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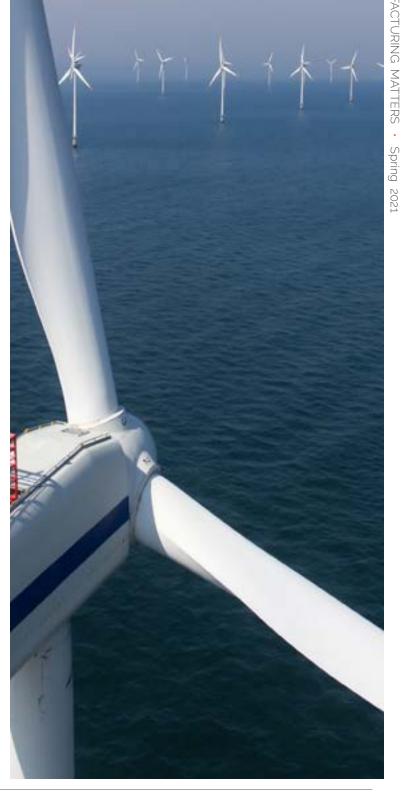
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MANUFACTURING MATTERS SPRING 2021

OFFSHORE WIND PROJECT PRESENTS OPPORTUNITY **FOR NEW JERSEY MANUFACTURING**

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SHOULD TAKE ADVANTAGE OF TALENT

DEVELOPMENT OPPORTUNITIES

MANUFACTURING MONTHLY THEMES KEEPING AN EYE ON PROGRESS IN 2021

Remaining agile is vital in any manufacturing environment, 2020 was a perfect example of how manufacturing businesses can remain agile and adapt to nearly any situation. In a year fraught with disruptions, being able to regroup and continue progressing even while managing a transforming business landscape proved to be challenging yet essential for local manufacturers.

Keeping up with all the new disruptions and developments taking place throughout the industry can be difficult. Staying up to date while navigating this COVID-impacted business environment and still trying to maintain a continuous improvement mindset makes this endeavor even more taxing on business leaders. Manufacturing Matters will make this easier.

Check back every quarter in Manufacturing Matters to keep up with the latest manufacturing themes! The first guarter of 2021 highlighted ISO, 'MADE in New Jersey,' and Energy & Sustainability. Explore each theme below and find out where to get more information on each.

JANUARY - ISO

Quality and communication are two critical aspects of a successful manufacturing operation. ISO standards help align a manufacturer with the best practices to improve both these areas. This international standard outlines detailed requirements for a quality management system (QMS), riskbased requirements, and commitment. Manufacturers can use their ISO certification as a way to promote their business to new and existing customers. Some customers may even require specific ISO certifications before a manufacturer can even bid on their business. 2021 is the best time to explore ISO. Manufacturers can take advantage of online learning,

digital resources, and connect with ISO experts easier than ever. Businesses looking to stand out from the crowd, expand into new markets, or improve their operations should take a deeper dive into these standards immediately.

Find out more or connect with an ISO expert today by visiting nimep.org/iso.

FEBRUARY - 'MADE IN NEW JERSEY'

The New Jersey manufacturing industry is staying heavily engaged with state legislators and decision-makers throughout the first half of 2021. NJMEP hosted State-of-the-State of Manufacturing PART 1 in February, and will facilitate PART 2 in April, and PART 3 in July. To ensure manufacturing remains in the public eye and on the mind of state decisionmakers, these events create an opportunity for both entities to engage and collaborate.

A repeated theme of the first State-of-the-State of Manufacturing event was 'MADE in New Jersey'. Businesses were asking state leaders to consider New Jersey manufacturers first before out-of-state companies. If the state needs PPE, if they are looking for businesses to support the Offshore Wind Project, or any other local initiatives, the state should prioritize local manufacturers.

New Jersey's Essential 'MADE in New Jersey' companies





stepped up significantly to support the state and their local communities throughout the pandemic. Continuing to engage with local leaders will ensure these businesses and their efforts aren't overlooked and forgotten. 'MADE in New Jersey' needs to remain part of the conversation all year long and each State-of-the-State of Manufacturing event will highlight the capabilities and importance of New Jersey's industrial sectors.

Visit nimep.org/MINJ to become an official 'MADE in New Jersey' company or browse the hundreds of official 'MADE in New Jersey' businesses.

MARCH - ENERGY & SUSTAINABILITY

Manufacturing is going to play a monumental role in the future of energy, here in New Jersey and across the nation. New Jersey's commitment to sustainable energy gave way to the Offshore Wind Project being developed by Ørsted and PSE&G. Green energy and the ability to support this growing sector will transform the New Jersey economy. Preparing manufacturers to support this transformation is vital.

The industry has an opportunity to take advantage of upskilling opportunities and process improvement strategies provided by NJMEP to prepare them for the specific needs and demands a new industry will require. At the same time the industry prepares, it must also speak out and make its voice heard. State entities are just beginning to understand the full breadth of New Jersey manufacturing and logistics industries. Companies brought in from overseas will want to work with their supply chain. If the local industry continues to engage with state leadership, it will be much harder to overlook all these incredible companies that call New Jersey their home.

Infrastructure projects and the Offshore Wind Project became a reoccurring topic during State-of-the-State of Manufacturing PART 1. Manufacturers were speaking up about how they can support the project. Business leaders asked legislators directly how they plan to engage the New Jersey industry to ensure the economic benefit of a project on this scale positively impacts New Jersey, its companies, and its residents. This theme is going to remain constant during PART 2 and PART 3 of State-of-the-State in April and July as well. Without manufacturers highlighting their capabilities, these businesses will continue to be overlooked when it comes to critical infrastructure projects now and in the future. State-of-the-State PART 1 opened an important dialog with state leaders. Now it's critical to continue that conversation so the industry cannot be ignored.

State-of-the-State PART 2 and PART 3 registration is open. Visit nimep.org/sots-manufacturing to take part in this critical conversation all year long.

Check back every quarter to review the Manufacturing Themes Driving Industry Forward for 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 focus on ISO, 'MADE in New Jersey', and Energy & Sustainability. Explore how these themes can impact your business, and discover 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.

NIMEP MANUFACTURING MATTERS

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New Jersey Manufacturing Business Leaders and State Decision-Makers Collaborate to Improve

State-of-the-State of Manufacturing is an event that takes place every year in New Jersey, hosted by the New Jersey Manufacturing Extension Program, Inc. (NJMEP). The goal is usually focused on informing the manufacturing industry about the legislative updates and new initiatives the state is focusing on in the upcoming year. 2021 is a little different.

The unforeseeable pandemic that shook the nation over the past year created a new need, and NJMEP's Stateof-the-State event had to remain agile and evolve to fill a critical void. Manufacturing and government need to remain collaborative to ensure the progress made during the pandemic doesn't fizzle out.

State-of-the-State Open and Honest Communication Taking Place All Year

In 2021, State-of-the-State took on a different form. Throughout 2021, NJMEP is facilitating three virtual events where the industry and state decision-makers come together to discuss the issues holding back New Jersey manufacturers.

On the surface, State-of-the-State PART I was a virtual event. However, it was transformed to reflect the needs of today's manufacturers. State-ofthe-State changed its structure in order to better connect New Jersey manufacturers, legislators, state and decision-makers. The event was centered around open, honest, communication and collaboration between key state decision-makers and New Jersey manufacturing business leaders.

Every State-of-the-State event in 2021 will be focused on providing manufacturers and legislators the same opportunity; Highlighting challenges about doing business in New Jersey and working together with the state to create solutions.

