# MANUFACTURING MATTERS

3
2023

Manufacturing Day

Trenton Talks

South Jersey Manufacturing

Helping New Jersey Manufacture Success

NJMEP


## and the winners are...

p38

**In this issue:**



MADE IN NJ

www.njmep.org


# LONG LIVE SMILE POWER

Dental – and vision – plans that rock!

Visit NJMEPSmiles.com to learn more!

DELTA DENTAL®

# FEATURES



# 3 2023 MANUFACTURING MATTERS

New Jersey's manufacturing magazine, sharing the voice of the industry. Find the latest updates, resources, and trends shaping manufacturing and hear from the thought leaders driving the industry forward.

NJMEP


Sr. Marketing & Communications Manager
**Mike Womack**

Sr. Marketing Project Manager & Events Coordinator
**Olga Vargas**

Creative Manager
**Lyle C Briggs**

Copywriter
**Matt Hrisko**

Marketing Support Coordinator
**Amanda Casabona**


## Contact


To advertise or sponsor an event
mwomack@njmep.org

NJMEP
2 RIDGEDALE AVE., SUITE 305, CEDAR KNOLLS, NJ 07927
973.998.9801 | njmep.org | info@njmep.org


MEP National Network™

# Manufacturing Trends to Watch

## What 'MADE in New Jersey' Manufacturers Need to Know

Manufacturing is ever-evolving. The public often thinks of it as static and unprogressive, but anyone who works in the industry knows this is not the case. Especially for manufacturers that are actively working to stay ahead of the competition. Business strategies, technologies, and new disruptions continue to present themselves. Business leaders who want to continue pushing their operations forward will need to explore new trends, identify what has real value, and move past the unwarranted buzz.

This quarter there's going to be a different take on the usual trends that manufacturers should be watching closely. Industry 4.0, Supply Chain, and Sustainability are not new concepts. However, with all the lessons learned from the past five years and the COVID-19 economic landscape, businesses are starting to identify the best way to make use of new technologies and supply chain risk mitigation strategies, and investing in sustainability to positively impact the bottom line.

### The Real Industry 4.0

Industry 4.0 has made it to the Manufacturing Themes a couple of different times in a variety of ways. This buzzword encapsulates any modern forward progress a manufacturing business takes to become more efficient and effective. It doesn't always mean a shiny new robot, 3D printer, or Industrial Internet of Things (IIoT) sensor—but it can. The real idea of Industry 4.0 is for manufacturers to focus on ways they can improve their organization by taking advantage of any tool, technology, and modern communication system that makes sense for their business.

More manufacturers are making incremental investments into their organizations to truly become an advanced manufacturing operation. Business leaders need to heed the Industry 4.0 warning. The industry is advancing, and competitors are improving their facilities to offer customers more value, higher quality products, and a more transparent relationship.

Manufacturers must move past the buzz and start investigating ERP systems, sensors that can be outfitted to legacy equipment, affordable collaborative robotics, and the plethora of technologies that have plummeted in cost but can have a monumental impact on the bottom line.

## Supply Chain Lessons Learned

The first COVID-19 case is in the rear-view mirror, but the scars it caused are still on top of mind. Those scars run deep for those who had family and loved ones affected by this historic pandemic. Business owners who were able to make it through all the tragedy that it caused were also faced with an abundance of disruptions in their working life as well. The supply chain became a household phrase because of the issues that came with a globalized supply chain and countries shutting down for months on end. Manufacturers were some of the most heavily impacted by disruptions and the lessons learned must be considered to create a more resilient business.

It's natural for people to chalk up this pandemic as a once-in-a-lifetime experience and want to forget about what the world looked like in March of 2020. However, business owners cannot afford to think that way. Manufacturers are in a unique position to take hold of their supply chains, implement fail-safes, and start building a stronger, more robust supply chain. The National Institute of Standards and Technology (NIST) is pushing every single MEP center in the country to help support manufacturers on their journey to supply chain resiliency. Taking advantage of the programs, services, and experiences that are now available is essential for the security of any business in the future. The lessons learned from the past three years cannot be forgotten.

## Sustainability as a Business Plan

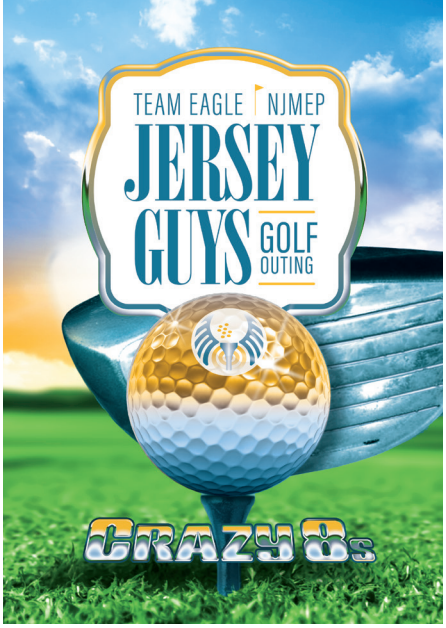
ESG has been and will continue to be a topic discussed in today's business landscape. Many businesses aren't sure about how to approach the subject, are too busy making sure they can make payroll, or are occupied doing all they can to ensure their business is growing. Manufacturing is in an incredible position to use sustainability to reduce expenses and increase profits. Manufacturers have done this for years already, being one of the first industries to widely adopt recycling to offset the cost of all the waste and scrap that is produced during the manufacturing process. This is a concept that comes naturally to modern manufacturing businesses. In today's business landscape, manufacturers can find even more ways to reduce energy usage, and increase efficiency and profits. With more ways to save on energy, technologies to track and trace waste, and training opportunities available to help employees become more effective and productive, manufacturers are in a place where they could potentially see dramatic improvements to their bottom line. Building sustainability into a manufacturer's business strategy is a fantastic way to create a more profitable and sustainable manufacturing facility.

Check back every quarter to review the manufacturing themes that are driving the industry forward. Explore a focused snapshot of how the industry is transforming here in New Jersey and throughout the United States. There are countless ways businesses can improve, so being able to cut through all the noise will be key. Set aside time to review the real industry 4.0, supply chain lessons learned, and sustainability as a business plan in 2023. Discover how these themes can impact your business and uncover the latest ways to get involved.

Follow the latest from New Jersey manufacturing by following @NJMEP on Twitter, Facebook, and LinkedIn. Stay engaged all year long to help protect and support the industry.

# Jersey Guys Crazy 8s was a Smashing Success

## The Event Continues to Benefit Young Adult Scholarships and Community Foodbanks in Its 8th and Final Outing




### A SMASHING SUCCESS

Jersey Guys Golf Crazy 8s took place in July at the Rock Ridge Golf Course in Hackettstown, and it was a smashing success! Over a hundred industry luminaries, partners, and supporters came together to help show that manufacturing cares.

Golfers played a round and enjoyed clear skies and weather at the Rock Ridge Golf Course. Participants included manufacturing leaders, community organizations, industry partners, and the NJMEP team. Jersey Guys raised funds in support of young adult scholarships, mentoring programs, and food banks across the state. NJMEP's Manufacturing CARES initiative partnered once again with the Team Eagle Foundation to help give our neighbors support for today, help for tomorrow, and hope for the future.

### UNPRECEDENTED RESULTS

Last year, NJMEP and the Team Eagle Foundation presented over $32,000 in scholarships and grants at the event. This year far surpassed those figures and an unprecedented $62,000 in awards were distributed at Jersey Guys Crazy 8's.

NJMEP presented awards totaling $32k to 24 separate individuals. The recipients were fifteen young women and nine young men, all interested in pursuing academic careers in manufacturing and STEM. These individuals represent a community investment in the future leaders and innovators in manufacturing.

NJMEP also presented the remaining $30k that was raised to the following groups:

- **NJMEP's High School Pre-Apprenticeship Programs**
- **New Jersey Junior Achievement**
- **USS New Jersey Submarine Commissioning – Crew & Family Scholarship Fund**
- **Community College of Morris Scholarship Fund**
- **Community Foodbank of New Jersey**

Jersey Guys also secured a net of $26,000 that has yet to be distributed but will ultimately go to supporting similar causes to those above.

### CRAZY 8s

While the future of Jersey Guys is uncertain, due to the recent retiring of Team Eagle Foundation founder and NJMEP CEO Emeritus, John W. Kennedy, the event has left behind a legacy New Jersians and the Manufacturing Industry can be proud of—in its 8 years of charitable activities, Team Eagle Foundation has accomplished the following:

- **$852,277 raised and distributed with $241,411 coming directly from the Jersey Guys Golf Outing**
- **318 L.E.D.R. Program Alumni of our Young Adult Mentoring Program**
- **809 Individual Awards**
- **28 Educational Grants**
- **8 Donations to Community Foodbanks of New Jersey**

It's only thanks to the collective efforts of manufacturers, industry partners, and all others who've helped support and who've donated at events like the Jersey Guys Golf Outing that NJMEP is able to give back to local communities and show that manufacturing truly cares about the future of New Jersey.


# 'Year of Women in Manufacturing' Summer Lunch

This Event Brought Together Women Industry, Political, and Business Leaders to Help Paint a Better Future For Women in Manufacturing

## NEW JERSEY'S WOMEN LEADERS COMING TOGETHER

The 'Year of Women in Manufacturing' was an initiative led by the New Jersey Manufacturing Extension Program to highlight New Jersey women leaders and provide them and their communities with a foundation to be heard and recognized, and a chance to encourage the next generation of women manufacturing professionals.

NJMEP's Women Leaders hosted the Women's Luncheon this past August at the Park Avenue Club in Florham Park. The event brought together women professionals in the industry for networking, sharing ideas, and discussing the current and future role and impact of women in manufacturing.

## COMBATING CONTINUED INEQUITY

NJMEP and its partners are working together to highlight influential women leaders in manufacturing who continue to drive the New Jersey Manufacturing Industry forward. Women are a largely underrepresented demographic in the manufacturing sector, with only about 30% of the 15.8 million people employed in manufacturing industries being women and even fewer (1 in 4 women) in leadership positions, according to the National Institute for Standards and Technology (NIST). This disparity creates countless issues downstream for the industry and businesses, including challenges that range from workforce shortages, a lack of diverse perspectives in decision-making, and opportunities for innovation and expansion.

## HIGHLIGHTING OUTSTANDING WOMEN LEADERS

The 'Year of Women in Manufacturing' Summer Lunch event was intended to highlight women leaders that are in the state of New Jersey and provide them with a platform for talking about their individual experiences and journeys on the path to success as Women Leaders in Manufacturing.

Constantina Meis, Community Relations Manager at NJMEP explained to attendees, "We [NJMEP] set out on a mission to give the incredible women manufacturing business leaders here in New Jersey a platform to be seen," she continues, "The 'Year of Women in Manufacturing' allowed us to accomplish this goal."

Attendees also received a warm welcome and opening remarks from Peter Connolly, CEO of NJMEP. "We have a real problem in New Jersey Manufacturing, and it's not just a labor shortage," he says. "Women account for fifty percent of the population and yet they're only represented in about thirty percent of manufacturing jobs," he pauses, "We need to do better as an industry, as business leaders, and as a community of leaders to cultivate, foster, and guide young women toward careers in this industry. The women are out there, it's incumbent upon us to educate them and inform them of all the opportunities manufacturing can offer them."

The 'Year of Women in Manufacturing' Luncheon is an embodiment of this sentiment—that there is great success to be had for women in manufacturing careers. The women in attendance also heard opening remarks from industry leaders like Gail Freidberg Rottenstrich, CEO of ZAGO Manufacturing, one of the world's foremost manufacturers of green sealing solutions and components with clients ranging from Apple to Lockheed Martin, and also from Assemblywoman Aura Dunn of the 25th District, a champion of legislation that helps to protect women and children.

Ellen Pietrowitz-Phillips, CEO of LEM Plastics and the 2022 'MADE in NJ' Manufacturing Day Rising Star Award recipient, was featured and recognized for her accomplishments as a leader and innovator, along with Micaela Alvarez, Director of Operations at Universal Nutrition, who was recognized for being the recipient of the Women Manufacturing Scholarship—the first of its kind in New Jersey.

## PAINTING A FUTURE FOR WOMEN IN MANUFACTURING

The event's central goal was to bring together women business professionals from all the various sectors of the industry and help illustrate the importance of recognizing each other's accomplishments and celebrating those achievements. The 'Year of Women in Manufacturing' Initiative may have only lasted through 2022, but its impact and legacy will be carried on every year through events like 'MADE in NJ' Manufacturing Day,' which offers a way to celebrate and honor the women leaders in the 'MADE in New Jersey' manufacturing sector. This event will also continue to bring together nearly a thousand professionals, partners, legislators, and young students—young men and women that we hope to inspire to become the next generation manufacturing innovators and professionals. This is the true legacy of the 'Year of Women in Manufacturing.'

# A History of MFG Day

Tasked with Inspiring the Next Generation of Makers, Builders, and Innovators—Manufacturing Day Has Become a Movement in Recognizing the Value and Need for Domestic Production

## WHAT IS MFG DAY?

Manufacturing Day (MFG Day), held annually on the first Friday in October, has become a nationwide phenomenon. The purpose of MFG Day is to show the reality of modern manufacturing careers by encouraging thousands of companies and educational institutions around the nation to open their doors to students, parents, teachers, and community leaders. Each year thousands of manufacturers open their doors to give a glimpse of what today's manufacturing really looks like and to inspire the next generation of skilled workers.

Manufacturing Day helps foster learning and collaboration between manufacturing companies, young creators, and future innovators. It offers an opportunity to promote the importance of manufacturing on a local, national, and global level. Companies across the industry come together to dedicate time and effort to connect with young professionals and educate the next generation of manufacturers.

## THE ORIGINS OF MFG DAY

In the fall of 2011 at the then location of the Fabricators and Manufacturers' Association (FMA) building in Rockford, Illinois, Dileep Thatte, the Director of the National Institute of Standards and Technology – Manufacturing Extension Partnership (NIST MEP) was visiting Ed Youdell, President and CEO of FMA. Mr. Thatte was there to discuss how NIST MEP is focused on helping U.S. manufacturers when the discussion led to a new idea—exposing more people to manufacturers. Out of the discussion, they decided that they should have a special day when they could get FMA


members involved with NIST MEP, and in the process get manufacturers involved on a broader scale.

"The idea came to me out of a conversation with Dileep Thatte of NIST MEP, that we should have a special day when we should get FMA members involved with NIST MEP. But then we thought that this platform would be much broader than just for FMA members. So, we went on a broader scale and created Manufacturing Day," says Ed Youdell. "The idea was to allow the manufacturers to open their doors in any way they see fit to invite the community, their schools, their educators, the legislators, and others, so that they see what modern manufacturing is and the value of manufacturing for the community."

And so Manufacturing Day was born, with the first Manufacturing Day being planned for the first Friday in October 2012. The idea was to have the FMA approach their members in Illinois, and for NIST MEP to approach MEP Centers in the Midwest, and bring them all together to celebrate and showcase everything that manufacturing has to offer. By exposing the community to manufacturing, they hoped to change the public's perception and demonstrate that modern manufacturing is not what you'd expect—they wanted to showcase that manufacturing involves computers, robotics, and other advanced technologies and tools, and that manufacturing is all about creativity, innovation, teamwork, and technical skills.

## CREATING A MOVEMENT

According to the National Association of Manufacturers (NAM), in 2019, more than 325,000 students, teachers, and parents participated in MFG Day, which consisted of more than 3,000 events held across all 50 states and Puerto Rico. What began simply as a special day in recognition of domestic manufacturing has now become a movement. MFG Day provides a clearer picture and understanding of modern manufacturing and is helping to change the perception of educators, parents, and the nation's youth—helping to showcase that there is a future in advanced manufacturing if that's the career path one chooses.

## HELP CELEBRATE 'MADE IN NJ' MANUFACTURING DAY

NJMEP is carrying on this tradition, hosting the 'MADE in New Jersey' Manufacturing Day event at iPlay America in Freehold on October 6th. This year is the 11th Annual 'MADE in New Jersey' Manufacturing Day which will bring together nearly a thousand industry professionals, partners, influencers, and advocates. Make sure you take the time to help illustrate the importance of domestic manufacturing and inspire the future generation of manufacturers the first Friday of every October!

# South Jersey Revitalization Summit Aims to Create New Talent Pipeline

## If You Help Build It, The Workers Will Come

### Bringing Together Industry, Academia, and State

In August, the New Jersey Manufacturing Extension Program (NJMEP) partnered with Rowan College of South Jersey (RCSJ), Community College of Morris (CCM), District 1 lawmakers, and South Jersey Industry Leaders to host the South Jersey Manufacturing Revitalization Summit at Rowan College of South Jersey. The event was part of ongoing efforts to revitalize underserved and disconnected areas of manufacturing in South Jersey. All those in attendance joined for a panel discussion on how State, Academic, and Industry partners can assist the more than 3,000 South Jersey Manufacturers with enhancing productivity, performance, and profits—and how these private-public partners can come together to help solve some of the industry's most pressing challenges.

### Addressing Labor Challenges

NJMEP CEO Peter Connolly sat down with Dr. Fred Keating, President of RCSJ, Dr. Tony Iacono, President of CCM, local business leaders, and Senator Michael Testa (NJ-D1) to discuss plans to build a 25,000-square-foot manufacturing technical training facility at RCSJ, as part of South Jersey Revitalization efforts. The goal of the Summit was to illustrate the eagerness of industry, government, and higher education to reinvest in South Jersey and to convince manufacturers to get involved in these revitalization efforts, or as Dr. Keating states—for manufacturers to have some 'skin in the game.' The plan is to create a new talent pipeline that will feed South Jersey Manufacturing's critical need for skilled workers.

This is a concept Dr. Iacono of CCM has experienced firsthand, having worked with local manufacturers and legislators in North Jersey on expanding Morris's technical training capabilities—expanding the training facilities at CCM from 11,000 square feet to over 30,000 square feet, and creating new training programs and filling the facilities with advanced manufacturing equipment that was donated in part by local manufacturers. In North Jersey, manufacturers appear to be receiving the message loud and clear—that the pathway toward solving the skills gap and labor shortage is working with industry partners, academia, and government.

It's no secret that with an aging workforce, the labor shortage is the top challenge for manufacturers in New Jersey and beyond. Peter Connolly, NJMEP CEO, adds that transportation, supply chain, and red tape are some of the biggest hurdles as well. "When you look at New Jersey, we have about 11,000 manufacturers, most of them located in the northern half, and the southern part of New Jersey is an underserved market," says Connolly.

