day has always been an important way for NJMEP to spread the word about the benefits that manufacturing provides to our Garden State. As a proud supporter of National Manufacturing Day, NJMEP is excited to drive awareness about the available career opportunities and the advanced technologies that are propelling the industry forward.

With Manufacturing Day 2019 being a massive success NJMEP is already looking forward to MFG Day 2020. Registration is open now. If you are interested in sponsoring the event, please act fast as sponsorship spots fill up quickly. If you are looking for more information about sponsorship or registration, please email info@njmep.org.

STATE-OF-THE-STATE

In March NJMEP will be hosting its annual State-of-the-State Manufacturing Event. This event is exclusively for Manufacturing professionals, STEM Firm executives, and NJ elected officials to network and discuss the opportunities and challenges within the industry. You will have the opportunity to listen to industry experts discuss best business practices that will help you gain and maintain a competitive edge in today's ever-changing global economy.

JERSEY GUYS GOLF OUTING

Come join us in 2020 for our annual Jersey Guys FORE!!! Golf Outing. NJMEP is always excited to give back to the community, and it should come as no surprise that the Jersey Guys Golf Outing is one of our favorite ways to do it. It combines our love for fresh air and fairway with lasting community outreach. We always look to top the success of all prior years. Partnering with the Team Eagle Foundation, NJMEP hopes to raise more money through updated rewards and prizes! 🏆

YOUR ROADMAP BEGINS WITH AN ASSESSMENT

New Jersey Manufacturing Extension Program, Inc. (NJMEP) is a not-for-profit company that helps New Jersey's small to mid-sized manufacturers become stronger and more competitive. Designed to meet your needs, we develop more effective business leaders, drive product and process innovation, promote company-wide operational excellence and foster creative strategies for business growth and greater profitability. NJMEP's training processes and methodologies are designed to specifically meet the needs of manufacturers.



Gear Up for Manufacturing Day 2020

October 2, 2020, Marks NJMEP's Ninth Annual 'Made in New Jersey' Manufacturing Day Celebration!

'Made in New Jersey' Manufacturing Day is the largest networking event of its kind for the New Jersey Manufacturing Industry

**SPONSORSHIPS FILL UP FAST
SO NOW IS THE TIME TO ACT!**

Contact NJMEP today to reserve your spot and leave an impact on the over 600 manufacturers expected to attend.



**FOR MORE INFORMATION ON
SPONSORSHIP OPPORTUNITIES
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EMAIL INFO@NJMEP.ORG TODAY!**