State-of-the-State PART I 'In Review'

The legislators and manufacturers represented during the State-of-the-State events will change throughout the year. Each State-of-the-State panel will look a little different in order to create a complete snapshot of the current New Jersey manufacturing environment. Different legislators will be able to weigh in on specific topics and identify geographic opportunities that may impact some NJ companies more than others.

Every State-of-the-State event is worth reviewing and attending. The information being shared has a direct impact on any New Jersey manufacturing business

OPENING REMARKS

- John W. Kennedy, CEO, NJMEP
- Stephen Sweeney, Senate President
- Linda Greenstein, State Senator LD 14, New Jersey State Senate,
- Anthony Russo, President/Publisher,

The day began with keynote speeches by the group of leaders listed here. They spoke on the importance of events like State-of-the-State and the critical role manufacturing played throughout the pandemic. These speeches paved the way for the second part of the day, the 'LIVE Conversation with Senate President Steve Sweeney and Senator Steve Oroho" which took place between 8:00AM - 8:20AM.

LIVE CONVERSATION WITH SENATE PRESIDENT STEVE SWEENEY AND SENATOR STEVE OROHO

- Stephen Sweeney, Senate President
- Steven Oroho, State Senator LD 24, New Jersey State Senate Manufacturing Caucus Co-Chair
- Moderator Anthony Russo, President/Publishe

Senate President Sweeney and Senator Oroho hosted a conversation moderated by Anthony Russo where manufacturers could address both party leaders. Manufacturers shared their most challenging pain points and Senator Sweeney and Oroho were able to speak directly with that

manufacturer to understand the root cause of these issues. Manufacturers need guidance, and for the legislature to see first-hand how their decisions affect their constituents is invaluable. This concise portion of State-of-the-State was kept to 20 minutes in order to keep the conversation moving and the answers direct.

Once the live conversation between Sweeney and concluded, the final portion of Stateof-the-State began immediately. The section of the event was a second LIVE Conversation with over a dozen legislators and heads of critical New Jersey departments.

LIVE CONVERSATION WITH THE 'PANEL'

- Robert Asaro-Angelo, Commissioner Dept. Of Labor and Workforce
- Anthony Bucco, Senator
- BettyLou DeCroce, Assemblywoman -LD 26, NJ General Assembly
- Christopher DePhillips, Assemblyman
- Aura Dunn, Assemblywoman LD 25 NJ General Assembly
- Linda Greenstein, Senator
- Vin Gopal, Senator LD 11, New Jersey State Senate
- Eric Houghtaling, Assemblyman LD 11, NJ General Assembly
- Gordon Johnson, Assemblyman LD 37, NJ General Assembly
- Joseph Pennacchio, Senator LD 26, New Jersey State Senate
- Shanique Speight, Assemblywoman LD 29, NJ General Assembly
- Melanie Willoughby, Executive Director New Jersey Business Action Center
- Benji Wimberly, Assemblyman
- Moderator Michael Womack,



The day concluded with a final Q&A section. Manufacturers had the opportunity to address the diverse panel of state legislators and decision-makers. Business leaders directed their questions to specific legislators however others were encouraged and excited to weigh in which kept the conversation alive and engaging.

Owners, presidents, CEOs, manufacturing business leaders from all industries joined State-of-the-State. Businesses of all sizes were represented. A critical cross-section of local manufacturing was presented once again to the local government. State-of-the-State PART I created an environment that facilitated open dialog between local government and local industry. PART II and PART III will be providing that same opportunity to achieve the same goal with a specific, but not exclusive, geographic focus.

The Questions and Topics

State-of-the-State conversation topics were shaped by the industry. NJMEP considered the current business and regulatory climate and anticipated the need to secure some specific legislators and government officials that could speak on these potential topics.

Manufacturers were able to submit their questions ahead of the event, during their registration process. NJMEP received dozens of questions from manufacturers all throughout the state. Their questions paralleled the topics listed below and provided even more insight into the current state of New Jersey manufacturing.

STATE-OF-THE-STATE CONVERSATION TOPICS INCLUDED:

- Workforce Development
- Offshore Wind Project
- Supply Chain
- Made in New Jersey / Local PPE Production: Incentives/Support
- COVID-19 Business & Workforce Challenges

On the day of the event, business leaders asked their questions to the panel of legislators and decision-makers. Both parties engaged in a dialog with the goal of highlighting the challenges local businesses are facing and to start the discovery process on solutions to these issues.

It is challenging for the legislature to fully comprehend all the headwinds facing local New Jersey manufacturers during a normal year. Coming off a year where an unprecedented global disruption put a tremendous amount of pressure on both local governments and businesses makes communication between these two entities even more important. The only way the industry and state can progress forward is by working together. State-of-the-State provides this vital collaborative platform.

State-of-the-State PART I, PART III, PART III

Both the manufacturers and state representatives walked away from PART I with next-steps, additional NJMEP advocacy support, and a plan.

Manufacturing can be easily forgotten. Without providing manufacturers the opportunity to engage directly with state leadership, New Jersey will fall back into the belief that the state does not manufacture.

State-of-the-State PART II takes place on April 23rd and PART III is on July 30th. With Manufacturing Day coming up in October, NJMEP will help ensure manufacturing is not overlooked. Still, success depends on the manufacturers themselves. Only with their engagement can the remaining events be as successful and fruitful as State-of-the-State PART I. Manufacturers must stay engaged to actively encourage the State legislature to consider their industry when contemplating new rules, regulations, and support programs.

Registration for PART II and PART III is open, now! Visit njmep.org/SotS-manufacturing to sign up today!

Check back in the next edition of Manufacturing Matters to follow along with the latest successes and stories that come out of this critical initiative.



LEGISLATORS PARTNER WITH MANUFACTURERS FOR A BETTER NEW JERSEY

Just a few years ago, a bi-partisan, bi-cameral group of legislators came together with a common goal in mind - to engage with, support, and bolster New Jersey's manufacturing sector. In short, to bridge the communication gap between the legislators and the manufacturers that keep New Jersey running. In partnership with the New Jersey Manufacturing Extension Program (NJMEP), the Legislative Manufacturing Caucus of New Jersey has been hard at work ever since.

In the two years that I've chaired the Manufacturing Caucus, we have accomplished some really great things. But I know there is more to do.

APPRENTICESHIPS AND JOB TRAINING

Over the last few years, we have been working to boost apprenticeship programs. Our efforts are paying off - enrollment in apprenticeships is at a seven-year high in New Jersey, with almost 9,000 apprentices in over 1,000 programs.



SENATOR LINDA R. GREENSTEIN,
DISTRICT 14

CHAIR, NEW JERSEY BIPARTISAN
LEGISLATIVE MANUFACTURING
CAUCUS

BUT WE'RE NOT STOPPING THERE.

New Jersey has one of the most diverse workforces in the country, with top-tier education institutions to train them. But education isn't one-size-fits-all, and though it's marketed as such, college simply isn't the best option for everyone, and not everyone chooses that path. The Caucus has been working to make sure that New Jersey offers students a variety of career pathways - of which not all require a college degree - but all of which will prepare students for success and well-paying jobs.

Despite these efforts, employers in the

manufacturing sector have made clear that they still struggle to find technically skilled workers to fill positions. In partnership with NJMEP, the New Jersey Economic Development Authority, the Governor's Office, and many others, the Caucus is exploring other avenues to expand and support our apprenticeship programs.

FY2022 BUDGET PROCESS

As we head into budget season, the Caucus will be fighting to ensure NJMEP receives funds from the State in 2022.