"We [NJMEP] are going to work and help refocus efforts on Southern New Jersey manufacturing and help connect the dots in terms of making this region more competitive, profitable, and accessible for businesses," he adds. "And it starts with industry and academia coming together and facilitating the creation of a brand new talent pipeline, right here at Rowan College of South Jersey."

## Manufacturers Need To Get Involved

During the panel discussion, industry leaders and partners offered some insights into how manufacturers must pivot with the changing socio-economic landscape to keep up with workforce demands. Ray Compari, City Administrator in Millville, offered his input on combating the skills gap and labor shortage in South Jersey. "Look at your talent pool as being vertically integrated," says Compari, "What that means is you can't wait for donut-makers to give you the donuts, you've got to be involved in the process early on." He goes on to cite companies like Cisco, Caterpillar, Lockheed Martin, Motorolla, and Mercedes-Benz—companies he's worked with in the past—and he says that these manufacturers have been looking at the workforce as a vertical integration for the past decade. They have summer internships, they're involved in high schools and


community colleges, they're identifying high potential talent, and they're building and investing in talent very early on—as he echoes Dr. Keating's sentiment—these manufacturers have 'skin in the game.' His sentiments illustrate that

manufacturers can't keep asking for the laborers they need—they need to start investing in the workforce they want.

Lauren Mufalli, Human Resources Director at South Jersey Glass & Door (SJG&D) and South Jersey Revitalization Summit panelist, says that their business has already tapped into this potential on a micro level and has seen the benefits. SJG&D, a 90-year-old glass and window manufacturer and installer based in Vineland, and one of the largest employers in the industry in South Jersey, has had to get creative to find a new talent stream and fill its ranks as it expands operations. One of the ways they've been able to combat the labor shortage was by partnering with academia.

"We partnered with Tech," says Mufalli, "And we realized that even the amount of training these 16- or 17-year-olds had was monumental. We saw that they were even outpacing some of our current workforce," she adds. "We've seen that [partnering with technical schools] works. The individuals that we've hired from Tech, they're so excited to see what they've learned and actually apply it in a real-life setting—and then to get paid on top of it—they think they've won the lottery," adds Mufalli enthusiastically, sending a pang of laughter through the audience.

The manufacturing sector has consistently struggled to appeal to younger generations of students and workers, and much of this failure is due to a lack of exposure—simply put, young people don't realize that there are opportunities for a career in manufacturing. For Mufalli, it's about empowering these young people and showing them that they're part of something bigger. "They feel empowered, they feel self-worth, that gratification of really being successful and part of a team, that what they do matters, and that we need them to succeed," she adds. "To continue that is imperative for us [as manufacturers] to be successful."

## What's Next For South Jersey?

For Senator Michael Testa, who's been an ardent supporter of manufacturing, the next phase in the South Jersey Revitalization initiative is clear. "We need to have buy-in from local manufacturers to have 'skin in the game,' to support what is happening at Rowan College of South Jersey and at County College of Morris," says Testa. The idea has been proposed to create a new talent pipeline that helps provide New Jersey's youth with alternatives to the traditional four-year degree program. CCM is already on the field, with their 30,000 square foot state-of-the-art training facility in the north, and with support from local manufacturers in North Jersey. Now, it's time for manufacturers in the south to get on board and help facilitate the creation of a new talent pipeline, with CCM being the North Pole for manufacturing training and RCSJ as the South Pole.

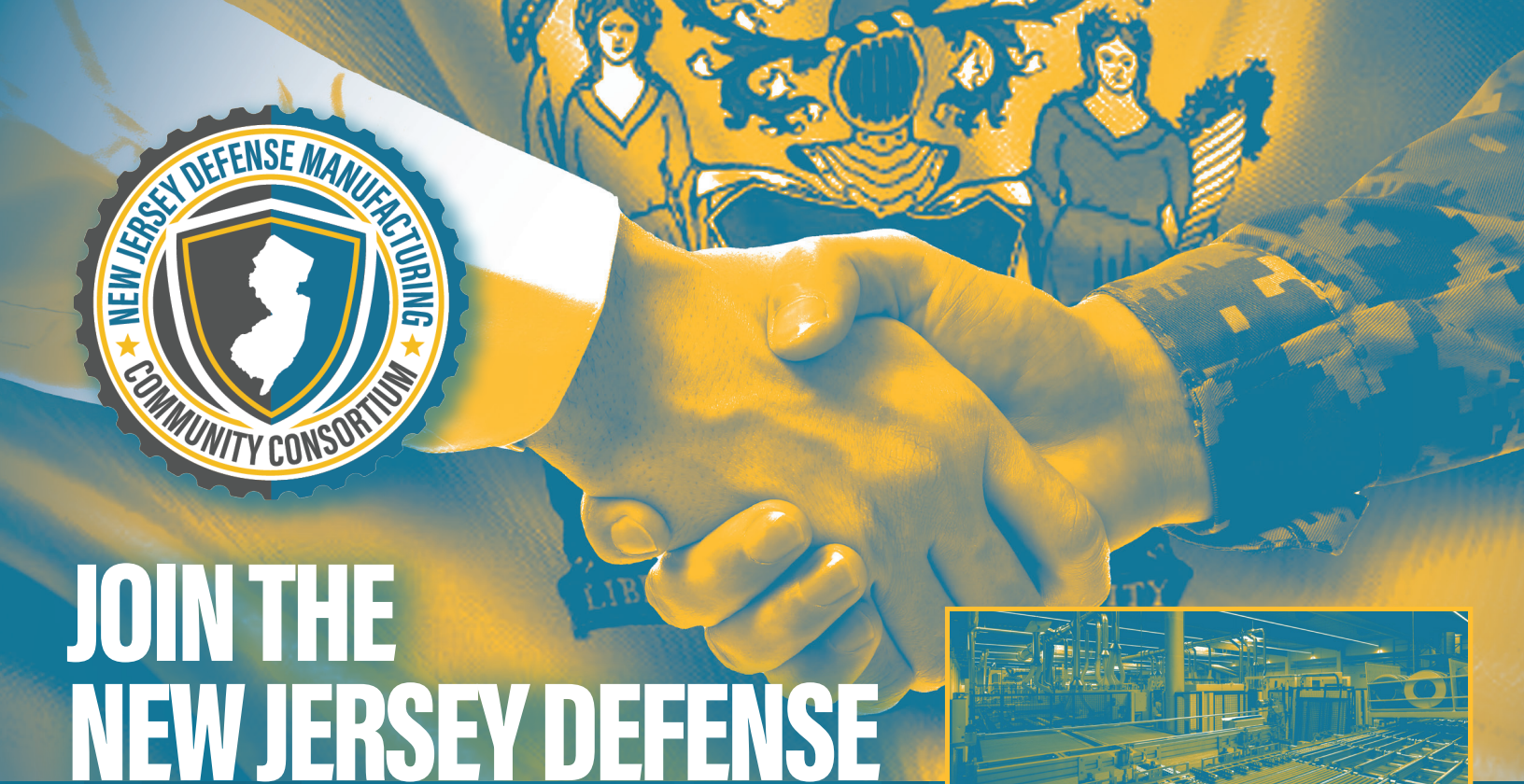
"We have our little piece of the puzzle right here in Cumberland," says Dr. Keating, referring to RCSJ. "We have a visionary leader, we have people that want to do something, but today's going to be an acid test. People are asking me, 'What's the next step?'—the next step is for me to go out and get the partners in the room and hopefully get the agreement that we're all in this together, and manufacturers can't be a spectator," he adds, "You're going to have to be a participant."

## How Can South Jersey Manufacturers Get Involved?

Senator Michael Testa seconds Dr. Keating's call to action: "It's incumbent upon the Manufacturers to be involved, whether it's with the Chamber of Commerce of South Jersey, NJBIA, and of course, with NJMEP—who's been a monster partner for manufacturing," says Testa.

Ray Compari, a Management Executive with ties to academic, corporate, and legislative consulting over the course of his career, says that manufacturers are in a unique position to contribute to the latest innovation in manufacturing—a new talent pipeline optimized for manufacturers, by manufacturers. "Tell us what your competencies are—what the knowledge, skills, and abilities are that are necessary to run your operations," he pauses, gesturing at his fellow panelists Dr. Keating and Dr. Iacono, "And these guys will build a program to suit that."

"One of [Dr. Iacono's] discussions was partnerships," adds Peter Connolly, "We need that, whether it's legislative, government, academic, associations, or industry—we need to work this together."



# JOIN THE NEW JERSEY DEFENSE MANUFACTURING COMMUNITY

NJMEP is inviting veterans, veterans' family members, and New Jersey manufacturers to become part of the NJ Defense Manufacturing Community.

The mission is to ensure the Department of Defense Supply Chain grows locally while utilizing the talent the armed forces develops once they leave the service.

**The community is built up of both manufacturers and job seekers.**

› To join the community or learn more, visit NJMEP.org/njdmcc!

Consulting · Workforce Development · Accountability

NJMEP

Helping New Jersey Manufacture Success

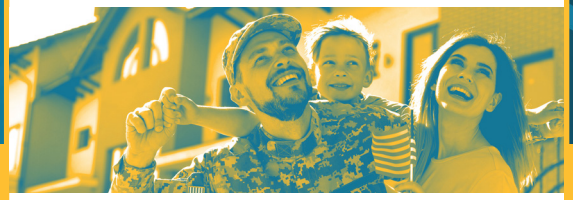
NJMEP.org | info@njmep.org | (973) 998-9801 | PART OF THE MEP National Network™



## NEW JERSEY MANUFACTURERS

New Jersey manufacturers are invited to join this community of local businesses supporting the DoD Supply Chain.

- Whether you're looking to expand your government contracts or become part of the DoD Supply Chain, joining this community will help!
- Unlock access to a pool of talent
  - Job seekers are either veterans or veterans families
  - Job seekers receive valuable, industry-relevant training by NJMEP and partners



## JOB SEEKERS

Veterans, soon-to-be veterans, and their families will have access to certification programs to prepare them for a career in the advanced manufacturing industry

Access...

- Career support and resume-building resources
- Professional Development Opportunities
- Certification Programs
- Access to Career Opportunities at Member NJ Defense Manufacturing Community companies
- **All at no-cost!**


*New Jersey manufacturing is* ***Built to Last.*** *Come discover some of the featured manufacturers in this edition of Manufacturing Matters.*

# JERSEY SHORE AWNING & LA FAVORITE INDUSTRIES INC.

## JERSEY SHORE AWNING

Jersey Shore Awning Co. got its start in 1947 when Ora X. McClellan and his wife Elysabeth founded the company and set about bringing premium brands, quality products, and unrivaled customer service to the Jersey Shore Community. For more than 73 years, Jersey Shore Awning Co. has been designing, fabricating, and installing awnings for homeowners and businesses throughout the state. The Jersey Shore Awning Co.'s multi-generational family business has been proudly serving the community with quality, hands-on service, and they've developed a reputation at the Jersey Shore that's recognizable and iconic.

Following an unexpected change in leadership, Jersey Shore Awning was forced to reevaluate operations and look for areas of improvement that could increase efficiency to lessen the demand of their team, without jeopardizing productivity and profits. Jersey Shore Awning needed to continue keeping up with demand, but not at the cost of its employees—and that's where the conversation for LEAN Manufacturing, and more specifically, Kaizen Training began. Jersey Shore Awning took the first step toward exploring LEAN Manufacturing on its own and invested in new Customer Relationship Management (CRM) software. For about 6 months leading up to working with NJMEP, they started to get a handle on a rough blueprint of how to optimize its operation. Unsure what step to take next, they were encouraged by another 'MADE in New Jersey' manufacturer to connect with NJMEP. Learn more about Jersey Shore Awning's successes on page 15 to see how they were able to do more with less by adopting LEAN Manufacturing Principles.

## LA FAVORITE INDUSTRIES INC.

La Favorite Industries Inc. is best characterized as a 'boutique manufacturer' with a focus on part production to exact operating specifications, rather than the high-volume sale of mass-produced standard-size expansion joints. La Favorite Industries has carved out a niche market in the manufacturing sector and is one of the only businesses left in the United States that produce these highly specialized components. With La Favorite playing this critical role in the energy market, the need to have the latest quality management system (QMS) is pivotal in providing clients with products and services that meet all their regulatory requirements. The impetus for seeking certification for ISO 9001:2015 was when a longtime client that operates within the Department of Defense (DOD) sector, with ties between them dating back to WWII, required updated certification as per the DOD's newest guidelines.

As a longtime supplier of specialized expansion joint components to businesses that operate in the DOD sector, it was imperative that La Favorite seek out and update its QMS to meet ISO 9001:2015 specifications. After connecting with NJMEP, which has facilitated many ISO Certification Projects in the past, they took an in-depth look at La Favorite's Operation, assessed where their needs were, and put together a comprehensive plan of action to help them achieve ISO certification. They needed a partner to help them retain a longtime customer, one who understood the complexity of their business and the importance of this contract. See how La Favorite overcame this challenge and secured an ISO 9001: 2015 certification in only 6 months by turning to page 17.

*New Jersey manufacturing is Built to Last. These businesses and the employees that make it all possible are truly, 'Unsung Heroes.'*

***Check back in Manufacturing Matters every quarter to see the Built to Last manufacturing list.***
***To be included, contact Mike Womack at mwomack@njmep.org and show the world your company is Built to Last.***

# JERSEY SHORE AWNING CO. INC. DOES MORE WITH LESS

**SUCCESS STORY:**
**OPERATIONAL EXCELLENCE**

## Background

"It is the ingenuity of the maker which makes his work stand out." Ora X. McClellan, Founder of Jersey Shore Awning

Jersey Shore Awning Co. got its start in 1947 when Ora X. McClellan and his wife Elysabeth founded the company and set about bringing premium brands, quality products, and unrivaled customer service to the Jersey Shore Community. For more than 73 years, Jersey Shore Awning Co. has been designing, fabricating, and installing awnings for homeowners and businesses throughout the Jersey Shore. The Jersey Shore Awning Co.'s multi-generational family business has been proudly serving the community with quality, hands-on service, and they've developed a reputation at the Jersey Shore that's recognizable and iconic. Their process for adding an awning to any residential or commercial property is easy and their team carefully handles all stages of the process, starting with design, fabrication, and culminating in the installation of premium custom awnings.

Wade McClellan, third generation CEO of Jersey Shore Awning Co., and his two brothers have been involved in the business as far back as he can remember, with Wade finally taking over in 2015 after the business restructured due to a family health situation that caused his father to step down as CEO after over three decades. "The same thing happened to both [my grandfather and my father], so that's why we started the LEAN Process—because you can't just work yourself to death, there has to be a smarter and more efficient way to run and grow the business," says Wade.

## Challenge

After Wade's father had to step down as CEO due to his health—an event that mirrored when Wade's father took over in the 1980s from his grandfather and founder, Ora X. McClellan—Wade was forced to reevaluate the operation and look for areas of improvement that could increase efficiency to lessen the demand of the team and himself, without jeopardizing productivity and profits. Jersey Shore Awning needed to continue keeping up with demand, but not at the cost of its team members and his family—and that's where the conversation for Kaizen Training began.

Wade detailed how the business functioned prior to taking over as CEO, saying, "We were doing a lot of stuff right, but you miss certain things—like with your family and kids—when you work like that and take the initiative to handle a lot of the day-to-day yourself and wear every hat, which a lot of small business owners end up doing, and they don't realize so much of their profits due to easily fixable mistakes and better processes."

Under Wade's leadership, Jersey Shore Awning took the first step toward exploring LEAN and he invested in new Customer Relationship Management (CRM) software—which provides integrated, data-driven software that helps businesses manage, track, and store information related to current and potential customers—and for about 6 months leading up to working with NJMEP, Jersey Shore Awning started to get a handle on a rough blueprint of how to optimize their operation. They weren't sure what next step to take and were encouraged by another 'MADE in New Jersey' manufacturer to connect with NJMEP.

## Solution

Kaizen means improvement. Moreover, it means continuing improvement in working life. When applied to the workplace Kaizen means continuing improvement involving everyone—starting with production workers and continuing up through the chain of command.

Prior to engaging with NJMEP, Wade had no idea MEP's existed. He was looking at ways to maximize his ROI, rather than just hustling more and more at the expense of his health, time, and business. "I knew there were plenty of loose-ends here and there," he says, "And the NJMEP Kaizen training program gave us a bird's eye view [of our operation], rather than just hacking our way through the woods."

Wade details what it was like working with NJMEP's Kaizen

training resource saying, "He came in, we did the LEAN/ Kaizen training with the production team—ended up working with the installer team later—and the buy-in from the team was really good from the get-go. NJMEP's expert was able to breakthrough to the workers and make training accessible."

The Kaizen Training Program included a total of 24 hours of LEAN training, broken up over the course of three days, totaling 8 hours of training per day. The first day began with assessing the current standing of the organization's lean practices, and then provided a general overview of lean principles. Next, training was provided to staff on how to create a process map as well as delivering in-depth explanation of 5S and how to identify the correct metrics to monitor. Finally, visual management, flow, and Kanban training was delivered to the participating teams.

The following provides an overview of how the training was delivered:

Kaizen Training Program — 24 Hours Total

Phase I – Assessment and General Lean Overview (8 Hrs)

- Team Overview of Lean Practices and Procedures
- Process Mapping and Process flow

Phase II – Process Mapping Change Implementation and Metrics (8 Hrs)

- Training on Process Mapping Changes
- Overview of Lean 5S and Placing Metrics

Phase III – Implementation of Kaizen Training (8 Hrs)

- Visual Management, Flow, and Kanban

## Results

The following results were cited as a direct result of engaging with NJMEP 12-18 months following the conclusion of the project outlined above:

- ✔ **NEW SALES: $171, 512**
- ✔ **COST SAVINGS: $53,000**
- ✔ **SAVINGS ON INVESTMENTS: $50,000**
- ✔ **NEW PRODUCTS & PROCESSES: $20,000**

Wade and the Jersey Shore Awning Team set themselves apart by evolving their production methods to make their existing processes more streamlined, making better, more efficient use of their manpower—to do more with less.

"[NJMEP] came in, we did the LEAN/Kaizen training with the production team—ended up working with the installer team later—and the buy-in from the team was really good from the get-go. NJMEP's expert was able to break through to the workers and make training accessible."