During last year's budget deliberations, we fought to secure additional State funds for NJMEP and were successful in locking down a \$1.5 million appropriation that would be matched by the Federal government. This \$3 million total commitment ensured that NJMEP would have a dedicated source of funding to support New Jersey-based manufacturers, open a new South Jersey facility, scale-up training, and expand apprenticeship programs.

I'm proud to report that, as it stands, the Governor's Proposed Budget allocates \$2 million in State funds for NJMEP. The Caucus will fight to make sure that appropriation is included in the final version of the State's FY22 Budget.

COVID-19 RESPONSE & THE ECONOMIC RECOVERY ACT OF 2020

The last year underscored how critical it is to have a strong, New Jersey-based manufacturing industry. When the demand for surgical masks, face shields, gloves, and gowns skyrocketed, our manufacturers quickly retooled to meet the need. New Jersey's own Rutgers University spearheaded the saliva-based diagnostic test. Now, New Jersey's own Johnson & Johnson has produced a highly effective, single-dose vaccine.

Suffice it to say - New Jersey is constantly at the forefront of innovation. And the success of that innovation relies greatly upon a strong manufacturing base.

As COVID-19 swept through our state and continues to keep New Jerseyans home, NJMEP and the Manufacturing Caucus have been collaborating to find ways to best support this essential industry.

I, along with our Caucus Co-Chair, Senator Oroho, introduced a bill during the height of the pandemic that would streamline PPE production by New Jersey-based manufacturers and mandate that the government purchase a certain amount from those manufacturers. The bill, which tackles several other initiatives, passed both houses of the Legislature earlier this month and now sits on the Governor's desk. We were able to include the preferential purchasing portion of this bill in the Economic Recovery Act of 2020, signed into law in January. By prioritizing the products made by our New Jersey-based businesses, we are investing not only in individual businesses but in the entire New Jersey workforce and the overall reinvigoration of our economy.

The Economic Recovery Act of 2020 provides incentives to keep businesses invested in New Jersey. As mentioned, it provides preferential purchasing of New Jersey-made PPE. The Act also includes a program that will provide a corporation business tax credit (CBT) and a gross income tax credit (GIT) for taxpayers making investments and creating or retaining jobs related to in-state manufacturing of PPE. For qualifying facilities, this includes an award for each employee related

to the manufacture of PPE and an additional per-employee award if the taxpayer has established an apprenticeship or pre-apprenticeship program with a technical school or county college located in New Jersey.

LOOKING FORWARD - BEYOND THE PANDEMIC

Though the Economic Recovery Act of 2020 will provide some much-needed relief to New Jersey manufacturers and businesses, moving forward, I would like the Caucus to find ways to further publicize our essential manufacturing industry. One way to do that is to enhance the "Made in New Jersey" program. As mentioned, we have relied heavily upon a strong New Jersey-based manufacturing industry to keep us moving through the pandemic. We need to make sure the manufacturers here in New Jersey are seen and utilized to their fullest potential - beyond PPE and vaccines.

A bill I sponsor with Manufacturing Caucus members Senator Oroho and Assemblyman Houghtaling would amend the designation on the official State logo that denotes the production of goods in New Jersey to read "Made in New Jersey," "Made in NJ," or "MINJ." The bill has passed the Assembly and is now on second reading in the Senate. We will be pushing to get this bill to the Governor's desk when the Legislature reconvenes from Budget.

LOOKING FORWARD - CYBERSECURITY

As we look to the future, another legislative priority of mine is to enhance the State's cybersecurity preparedness. Unfortunately, this is an issue our manufacturers know all too well.

We've seen bad actors take advantage of the pandemic to compromise personal information and security measures - just look at the number of fraudulent unemployment claims that have placed additional stress upon New Jerseyans already facing difficult times. But hackings and ransomware are not limited to unemployment fraud - this is something that, as a state, we must re-evaluate, both in the public and private sector.

For example, this year, a municipal water utility in Florida was hacked. The intruder changed levels of chemicals in the town's drinking water that, had the staff not caught the hack as it happened, residents could have been seriously harmed. I sponsored a bill that would require water utilities in the state

to develop their own cybersecurity plans - it has since passed the Senate and is moving through the Assembly. Realizing, though, that this is not just an issue facing water utilities, I've been working with the Office of Legislative Services to draft a bill package that will aim to better prepare both the State and the private sector in the event of ransomware or cyber incidents. I look forward to working with my colleagues in the Caucus, John Kennedy and the NJMEP team, and manufacturers facing these issues head-on to find solutions that protect all of New Jersey.

IN CLOSING...

Supporting and strengthening New Jersey manufacturing takes more than just the work of a single entity. The success of our efforts in the Legislature is dependent on collaboration between Caucus members, NJMEP, and manufacturers

themselves - the Caucus was established in order to provide a direct line of communication between manufacturers and the Legislators that represent them. Making sure that communication stays open is how we, as legislators, find solutions that actually work for you.

I want to thank John Kennedy, Constantina Meis, and all the folks at NJMEP, who have worked day and night during the pandemic to keep communication flowing and resources available to our manufacturers. I want to thank the men and women who went to (and go to) work each day in order to keep New Jersey running. And I want to thank each of you who has worked with the Caucus to find legislative solutions for the problems facing your businesses. I look forward to the rest of 2021 - there's still a lot of work to be done.

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Industrial communication can take on a different meaning depending on the context. Machine-to-Machine communication is one way the industrial environment utilizes Industry 4.0 technologies to communicate. A graphic to remind employees to wear Personal Protective Equipment (PPE) is also considered industrial communication. Communication can take on many forms in an industrial environment, and all are vital.

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TEAMWORK, COLLABORATION, AND COMMUNICATION

The transfer of information is critical to advancing any company forward. Hiring managers and executives rank good communication as one of their most important skills for employees to have according to Forbes¹, A communication breakdown will cause a massive ripple effect. Listing all the ways misinformation or a lack of communication can impact an organization would require its own article. However, the fallout of these errors can range from requiring a quick redaction, or disruptive enough to cause massive, multidepartmental, and even international disturbances.

Teams and organizations that invest in themselves are most likely to succeed and continue thriving for years to come. Not everyone is a natural communicator. Training can provide actionable advice and practical ways to improve communication skills. Employees that can communicate effectively contribute positively to an organization. Training that focuses on conflict resolution, managing and communicating change, improving employee engagement, or even improving presentation skills, helps upskill the workforce and mitigate shortcomings. communication Investing in communication training is an exceptional way to create more effective communicators and elevate the entire business.

https://www.forbes.com/sites/ blakemorgan/?sh=2b42cadf2414 2

STATIC INDUSTRIAL COMMUNICATION

Floor graphics, signs, shadow boxes for tools and equipment, some communication strategies in a manufacturing environment remain static.

Approximately 65% of the population are visual learners². The human brain processes visual information 60,000 times faster than text according to a study conducted by 3M in 2001³. Manufacturers can benefit from visual communication elements throughout the industrial space.

Signage can be used to remind employees to maintain proper processes and procedures. The COVID-19 pandemic called for even more signage around the workplace. People were able to easily understand the proper safety precautions and avoid any unsafe behavior. Floor graphics help keep people out of unsafe areas, reducing accidents that keep the facility and the workforce safe, at work, and productive.

Lean manufacturing makes use of

visual elements and static industrial communication strategies. shadowbox, outlining where tools should be placed sounds like a simple idea, and that's because it is. However, often a simple improvement made with continuous improvement in mind can have a massive impact on a business' bottom line. Organizing tools and ensuring an employee never needs to search for equipment cuts down on an incredible amount of waste. All that waste can be turned into value-add activities to increase productivity and efficiency.

industrial communication Static strategies are beneficial when the information is up to date. If a process changes, PPE requirements change, or a facility is undergoing updating the plant layout, any kind of static industrial communication method must be reviewed. If the information being shared is not correct, that static graphic will contribute to communication gaps and potentially even put people in danger. Periodic review of the signage and graphics will ensure the right information is being delivered to the right individuals.