Wade McClellan, third generation CEO - Jersey Shore Awning Co

# THE LAST OF ITS KIND: LA FAVORITE INDUSTRIES INC. CONTINUES TO PIONEER

SUCCESS STORY:
**OPERATIONAL EXCELLENCE**

## Background

La Favorite Industries was formed in 1984 by Tom Mastin and Eric Hague to continue the Mastin family legacy that began in 1896 when rubber manufacturing was an expanding technology for all kinds of products. La Favorite was primarily engaged in the making of seals, packings, gaskets, expansion joints, and other fabricated rubber specialties, some of which are still made today. The company reached a crossroads in the 1980s as many of its products were starting to be made offshore and others were replaced by new technologies.

For Eric Hague, now President of La Favorite, his journey started in 1980 as a summer job working for the original owners, who were close family friends. In 1984 it was decided to close the original business. Tom and Eric formed a new venture that focused on some of the specialty products that had greater growth and profit potential. They were able to acquire the product lines and tooling that were needed to move forward, particularly the power plant condenser inlet expansion joints. These specialized parts are highly critical to the operation of most steam-driven power plants which include coal, gas, oil, and nuclear fueled plants. From this product line, a successful splicing and installation business was derived. In addition, La Favorite also molds and fabricates parts used on aircraft carriers, submarines, and all kinds of industrial applications.

Sadly, Tom passed away suddenly in 2014, elevating Eric to the company presidency.

In Eric Hague's words, "[La Favorite] is best known as a 'boutique manufacturer' with a focus on part production to exact operating specifications, rather than the high-volume sale of mass-produced standard size expansion joints. We are the go-to producer of expansion joints when conditions have changed to nonstandard specifications—due to system changes and upgrades."

La Favorite offers end-to-end customer support from manufacturing to on-site installation and splicing services—they're a full-service outfit. La Favorite Industry's expertise in both the manufacturing, installation, and service of their products allows them to facilitate a wide range of customers' unique needs, 24 hours a day, 7 days a week, 365 days a year.

## Challenge

La Favorite Industries has carved out a niche market in the manufacturing sector in that they're one of the only manufacturers left in the United States that produces these highly specialized components. With La Favorite playing this critical role in the energy market, the need to have the latest quality management system (QMS) is pivotal in providing clients with products and services that meet all their regulatory requirements. In Eric Hague's words, "The need for ISO came about when one of our legacy customers—which goes all the way back to the WWII era—conducted quality audits. The DOD [Department of Defense] no longer recognizing the outdated military quality system and wants contractors to get ISO certified—and that was the impetus for updating our system to meet ISO 9001:2015 standards and practices."

ISO 9001 is a general standard that will benefit any organization and doesn't apply to any single industry, business size, product, or service. Instead, ISO 9001: 2015 provides the outline and process to give any company that meets compliance the tools to improve their QMS, expand risk-based thinking, and ensure businesses have the practices and procedures in place to maintain these critical processes.

"For a small business, it's a huge undertaking," says Eric, "It was one of those things that we've been putting off for years—avoiding it like the plague. With ISO, we were scared of it to be honest. We're a small company, we only do seasonal work, and to sit down and do this, we just don't have the time."

In order to continue working with their legacy client—a major defense contractor—La Favorite needed to pursue certification in ISO 9001:2015 and get compliant. Eric approached NJMEP with the prospect of implementing an

ISO 9001:2015 QMS to ensure they met their client's (and the DOD's) regulatory requirements.

## Solution

After speaking with NJMEP, which has facilitated many ISO Certification Projects in the past, NJMEP took an in-depth look at La Favorite's Operation, assessed where their needs were, and put together a comprehensive plan of action to help them achieve ISO certification. With the help of NJMEP's Account Manager and their Expert ISO Resource, their knowledge of ISO 2001: 2015 and all the resources provided by NJMEP, La Favorite Industries was able to receive their ISO certification over the course of six months. This allowed them to maintain their legacy contract and continue providing critical components to domestic energy suppliers.

The process for achieving ISO 9001: 2015 certification began with an analysis and assessment of La Favorite Industries' operation, then proceeded in three separate phases. During Phase One, NJMEP's Expert ISO Resource provided ISO Standard Management Overview Training, Quality Policy and Objectives Training, then rounded out in Process Reviews and Process Leadership Training—all of which took a total of 16 training hours. Next, Phase Two involved the implementation of training materials, which involved Document Control, Quality Manual Development, and Procedure Development Training—a total of 48 hours of training. Lastly, Phase Three involved Mentorship and Implementation of ISO 9001:2015 Standards and Practices, which began with ensuring Employee Understanding and Involvement and Internal Auditor Training, and concluded with a Management Review Workshop to ensure that La Favorite's Leadership would be able to carry these standards and practices forward with the day-to-day operations. In total, training totaled 110 hours and at the end of the partnership with NJMEP, La Favorite was able to secure ISO 9001: 2015 Certification.

The ISO 9001: 2015 training and certification process can be time-consuming and complex without the proper experience or knowledge. Working with an experienced team of ISO specialists to identify, implement, and improve systems and protocols allowed La Favorite Industries to achieve ISO 9001:2015 certification, receive DOL assisted grants to help reduce the overall cost of training, and secure the contract with their legacy client.

## Results

Upon completion of the six month ISO 9001:2015 training and certification contract with NJMEP, La Favorite Industries was able to pass the ISO Internal Audit, which reassured their client that through effective record keeping and implementing procedures aimed at improving processes, they could ensure the highest level of product quality and conformity.

"The audit was a breeze. I think we were expecting the worst, and to be honest—it wasn't that bad. [NJMEP's expert resource] prepared us a lot. We wouldn't have been able to do this without him."

The results below reflect the impact La Favorite Industries experienced while engaging with NJMEP:

- ✔ **RETAINED SALES: $100,000**
- ✔ **NEW SALES: $100,000**
- ✔ **NEW JOBS: 2**
- ✔ **RETAINED JOBS: 15**
- ✔ **NEW INVESTMENT IN WORKFORCE: $25,000**

"Things are going pretty well here at La Favorite and we are pleased to have received our ISO certification. This never would have happened without the support of NJMEP and Stacy in particular."

Eric Hague, President - La Favorite


# Distek Inc. Donates 3D Printer to Foster Training Opportunities

NJMEP Client Donates 3D Printer to Ensure the Machine Goes Where It Will Be Put to Use, Training the Next Generation of Creators and Makers

## WHO IS DISTEK INC.?

With over 47 years of experience, Distek is a North Brunswick, family-owned, manufacturer of laboratory testing equipment for the pharmaceutical and biotech industries, specializing in benchtop instruments that help companies streamline research and development and quality control. Their industry expertise extends beyond manufacturing, offering customers proficient validation and qualification services.

"We make products here, and as a mechanical engineer I like that part of the business," says Jeff Brinker, 2nd Generation President of Distek Inc., when asked whether he had always envisioned joining the family business and taking over after his father, who was a chemical engineer by trade and the founder of Distek. Following his college graduation and upon entering the workforce, Jeff moved out west and worked for about five years before feeling the tug to return to New Jersey. "I always had it in the back of my mind that I was going to eventually come back," says Brinker, citing slight parental pressure as being one of the causes for getting involved with the family business.

## DECIDING WHAT TO DO WITH THEIR OLD TECH

Distek recently upgraded their 3D Printing capability with a machine that can produce larger-scale components and can do so more efficiently. When it was time to decide what to do with their current, 15-year-old 3D Printer, Jeff decided it should go to someone who would use it—and donating it to a high school STEM program was the first idea.

"We contacted a couple local high schools to donate [the 3D printer] but didn't get any response back, and I've had a couple meetings with [NJMEP] to talk about some manufacturing initiatives and improvements and things," says Brinker, "And we were just walking through our office, and I asked if [NJMEP] knew anyone that could use the printer since we're not really using it anymore."

Dan Deutsch, NJMEP's Engineering Manager and Subject Matter Expert for Engineering and Automation, who was on-site to perform a Business Assessment, suggested that NJMEP could find a use for it in our training programs or through the Pro-Action Education Network—an initiative that works with Community Partners, CTE schools, Vocational/Technical Schools, Community Colleges, and over 25 Career Centers, to create alternative pathways for students interested in STEM and Advanced Manufacturing careers.

"I asked him if he knew of anyone who would want a donation [of the 3D Printer] and he said, 'You know what, we do training at our center and would love to have a printer,'" says Brinker. "And that's it—it happened very quickly, and we were happy


to be able to donate and give it away to someone who is going to use it."

## USING 3D TECHNOLOGY TO DEVELOP PRODUCTS

According to Brinker, the 3D Printer that was donated is about 15 years old and no longer suited the company's needs. "As an engineer developing products [the 3D Printer] is a pretty fascinating technology," he says enthusiastically. "It's a phenomenal tool, and what used to take days and weeks to prototype a part," explains Brinker, "You essentially can design something one day, print it—some parts can be done in a half hour, some have to run overnight, and you can have another part waiting for you the next morning when you come in. See how it works out, iterate, change it a little bit, and run another one. It's really an amazing tool for engineers."

The process prior to utilizing 3D Printing Technology used to take weeks as Distek's engineers in the product development department would have to go through far more steps and procedures when developing new products.

"Before 3D Printing, our engineers would have to take a 3D file, create a 2D drawing of it, send it to a machine shop, sheet metal shop, or some outside company to actually fabricate the part, which could take days, if not weeks to make," says Jeff. "When we look at our product development process, one of the biggest bottlenecks is prototyping parts," he explains, "Especially if you have parts that need tooling. If we have an injection-molded cover or housing or some type of metal casting, even to prototype those things they can take a couple months. Which now you don't even need to make tools in the prototyping stage, you can just 3D print them and see if they work."

The biggest benefit of utilizing 3D technology in the development stage is saving time on product research and development. The process takes a less theoretical and artistic approach and is replaced with a more practical method which employs equal parts of trial and error and physical testing—essentially, making the thing and seeing if it fits or works.

"For engineers during the development process to be able to design a part on their CAD package and just press the print button, send it over to the printer and get a part that same day or next day is pretty amazing," says Brinker, "It just helps us be able to prototype and iterate so much faster."

Saving time is a critical element in the product development stage, especially since, as Jeff later goes on to say, time is money for manufacturers.

## THE FUTURE OF 3D PRINTING IN MANUFACTURING

Jeff says that the future of engineering is going to be in tandem with advances in 3D Printing technologies. "I imagine 3D printing is going to play a pretty substantial role in the future of manufacturing," he says. According to him, the next frontier for 3D printing is metal printing, which he says has been around for quite some time but is still in its early stages.

As for what's next for Distek Inc., it's a little more prosaic. "We're a New Jersey-based company, we manufacture in New Jersey—it's where we've always been located, and all our products are designed and assembled in New Jersey. We're proud to be a New Jersey company and we're happy to be able to donate something to NJMEP that we know will get put to good use," says Brinker.


# A Leading Innovator in Advanced Manufacturing

Under the Leadership of MAC President Eddie Russnow, The Company Continues the Example Set by Founder Ed Gollob, Adopting Industry 4.0 Technologies Ahead of Their Peers

## WE DON'T DO EASY

MAC Products Inc. began in 1968 with Founder and CEO Ed Gollob and just two other employees. Since those humble beginnings, the company has grown to over 100 employees, occupying a 4.5-acre fully integrated complex in South Kearny. MAC Products is a family-owned and operated manufacturer, with their leadership team now spanning three generations. MAC offers full-service, solutions-based, made-to-order manufacturing services and products, with clients ranging from electrical utilities to mass-transit entities. The company's motto is that 'We Don't Do Easy,' instead, they do business in a personal and honest way, and it's the way they've done business for over 50 years.

As a longtime manufacturer deeply rooted in New Jersey, MAC has seen the onset of technological advancement within manufacturing time and again and has usually been at the forefront of innovation. What started as pencil and paper drawings has now evolved into one of the most technological operations in New Jersey Manufacturing. Eddie Russnow, President of MAC Products, offers a real masterclass in advanced manufacturing technologies—his background, not what you'd expect.

"Everything I did I learned on the job," says Eddie, standing in his office in Kearny, the MAC Products Motto 'We Don't Do Easy' emblazoned on the wall behind. "I was an international finance major in college, and I have a bachelor's degree in international finance and thought I'd be working on Wall Street for my career," says Russnow matter-of-factly, "Didn't think I'd be in manufacturing. When I got the offer to come here, I looked at it and said, 'Okay it's probably a better opportunity for me.' Then, I just embraced it and learned everything on the job, and I don't have any regrets," he adds. "I'm very happy and very passionate about the company and the work I do, and I love solving problems for people," he continues enthusiastically. "That's one of the things we do at MAC—We don't do easy," he says, pointing to the sign just over his left shoulder, "And the reason for that is that people don't come to us when things are easy to do, they come to us when they have a problem—and we want to solve that problem for them."

## WHAT MOTIVATES MAC TO ADOPT NEW TECHNOLOGIES

"When we started," says Russnow, "The company was just using a lot of manual equipment, some of which we still have today because they're still very useful in the production of low-volume items. We've been able to add capability onto it and to extend the life of that old equipment."

Solving high-level problems in a fast-paced and demanding industry like manufacturing in New Jersey calls for outside-the-box thinking and a lot of innovation. Sometimes this means taking leaps of faith and pursuing technological advancements that are untested—something MAC has been doing since the early days of

advanced manufacturing. The company's motivation?—their customers.

"The marketplace is dictating better service, and part of better service is being able to deliver quicker when the customer needs it and deliver where they want it," says Russnow. "That's been a push for us [with adopting advanced manufacturing technologies], to be able to service the customer base better," he adds. "From an advanced manufacturing standpoint," Eddie continues, "I remember when I first started here back in 1990, we had just started purchasing and utilizing CNCs. Over time, with the technology and capability evolving, we've moved to having four or five AXIS Machines, which has allowed us to produce more, to produce more challenging products, meeting critical and tighter tolerances." Naturally, the evolution of technology has also been impacted by the need to keep up with demand, particularly in New Jersey where we have a dwindling workforce.

Eddie continues, "We are also adding on robotics to pieces of equipment so that we can have an operator working on three machines at one time, because we've added on a robotic arm. We're not adding on full robotics, but we're adding on a cobot, so that this operator can add more value to the business and more value to himself, by picking up this skillset." Upskilling and reskilling their existing workforce is part of the MAC Products' ethos. "[Retooling our workers] also allows them the opportunity to advance within the organization," he adds, "We want to move away from having a person stand at a machine just to load and unload—that's really no value add for the person there. By having the cobot, having the CNC and an automatic loader, we can run the business lights out."

## THE FUTURE OF MANUFACTURING WOULD BE DIGITAL

When businesses think about Industry 4.0, the first things that come to mind are automation technologies, robotics, cobots, and similar tech, but oftentimes one of the key components of this new industrial revolution is forgotten—software. After all, what good is automation technology if you don't have the programming or technical know-how to operate these new advanced technologies? For MAC, this forward-thinking has been there since the early days of technology.

"When I started here, we were still doing pencil and paper drawings for CAD," says Eddie, "And then, in order to get our team to buy into the computer software, my father-in-law [Ed Gollob, Founder of MAC] actually purchased the first suite of software for us and sat in his office with the door closed for two or three weeks to learn it himself. He then brought in all of our engineers to demonstrate to them how easy it was. So he took it upon himself to show them that this is where manufacturing was headed—the future of manufacturing would be digital."

Russnow continues: "That's how we started down the road of that engineering technology, and now of course, anybody that comes in—new staff, recent college graduates—the benefit to that is that they're so advanced with the new technologies that they show the old guard new tips and tricks. That's a huge benefit we've seen, even with interns that we've had who are really advanced in CAD and 3D modeling and design."

MAC Products has been able to continually adapt to new technologies since its start over fifty years ago, and one of the key elements has been opening itself up to these new technologies, new methods of thought, and collaborating with younger generations of engineers and manufacturing professionals.

## CONTENDING WITH A BROADENING SKILLS GAP

"The struggle in New Jersey is finding qualified people, and finding people that have the proper work ethic," says Russnow. "That's been a big change and certainly something that I hear from other manufacturers—there's not the work ethic that most of us grew up with and are accustomed to seeing and expecting."

How does an organization contend with this shifting paradigm in work ethic and expanding skills gap? By getting more of buy-in from your organization's greatest asset—its employees.

"A lot of it is communicating with your staff to explain to them what it is that you do—what's your 'why' and 'why do you do what you do?'" says Russnow. "I think that's a very important piece of getting people to buy-in and understand why it's so important to come to work on-time and why it's important to be here every day, and it's because we have customers that rely on us and the work that we do at MAC is critical to the infrastructure to this country—the electrical and mass-transit infrastructure. So, we try to explain to our staff, this is what we do. You're just not here every day to drill a hole and tap a hole in a product. This is what you're doing, this is where it goes, this is what the end part looks like, and this is why it's important. If you explain that to them and take the time to do that, you can get them to have pride and ownership in the work that they're doing and to have a strong work ethic," he adds.

This is another area where MAC deploys Industry 4.0 technologies to help foster a better work ethic and also to give their employees more ownership of their roles.

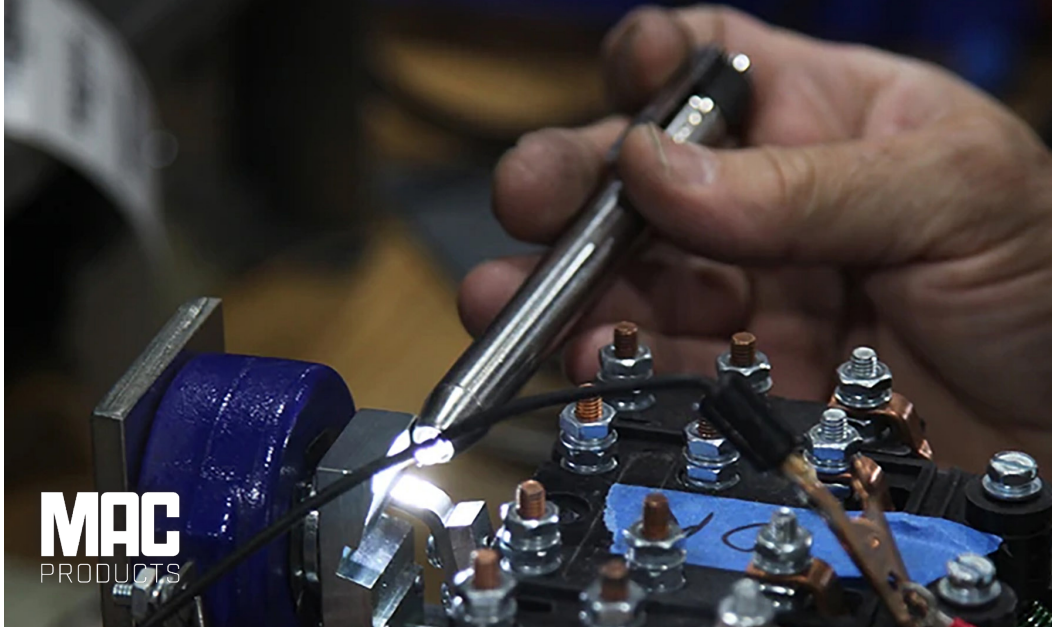
"On the shop floor we have a variety of different technology that we've been utilizing to monitor the effectiveness of our CNC equipment," says Eddie. "Which has been a huge benefit to us because it opens your eyes to see how well we're doing," he adds, "And the staff has really bought into it because they want to know that they're doing a good job."