2 http://visualteachingalliance.com/

3 http://web.archive.org/web/20001014041642/http://www.3m.com:80/meetingnetwork/files/meetingguide_



EMERGENCY PLANS AND PROCEDURES

The COVID-19 pandemic shared countless lessons with manufacturing leaders. Two stood out in the communication space. First, not having an emergency plan is going to spell disaster for an organization impacted by a natural disaster. Second, having an outdated emergency plan or not having a team trained on enacting an emergency plan is not going to benefit the organization.

"By failing to prepare, you are preparing to fail." Benjamin Franklin.

New Jersey manufacturers learned this lesson the hard way when Hurricane Sandy made landfall on the Jersey shore. Still, that isolated incident was temporary and easier to move past without instituting any substantial or permanent change. Those that did not take the lesson to heart were forced to face the pandemic without proper preparation. This time, the natural disaster had no end in sight. Not having an emergency plan in place caused countless businesses to close their doors indefinitely.

An emergency plan, the abilityto act on that plan, and a strategy on how to effectively communicate that plan is more than a "nice to have", it is vital.



INDUSTRY 4.0:

Introducing Machine to Machine / Machine to Human Communication

Communication is taking on a different form as manufacturing moves into the fourth industrial revolution. Called Industry 4.0, it is the next step forward for the industry. Just as Paterson, New Jersey harnessed hydropower to supply our nation's first planned industrial city with energy to produce textiles, the introduction of revolutionary sensors and digital systems is cultivating a more efficient and productive manufacturing industry.

Machine to Machine (M2M) communication is when two or more machines exchange data without human interference. This allows the equipment to adjust its performance based on any specific variables. Variables can include anticipated demand, delays, and or machine maintenance schedules. If a machine is running at a higher-thannormal temperature, vibrations are becoming too severe, or is experiencing any anomalous behavior, a machine can communicate with another to pick up the slack while the damaged equipment sends out a message to a technician alerting a technician about its condition.

Industry 4.0 covers a wide range of technologies; most help reduce communication gaps or offer equipment the ability to communicate with the human workforce to create an even more efficient and productive manufacturing operation.



INDUSTRY ADVOCACY

Even if a manufacturing business leader employs all the best communication methods and continuously strives to achieve operational excellence, all that work will be for nothing if they don't have the support of their state.

Communication cannot stop at the shop doors. Manufacturers must speak up and tell their local community and local government what they do and the impact they have on the economy. Over 300,000 people work in the New Jersey manufacturing industry. The average salary for a manufacturing worker in New Jersey is over \$90,000 annually. In 2020, the manufacturing industry helped raise over \$100,000 for local food banks.

Manufacturing is a critical component of any state. New Jersey is no exception.

To ensure the manufacturing industry has the means to effectively communicate their value to the state while also giving these businesses a forum to ask critical questions to legislators, NJMEP is hosting three State-of-the-State of Manufacturing events in 2021.

Visit NJMEP.org/sots-manufacturing to get involved, speak up, and collaborate with state decision-makers to create a more manufacturing-friendly New Jersey.

Benefits of Adopting New Technologies: Modern Performance, Long-Term Gains

It takes a fair amount of swiftness and ingenuity to remain competitive and compliant in today's ever-expanding global market. While it can be tempting for biopharma manufacturers to continue operating the same way they always have – particularly when they've seen success with their existing methods – the time has come for these companies to step out of their comfort zones.

First and foremost, the FDA expects certain regulations and standards of innovation to be met, and sometimes that requires embracing new, emerging technologies that promise even better patient outcomes than before. Beyond that, patient expectations tend to rise in tandem with each new innovation, making it truer than ever that "good enough" is simply not good enough. Manufacturers who don't step up to embrace these new technologies are likely to get overstepped by those that do.

The key here, then, is for manufacturers to embrace these new technologies, rather than brushing them off. In doing so, they demonstrate a commitment to maintaining a consistently up-to-date operation, and that flexibility and resiliency are what will help lead to long-term success.

Here, we outline three recent advancements in the biopharmaceutical industry that manufacturers will need to embrace if they want to remain competitive in the market.

Targeted Therapies

Chemotherapy has been saving and improving lives for decades, but it's certainly not without its faults. Because traditional chemo is toxic to most cells, not just cancer cells, it can – and does – damage some normal, healthy cells while also killing cancer cells. Doctors and scientists set out to develop a new medical technology that could identify and attack specific types of cancer cells and that would pose less harm to normal ones, and they came up with an advancement called targeted therapy, which works by blocking cancer cells from copying themselves so they can no longer divide and make new ones.

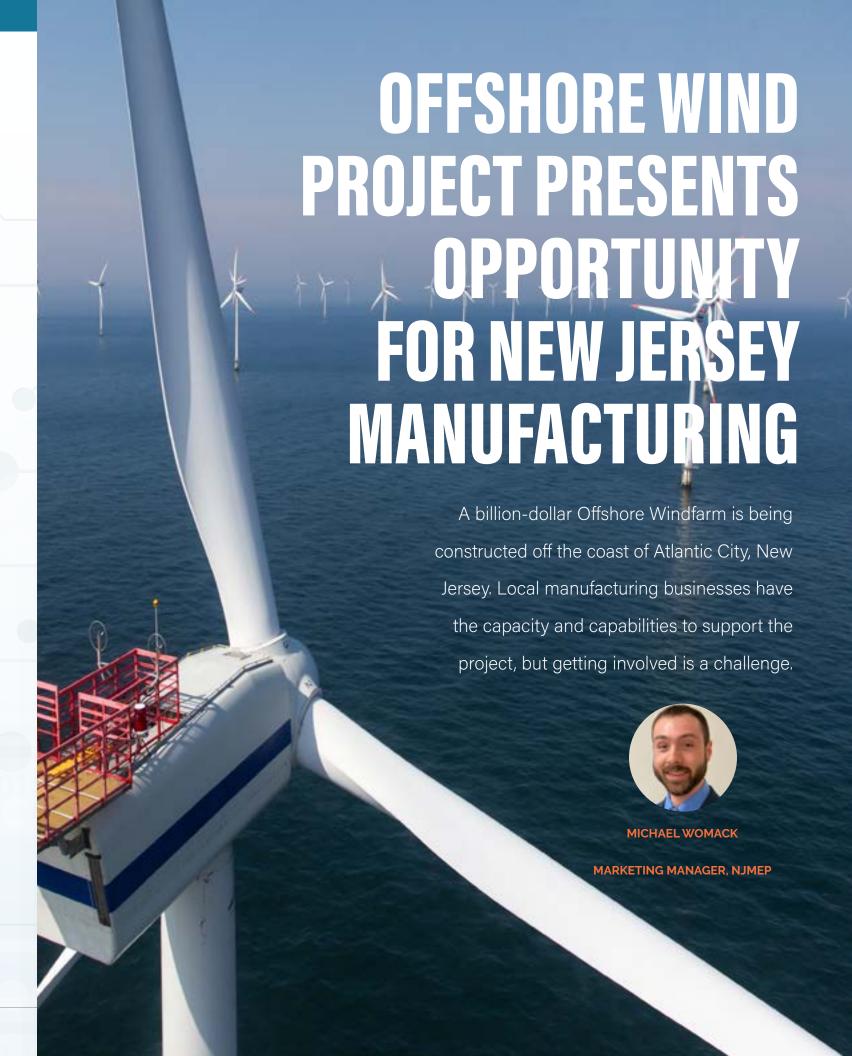
Flexible Automated & Modular Technologies

Automation refers to the use of robotics, smart workflows, advanced analytics, and data visualization to drive efficiencies in the way scientists work. While skeptics believe automation could end up replacing the role of scientists altogether – ultimately resulting in job losses – automation has actually proven to be useful in freeing up time spent on grunt work in the lab so that scientists can focus instead on more influential endeavors, like innovation design and data interpretation.