## TAKING ADVANTAGE OF YOUR RESOURCES

Another key area of concern for manufacturers in New Jersey is supply chain stability and reliability. Something that programs like CONNEX New Jersey—a new supply chain management tool—and the New Jersey Manufacturing Voucher Program are helping to support.

"If we're having problems with the supply chain, the things that we can control within our facility is to manufacture as much as we can here," says Eddie. "When we might have a problem with a supplier, with the use of technology and other things, let's bring it back here and not outsource. We are a manufacturer, we have those capabilities, let's look to advance our capabilities so that we don't have to rely on others to control the destiny of our products," he adds.

That's where the NJMVP Program comes in to give MAC the support needed to expand their capabilities and extend their technological capacities. "We received a grant [as part of the NJMVP] for a piece of equipment that we're currently waiting for," says Russnow. "We bought a CNC Iron Worker to improve the throughput of a lot




of our fabrication for certain products and projects that we do work on now, but that will allow us to increase the capacity in that area of our shop, and therefore be able to deliver faster and be able to take on more of that work," he adds.

Sometimes, navigating programs like the NJMVP can be difficult for businesses who may not understand the process or have the time to dedicate to researching, educating themselves, and applying for government assistance—something Eddie and the MAC team can speak to. "The program had some little hiccups but nothing major," says Eddie. "A lot of it was maybe we didn't understand certain things about how to upload certain information, but at the end of the day it worked out well. Hopefully, the state will continue to offer this program and keep it in the budget," he adds enthusiastically.

## EVERY PROJECT IS A CLEAN SLATE

MAC has entrusted NJMEP for nearly a decade with consulting and training services—working together on Workforce Development, Marketing, LEAN, and Management training. Fruitful partnerships like this help New Jersey manufacture success, especially for an organization like MAC who as Eddie puts it in his own words: "Every project we're starting from scratch—a clean slate, like an artist."

Only by taking advantage of your resources and leaning on manufacturing partners can the industry weather the distinct challenges it faces. Regardless of how secure you feel about your operation, there's always room to improve, and always areas that can benefit from a third-party perspective—especially when it comes to process improvement or LEAN Manufacturing.

"We're going through a process improvement project right now on a grant that we received through the State with the help of NJMEP," says Russnow. "[With the help of NJMEP], we recognize that a lot of the issues that we've had in recent years are the fault of the process and some of the processes that we don't have in place, or that we don't follow consistently," he continues, "[NJMEP has] been essential for us in a lot of the advancements that we've been making."

NEW JERSEY MANUFACTURING AWARDS 2023

# ‘MADE in New Jersey’ Manufacturing Day 2023 ‘Manufacturer of the Year’ Finalists

**Each year manufacturers from all over New Jersey are nominated for their chance to take home a ‘Manufacturer of the Year’ award and be honored during NJMEP’s ‘MADE in New Jersey’ Manufacturing Day awards ceremony.**

Each award is a way to show the value and contributions of these companies and individuals to the Garden State and the country.

The Manufacturer of the Year finalists were separated into three separate categories based on company size. The categories are small-sized, medium-sized, and large manufacturers. The Rising Stars award highlights stand-out women manufacturing leaders, Leaders in Life Science award recognizes a company that exemplifies progressive manufacturing in this space, and Innovator of the Year shines a light on manufacturing businesses that live and breathe innovation. All the winners were announced on October 6 during the ‘MADE in New Jersey’ awards ceremony on National Manufacturing Day for their outstanding contributions and achievements in the industry.

# 'MADE in New Jersey' Manufacturer of the Year

# Small 50 or Less Employees

## Jersey Girl Brewing

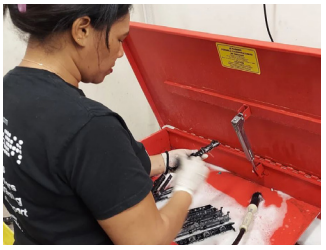
With their business philosophy firmly established in "Go Big or Go Home," owners and operators Charles Aaron and Mike Bigger set out to open one of the larger production breweries in New Jersey, basing their operations in their hometown of Mount Olive—where they and their families have lived for nearly two decades. They set out to creatively differentiate the Jersey Girl Brewing operation from others, with their goal being to leverage their size and production capacity—roughly 13 thousand gallons of beer per month—to open opportunities with partners and venues that have greater supply demands.

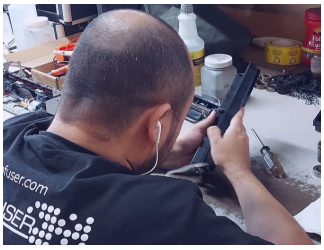
## Metrofuser

Metrofuser is a leading global innovator, manufacturer, and marketer of IT service parts, equipment, diagnostics, repair information, and systems solutions for professional users performing critical tasks.

Metrofuser's dedication to operational excellence, innovation, and employee development is what sets them apart from other businesses. Through continuous improvement, a collaborative management philosophy, investment in workforce development, and efficient supply chain management, they have positioned themselves as a leading manufacturer in the industry. Metrofuser is proud of its achievements and deserves recognition for its unwavering commitment to delivering exceptional products and services to its customers.



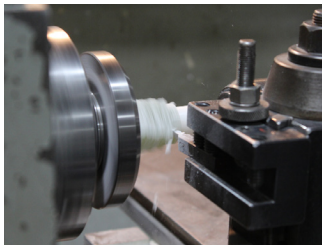




# 'MADE in New Jersey' Manufacturer of the Year

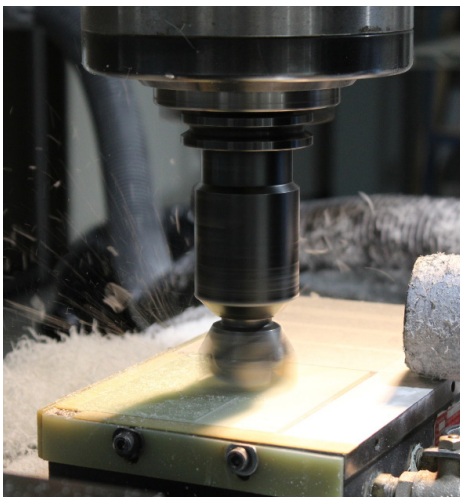
# Small 50 or Less Employees

## L-E-M Plastics & Supply Inc



"Making things that Make things Happen"—Located in Fairfield, L-E-M Plastics is a woman-owned fabricator and distributor of raw material plastics, sheet, rod, tubing, and film. Their services include build-to-print fabrication for aeronautical, medical, radio engineering, and many more industries.

Their onus is a passionate drive to create things that are part of something bigger, whether it be a component for an engine, airplane, conveyor belt, helicopter, cell tower, or even a heart monitor—L-E-M takes pride in making things that make things happen. L-E-M Plastics is a recent NJMVP recipient, illustrating their continued drive to innovate and manufacture in New Jersey.



# 'MADE in New Jersey' Manufacturer of the Year

# Medium 50-250 Employees

## Access Bio, Inc

Founded in 2002 and headquartered in Somerset, Access Bio Inc is a global leader in the diagnostic testing industry. Access Bio, Inc manufactures a range of diagnostic tests in the United States, including Influenza A&B RDT, Strep A Plus RDT, RSV Plus RDT, Dengue RDT, Malaria RDT, and most notably, the CareStart™ COVID-19 Antigen Home Test among many others.





## Universal Nutrition

Universal Nutrition began as a small, family-owned nutrition company in Linden back in 1977. Today, out of their state-of-the-art manufacturing facilities in Brunswick, Universal Nutrition provides cutting-edge nutritional products to bodybuilders and hard-training athletes worldwide. For over forty years, they've been pushing sports nutrition forward, formulating, manufacturing, and selling worldwide in over 100 countries.

Though they've since grown, Universal Nutrition is still family owned and operated and they still try to think small, growing their business one customer at a time. The company's ethos believes that strength, and the desire for making progress, lies at the heart of every human endeavor, and that community is always stronger than the individual—which they reflect in their hiring practices, preferring to source their workforce and build up their brand through their community.

NEW JERSEY MANUFACTURING AWARDS 2023

# 'MADE in New Jersey' Manufacturer of the Year

# Medium 50-250 Employees

bestwork INDUSTRIES FOR THE BLIND

## Bestwork Industries for the Blind, Inc.

Based in Cherry Hill, Bestwork's priority is to improve the quality of life for people who are blind by providing training and employment opportunities to produce the highest quality products and services. For more than 40 years, Bestwork Industries for the Blind's track record demonstrates their success as a mission-based enterprise—they exist to provide life-changing opportunities to people who are blind.

In 2022, the New Jersey Commission for the Blind and Visually Impaired (CBVI) certified Bestwork as a place of competitive, integrated employment. The certification allows CBVI to refer their clients that are blind or visually impaired to Bestwork for employment opportunities. Bestwork also partners with state, local, and private organizations to implement a high school transition program that will help students who are blind or visually impaired explore employment opportunities through internships.

People are their priority—Bestwork aligns its overall goals with its employees' passions, supporting them every step of the way. They understand that people who are blind can do more things than most people realize, and they take the utmost responsibility for designing their workplace and operations to better position people who are blind or visually impaired for success.

# 'MADE in New Jersey' Manufacturer of the Year

# Large 251 or More Employees

## Bumble Bee Seafoods

With a rich company history dating back to the end of the 19th century, and located in Cape May, Bumble Bee Seafoods is North America's largest branded shelf-stable seafood company, offering a full line of canned and pouched tuna, salmon, sardines, and specialty seafood products. As a global seafood company, they recognize the responsibility they have to the health of our oceans and to all those who rely on it—that's why prioritizing sustainable fishing is so important to them. They're constantly working to challenge themselves to rethink how they source, produce, and consume all the nutritious goodness the ocean has to offer.


## Damascus Bakery OPCO, LLC

Damascus Bakery is a third generation, family owned, privately held company owned and operated by the Mafoud brothers. Damascus Bakery began in 1930 on Atlantic Avenue in Brooklyn, serving the Middle East community with Middle Eastern Pita and Lavash Breads and has since evolved into serving SQF and Clean Label certified Pitas, Lavash, and other traditional baked goods. They've proudly been the recipient of the "Best Places to Work" award in both Brooklyn and New Jersey. Damascus is regularly working to improve the skills and training programs for their employees, consistently reinvesting in their workforce.

NEW JERSEY MANUFACTURING AWARDS 2023

# 'MADE in New Jersey' Manufacturer of the Year

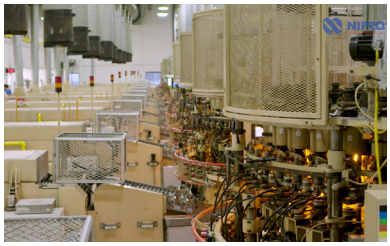
## Large 251 or More Employees

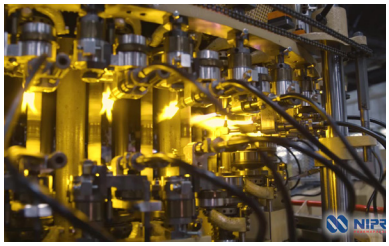
NIPRO

### Nipro Pharma Packaging


Formerly Alcon, Nipro Pharma Packaging has had a presence in Millville that dates back over a century and an accompanying rich history, however, it was Japan-based Nipro Corporation's acquisition of the operation over 11 years ago that truly transformed the business and solidified their commitment to the healthcare industry through glass manufacturing. Nipro Pharma Packaging's integration into the Nipro Corporation brought forth a renewed focus on healthcare and a dedication to providing high-quality packaging solutions for the pharmaceutical industry.

Glass tubing and specialty vials is their core business, which they produce utilizing state-of-the-art manufacturing processes that ensure the highest standards of precision, safety, and reliability. Nipro Pharma Packaging's commitment to quality assurance has earned them ISO 9001 and ISO 15378 certifications, further validating their dedication to excellence. Nipro Pharma Packaging is deeply rooted in the local community, actively engaging in initiatives that promote education, health, and the overall well-being of their community members. Moreover, they prioritize environmental sustainability by adopting eco-friendly practices, reducing waste, and minimizing their carbon footprint.





# 'MADE in New Jersey' Manufacturer of the Year

# Innovator of the Year

NEW JERSEY MANUFACTURING AWARDS 2023

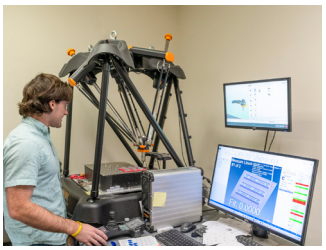
## International Welding Technologies

International Welding Technologies, Inc. (IWT) began, as a lot of other great enterprises do, in a small garage in 1989. Founded by Harry Wilkinson, a recognized leader in the stud welding industry, who had decades of stud welding experience as the general manager for KSM Stud Welding in Marlton. Following the sudden closure of KSM, Harry took the opportunity and poured his expertise into building a successful stud welding company in the void left behind. IWT began providing quality Capacitor Discharge Fasteners before moving on to producing proprietary LYNX brand stud welding equipment.



## SICAM Corporation


SICAM is one of the pioneers in the 3D Printing and Rapid Prototyping industry, getting their start in 1990 by providing 3D Printing services for prototypes—at the time it was called rapid prototyping and it was considered a revolutionary process. Since then, SICAM has remained an engineering-driven company comprised of highly technical personnel. With extensive experience in design and manufacturing and the implementation of advanced computer-aided manufacturing technologies, SICAM's technical staff has a solid foundation of in-house CAD/CAM and manufacturing technologies, offering clients a full range of rapid product development services, from concept through to production.



NEW JERSEY MANUFACTURING AWARDS 2023

# 'MADE in New Jersey' Manufacturer of the Year

# Innovator of the Year

Case Medical

## Case Medical, Inc

Case Medical, Inc. is an FDA-registered, ISO 13485 and ISO27001 certified, woman-owned business that designs, develops, and manufactures sustainable, environmentally preferred products right here in Bloomfield. Case Medical's journey as a sustainable company began with an earlier business that worked to provide an environmentally safe workplace as a manufacturer/formulator following Green Business practices and participating in the Chemical Footprint Project. Case Medical is a leading manufacturer of medical device reprocessing products and has been recognized for its innovation, growth, and commitment to its employees and community.



# 'MADE in New Jersey' Manufacturer of the Year
# Leaders in Life Sciences

## Forza International

Based in South River, Forza International is a designer and manufacturer of laboratory testing equipment, with their equipment used across the globe for the Fuel, Electric Vehicle Fluids, Lubricant, Grease, and Asphalt industries. They primarily focus on designing and manufacturing test equipment that analyzes the physical properties of fluids and lubricants when they reach extremely hot or cold temperatures. Their immense portfolio of products includes manual, semi-automated, and automated models that adhere to standards such as ASTM, DIN, ISO, IP, EN, and FTM. Because of their dedication to keeping their design and manufacturing work in the United States, Forza International has been able to build custom, proprietary laboratory equipment for first-party laboratories as well.

## Zimmer Biomet

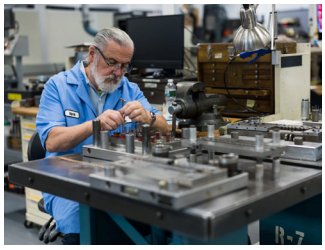
Zimmer Biomet is a global medical device manufacturer with a simple mission—to alleviate pain and improve the quality of life for people around the world. Zimmer Biomet operates three sites in New Jersey—Fairlawn, Farmingdale, and Parsippany—with a combined total of over 500 team members. The New Jersey sites manufacture an extensive, market-leading portfolio of devices ranging from orthopedic implants (hips, knees, extremities, spine and dental), to thoracic sutures, to robotic assisted surgery consumables. In 2023, Zimmer Biomet was certified as a Great Place to Work®, recognizing their prioritization of team member engagement and overall satisfaction.


NEW JERSEY MANUFACTURING AWARDS 2023

# 'MADE in New Jersey' Manufacturer of the Year
# Leaders in Life Sciences

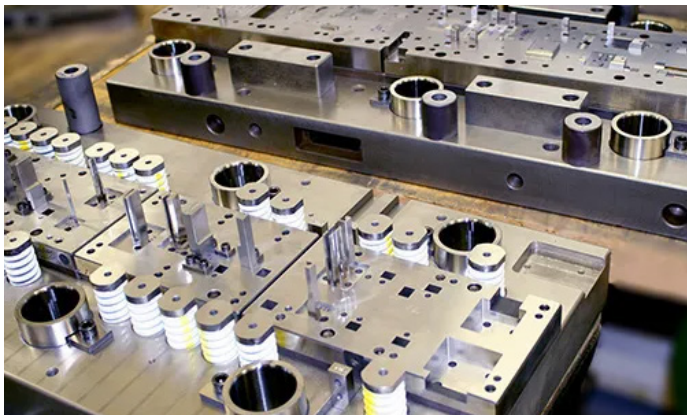
WEISS-AUG GROUP MANUFACTURE SMARTER

## Weiss-Aug



Founded in 1972, in Parsippany, Weiss-Aug Group is a recognized leader in precision metal stamping, injection molding, value-added assembly solutions, and tooling. Amongst others, they have been serving the medical device and life science industries for over 42 years and have continuously grown to encompass a total of seven locations, including three locations right here in the state of New Jersey. Over the years, Weiss-Aug has manufactured millions of components for surgery, intravenous and disposable items, implants, and medication delivery devices. Focusing on the development and manufacturing of complex components and products, they formed a strategic partnership with RxBandz to manufacture its highly intricate MiniJect® auto-injector in high volume.

Over the years, Weiss-Aug Group has been recognized by several organizations for its commitment to innovation, service, quality, and value, namely, being the only supplier to have won the Medtronic Supplier Excellence Award two consecutive years in a row.