Single-Use & Disposable Devices

As a method of cost-reduction, many medical facilities have already begun accepting and implementing single-use (disposable) devices and components for clinical use, such as bioreactor bags, films, filtration, and connection technology. With an industry focus on productivity and efficiency, the benefits of disposables also include the elimination of cleaning requirements, less time needed to get a facility up and running, and a reduction in the amount of capital investment needed to run and stock a facility.

Like the examples above, most new advancements in medical technology are aimed at efficiency, whether in improving patient health, or in reducing time or costs. As manufacturers embrace these new technologies and others, they stand to profit directly, as those efficiencies are invaluable to their clientele.





After diving beneath the waves and exploring the countless economic benefits of the Offshore Wind Project, it becomes clear why New Jersey is charging forward with this initiative. Come explore the Offshore Wind Project and uncover all the value this infrastructure has to offer.

What is the Offshore Wind Project and Who Is Involved?

New Jersey is investing heavily in the state's green energy future. Investing in offshore wind is a critical component of the state's plan. The Offshore Wind Project is an offshore wind farm being developed 15 miles off the coast of southern New Jersey. It will be a 1,100 MW project which will eventually be able to provide 500,000 New Jersey homes and businesses with clean energy. Construction will begin in 2022 and span until 2024. A project of this size and scope will make the state a key player in the growing offshore wind industry across the nation.

Ørsted and PSE&G are the project leads, tasked with coordinating the initiative and ensuring its success. The Offshore Wind Project has the potential to be a massive economic stimulator for local manufacturers and businesses of all kinds.

About Ørsted

This Danish power company is the largest energy company in Denmark. New Jersey chose them as a partner because of their reputation and expertise as a global leader in wind energy. Currently, Ørsted is operating 26 offshore wind farms around the globe.

Commissioner of the Board of Public Utilities — 'MADE in New Jersey' Supporter

"It's not only the concerns about climate change and the impact on our state we want to address, but we've also seen this from the very beginning as an economic development opportunity. This is a way to create the next big thing for New Jersey," stated Commissioner of the Board of Public Utilities Bob Gordon when asked what the Offshore Wind Project could mean for local New Jersey manufacturing.

When trying to decide the winner for the infrastructure contract, the economic benefits played a major role in determining which company would take the lead on New Jersey's offshore wind project."

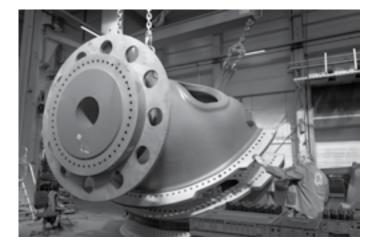
The Commissioner continued to explain, "The economic development benefits were as important as the environmental benefits. We wanted to see in these applications detailed information about the number of jobs that were going to be created and partnerships that were going to be established with New Jersey institutions. We didn't just want generalities."

Current Relevant New Jersey Manufacturing Capacity and Capabilities

Ørsted is relying on its European supply chain to support the development of the program. Close collaboration with New Jersey businesses will provide these suppliers and the state with countless economic benefits.

New Jersey has an incredibly distinguished history when it comes to manufacturing. That history is often forgotten when the state embarks on new infrastructure initiatives. Many assume New Jersey doesn't have the capacity and capabilities to support such a project. This couldn't be farther from the truth.

New Jersey has an impressive spread of manufacturing capabilities. From survival products to wind turbine production, local businesses are positioned to support this massive infrastructure project. The scope of the project goes far beyond any single component or process. An offshore wind farm of this magnitude requires hundreds of touchpoints, thousands of components, and a complex supply chain that spans continents. By turning to local New Jersey manufacturing, businesses that can supply high-performance epoxy, urethane, and acrylic adhesive compounds, fiberglass composite suppliers, rubber and plastic components, structural steel and concrete, or the expansive list of related services and products 'MADE in NJ' manufacturers are currently producing, that complex supply chain becomes more streamlined. Also, theeconomic boost from a project of this magnitude will have a lasting impact on New Jersey rather than dissipating once construction concludes.



Industry Challenges and How New Jersey is Working to Overcome

There are challenges when it comes to taking advantage of all the manufacturing and logistics support New Jersey has to offer.

- People don't know New Jersey is still home to a robust manufacturing/supply chain industry.
 - Constant advocacy and collaboration between local industry and government help inform policymakers about New Jersey's current capabilities and capacity to support Offshore Wind.
 - State-of-the-State of Manufacturing, hosted by NJMEP is a perfect example of the type of collaboration that fosters a deeper understanding of New Jersey's local manufacturing capabilities and capacity.
- Project leaders are comfortable with their European supply chain.
- Working together to support the current project leaders and developers will be key. Collaboration between the European partners and local New Jersey businesses will ensure the economic impact remains in New Jersey even after the European partners move back out of state.
- Specialized skills and production processes focused on green energy are currently limited when compared to the European supply chain.
 - New Jersey is currently home to manufacturers that specialize in green and wind energy. The workforce is limited but by partnering with entities like the New Jersey Manufacturing Extension Program, Inc, workforce development programs can be developed to specifically upskill industrial workers, so they have the skills needed to support large wind energy projects.





Supporting these workforce training programs aimed at upskilling New Jersey residents to enter the green energy industry will pay off in a big way in both the short and long term. In the short term, the workforce will directly support Ørsted's Offshore Wind project. In the long term, New Jersey will be in a position to sustain its growing green energy industry. Without using programs like the Offshore Wind Project to prepare the workforce, the dreams of making New Jersey a renewable energy industry leader will be impossible to sustain.

Lasting Benefits Helps New Jersey Thrive

The Offshore Wind Project has the potential to radically improve New Jersey. Protecting the environment while providing the chance to enhance an entire industry are two of the biggest ways this infrastructure initiative can provide real value to everyone living in New Jersey. It will take close collaboration between state and local businesses to ensure this positive impact is felt by those that call New Jersey,

For this project to successfully help strengthen the New Jersey economy and put money back into the pockets of New Jersey residents, the state must seriously consider encouraging its partners to engage directly with these local manufacturers. When local businesses are involved, the economic impact will be sustained far after Ørsted's partners complete the project and return to Europe. This means local workers with new green energy skills will continue benefiting from this project for decades and will become leaders in New Jersey's newly developed Green Energy industry. By strengthening the capabilities and bolstering the green energy workforce in New Jersey, it puts the state in a position to 'lend' expertise and talent to other states, truly positioning New Jersey as a green energy leader. The development of new training programs today aimed at effectively upskilling the green energy workforce of the future creates a foundation to sustain this newly developed industry.



BlueTrack Inc.

This New Jersey manufacturer was founded in response to the attacks on September 11th with a goal of raising money for first responders and their families. It didn't take long before BlueTrack Inc. began to grow and become a leader in the wholesale promotional product space. Major brands like Netflix, Nike, Johns Hopkins and so many others rely on this New Jersey business to provide their promotional products. COVID-19 allowed them to revisit their origins, once again giving back to their local community. BlueTrack Inc. embarked on the monumental challenge of becoming certified as a trusted supplier of N95 respirator masks as the pandemic interrupted the lives of everyone around the globe.

New Jersey was facing a severe Personal Protection Equipment (PPE) shortage as the pandemic ravished the state. The entire nation was feeling the pressure of a disrupted global supply chain and masks were nearly impossible to find. Manufacturers like BlueTrack Inc. stepped up to face this challenge head on.

Sean Glasser, Owner, BlueTrack, Inc. invested in new equipment to retool the facility to produce N95 respirators. This was a massive undertaking that was only made more difficult by the misinformation being distributed at the start of the pandemic as well as the incredibly complex approval process a manufacturer must undergo to produce N95 respirators. Collaborating with NJMEP allowed BlueTrack Inc. to fill a critical void in the local and national supply chain. To learn more about this journey, read the full Success Story on the next page.

Andrew Grossman Upholstery

New Jersey is filled with incredible manufacturers with amazing stories to share about how their business grew and evolved. Andrew Grossman Upholstery started in a 1,500 square foot facility in Belmar, New Jersey, and quickly outgrew their first industrial space. Now the company resides in a 20,000 square foot manufacturing facility in Asbury Park, NJ, and have become one of the top-producing custom fabricators in the country. Leadership led the company on a path toward success by investing in its workforce, technology and by putting the customer first.

Andrew Grossman Upholstery constantly strives to reduce waste and increase efficiency and productivity. This insatiable need to improve has helped them become an industry leader.

Forward-thinking leadership plays a vital role in the success of a manufacturing operation. To ensure a business can grow and thrive well into the future, best practices must be explored and taken seriously. Lean manufacturing is no easy feat. The concept is simple, but implementation takes commitment and a willingness to learn and improve. Andrew Grossman, Owner, Andrew Grossman Upholstery took a massive step forward by investing in a Lean manufacturing journey. His company was able to dramatically improve their operations while also mitigating disruptions caused by COVID-19 with their newly developed understanding of Lean manufacturing best practices. Read the full Success Story on page 23.

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. 🦻

2021

BLUETRACK, INC. CREATES NEW REVENUE STREAMS AND BOOSTS BUSINESS THROUGH NJMEP COLLABORATION



BACKGROUND

Bluetrack, Inc manufactures promotional products for major brands like Netflix, Nike, and so many more. The business was created as a response to September 11th, raising money for first responders' and their families. It quickly grew into a leader in the wholesale promotional product space. Bluetrack's leadership still prides itself on wanting to do good by their community and the COVID-19 pandemic allowed them to give back once again.

The COVID-19 pandemic forced local governments all over the United States to begin mandating businesses that are deemed 'non-essential' to shut down. Many state governments oversaw the selection of which manufacturing companies should be considered essential. This proved disastrous. All manufacturing is essential, especially in the case of a pandemic. Closing a manufacturing plant that a government official deemed 'non-essential' would cause a domino effect that impacts an untold number of other manufacturers up and downstream.

CHALLENGES

At the very beginning of the pandemic, factual information was difficult to come by. Business leaders were being bombarded by executive order after executive order. Oftentimes, these executive orders seemed to contradict themselves or provided sets of guidelines without any specific details.

Fear and uncertainty surrounding the manufacturing industry during the first couple weeks of the COVID-19 pandemic created a challenging business landscape for Bluetrack, Inc. They were fearful that their business would close, and they couldn't find the information on the executive orders that were being released each day.

Bluetrack Inc.'s core business is branded stress balls for promotional events. Once all the tradeshows and promotional events got canceled, most of their business was eliminated. Stress ball sales dropped over 90% nearly overnight. This New Jersey manufacturer needed to develop new products to drive revenue and keep business moving.

SOLUTIONS

Immediately upon discovering that businesses were going to be shut down by state government, NJMEP sprang into action. NJMEP is not a lobbying group, but advocacy is a large portion of the business's efforts. By bringing together the New Jersey manufacturing community to highlight the importance of keeping all manufacturing open in the state, the Governor ultimately allowed these businesses to continue operating.

To address the misinformation that was prevalent during the first few weeks of the COVID-19 pandemic, NJMEP made it a mission to examine, review, and summarize the governor's executive orders. These summaries were reviewed by NJMEP affiliate attorneys then shared with every manufacturer NJMEP could reach. Only the facts were provided.

NJMEP's Ben Domingez worked with Bluetrack to identify the right person that can help them acquire temporary permission to manufacture N95 and Surgical Masks. Bluetrack Inc. used their experience and knowledge of machinery to acquire equipment that would be able to produce this critical Personal Protective Equipment (PPE).

"If it wasn't for Ben, we would have been just one call out of thousands. It was him that put us in touch with someone that took us seriously." Sean Glasser, Owner, Bluetrack, Inc. stated.

Bluetrack signed up for the NJMEP COVID-19 Supply Chain database. This allowed them to be considered by New Jersey for a massive PPE stockpile order.

RESULTS

Bluetrack Inc. was able to benefit in the following ways by collaborating with NJMEP:

- RETAINED EMPLOYEES: 14
- NEW SALES: \$1,700,000
- OPENED A NEW REVENUE STREAM
- OFFSET LOSS OF CORE BUSINESS 🏮

ANDREW GROSSMAN UPHOLSTERY SETS SIGHTS ON LEAN AND CONTINUOUS IMPROVEMENTS



MONUMENTAL ROI DRIVES THIS LOCAL NEW JERSEY MANUFACTURING BUSINESS FORWARD

BACKGROUND

Andrew Grossman Upholstery (State Legislative District: 11; Congressional District: 6) started out in a 1,500 square foot facility in Belmar, New Jersey. Andrew Grossman had his sights set on growing the business, particularly here in New Jersey. To achieve this goal, leadership insisted on exploring the latest technologies while constantly looking for new ways to reduce waste and improve production. Expanding his business beyond upholstery to include fabrication allowed Andrew Grossman Upholstery to reach new markets and achieve continuous growth. Now they reside in a 20,000 square foot manufacturing facility in Asbury Park, NJ, and are one of the top-producing custom fabricators in the country.

All this growth is good for business but tends to create growing pains along the way.

CHALLENGE

COVID-19 presented a slew of challenges for every business owner. Every manufacturer in New Jersey was considered essential and allowed to remain open. Manufacturers being essential presented a different kind of challenge when compared to other businesses. Social distancing guidelines and COVID safety precautions put new pressure on production lines. Manufacturers need to do more with fewer people. With such an uncertain business environment, manufacturers needed to keep a closer eye on waste and efficiently to keep costs as low and competitive as possible.

Andrew Grossman has plans to explore continuous improvements before COVID-19 to maintain a productive and efficient businesses. When COVID-19 struck, they were already in the process of partnering with NJMEP on a Lean program. This put the company in a position to get out in front of the disruptions caused by the pandemic using Lean manufacturing strategies.

SOLUTION

NJMEP received funds from the CARES ACT to create programs to support the recovery of local manufacturers. These funds were used to create a suite of services known as the 'Tri50' programs. One of those programs is the Lean 'Tri50' program which Andrew Grossman Upholstery was able to utilize.

NJMEP worked together with the client to identify a suite of training and consulting services that will help Andrew Grossman Upholstery do more with less and help encourage continued growth. A total of 20-hours was provided to the client at no-cost thanks to the 'Tri50' programs use of CARES ACT funds. Andrew Grossman Upholstery invested in their future by covering the remaining project costs on their own.

"We had a fantastic last quarter as a direct result of 'leaning' or manufacturing the floor and maximizing efficiencies. There are so many cost savings from the implementation of lean.