# 'MADE in New Jersey' Manufacturer of the Year
# Rising Stars

2023 marks another year of NJMEP's 'Year of Women in Manufacturing' initiative. The entire team took it upon themselves to make a concentrated effort to highlight women in manufacturing that are so often overlooked. The goal is to ensure women in the manufacturing space are recognized, supported, and given the opportunity to inspire the next generation of industry leaders. Over the course of the year, dozens of women manufacturing leaders have participated in interviews, collaborative events, breakout sessions, webinars, and more, all to ensure their voice reaches young women and their fellow manufacturing peers.

This year at 'MADE in New Jersey' Manufacturing Day, NJMEP is providing another way to draw attention to the incredible women that lead the way in the 'MADE in New Jersey' Manufacturing industry. The Rising Stars award was added to the event. Nominations came in and the individuals below were all in the running to be named the second Rising Star 'Manufacturer of the Year.' The winner was announced on October 6th during the Manufacturer of the Year awards ceremony but each of these nominees are worthy of recognition for the value they bring to the industry.

## **Caroline Egbelu** | President & Founder

Health Enhanced Foods®

Caroline is the Founder and Managing Director of Health Enhanced Foods, a specialty flour company. Caroline is responsible for creating the brand and products, as well as identifying target markets for them, and she's responsible for ensuring the company's manufacturing processes meet all required food safety compliance.

## **Dawn Fitch** | CEO & Founder

Pooka PURE & SIMPLE

Dawn is an author, speaker, and the founder and CEO of Pooka Pure and Simple, an artisan bath and body manufacturer, with products sold in Whole Foods Markets and through QVC. Under Dawn's leadership, the company has grown from Dawn making their first products on her kitchen stove to a full showroom located in Kearny.

## **Elizabeth Gauthier** | Engineer & Manufacturing Director

ZIMMER BIOMET Moving You Forward.™

Elizabeth is the Manufacturing Director and Site Leader for Zimmer Biomet Manufacturing. Throughout her tenure at Zimmer Biomet, Elizabeth has focused on all aspects of manufacturing including P&L management, talent development, organizational structure, supply chain principles, and using lean and six sigma methodologies to drive operations efficiency improvements.

NEW JERSEY MANUFACTURING AWARDS 2023

# 'MADE in New Jersey' Manufacturer of the Year
# Rising Stars

## Kim Benson-Worth | Engineer & Manufacturing & Test Manager

CAD Custom Energetic & Pyrotechnic Solutions

Kim is an Engineer and currently, as the Manufacturing and Test Manager for Cartridge Actuated Devices (CAD), her primary responsibility is to improve CAD's process and determine ease of manufacturability of new product lines. She is versed in the areas of testing, time management, creative problem-solving, controlling costs, and minimizing downtime. Her past work with highly sophisticated technology has led her to develop training programs for Production Engineers, Technicians, and Assemblers. Kim's professional goal has been operational excellence while adhering to the strictest safety guidelines.

## Micaela B. Alvarez | Director of Operations & Engineering

UNIVERSAL

Micaela B. Alvarez is the Director of Operations & Engineering at Universal Nutrition. She ensures everyone understands the opportunities for growth both within the Operations team and cross-functionally. She is responsible for automation, innovation, capital projects, process engineering, maintenance, and training. Prior to Universal Nutrition, Alvarez brought new consumer products to the world, from lab innovation to full-scale manufacturing at P&G and DuPont.

# Congratulations to all the finalists

# 'MADE IN NEW JERSEY' MANUFACTURING DAY

## SPECIAL THANKS TO OUR SPONSORS

### PLATINUM

AZA Alan Zakin Associates — Community Affairs & Government Relations
Crowe
Delta Dental
Grassi — Advisors & Accountants
HINJ — HealthCare Institute of New Jersey — Advancing Global Health • Leading New Jersey's Economy
NJ Advance Media
NJBIA — New Jersey Business & Industry Association
Porzio Bromberg & Newman
Provident Bank
RSM
SEIDOR
withum — Advisory Tax Audit

### GOLD

ACE — America's Cutting Edge
attentive energy two
The Knotts Company — Automation and Motion Control
NJBIZ
NJCC — New Jersey Chamber of Commerce
NJEDA — Economic Development Authority
PKF O'Connor Davies — Accountants and Advisors
PSE&G
ROI — roi-nj.com
LEM — Collaborative Cooperative Kind — Precision Fabrication

### SILVER

African American Chamber of Commerce of New Jersey
Circular Edge — Advisory | ERP | Cloud
Columbia Bank — Count on Columbia.
Concord Energy Services
County College of Morris | Center for Workforce Development
Insperity — HR that Makes a Difference®
JeffVreeland — Product Photo & Video
JPMorgan Chase & Co.
LinkHigh Technologies Inc.
MODTEK
New Jersey Natural Gas
NIKSUN
paylocity — Forward Together.
RJPhotsy
Rovere Media
sewio
Statewide Hispanic Chamber of Commerce of New Jersey
Single Throw Marketing
SPEX SamplePrep
Stickel Packaging Supply
Souchi
techminds group
TEKTITE — Demanding Environments... Rugged Gear™
TDK·Lambda
UNEX — Engineered Space Optimization
U.S. Army
White Oak
wiss
ZAGO — Fasten Forward

### BRONZE

BioNJ — Because Patients Can't Wait
LA
CohnReznick — Advisory • Assurance • Tax
HoHoKus School of Trade & Technical Sciences — Owned and operated by Eastwick Education

### BLUE

The Fulfillment Center at Employment Horizons — Let Us Work For You
Garden State Precast Inc.
Spectrum Works

# 'MADE IN NEW JERSEY' MANUFACTURING DAY

NEW JERSEY MANUFACTURING AWARDS 2023

# Congratulations to the 'Manufacturers of the Year'

## SMALL
(50 OR LESS EMPLOYEES)

LEM
Collaborative Cooperative Kind
Precision fabrication

## MEDIUM
(51 TO 250 EMPLOYEES)

bestwork
INDUSTRIES FOR THE BLIND

## LARGE
(251 OR MORE EMPLOYEES)

NIPRO

## INNOVATION

Case Medical

## LIFE SCIENCES

WEISS-AUG GROUP
MANUFACTURE SMARTER

## RISING STAR

**Micaela B. Alvarez**
Director of Operations
& Engineering at
UNIVERSAL

# Celebrating Those That Stand up for 'Made in New Jersey' Manufacturing

## New Industry Allies Added to the 'Manufacturing Honor Roll'

'MADE in New Jersey' Manufacturing Day is filled with celebrations focused on New Jersey businesses. However, the industry could not progress without some stand-out partners. Time is set aside to honor some of these incredible people that do so much for this vital industry. The 'MADE in New Jersey' Manufacturing Day Awards would not be complete without recognizing the 'Manufacturing Honor Roll'.

The following individuals are being recognized for supporting the more than 11,000 manufacturing, life sciences, and STEM firms and their 300,000 plus employees in the Garden State. Each of the 'Manufacturing Honor Roll' recipients is given an award to immortalize their contributions to this critical industry. Manufacturing and the longevity of the industry depends on collaboration, innovation, and people. Those that are recognized at 'MADE in New Jersey' Manufacturing Day via the 'Manufacturing Honor Roll' have proven to be allies to the industry, supporting its development and continued progress in New Jersey.

See below for all the 2023 'MADE in New Jersey' Manufacturing Day 'Manufacturing Honor Roll' recipients:

- **Senator Michael Testa Jr.** | New Jersey's 1st Legislative District
- **Pravina Raghavan** | Director, Hollings Manufacturing Extension Partnership (MEP) Program
- **Christina Renna** | President & CEO, Chamber of Commerce Southern New Jersey
- **Dr. Anthony J. Iacono** | President, County College of Morris
- **Aaron Fichtner** | President, New Jersey Council of County Colleges
- **Steven Gerber, Esq.** | Secretary Emeritus, NJMEP
- **Robert Loderstat** | CEO Emeritus, NJMEP

New Jersey brings with it countless advantages to businesses, from its geographic location to its dense concentration of resources and highly educated workforce. There's still no escaping that manufacturers in the state have long been forgotten and neglected. Over the past three years, a light at the end of the tunnel presented itself. A new-found respect for manufacturing by the public has been catching on. The local businesses that stepped up to offset the PPE shortages or donate supplies and resources to their local community garnered positive and well-deserved attention. These businesses never stopped. They helped ensure we all had access to food and did their part in helping the supply chain recover and progress. The 'Manufacturing Honor Roll' recipients showed they are willing to speak up for these accomplishments and are working to make sure the industry doesn't go unnoticed any longer.

On behalf of the entire industry, NJMEP would like to thank all those that continue to help contribute to manufacturing's progression in New Jersey and the United States of America.

# 'MADE IN NEW JERSEY' MANUFACTURING DAY

# Congratulations to the 2023 MANUFACTURING Honor Roll

**Senator Michael Testa Jr.**
New Jersey's
1st Legislative District

**Pravina Raghavan**
Director, Hollings Manufacturing
Extension Partnership (MEP) Program

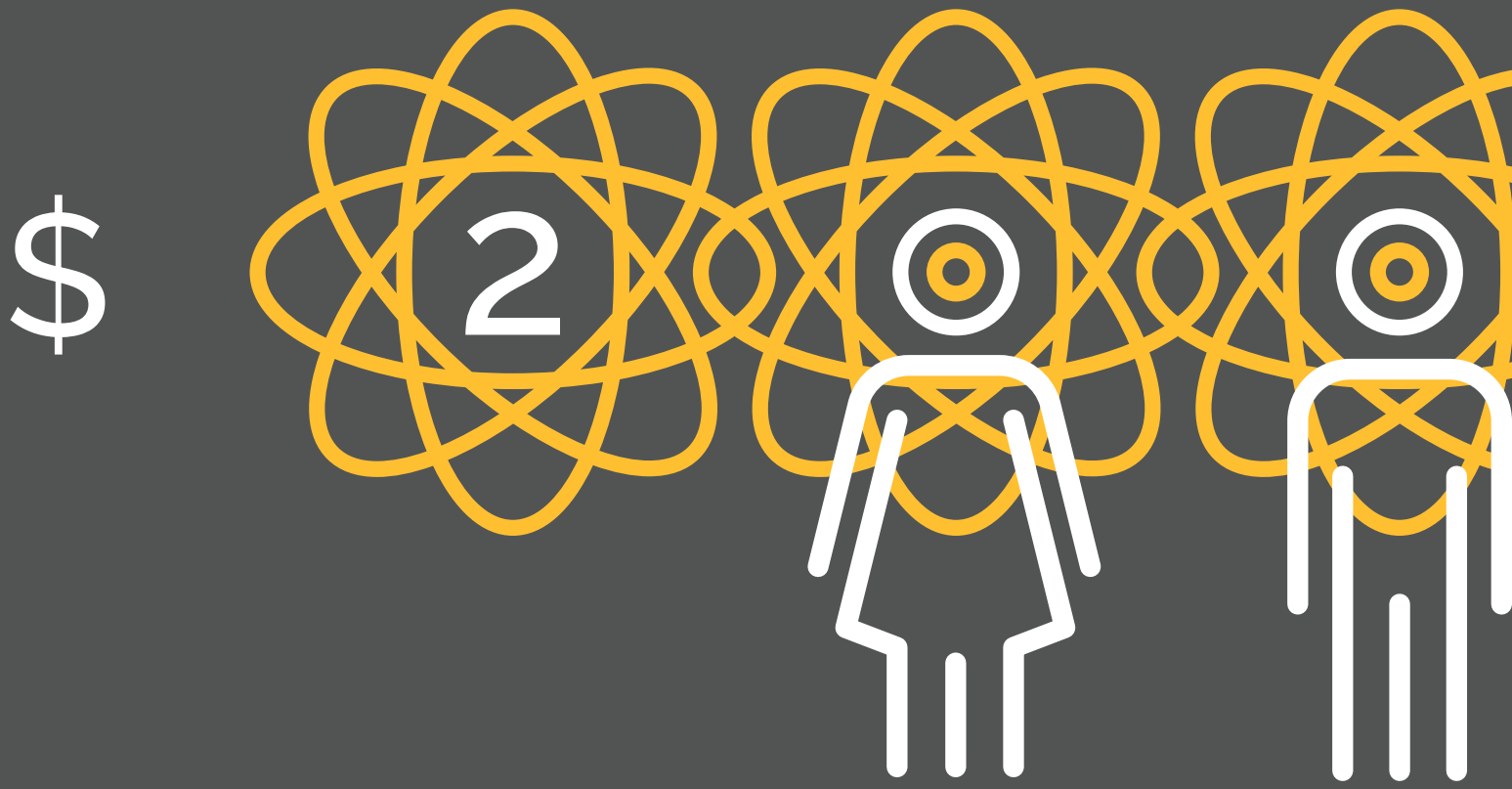
**Christina Renna**
President & CEO,
Chamber of Commerce
Southern New Jersey

**Dr. Anthony J. Iacono**
President, County College
of Morris

**Aaron Fichtner**
President, New Jersey
Council of County Colleges

**Steven Gerber, Esq.**
Secretary Emeritus, NJMEP

**Robert Loderstat**
CEO Emeritus, NJMEP




# NSF Engines Initiative Could Bring Nearly $200 Million to the Photonics Industry in NJ

Princeton Vice Dean of Innovation Says Workforce Development is the Glue That Will Help Strengthen the Optics and Photonics Landscape in New Jersey

## PHOTONICS: THE CORNERSTONE OF TECHNOLOGY

What is photonics? "It's the use and control of light, in the most basic sense," says Dr. Craig B. Arnold, Professor of Mechanical and Aerospace Engineering and Vice Dean for Innovation at Princeton University. Dr. Arnold is the Principal Investigator

for the Princeton-led, National Science Foundation (NSF) funded consortium for photonics research and workforce development. He shares this honor with co-lead Professor Robert Chimenti of Rowan University, who, together with nearly a dozen other Universities, local companies, and State entities, hope to advance research, transition discoveries into the economy, and build the region's technological workforce. This new photonics initiative is made possible by the NSF's Engines program, a program authorized by the CHIPs and Science Act whose purpose is to foster use-inspired research and development, translate innovation results to societally usable technologies, and support workforce development to help grow and sustain regional innovation.

The central theme behind the photonics initiative is to combine the efforts of colleges and universities, startups and established companies, and manufacturers across New Jersey and the region to catalyze research, develop new technologies, create jobs and a more qualified and higher-paid technological workforce, and to strengthen the economy overall. It's a particularly important program for technology manufacturers, because as Research and Development (R&D) ramps up, the need for specialized components and new technologies will bring business to the industry.

## MANUFACTURING IS THE FOUNDATION OF INNOVATION

"When you think about the community of optics and photonics manufacturers, researchers, developers," says Dr. Arnold, "What you realize is that they're a platform or foundation—they create the components and the bits and pieces that help us do the incredible things that we might want to do all across the different [photonics] disciplines."

We learned a lot of valuable lessons during the Covid-19 pandemic, especially in terms of supply chain interruptions with semiconductors, and optics and photonics are similar in the sense that there are so many essential products and technologies that depend on them in some form.

"From everyday consumer products like a sensor in a washer/dryer that detects the amount of water vapor in the air. Whether it's in agriculture, medicine, or communications—all of these things work or depend on light, or photons, or using them in some special way," says Arnold. "It's not only an important technological area, but it's also an important strategic, supply chain, and manufacturing knowledge and ability to be able to produce these vital components in-house, in-state, and in-country."

## CREATING A PHOTONICS ECOSYSTEM

One of the key elements of this partnership between industry, academia, and government is how industry in New Jersey will be affected and how manufacturers stand to benefit from this initiative.

"What's really important and notable, particularly [for manufacturers], is how much this thing is truly about creating an entire ecosystem and not just doing the research," says Dr. Arnold. Research is a major component he admits, "But this is also about creating jobs, it's also about training the workforce and creating programs and thinking about how someone can get into the field that doesn't have a PhD from Princeton University," he adds modestly.

## WORKFORCE DEVELOPMENT

The NSF Regional Innovation Engines program follows an innovation ecosystem life cycle, which consists of five phases: Development, Nascent, Emergent, Growth, and Mature. Currently, the Princeton NSF Engines project is in the first phase, the development phase, which will focus on defining the scope of the project and laying out a strategic plan. One of the key areas of focus for Dr. Arnold is going to be on workforce development.

"We really looked hard at how to engage with community colleges, vocational and technical schools, and how we can build micro credentialing programs so that people who are in the workforce can be retrained to meet the needs of the optics and photonics space, or maybe people who are just entering the workforce for the first time will have an avenue to become a part of something at this level," says Dr. Arnold.

For the Princeton-led initiative, they're working with over a dozen other educational institutions, local businesses, and industry partners—including NJMEP—to get a better grasp of how this initiative can be a wholistic value for the region.

"In listening to our industrial members and partners, there's a real need for skilled people—today," adds Arnold. "Creating jobs is something that we're going to continue to do to continue to push the technology forward, but even today there's a real need in our region to meet the demand that current industry has, and I think that's a very immediate and important thing for us to be focused on."

Innovation and growth are no stranger to New Jersey, where for centuries industries have evolved

and flourished in the Garden State. In part, this is because of New Jersey's strategic positioning, but it also can be contributed to its incredibly dense and diverse population.

"It's really key to remember that the workforce in NJ is incredibly diverse, it's probably one of the most diverse places in the country," says Arnold. "You have people with various degrees of educational background. We have a tremendous, highly educated population and a tremendous working population. We also have a population of people who return—people who may have been in the military or people who may have been in other fields, other places. It's incumbent on us to help retrain them, help give them the skills that they need—again, programs like NJMEP run, apprenticeship programs," he adds. "These are things that I think are really critical to meeting the [workforce] demands that we have today."

## PLANNING AND DEVELOPMENT

When asked what the short-term goals are for the NSF Innovations Engine, Dr. Arnold confirms that the first phase will be for planning and strategizing, with a focus on workforce development and putting the infrastructure in place to better support the larger initiatives coming down the pipeline.

"Let's call it economic development," he responds. "I think one of the most immediate impacts will be workforce development. The short-term and main goal right now really is planning and developing a path forward for the actual Engines Hub," adds Arnold. "Right now, we're trying to develop it, so you can think of this as the preliminary step toward a much bigger effort."

## MAKING CONNECTIONS

If things go well for the Princeton-led NSF Engine, the program could have the opportunity to receive up to $160 million in NSF funding over the course of 10 years to implement their strategic plans, which would be a massive boost to the research, industrial, and technological landscape in New Jersey.

"There's not many places that have all of the elements that it takes to be successful as an innovation center, as a hub, as a driver of national and international technologies," says Dr. Arnold. "Yet somehow it's been difficult for us to put it all together."