My architectural millwork and upholstery shop will forever be an efficient Lean Machine thanks to the NJMEP LEAN [Tri50] Program."

Andrew Grossman, Owner, Andrew Grossman Upholstery

NJMEP MANUFACTURING MATTERS

Andrew Grossman Upholstery worked with NJMEP in the following areas...

- Into to Lean Manufacturing Training Discussing the current business environment and how Lean fits into a post-COVID environment. Training manufacturers on how to become more efficient with less space and fewer people.
- Value Stream Mapping Evaluating every step in the production process from beginning to end. In a COVID and Post-COVID environment, it becomes more important to have a thorough understanding of a business's value-add vs non-value-add processes.
- 5S Training Providing the guidance and skills to maintain an organized and clean work environment to promote positive health and a productive culture.
- Total Productive Maintenance Reviewing the best practices for keeping equipment in its optimal working state to maintain schedules and a high level of productivity.
- Quick Changeover Training to help an organization improve the velocity of a piece of manufacturing equipment so that they can produce more from a single piece of equipment with a limited workforce.
 In response to COVID workforce constraints, the goal of this training is to increase productivity to reduce the number of machines required which reduces the number of employees required, while still meeting demand.

RESULTS

Andrew Grossman is thrilled with the improvements he's seen by taking advantage of the NJMEP Lean Tri50 program. They have implemented numerous changes that leadership is committed to maintaining and instilling throughout their company culture. Andrew Grossman Upholstery gained an incredible amount of value from their partnership with NJMEP and their participation in the Lean Tri50 program. The company benefits immediately in the short term and leadership's commitment to continuous improvement will provide countless long-term benefits.

In this statement submitted by Mr. Grossman, it is clear that the provided training and consulting highlighted the importance of not just Lean production practices but also complimentary Lean improvements that can be made throughout the facility to solidify the ROI. Andrew shared, "We added lighting to the facility. We cleaned out all the junk. We closed all the open doors of the cabinetry by adding doors to keep clean and organized. Created shadow boxes or black lines for brooms and dustpans. We created a path for traffic flow that is maintained clear. We cleared out clutter from drawers. Most importantly we changed our company culture and are all Kaizen working to improve everything."

Andrew Grossman Upholstery reported the following impact:

- RETAINED JOBS: 11
- EMPLOYEE CREATION: 2
- EMPLOYEES RETAINED: 9

'MADE IN NEW JERSEY' BENEFITS:

ALL NEW 'MINJ' MEMBERS ARE LISTED IN MANUFACTURING MATTERS MAGAZINE

Manufacturing Matters is distributed to over 14,000 business leaders throughout New Jersey.

HAVE A CHANCE TO BE SELECTED AS "MANUFACTURER OF THE WEEK"

One MINJ member is highlighted and shared via all of NJMEP social media networks each week.

A PROFILE PAGE ON NJMEP'S WEBSITE SHOWCASING YOUR COMPANY

Improve your company's brand awareness and search engine ranking.

DISPLAY THE MADE IN NEW JERSEY LOGO ON YOUR WEBSITE

Show businesses and customers visiting your website that you manufacture products here in NJ.

RECEIVE AN OFFICIAL 'MADE IN NEW JERSEY' PLAQUE TO DISPLAY ON SITE

Showcase your New Jersey pride by displaying an official MINJ plaque at your manufacturing facility.

Available upon request.

Sign up to become a 'MADE in NJ' member by contacting mwomack@nimep.org.



Celebrating 'MADE in New Jersey' Manufacturing

Highlighting Essential 'MADE in New Jersey'
Manufacturers That Drive NJ Forward

Ardmore, Inc.

ARDMORE INC. is a New Jersey manufacturer located in Newark that produces soap and other detergent products. With demand at an all-time high, it is a massive benefit to New Jersey that the state has this small local manufacturer to help meet demand.



CARTERET DIE CASTING CORP. is an ISO-certified world-class producer of precision zinc die castings located in Somerset, New Jersey. This local 'MADE in New Jersey'manufacturer serves a wide variety of industries and offers a full range of secondary operations, too.



HENDERSON PROMOS, LLC., located in Red Bank, New Jersey is a promotional product supplier but quickly shifted to producing PPE once COVID-19 hit the United States. Their ability to produce masks played a massive role in the state's ability to supply essential workers with appropriate PPE.



RADIP GROUP, LLC., is obsessed with innovation. This 'MADE in New Jersey' manufacturer located in Jersey City, New Jersey helped the state and country push through the Personal Protection Equipment (PPE) shortage by remaining agile and producing face shields when the need arose.



STEELSON PACKAGING prides itself on being a leader in the custom protective polyethylene film for industries including food, pharmaceutical, medical, chemicals, textiles, and many more. This company has called New Jersey home for over 15 years.



WILLRICH PRECISION INSTRUMENT COMPANY recently celebrated their 50th year in business! Willrich is an ISO:9001:2015 & ISO-17025 accredited company that provides measuring tools, from basic to sophisticated metrology products.

All these manufacturers are a critical part of the New Jersey community. They are economic stimulators and provide competitive employment opportunities for our state's residents. 'MADE in NJ' is a complimentary program that helps highlight the businesses that make products in New Jersey. Check back in the next edition of Manufacturing Matters to find the latest companies that signed up to show the world that they are an Essential 'MADE in NJ' Manufacturer.

Sign up to become a 'MADE in NJ' member by contacting mwomack@njmep.org.



Though ensuring worker safety was, and still is, a key priority, the cancellation of these audits can have long-term implications. One could even argue that it's more important now than ever to keep an eye on suppliers' operations and controls, given the profound and unprecedented changes taking place in the supply chain. In many cases, new suppliers are being rapidly sourced to meet heightened demand, compensate for suppliers that can no longer operate and increase redundancy in the supply chain. And in a rush to fill the urgent gaps, many suppliers are forced to cut corners, which could negatively impact production—or worse: create safety violations.

What's the solution? Resuming any in-person activity where social distancing can't be maintained presents far too great a health risk, but failing to monitor suppliers creates blind spots and risk exposure. The good news is we live in an age with technology abound. Thanks to the vast myriad of technologies at our disposal, there's never been a better time to innovate.

In the post-pandemic market, the companies that survive will be the ones that adapt to accommodate unpredictable external conditions. For supplier audits, that means adopting a digital or hybrid approach with a greater reliance on transparent communication.

HERE ARE SOME STEPS YOU CAN TAKE TO MONITOR YOUR SUPPLIERS DESPITE THE CANCELLATION OF IN-PERSON AUDITS:

- **1. Set expectations:** Start by including both a digital code of conduct and a sustainability clause in your contract that defines quantifiable performance standards.
- 2. Use front-line data: Consider implementing Artificial Intelligence (AI) tools that automate and analyze your front-line data. With a more complete picture of what's going on at your most vulnerable points in the supply chain, you can spot outliers and proactively flag concerns.
- **3.** Collect and analyze data from local stakeholders: Assess your suppliers using data from NGOs (non-government organizations), trade unions and other administrations that provides visibility into a company's labor, financial and sustainability outlook.
- **4.** Leverage video conferencing: Conduct remote facility reviews and interviews using one of the many readily available, secure teleconferencing systems.
- 5. Open the lines of communication: Engage in open and transparent dialogues with your suppliers. Ask them if they're facing any new challenges in response to the pandemic. If so, what are they? Get a feel for how they're adapting their operating models and any trade-offs that may emerge as a result. Ask how you can support them in improving their resilience and reducing risks. Absent in-person meetings and on-site visits, this is the best way to foster strong supplier relationships based on trust and transparency.

While COVID-19 has shaken us all to our core, it has also presented businesses within the manufacturing community with a tremendous opportunity to re-evaluate their current and future supply chain practices. Nothing will be as it was before; the world as we know it has changed. But with a little ingenuity and a willingness to adapt, companies can emerge stronger, smarter and more resilient than before.



Why Manufacturing Companies Should Take Advantage of Talent Development Opportunities

Do you remember the times before Covid-19? By the end of 2019, the number one topic in manufacturing and supply chain industries was the skill gap issue. Employers were looking at apprenticeship and other upskilling/talent development pathways to respond to the lack of talent. Baby boomers were retiring, and businesses need skilled talent to fill those important positions.

It seems so far away but it still is the pressing issue for the industry and for employers no matter their size. The public eye does not focus on it very much these days, global public health dominates the news.



TORSTEN SCHIMANSKI

DIRECTOR WORKFORCE
DEVELOPMENT & APPRENTICESHIP,
NJMEP

This is where manufacturing and supply chain industries will experience damage to their talent pipeline in the long run.

First:

Manufacturing exists and it is alive – in New Jersey we count 11,000 employers in manufacturing, STEM/STEAM industries. This is extremely important to know. Many New Jersey'ans guess that there are 5-100 companies in the state.

If teachers and counselors believe that there are only 50 employers in the state, they will not mention opportunities to their students / job seekers and the image problem of the industry multiplies. This faulty concept presents a risk in the talent development pipeline for the industry. If public believes there are a few employers in the state, why should one bother to look into the industry at all? The odds scoring a job would be miserable. But with 11,000 employers, the odds are excellent.

Second:

Manufacturing usually does not have shopping windows. Technology driven production processes happen in facilities that are not necessarily on Main Street and in buildings where one cannot see what is going on inside.

Industry 4.0, augmented reality, robotics, automation are some of the terms that describe the technological progress in the industry as well as the attractiveness and sustainability of jobs in the industry. It is exciting technology, challenging and efficiency driven. In some ways the perfect toy store for adults with interest in technology.

Production takes place behind closed doors and without the public eye it will continue to be a secret. No matter if it is the food, packaging, metal or pharma sector, to name just a few.

Third:

Manufacturing in New Jersey is essential – throughout 2020, companies did not have to close based on decrees. NJMEP played an instrumental role in the decision-making process in NJ and



we are proud to be one of the core industry advocates.

Keeping doors open helped many employers and employees. Some business models may have changed and the way we should look at talent development pipelines should be adjusted, as well.

Employees left companies in 2020. Some will return to their previous jobs, many will not. Upskilling was paused at many companies because of other priorities, including closed schools, job training facilities or lean workforce resources.

We cannot just wait

Since early 2020, High School and Vocational school graduates, ready to enter the workforce, experienced massive changes in their daily school routine as well as reduced hands-on training offerings. This will change the nature of interviews between companies and job starters.

With these changes and many others, we are not able to wait and see and believe everything is going to be fine.

The time is right to take control over

the workforce development pipeline and steer the process to a new workforce of young talent interested in technology and the company they are working for.

Hiring New Co-Workers

Were you hunting for new staff in 2018? It was probably not easy and took weeks or months to accomplish. How about 2019, did you have to fill any positions? The experience was probably the same as in 2018, maybe a bit worse, the process took longer. Are these hires still on board today?

2020 was eventually a different experience in many ways – in case you hired someone – it looked like the two years before, with an increasing hiring process duration.

Let us put it this way. Those that truly enjoy the hiring of new staff are rare. Too gruesome is the process and too small the candidate pool that fulfills the requirements of employers.

Everything Will Be Better Next Year, Right?!

It is remarkable. We are working in an industry where we quickly learn that maintaining and fixing things is crucial to the production process. The waiting makes it worse and down-time is the natural enemy of manufacturing.

When it comes to future talent, the same thought process does not apply. We identify the skills gap and the lack of talent for the 345,000 jobs in the industry in New Jersey. We know, some of our co-workers will retire because they just celebrated their 60th, 65th or even their 70th birthday. And there are not 10-15 people in line to take over.

The talent development pipeline is relatively empty, maybe even broken in some ways. And just like your conveyor belts or CNC machines, the pipeline is not self-filling or self-repairing.

Therefore, we are not going to see an influx of young talent walking through your door asking for jobs. And it will be the same as 2018/2019 in 2021, 2022...!

So, What Is the Point?

Island solutions are not the answer to a national- and state-wide problem. You are in competition for limited workforce resources with 11,000 other companies in the state. And yes, you are in competition with many more companies from other industries for youngsters ready to enter the workforce, looking for an entry level job. Now you are also competing with health care, retail, banking, insurance, IT – well, you name it. And these are eventually the companies with a 'shopping window' and a public industry standing.

We only can influence the process if we get involved as an industry. Everything we need is available:

- Manufacturing Frontline Worker Apprenticeships
- Logistics Frontline Worker Apprenticeships
- Technical Sales Apprenticeships
- Bootcamp Sessions for Entry Level Staff
- Certification for New and Entry Level Staff
- Open Enrollment Training

Is that an investment in your company? Absolutely, yes. Will you be able to form and shape the future talent for your company? Certainly. Are you doing it already?

It is the time to get together and NJMEP is offering to take the lead and stirring the efforts. The programs are in place, we support all participants and even help with administration! That should be a good enough reason to start a conversation.

We do not need 11,000 companies to start an upskilling revolution. The first 100 will make a wave that others cannot ignore.

Concrete Offer For Employers

Here is the hands-on approach NJMEP is offering to the manufacturing and supply-chain industry from February 2021 to June 2021 – call it the starter package:

 Let's upskill your entry level staff and those looking for formal training online (Covid compliant, of course) so they will graduate with the Certified Production Technician or Certified Logistics Technician credential from the Manufacturing Skill Standards Council (MSSC USA).

- Let's walk them through the entire curriculum and keep them on track
- Let's make sure the investment is covered 100%. There will be no costs for you.

If this sounds interesting to you, here is more:

- NJMEP upskills high school and vocational school seniors that graduate in summer 2021 with the same credentials – they are ready for an entry level job soon. Would you like to meet them?
- NJMEP upskills adults and career changes with the same credentials – they are ready for entry level jobs now. Would you like to meet them, too?

Investment Insurance

Are you wondering what happens if you are investing in skills and knowledge of new and existing staff and then, at one point, they want to leave you?

There is no insurance that you can pay for that prevents you from the fact that people are coming and going, while others stay for 10 or 20 years.

But an investment in the workforce correlates with retention and loyal staff.

Now It Is Up to You

The offer above is real and no strings attached.

This is not just a summary of an industry observation – this is a concrete offer with a concrete approach to the workforce development problem.

The door is open, you are invited to participate. Please 'walk' in. From here it is just a phone call or email to make the first step.

Torsten Schimanski is the Director Workforce Development & Apprenticeship for NJMEP, the Manufacturing Extension Program for New Jersey.



STATE-OF-THE-STATE MANUFACTURENG



2021 STATE-OF-THE-STATE OF MANUFACTURING CHANGE THE CONVERSATION TO CHANGE THE RESULTS

Real Conversations, Real Solutions

The 2021 NJMEP State-of-the-State Summit (SotS) is broken up into three distinct events, focusing on North, Central, and Southern New Jersey. Join the conversation and have your voice heard. The only way manufacturing will move forward is by coming together as an industry.

SotS will host open, honest, and candid conversations between industry and government.

Ask legislators the questions impacting your business.

NO COST to ATTEND!

This event is for Manufacturers, STEM Firms, and NJ Elected Officials Only

FIND OUT MORE ON NJMEP.ORG/YES