An analogy emerges regarding the overall socio-political situation in New Jersey, which has historically been a very disconnected ecosystem, both in terms of geographic identity and infrastructure.

"The real plan is, can we weave together the pieces of the puzzle that we have to paint the real picture?" asks Arnold. "Here in New Jersey, we have all of the bits and pieces to be the national and global lead in optics and photonics. We have all the pieces and yet we don't have a lot of the connections or interfaces worked out," he adds. "We have the workforce, we have the greatest population density of anywhere in the country, but it's really going to be about creating an institute that can really help bring all of these elements together—one that can train people, can help companies with their path to market, can help them innovate, and can help make those connections that move a product up the food chain. These are the kinds of things we want to see come out of this initiative."

It's an exciting opportunity for New Jersey's students, researchers, skilled and unskilled workers, and industry partners, and even though the project is in its infancy, with a future uncertain, Dr. Arnold believes we have the components to interconnect the various elements of a disjointed region and make the connections needed to drive innovation and technological advancement. However, it's not without its challenges and it's going to take collaboration on all sides of the equation.

"I think that some of the workforce training is part of the glue," adds Arnold. "I think connecting research universities like Princeton and Rutgers is part of the glue. I think state involvement is critical and participation by agencies within the state—I think all of these things are critical to really blow it up. I'm really excited because today I see that desire on all sides, I see that action on all sides, I see the government is engaged in this, universities are engaged, industry is engaged, and that makes me really excited."

This industry partnership between NJMEP and the Princeton-led NSF Engine was facilitated by NJMEP's Christian Mdeway, Director of Innovation, and will prove invaluable for workforce development and innovation within New Jersey. Mdeway will be working to coordinate Academia and Industry to ensure both entities work together to have the largest possible impact on the workforce, industry, New Jersey, and the Nation. NJMEP will leverage existing initiatives like the New Jersey Defense Manufacturing Community Consortium (NJDMCC), the Pathways Program, and our renewed focus on industry in Central and South Jersey to help weave the essential components and make Dr. Arnold's vision of a unified, interwoven, technology and innovation hub a reality.

# FDA Plans to Decrease Cybersecurity Vulnerabilities in Premarket Medical Devices

Premarket medical device submissions that meet the definition of a "cyber device" will now be required to include software bill of materials and Cyber-defense plans thanks to new legislation.

## WHAT IS FDORA?

On December 29, 2022, President Biden signed the Consolidated Appropriations Act, 2023 (H.R. 2617), an omnibus appropriations bill for fiscal year 2023. Within this over 4,000-page bill, some reforms will directly impact Medical Device manufacturers. Aside from reforms that affect clinical trial diversity, reforms to the FDA's accelerated approval processes, a modernization of the FDA regulatory regime for cosmetics, and enhanced FDA oversight of infant formulas, there's a specific piece of legislation will be highlighted in this article called the Food and Drug Omnibus Reform Act of 2022 (FDORA).

Some of the key reforms include:

- ✓ Device Facility Inspections
- ✓ Device Bans for Specific Intended Uses
- ✓ Counterfeit Medical Devices
- ✓ Voluntary Notifications for Device Shortages
- ✓ Miscellaneous Device Reforms
- ✓ Cybersecurity Reforms

While many of these reforms will directly affect medical device manufacturers, we're going to focus on the Cybersecurity updates. If you'd like to review some of the broader subjects included in FDORA, check out this Ropes and Gray newsroom alert. (only crossed out for ROI)

## INCREASED CYBERSECURITY MEASURES FOR MEDICAL DEVICES

Premarket submissions to the FDA for devices that meet the definition of a "cyber device" must now include cybersecurity information, including a software bill of materials and a cybersecurity plan to address device vulnerabilities.

According to this new legislation, a "cyber device" is defined as a device that:

1. Includes software validated, installed, or authorized by the sponsor as a device or in a device
2. Has the ability to connect to the internet
3. Contains any such technological characteristics validated, installed, or authorized by the sponsor that could be vulnerable to cybersecurity threats

FDORA also amends the list of prohibited acts in the Food, Drug, and Cosmetic Act (FDCA) to include making it prohibited under 21 USC 331 to fail to comply with any requirement relating to ensuring device cybersecurity. As for the plan to address cyber vulnerabilities, medical device manufacturers are also going to have to outline how they're going to monitor, identify, and address post-market cybersecurity vulnerabilities, including a thorough disclosure of these vulnerabilities, and they'll have to maintain processes and procedures to provide "reasonable assurance" that the device and related systems are cyber secure. They'll also be required to make post-market updates and patches available if, or when, vulnerabilities are identified. FDORA

also outlined that the FDA may also identify devices, or categories of devices, that are exempt from these new requirements.

## CYBERSECURITY BACKGROUND

This new legislation comes on the heels of the Department of Defense's announcement of CMMC 2.0—an update to their comprehensive framework to protect the defense industrial base's (DIB) controlled unclassified information from frequent and increasingly complex cyberattacks. The Federal Government's renewed focus on cybersecurity legislation comes as we've seen unfaltering increases, both in number and severity, of cyberattacks in the medical, defense, and general manufacturing sectors.

## MANUFACTURING CYBERSECURITY EXPERTS

While this new legislation may present some added hurdles and some new red tape that manufacturers will now need to cut through to bring their products to market, there are always resources at your disposal. There are entities in the state of New Jersey that can help businesses overcome these challenges. NJMEP's adept cybersecurity team is always apprised of the latest legislative changes and can help New Jersey manufacturers navigate complex regulatory environments. Rest assured, there's no need to wade into these legislative waters blindly and on your own. Connect with these resources to take a deep look at your operation to save time and money on the journey to becoming compliant with these new FDA parameters.

# Legislative Changes Could Affect R&D in the Life Sciences Sector

As Life Sciences Manufacturers come to terms with new legislation set forth in the Inflation Reduction Act (IRA), they'll need to look toward other areas of their business for capital gains

## INFLATION REDUCTION ACT

Signed into law on August 16, 2022, the Inflation Reduction Act (IRA) got a lot of attention and support for its renewed focus on energy, climate, and corporate tax provisions, and IRS tax enforcement. More recently, there's been a renewed focus on the potential impact the IRA may have on provisions about prescription drug pricing and the Affordable Care Act—all of which may affect manufacturers in the life sciences industry.

## IMPACT ON LIFE SCIENCES INDUSTRY

The legislative changes set forth in the IRA offer cost-savings for consumers, but are likely to increase financial pressures on both Research and Development (R&D) and manufacturing in the Life Sciences sector. The three most notable areas that will be impacted are:

- ✔ Changes to Medicare and Medicaid
- ✔ Impact on R&D
- ✔ Implications for Pricing Strategies

## CHANGES TO MEDICARE AND MEDICAID

Historically, Medicare is prohibited from negotiating drug prices, but the IRA now allows the Secretary of Health and Human Services to negotiate drug prices directly with manufacturers. Previously, this meant that manufacturers could charge whatever they wanted for their pharmaceutical products, but allowing the government to negotiate drug prices could reduce the cost of drugs for seniors and, in the process, save the government billions of dollars in spending. However, this could mean tighter regulation on drug prices which could potentially decrease the overall revenue for pharmaceutical manufacturers, which in turn, could affect their ability to invest in new products through R&D.

## IMPACT ON R&D

If the price of pharmaceutical products increases at a greater rate than inflation, a provision within the IRA will require drug manufacturers to pay a rebate, which this added cost has the potential to discourage manufacturers from utilizing capital for investing in R&D. This may have a particular effect on drugs that are expensive to develop and whose profitability will be hampered. This new legislation could deter pharmaceutical manufacturers from investing in R&D for drugs that may not be profitable if their prices are capped. With reduced investment in R&D, companies may be forced to look elsewhere for ways to increase profits and grow their business.

## EFFECT ON PRICING STRATEGIES

Lastly, the IRA has given the Centers for Medicare and Medicaid Services (CMS) the authority to regulate pricing for certain drugs, which may force life science companies to rethink their pricing strategies. This new regulation could limit the amount that manufacturers can charge for certain products, which will have a significant impact on the industry en masse. While the intention of the IRA is to foster a more affordable healthcare system and help create more accessible and less costly medications for patients, it's likely there will be some unintended consequences of this blanket legislation.

## RESTRICTING COMPETITION FOR SMALL MANUFACTURERS

With this new legislation taking effect, smaller pharmaceutical companies and other life sciences manufacturers may find it difficult to stay competitive. Larger, more established manufacturers will have the resources to weather the impact of price caps and reduced overall capital. Also, government regulation of pricing will almost certainly lead to greater delays in innovation and research, taking longer for drugs to reach market, especially as most small to medium-sized manufacturers will be hesitant—or even unable—to invest in R&D.

## FINDING CREATIVE SOLUTIONS

Despite these potential setbacks that are certain to impact life sciences manufacturers, the Inflation Reduction Act represents an important step forward in the Federal Government's efforts to make healthcare more affordable and more accessible for all. Life science companies may need to reconsider their pricing strategies if they hope to remain competitive in an evolving business landscape, or they could consider shifting focus to developing products that are less expensive to manufacturer or those that target smaller patient populations. Life Science manufacturers may also need to consider alternative streams of revenue beyond Medicare and Medicaid, or at the very least, they'll need to take steps to reevaluate their operation and cut costs where they can. As the industry adapts to these changes, it's important that manufacturers know they can lean on their local MEPs. The NJMEP team brings decades-worth of experience to the Life Science sector and our no-cost assessment may be just what your manufacturing business needs to uncover hidden value within your facility. In the meantime, it's important to keep abreast of any updates and monitor the impact this new legislation will have on patients, providers, and life science manufacturers.

# Offshore Wind and the Workforce Consideration

## Closer Look at What Offshore Wind Means to New Jersey's Manufacturing Industry

Every decision comes with pros and cons. No piece of legislation, state or nationwide initiative, or massive infrastructure project comes without both sides of the coin. It's foolish to think there will ever be a massive undertaking that comes without its fair share of positives and negatives. The same is true for the Ocean Wind projects taking place off the Atlantic Shores in southern New Jersey. Offshore Wind power is promising to stimulate the local economy. And to create thousands of jobs in production, logistics, administration, and a plethora of other industries in its wake. However, the fear of where these jobs will come from in an already tight labor market has people worried about what it will do to the over 11,000 New Jersey manufacturing and logistics businesses that are already struggling to find people.

It is estimated that the Offshore Wind project will need hundreds of welders. Welders are incredibly difficult to come by today. The question is, *"Where will these welders come from?"*? The state is working to put together apprenticeship programs, invest in manufacturing, support New Jersey's Manufacturing Extension program and community colleges that have advanced manufacturing curricula, but there isn't enough time to bring hundreds of welders up to speed. Orsted, the Danish wind

energy company that is leading this initiative, expects to start installing the monopiles in 2024. This leaves many manufacturing business leaders in the area concerned that their welders will be in the sights of this massive wind energy behemoth.

According to New Jersey's Offshore Wind Workforce Assessment[1] report, this project will call for:

- ✔ 473 Structural Metal Fabricators and Fitters
- ✔ 457 Assemblers and Fabricators
- ✔ 435 Electricians
- ✔ 345 Maintenance and Repair people
- ✔ 247 Industrial Machinery Mechanics
- ✔ 238 Welders, Cutters, Solderers, and Brazers
- ✔ 203 Metal-Refining Furnace Operators and Tenders

In addition, there are hundreds of supporting roles required to support this incredible infrastructure project. These jobs are high-paying, come with exceptional benefits, and the skills are transferable to dozens of other industries. As the state doubles down in its commitment to up-skill New Jersey residents to take on these increasingly in-demand positions, the workforce will continue to grow. The concern is the attrition expected for newcomers into the industry, and the time it takes to safely train people with limited or no experience to take on these roles. New Jersey estimates that this project will continue through 2035. The Census estimates that by 2030 all Baby Boomers will be age 65 or older. There will be no workforce base to take over these positions meaning that New Jersey will need to create 2,398 industrial professionals in just 7 years.

## Opportunity Hidden by Outdated Public Perception

Manufacturing has struggled with a public perception problem since the 4-year higher education track took hold. This image issue is making it extraordinarily difficult to secure those 2,398 new potential manufacturers. The state and training entities are just now starting to encourage middle-school and high-school students to explore a career in the industrial space. Parents are still fighting against the idea of alternative career paths. Most parents insist on their children attending 4-year schools, even with all the new information and messaging about the ROI of attending college. The Education Data Initiative[2] shared that 32.9% of undergraduates do not complete their degree program. Unfortunately, this attrition rate mixed with manufacturing's public perception means many of these individuals will work in low-income, non-benefit-providing service jobs because they don't have the skills to enter manufacturing or simply do not know these jobs and opportunities exist. This means there are two options to develop the workforce that the Ocean Wind projects will require. One option is what is currently being done to rebuild the workforce. This option will take quite a bit of time and there is no guarantee there will be enough people to fill these positions. The second option, and one that is making manufacturers all over the state and even those in Pennsylvania worry, is that they will be taken from other places of employment.

## What Industry Needs to Succeed

The issue with jobs being taken is that it is extremely likely that these jobs are going to be temporary. Once the wind turbines are manufactured and installed, the program will only require periodic maintenance. Orsted, a Danish company, will not be setting roots down in New Jersey. The future of this monumental workforce is far from clear. The jobs will be high-paying and sustainable while they are here, but once they move on there is no certainty employment will be waiting for those workers. The jobs they leave behind to work on the Offshore Wind program may no longer be there. Manufacturing in New Jersey is extraordinarily competitive, and with an already scarce workforce, a mass exodus of workers might be what causes current 'MADE in NJ' manufacturers to close their doors or move out of state.

The positive economic benefit, at least in the short term, is impossible to ignore. Additionally, clean energy will help maintain a healthier and more sustainable environment for the state, nation, and world. Still, there's a concern about the long-term economic impact or how poaching workers will negatively affect current New Jersey manufacturers. There needs to be careful consideration in protecting current manufacturing jobs and there needs to be a massive, concentrated effort to give community colleges, manufacturing programs, and state-based training and workforce programs the resources they need to up-skill as many new workers as possible to help avoid this potential reality. If no sustainable action is taken, the economic boost that comes with this monumental and groundbreaking project will only be a temporary win for New Jersey and its residents.

1. *https://www.njeda.gov/wp-content/uploads/2022/09/2022-NewJersey-OSW-Workforce-Assessment-Report.pdf*
2. *https://educationdata.org/college-dropout-rates*

**MIKE WOMACK**
**MARKETING AND COMMUNICATIONS MANAGER, NJMEP**

# The "Manufacturing in Higher Education Act" is Picking Up Steam

Bill A2014 attempts to align critical components in the talent pipeline to help foster a more pro-manufacturing climate for New Jersey's youth

## WHAT IS THE "MANUFACTURING IN HIGHER EDUCATION ACT"?

The United States—and New Jersey in particular—is experiencing a labor shortage and skills gap that is worsening month-over-month, with nearly 700,000 job vacancies reported in manufacturing in April alone. With the green-lighting of projects like the Offshore Wind Project and with immense investment in projects stemming from the CHIPS and Science Act, the strain on New Jersey Manufacturers is expected to increase. According to initial estimates, these projects alone will bring the creation of an additional 2,000 jobs in manufacturing by 2025, and a further 8,000 (totaling over 10,000 jobs) by 2030.

In order to meet all of these workforce demands, stemming from a constantly-evolving manufacturing sector, and to better prepare students for successful careers in manufacturing, the Assembly Science, Innovation, and Technology Committee voted last week to advance the "Manufacturing in Higher Education Act," which was Sponsored by Assemblymen Conaway, Jr., Wirths, Umba, and co-sponsored by Assemblywomen Reynolds-Jackson, Piperno, and Flynn—who recently supported the manufacturing sector at NJMEP's 10th Annual State-of-the-State of Manufacturing Summit—and many others. The purpose of this legislation is to create a more pro-manufacturing climate in education by aligning many of the critical players in the workforce development space in government, higher education, and K-12.

The Bill itself is tasked with establishing the New Jersey STEM Entrepreneur Fellowship Program in county colleges and four-year institutions, which will fund more than 20 fellowships whose focus will be on supporting entrepreneurs in the Science, Technology, Engineering, and Mathematics (STEM) fields. It also calls for the Commissioner of Education to work with such entities as the Secretary of Higher Education, the Business Action Center in the Department of State, the New Jersey Manufacturing Extension Program (NJMEP), and representatives of business and industry, to establish and maintain a State-recognized list of industry-backed credentials in the advanced manufacturing field, whose intent will be to assist vocational schools, colleges, and the workforce development system in developing appropriate educational programs that will enable students to meet the advanced technical training that's required in manufacturing.

It also states that the Secretary of State, along with the Commissioner of Labor and Workforce Development, the New Jersey Economic Development Authority (NJEDA), and other State entities, will be tasked with directing resources, creating incentives, and providing technological, financial, and

workforce development opportunities for manufacturing businesses.

In summary, the "Manufacturing in Higher Education Act of 2023" calls for:

- ✔ The creation of the New Jersey STEM Entrepreneur Fellowship Program
- ✔ Establishment of a "Higher Education Manufacturing Grant Program"
- ✔ A State-recognized list of industry-recognized credentials in the advanced manufacturing field
- ✔ A new role within the Business Action Center in the Department of State tasked with:
- ✔ Advertising manufacturing businesses' products or services nationally and internationally
- ✔ Establishing a business referral service where manufacturing businesses may be referred to other State, federal, or private business resource organizations
- ✔ The designation of resources, incentives, and technological, financial, and workforce development opportunities for manufacturing businesses
- ✔ The assignment of an institution of higher education or other entity as a manufacturing and production business resource center
- ✔ The creation of the New Jersey Advanced Manufacturing Council

## REFUELING THE TALENT PIPELINE

While on the surface it might not appear as though there are any immediate gains for New Jersey Manufacturers, the benefits can be found in playing the long-game—refueling the talent pipeline which has laid dormant for decades. For Assemblyman Hal Wirths, Co-Sponsor of Bill A2014 AcaAca (2R), this legislation offers a two-pronged approach:

"Creating manufacturing career pathways for students in New Jersey helps achieve two goals," he says, "One, it ensures there are qualified candidates who can fill manufacturing jobs and two, it stops the brain drain by connecting graduates to high-paying careers in the state."

The purpose is to create a better-trained, more adept, manufacturing workforce, or as the Bill itself states, "to provide students interested in pursuing a career in manufacturing with the instruction and skills necessary to gain employment in the manufacturing or advanced manufacturing sectors." This will hopefully allow manufacturers to hire the skilled staff required to bridge the skills gap without having to spend vital resources on training new hires with essential skills—which will leave more room and resources for innovation and advancement of manufactured products and technologies.

The second part of Wirths' sentiment is that it's vital for the manufacturing industry to provide students and prospective hires with information that shows the benefits of an advanced manufacturing career—like the fact that the average salary for a full-time manufacturing employee is $97,000. If more students were better informed about all the career potential, then there would certainly be more interest in employment opportunities in manufacturing, especially for those looking for an alternative to a four-year degree.

## CREATING DEDICATED PATHWAYS TO MANUFACTURING CAREERS

"Two of New Jersey's greatest economic strengths are our pool of motivated and educated students and growing manufacturing industry," says Wirths, "Putting the two together is a win-win."

The "Manufacturing in Higher Education Act" will essentially establish a manufacturing career pathway through the New Jersey Community College Consortium's workforce development initiative—the Pathways to Career Opportunities—which is a collaboration between New Jersey's industry leaders, employers, and education partners. Since its inception in 2021, the Pathways Initiative has connected educational institutions, state entities, and roughly 1,200 education and industry partners together to help combat the skills gap and labor shortage. This act would build upon the success of that initiative and expand its scope even further.

"The manufacturing industry touches all 21 counties in the state. From food to machinery, there are employment opportunities in every sector. Ensuring students can find and qualify for these careers is an investment in New Jersey families and our state's economy," Assemblyman Umba said. "In order to remain competitive and have our students be successful, we have to keep up with the industry and modernize our educational programs."

# Manufacturing a Stronger South Jersey

NJMEP continues to strengthen the state's multifaceted manufacturing industry as it focuses its attention on serving South Jersey by connecting those residents with meaningful work and skill development.

**By Madeleine Maccar**

At 89 days into his tenure as CEO of the New Jersey Manufacturing Extension Program, (NJMEP), Peter Connolly has a promise for his southern neighbors: "We're going to grow South Jersey."

The comparatively new NJMEP office in Bellmawr was just the beginning of the consulting and advocacy organization's renewed dedication to helping South Jersey residents of all ages and backgrounds find meaningful work in the manufacturing industry—where, as NJMEP's marketing and communications manager Michael Womack is quick to point out, the average full-time employee's salary is $97,000 a year and more than 11,000 companies are always looking to hire promising new talent.

Everyone from veterans to students can benefit from the educational opportunities, professional development, diverse partnerships and bright futures NJMEP and the manufacturing industry has to offer. And as the organization works with the Department of Defense, Chamber of Commerce Southern New Jersey, Economic Development Administration (EDA) and Rowan College of South Jersey, just to name a few, the connections it makes between workers and employers are truly wide-ranging and mutually beneficial.

"It's not just helping out families and communities with job placements and career opportunities, the manufacturers are also dying for talent so they can continue to stay in business and support the Department of Defense," explains Larry Banks, manager of NJMEP's Pro-Action Education Network & Workforce Development. "When it comes to the Department of Defense, there are a ton of different contracts and a ton of different needs they have."

Tapping into the diverse skills that veterans bring to civilian life as they transition out of their military careers is one way that NJMEP helps broaden the local talent pool. In fact, military outreach is a significant area of focus for the team, since, as Sr. Project Manager, Veterans & Community Recruitment Lance Lopez notes, South Jersey boasts quite the veteran population: Ocean County is home to approximately 34,308 individuals with a military background; Burlington County has 26,615; Camden County, 22,500; Gloucester County, 15,503; Atlantic County, 11,470; Cumberland County, 6,100; and Cape May has 6,732.

"We want to be able to touch as many of those veterans and as much of the service-member population as possible," Lopez affirms. "There's a huge population that's down in South Jersey. Joint Base [McGuire-Dix-Lakehurst] is down there with residents that live in each one of those counties who are commuting every day. ... We train them, we help them prepare their resumes to reflect that the jobs they did inside those military barriers reflect the jobs they'd be doing in the civilian world."

But it's not just about helping veterans secure promising, meaningful work in their next chapter: NJMEP also works with students to help them work toward the future that best suits them. While the organization has myriad ways to build up established workers' professional toolkits by approaching their previous careers as strong developmental foundations, proactively positioning students for success through outreach and informational sessions can help them get an advantageous early start while introducing them to a field they might not even have known was an option.

"When we go to these high schools, a lot of these students don't even realize what manufacturing is or what supply-chain

logistics look like," says Banks. "If you're a manufacturer and you have to create a product, you need somebody who can design it, somebody who can sell it, somebody who can get it from Point A to Point B, you need somebody who can make sure it's safe, you need a law group, you need a CPA, you need everything. One small product that probably costs the consumer 75 cents can create seven different jobs."

To expand its student reach, NJMEP is about two months from launching its educational RVs, mobilized classrooms that will visit middle and high schools across 21 counties to continually foster early excitement about the manufacturing industry in the workforce of tomorrow.

"The RV can fit about eight students so we can come to a high school without them having to find the space for us," says Connolly. "Sometimes, it's a little late to inform high schoolers about a career in manufacturing, so we'll start going to middle schools and ring that bell with them. We're also working with the Chamber of Commerce of South Jersey and the African American Chamber [of Commerce of New Jersey] to look at going into middle schools and showing up with the RV."

All of these efforts, Connolly adds, will help NJMEP support and ultimately grow South Jersey manufacturing industry into a thriving economic segment.

"Next year, we're going to buy another RV so we have one for the north and one for the south, we're increasing account managers and trainers down in South Jersey, and we'll also take some space with Rowan University at the technology park, since we're working with them on offshore wind, renewable energy and photonics," he says. "Everything is tied into what we're trying to do with South Jersey."

# TRENTON TALK

**As the Co-Chair of the New Jersey Manufacturing Caucus, I was asked to speak at the Grand Opening of the Advanced Manufacturing & Engineering Center at the County College of Morris on May 19th this year.**

A small group of elected officials were invited to tour the building and to see how the County College of Morris (CCM) supports manufacturing in Northwest New Jersey and around our state. In addition, CCM was also the recipient of a grant that will provide free college education in manufacturing to veterans—something that can provide a lifeline to our service-members as they embark on new lives after the military.

The more that I discussed the game-changing programs of the CCM with its President, Dr. Tony Iacono, the more enthusiastic I became. Each subsequent speaker at the opening of the Advanced Manufacturing Center added more enthusiasm and color to the day.

It is evident that the Advanced Manufacturing & Engineering Center was already a successful project and venture. The College and the manufacturing community had created and launched a huge, winning combination.

That day I realized this collaborative energy was the missing link to revitalize manufacturing in South Jersey, where I serve as a State Senator.

The County College of Morris created a masterpiece model based upon a strong partnership with manufacturing companies in our region. We held a Summit in August to introduce the same concept and vision on the Rowan College of South Jersey campus. We are growing and building high-paying jobs and a great future for people coming into the job market who want to pursue jobs in manufacturing and the trades.

I encourage everyone to attend NJMEP's Manufacturing Day every year, which takes place the first Friday of October. This is the most prominent event in our state that recognizes and celebrates our New Jersey manufacturers and provides a dynamic venue to manufacturers to network, get resources, and learn more about the tools and resources that NJMEP offers.

Elected officials like myself must do a better job of identifying and promoting the tremendous career opportunities that wait for thousands of our neighbors, and the competitive successes that are helping to revitalize the state and national economy. I give NJMEP well deserved credit for putting on this Manufacturing Day because their goals are vital: to empower manufacturers, to change public perception about the industry, to highlight its economic impact at the local and state levels, and to introduce more people to available career opportunities.

My goal as a state Senator and Co-Chair of the NJ Manufacturing Caucus is to see the sign on the Trenton bridge become meaningful once again. Let's take this message and continue to make it a New Jersey reality.

> "Trenton Makes - The World Takes"

I look forward to seeing each and every one of you on October 6th at "Made in New Jersey" Manufacturing Day.

CAUCUS CO-CHAIR
**SENATOR MICHAEL TESTA**


# It is indeed a great time to celebrate...

## the 11th annual 'Made in New Jersey' Manufacturing Day, hosted by NJMEP.

But we have so much to be proud of with our manufacturers and innovators from around the state – not only for the products they create to improve our way of life in New Jersey and beyond, but also for the jobs and the economic output they create for our great state.

Here at NJBIA, we also take time to celebrate the valued partnership we have with NJMEP. NJBIA was founded in manufacturing more than 110 years ago. And we truly share in NJMEP's mission to improve the profitability and competitiveness of New Jersey manufacturers.

As the largest and strongest voice for business in Trenton in the state, NJBIA has been proud to work hand-in-glove with NJMEP in keeping state policymakers focused on manufacturers' challenges through the bipartisan Legislative Manufacturing Caucus we jointly created.

Additionally, our Manufacturing Counts partnership, formalized in 2022, brings on additional support for improving workforce development, supporting an innovation ecosystem, reducing mounting burdensome regulations, and protecting manufacturers from unfair liabilities.

So far this year, with valuable input from NJMEP, we successfully advocated for manufacturers during the FY24 budget process by asking lawmakers to increase state funding for the successful Career Pathways and Basic Skills Training programs – and to provide more financial support for cell and gene therapy biomanufacturing.

Another big win for New Jersey manufacturers, who are disproportionately registered as corporations, came in the form of a new law that changed the way global intangible low-taxed income (GILTI), and net operating losses (NOLs) are treated under the state tax code.

While these changes are technical in nature, the results are definitive. Those manufacturers will be saving a lot of tax dollars every year and be on a more competitive playing field with other states. We were proud to work directly with the Murphy administration for a year on that legislation.

Additionally, we saw to it that our largest corporations – including many manufacturers – benefited from the sunset of the 2.5 % Corporate Business Tax surtax at the end of this year. Our next steps in 2024 are to try to lower the overall CBT even further, as New Jersey's 9% rate will still be fourth in the nation.

Even more recently, we also supported Rep. Mikie Sherrill's Leading Global Innovation Resolution to counter China's escalating economic aggression within the science and technological fields.

Of course, we can always expect strong global competition in these areas, but we must also guard against intellectual property theft, cyber espionage and the discriminatory treatment of foreign investment to protect innovation in New Jersey and the United States.

On a personal note, it also has been a pleasure to start working directly with NJMEP CEO Peter Connolly. He has big shoes to fill with the retirement of the great John Kennedy. But he is indeed up for the job, and we look forward to even more manufacturing successes resulting from our treasured partnership in the future!

**MICHELE SIEKERKA, ESQ.**
PRESIDENT & CEO OF NJBIA &
BOARD OF DIRECTORS OF THE NATIONAL ASSOCIATION OF MANUFACTURERS

# The Role of the Hispanic Community in the Manufacturing Industry

The manufacturing industry in the United States has always been a vital contributor to the overall success of the American economy. The Hispanic business community has made remarkable progress in this sector thanks to Hispanic entrepreneurs' hard work and dedication. However, the community still faces several challenges that need to be addressed.

One of the most significant challenges the Hispanic business community faces is the need for available talent. Many Hispanic individuals are interested in pursuing manufacturing careers, but more opportunities, education, and training programs that cater to their needs are required.

This can be attributed to various factors, including a lack of education and training programs that cater to the needs of the Hispanic community.

Fortunately, workforce development programs, such as the ones offered by NJMEP, are helping many Hispanic individuals obtain the proper education and certifications needed to work in the manufacturing industry.

These programs significantly impact the Hispanic community, providing the much-needed training and education to thrive in manufacturing.

Another challenge the Hispanic business community faces in the manufacturing industry is access to capital. Many Hispanic-owned manufacturing businesses need help accessing funding to grow and expand.

This can be attributed to a need for access to traditional funding sources and knowledge about other funding options. This lack of funding limits their ability to invest in equipment, technology, and people, which hinders their growth potential.

The industry can achieve this by addressing the challenges mentioned above. By investing in education and training programs that cater to the needs of the Hispanic community, the industry can ensure a steady supply of skilled workers to fill the available jobs.

Additionally, by providing access to funding options, the industry can help Hispanic-owned businesses access the capital they need to invest in their growth and expansion.

These measures will help the Hispanic community and benefit the manufacturing industry. These individuals bring unique perspectives and experiences to the industry, driving innovation and growth. The Hispanic business community has made remarkable progress in the manufacturing sector, and with the proper support, they will continue to do so.

**AIXA G. LOPEZ, P.E.**
VICE PRESIDENT OF OPERATIONS
STATEWIDE HISPANIC CHAMBER OF COMMERCE OF NJ

# How My American Jobs and Competition Plan Stands Up for New Jersey Businesses

**Since our country's founding, New Jersey has been an innovation powerhouse.** The very industries that drive our economy today—like advanced manufacturing, health R&D, and passenger rail—began in cities like Paterson and Trenton.

But in this highly globalized economy, and in today's era of intense global competition, I believe we must do more to protect American industries and workers from the Chinese Communist Party regime that consistently undermines the rules of the global economic system, steals our intellectual property, and sabotages American businesses.

> "America has suffered from disinvestment and inaction for too long."

Under General Secretary Xi Jinping, the CCP regime is rapidly making investments to lead the key global technology sectors of the future — like artificial intelligence, cloud and quantum computing, semiconductors, and more.

With aspirations to dominate these sectors and leapfrog the U.S., the CCP intends to make the People's Republic of China the center of innovation, design, and manufacturing of these products over the coming decades — which could put millions of good-paying American jobs at risk.

General Secretary Xi has also overseen some of the CCP's most egregious cases of economic aggression and human rights violations — such as raids on American businesses in China, even more cases of intellectual property theft, and forced labor from the Uyghur minority.

That's why in Trenton, I announced the American Jobs and Competition Plan. The first pillar of this plan is the Leading Global Innovation Resolution.

This resolution highlights the CCP's "Made in China 2025" science and technology strategy, their malign actions to support this plan, and what should be done to mitigate risks to American workers and businesses. The resolution sounds the alarm for Congress, the private sector, and the public that although this seminal CCP strategy is in its final years, we are likely to see a doubling down of CCP illegal actions to meet their goals and an increase in their economic aggression in the coming years.

Because they cannot out-work or out-innovate the United States, the CCP's

plan to get ahead relies on unfair trade practices, forced labor, poor environmental standards, and stolen research and intellectual property — with the ultimate goal of undercutting and bankrupting American firms.

All U.S. firms — from our biggest chip manufacturers like Intel, to small businesses on main streets throughout New Jersey — are CCP targets for disruption, espionage, IP theft, and commercial coercion. So we need to be prepared. Especially as Xi's reign continues and he'll only likely double down.

But let me be clear about this: making demands for fairness with the CCP cannot and must not result in hate against our AAPI communities here at home. We must remember to always stand together against hate and racial profiling, and to protect the civil liberties of all Americans.

And this plan, and this work, is about standing together as Americans to protect our democratic values and compete against Xi and the CCP.

To do that, we need to act with speed, and we need to act with purpose.

This resolution provides a foundation and a blueprint for how we need to respond, stand up for American jobs creators, and succeed in the global economy.

I'm also calling for a strengthening of the Department of Commerce and their efforts to promote U.S. business and fight back against unfair trade practices.

Through the CHIPS and Science Act and the Inflation Reduction Act, we're already bolstering American-made technology and investing in R&D, which in turn creates good paying union jobs and enhances our national security. And for the first time in two decades, we are investing more in our nation's infrastructure than China is in theirs.

Because of these investments, New Jersey has had the strongest manufacturing jobs numbers since at least the 1990s.

But we cannot take our foot off the gas. This era of strategic economic competition will only be won through collaboration between the U.S. public, private, and non-profit sectors. And by working with our allies abroad that share our democratic values.

Together, we can set America up for success in this era of increased competition— and make New Jersey a better and more affordable place to live, work, and raise a family.

**CONGRESSWOMAN MIKIE SHERRILL**
NEW JERSEY'S 11TH CONGRESSIONAL DISTRICT

# Next month

## on Tuesday, Nov. 7, New Jerseyans will be heading to the polls to elect a new Legislature.

This year, members of the State Senate and the General Assembly are up for election. This will mark the first election since the legislative map outlining the 40 districts was redrawn based on the 2020 census. New Jersey has a population of approximately 9.5 million with the number of registered voters hovering around 6 million. Historically, voter turnout in a non-presidential and non-gubernatorial election cycle is low. Records show only three out of ten voters will likely cast their ballots. When you consider how government impacts our lives daily -- from the taxes we pay to the policies, priorities, and regulations to which we are subjected -- it is surprising that the turnout is not larger. After all, the 40-member Senate and the 80-member Assembly will vote on so many issues that impact our daily lives. So, when you consider that these 120 elected New Jerseyans, out of 9.5 million residents, will decide on the course our State will take in the years to come, it is important to be heard and weigh in on the elections. It is our opportunity to make a difference. Our democracy is best served when the majority of voters are heard. No matter what drives you to vote, be heard, and don't forget to cast your vote.

**ANTHONY RUSSO**
PRESIDENT, CIANJ /PUBLISHER AND CEO OF COMMERCE MAGAZINE

# Agile as a Strategy

**By Jerry Creighton, Sr.**

Agile business practices can prevent the effects of COMMODIFICATION (loss of distinguishing / unique features) that can shorten product / services life-cycles, which in turn impacts competitive advantages

### "Agile" As A Strategic Approach

Following "agile" business practices are a necessity for a business to have relevant, resilient, durable life-cycle longevity. One reason is the natural pressures exerted on your business from the ecosystem in which you operate such as competitive pricing challenges, introduction of alternate solutions, and loss of product feature uniqueness causing loss of differentiation and your business's competitive advantage. This is called "COMMODIFICATION"...meaning your product / service is viewed simply as a commodity by your buying audience. It impedes performance, achievement of growth trajectory goals and valuation...requiring continual monitoring and timely corrective actions.

In some industries where "COMMODIFICATION" is a given (retail, automobile sales and restaurants) "agile" marketplace solutions are needed in the form of pricing discounts, free shipping options or gifts with orders.

### More About Being "Agile"

Just what exactly does "agile" mean in the context of your business process? Let's start with a definition. A business that is agile from a strategic perspective means a business with a shared purpose and vision that follows Perpetual Planning and Continuous Improvement practices that are flexible, adaptive, relevant, and timely and resilient as needed to build and maintain a predictable business with DURABLE year-over-year life-cycle capabilities. An Agile approach will encourage continual business model evolution producing transitional action plans to fit ever-changing industry and customer preferences.

In order to accomplish this, a business needs to be in a constant mode of continuous delivery of transitional ideas and actions. I call this operating in a Continuous Commercialization Mode (CCM).

In a business that follows Agile Strategic Planning practices, every day is a day producing pivotal opportunities that lead to durability. The following are conditions your business can create to stimulate transformative innovation.

- Focused purpose on both short-term and longer-term customer problem solving
- Continuous thinking, strategizing, testing, validation and communication
- Collaborative development of transitional strategies and tactics of execution
- Participation from all operational functions (internal and external)

- Shared critical insight, knowledge and understanding
- Willingness to embrace business and marketplace shifting priorities
- Culture aligned on business values, purpose, vision, mission and goals

Agility is in the DNA in every fast-growing business. It is a business-wide operating mode of action that keeps a business creative and viable. From a strategic perspective, Agile (collaborative) thinking defines strategic development and execution practices, which should be part of your business's Strategic Playbook.

This Agile Strategic Playbook should combine strategy development and tactical execution determined from the Agile decision-making process. Agile business development practices are a catalyst for new business and year-over-year durability. To quote the late Chairman and CEO of General Electric, Jack Welch, "When the rate of change inside an institution becomes slower than the rate of change outside, the end is in sight; the question is when."

Adding Agile practices to your strategic decision-making practices opens the gateway to your business's future.

Agile governance practices will increase chances to achieve sustainable success. The focus is timely decision-making utilizing all resources available to the business in a collaborative manner. An Agile organization is one that defines roles, priorities, and points of accountability and includes a measurement capability all leading to more effective Decision-Making and Risk Mitigation. An Agile mindset, operating within a collaborative organizational alignment is a best practice for facilitating an innovative culture as needed to perpetually reinvent and transform your business. It is the foundation for sustainable growth.

To further define it, an Agile Management Philosophy is a principle of innovation and a mindset that is focused on dealing with real-time business issues needing flexible, fast decision-making actions. It operates in an environment of continual innovation, reinventing business processes as necessary, moving into new business space and introducing expanded and new customer solutions. This requires an organizational structure that can efficiently reshuffle priorities and activities when markets change, challenges arise and/or opportunities appear to perpetuate CONTINUITY.

As an example, one of the most impactful examples was the COVID - 19 global pandemic in 2020, which exemplified how quickly the marketplace can change. Nobody could have anticipated the global impact. Resiliency was disrupted. It was necessary to revise businesses models, rethink operations, re-prioritize strategies and tactics and rearrange employee activities, partners in a purpose driven culture.

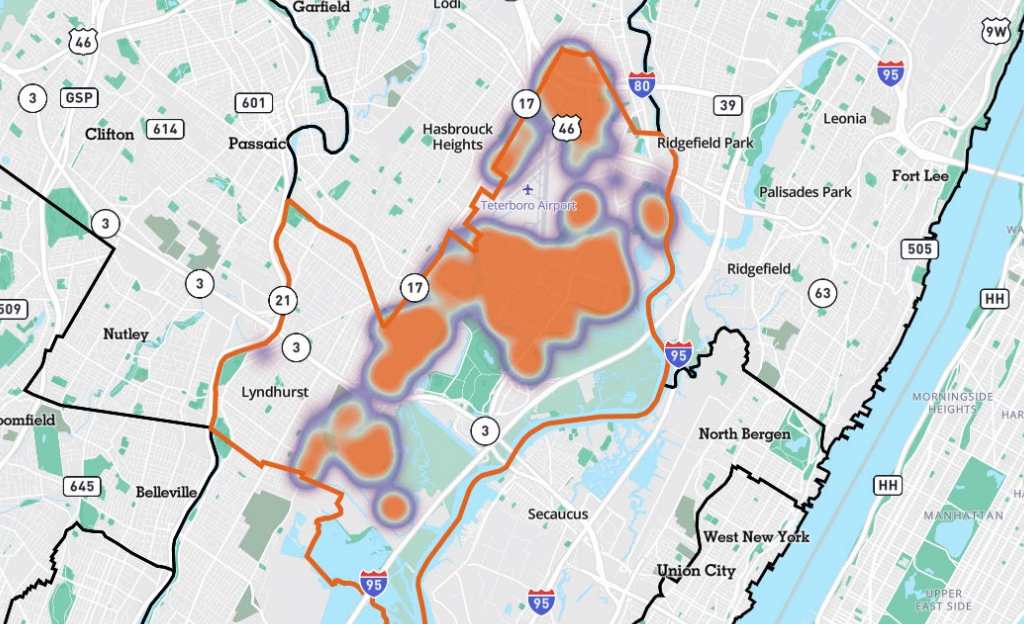
Pfizer, and other companies in the COVID – 19 vaccine development business could not have achieved vaccine development success without a focused agile development process. Pfizer created the first COVID – 19 vaccine in nine months. They created, tested and manufactured an end product so needed through the world. Clearly a business development success story to be applauded!

Pfizer set aside their standard development process for an agile business development methodology to expedite the creation and time-to-market delivery of the COVID – 19 vaccine. As stated by Dr. Albert Bourla (Chairman and CEO, Pfizer in his book (Moonshot: Inside Pfizer's Nine-Month Race to Make the Impossible Possible), they abandoned standard product development practices in favor of a fast time to market Agile team approach. They operated as a highly integrated, end to end operation, from early research to late-stage trials and clinical trials. They communicated in a seating arrangement of chairs called "The Purpose Circle" instead of at a table. Dr. Bourla developed Pfizer's streamlined R&D process. Their mission statement - "Breakthroughs that change patient's lives".

To conclude, an Agile Management Philosophy influences actions, dialogue and practices stimulating innovation which create value by being relevant, resilient and durable.

**Jerry Creighton, Sr, MBA,** is an experienced entrepreneur, business executive, business owner, angel investor and author of the book The Quest for Durability, The Business Puzzle Method™ (MENTOR BUSINESS BOOKS/Bricktower Press). He served as the Executive Director of New Jersey Institute of Technology's (NJIT) iconic Enterprise Development Center, a 90 plus-company business incubator and commercialization center.

**Visit: www.JerryCreighton.com**




# Meadowlands Industrial Submarket – August 2023

Report Provided by EisnerAmper | eisneramper.com

Situated in the heart of New Jersey, the Meadowlands industrial submarket spans 28 million square feet across 250 distinctive properties, with a relatively high average building size of 120,000 square feet. This dynamic region encompasses the active municipalities of Carlstadt, East Rutherford, Little Ferry, Lyndhurst, Moonachie, South Hackensack, and Teterboro.

Once characterized by aging and obsolete industrial structures, this compact 31 square mile area has undergone a recent transformation, seeing record-breaking property valuations and rental rates alongside a surge in contemporary construction.

Strategically positioned as a pivotal last-mile delivery hub, the Meadowlands boasts unparalleled proximity to key infrastructures; just 15 miles to both Port Newark-Elizabeth and Newark Liberty International Airport, and a mere 13 miles to the bustling heart of New York City. Further enhancing its allure is seamless connectivity via major roadways, including the New Jersey Turnpike, Route 3, Route 17, and more.

For e-commerce retailers, the Meadowlands offers an unbeatable combination of large footprints coupled with unparalleled access, making it a prime choice for warehousing and distribution centers. This appeal is evident in its esteemed list of occupants, which includes Amazon, UPS, Allied Beverages, Fashion Logistics, Avanti Linens, Water-Jel Technologies, and Tribeca Oven.

### Trends/Forecasts:

In recent years, the Meadowlands industrial submarket has seen a subdued growth in new building construction starts. Since 2018, a mere 635,000 square feet spread across five buildings has been added, averaging 127,000 square feet. Despite spanning just 31 square miles and demanding high rents, the stagnation stems from a limited supply of developable land coupled with environmental and permitting challenges. Consequently, a shift is anticipated, focusing on repurposing older, once-overlooked buildings for either renovation or complete redevelopment.

A significant pivot in this narrative is the Kingsland Meadowlands project. Once the Kingsland landfill, this 718-acre expanse stretches across Lyndhurst, North Arlington, and Rutherford. Russo Development and Forsgate Industrial Partners, after winning a competitive bid in 2015, embarked on extensive site preparation for industrial purposes. In 2019, a sale was concluded with the New Jersey Sports and Exposition Authority selling for $42.5 million.

Currently, Phase I of Kingsland Meadowlands is under progression, showcasing two buildings: Building A at 932,000 square feet and Building B at 344,000 square feet, with both set for completion by Q4 of 2023. Upon completion, the project will include 3.3

million square feet across seven buildings, equipped with modern amenities like 40' clear ceiling heights, cross dock distribution, and ample parking and loading spaces. Such advancements are pivotal for the Meadowlands tenants, especially industry leader such as Amazon and UPS; with proximity to the ports, their expansion potential in New Jersey gets a substantial boost. Additionally, Kingsland Meadowlands boasts access to a population of 4.7 million residents within a 10-mile radius, amplifying its strategic importance.

Over the past five years, asking rents in the Meadowlands submarket have skyrocketed by an impressive 73.92%, with a substantial 34.7% hike recorded from 2021 to 2022. However, a closer look at the data from the first three quarters of 2023 reveals a more modest increase of 5.21%, suggesting a tempering in the New Jersey industrial markets. Currently, the average asking rent stands at $20.04 per square foot across all product grades (class A, B, C). This rate is not just a standout within New Jersey, but also ranks among the highest in the entire U.S. While we anticipate further growth in asking rents, the pace will likely be more gradual than the post-pandemic boom we've witnessed.

Leasing activity has taken a sharp downturn in the Meadowlands submarket, decreasing by 78.72% year over year. Only 243,000 square feet were leased in the first three quarters of 2023, in stark contrast to the 1.1 million and 1.2 million square feet during the same periods in 2021 and 2022, respectively. Furthermore, net absorption was negative for these quarters in 2023, emphasizing the market's slowdown. The vacancy rate also rose by 140 basis points year over year, now sitting at 4.10%. With the prevailing economic downturn pushing tenants to consolidate operations and reduce their real estate holdings, the decline in leasing activity is projected to continue through the year.

Despite a softer tone in asking rent increases and leasing activity in the Meadowlands this year, Q2 of 2023 marked a milestone with the highest sale transaction volume ever seen in this submarket, clocking in an impressive $188 million. This surge is largely credited to Prologis' all-cash deal with Blackstone. In June 2023, Blackstone secured two prime Meadowlands properties — 600 Washington Avenue and 701 12th Street in Carlstadt — for $183 million. This significant deal was just a segment of Prologis' expansive national acquisition, which encompassed 14 million square feet across 73 properties spanning key markets such as NY/NJ, Atlanta, DC, California, Dallas, Las Vegas, Phoenix, and South Florida, with a total value of $3.1 billion.

Subsequently, Prologis has expanded its Meadowlands portfolio by 550,000 square feet, amassing a total of 4.51 million square feet. This growth has solidified their position as the second-largest landlord in the Meadowlands, now commanding 18% of the industrial supply in this submarket.

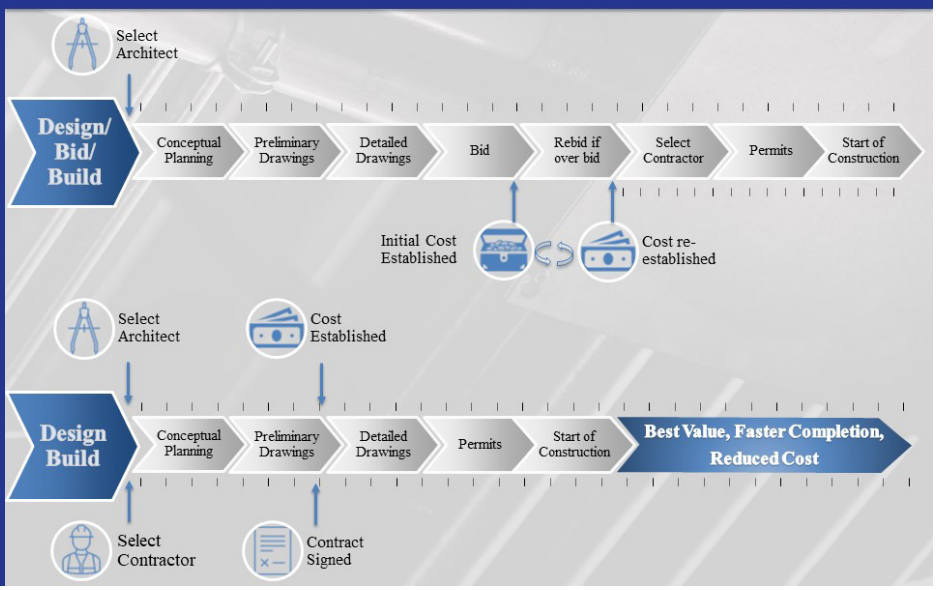
While the sales price per square foot has soared 84.5% since 2018, the increase was relatively modest at 1% in the past year, averaging $231 per square foot. Given the more pronounced annual price jumps prior to 2022-2023, it suggests that the asset sales pricing in this submarket will likely stabilize in the coming times.

**The Tenants Perspective:**

For Meadowlands tenants, the evolving real estate dynamics present a mix of challenges and opportunities. The record-breaking $188 million transaction in Q2 of 2023, largely driven by Prologis' deal with Blackstone, underscores the area's commercial attractiveness and potential for growth. With Prologis controlling 18% of the area's industrial supply, there's an implied assurance of consistency in property management and potential infrastructural enhancements. Adding to this momentum is Kingsland Meadowlands, slated to provide 3.3 million square feet of class A industrial space, positing itself as a pivotal solution for tenants eyeing state-of-the-art facilities with potential for future expansion.

The sharp 84.5% rise in sale prices since 2018 might initially alarm tenants, hinting at escalating rents. However, the recent deceleration, marked by a modest 1% increase over the past year, offers a respite. This trend suggests a stabilization in leasing rates and property prices in the immediate future. Thus, businesses can anticipate more predictable expenses, facilitating better long-term planning and budgeting.

Furthermore, such robust investment activity often spurs infrastructure improvements and better amenities, enhancing the operational environment for tenants. Yet, with major players consolidating holdings, tenants should be proactive in negotiations to ensure favorable lease terms. As the Meadowlands positions itself as a commercial hotspot, tenants, with informed decision-making, can leverage the region's stability and growth for their advantage.




# Streamlining Expansion: The Design/Build Approach

Starting and growing a manufacturing business is not for the faint of heart. For owners looking to expand their physical footprint, the most efficient and cost-effective project delivery method is design/build. This approach offers a comprehensive and tailored construction method while eliminating the unnecessary complexities of other methods. Let's explore the advantages of partnering with an experienced design/build firm for your next project:

### Single Point of Accountability:

In design/build construction, the design/build firm contracts with and manages the design and engineering team needed to deliver the project. The design/build firm is the owner's single point of contact and accountability for the entirety of the design and construction process - the buck stops with them. This key feature distinguishes design/build from the traditional design/bid/build method where the owner must contract with, manage, and be responsible for several design and construction professionals. Having a single point of accountability creates a streamlined project and prevents the inevitable conflicts that arise between the contractor and design team during construction of a design/bid/build project.

### Collaboration:

From the beginning of the project, the owner is an integral part of the design process with the design/build firm. Early and often communication ensures that design and functionality are customized to meet the owner's needs, minimizing the potential for miscommunication throughout the project. Design/build promotes continuous owner involvement from inception, reducing the likelihood of costly change orders during construction.

### Efficient Process Flow:

Similar to streamlining the logistics of an owner's business operations, the design/build method anticipates and prevents bottlenecks in the construction process. Since the design/build firm is managing the design phase, they can identify and order long-lead items ahead of time to expedite the project schedule, rather than waiting on the architect to complete their drawings. In addition, the control over the design phase allows the design/build firm to lock into a firm contract price early in the design process, allowing the owner to budget accordingly. In contrast, design/bid/build pricing cannot be finalized until the drawings are nearly complete, potentially leading to redesigns and project setbacks.

### Versatility in Project Size:

The design/build method is versatile and suitable for projects of all sizes. It covers all asset classes and project types, including ground-up development, fit-outs, expansions, and renovations. Design/build excels for manufacturers due to tailored solutions, lean operations, cost control, and rapid deployment. In contrast to the traditional design/bid/

build model, design/build brings the experts to the table early to optimize facility layouts and meet unique manufacturing needs efficiently. Moreover, design/build accelerates construction, allowing manufacturers to adapt swiftly to changing market demands. This comprehensive approach ensures facilities align precisely with manufacturing requirements, making design/build the best choice for streamlined, cost-effective, and adaptable construction projects in the manufacturing industry.

**Design/Build vs. Design/Bid/Build:**

The more traditional approach of design/bid/build often exposes owners to a disjointed process. This disconnect between the design and construction phases can lead to costly inefficiencies and miscommunications. In contrast, design/build bridges this gap by uniting the design and construction phases under a single entity. This streamlined approach minimizes change orders, reduces unnecessary expenses, and ultimately delivers a product tailored precisely to the owner's needs.

Don't allow the complexity of construction to impede your business growth. Embrace the efficiency and effectiveness of the design/build approach, and take confident strides toward realizing your expansion goals. The advantages of single-point of accountability, enhanced collaboration, streamlined processes, and cost control make design/build a superior choice when compared to the traditional design/bid/build method.

**J.G. Petrucci Company, Inc.** is a privately held development firm specializing in design/build construction with offices in New Jersey and Pennsylvania. The company has over 35 years of experience designing, developing, re-developing, and acquiring commercial, industrial, educational, multifamily, and healthcare properties. Having delivered over 800 design/build projects and owning and managing over 5 million sq. ft. of industrial real estate and over 2,000 apartment homes, J.G. Petrucci Company, Inc. is a recognized leader in the real estate industry. **For more information on J.G. Petrucci Company, Inc., visit www.jgpetrucci.com, or call 908.730.6909.**


# EXPAND YOUR REACH

CONNEX™ NEW JERSEY

*Powered by* NJMEP

## One consolidated database for all U.S. manufacturers

- Unlock Powerful Search Capabilities
- Connect via Manufacturing-Specific Networking
- Enjoy Completely Secure Data and Visibility Parameters
- Enhance Supply Chain Resiliency

**Join the State and National Supply Chain Portal TODAY!**

**njmep.org/connex**

## Your Marketing Partner.
# Committed to your success.

### Let's work together.

- Customized Service
- Google Certified Experts
- Transparent Reporting
- Ongoing Optimization

**NJ Advance Media champions local business growth. Let us help tell your story.**

- Video Production
- Online Display Ads
- Content Marketing
- Targeted Email
- Social Media
- SEO & SEM
- Website Development
- Print


Learn more: **njadvancemedia.com**

Contact **Stacy Koss** at **732-540-3997**
**skoss@njadvancemedia.com**


NJ ADVANCE media

REPRESENTING nj.com