NJMEP

MANUFACTURING MATTERS

WINTER 2020 | Helping New Jersey Manufacture Success | www.njmep.org

Automation & Robotics
Exploring Critical Questions – p24

YOUR ROADMAP BEGINS WITH AN ASSESSMENT

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

ASSESS

Our no-cost business assessment is the core of NJMEP's business improvement services and the first step in our strategic hands-on approach to help improve your company's performance. The assessment is a comprehensive, on-site, evaluation of your company's operations that both appraises capabilities and gauges the effectiveness of business systems in the following key areas:

• Sales • Production • Supply Chain • Strategy • • Human Resources • Regulatory/Compliance • • Quality • Finance •

PLAN

A customized action/training plan and executive summary is developed after the assessment; and presented featuring strategies and solutions designed to improve productivity, quality, profits and sales. Unlike other work plans, this one is focused on specific actionable steps for improvement and drives quantifiable results.

DO

We have a variety of solutions to help you, and can implement solutions through:

- Customized learning through on-site training
- Problem solving through consulting and process improvement
- General awareness learning through seminars and workshops

ACT

Once a program is completed, we work with you to update your customized action/training plan and identify the next steps for improvement in your business.

CHECK

We measure our success by yours. The results are derived from a NIST survey that is calculated approximately 6-12 months post-project. Each project is analyzed for success based on quantifiable impacts such as: increased sales, jobs created and retained, and cost savings. We don't succeed unless you succeed.

NJMEP

MANUFACTURING MATTERS

Winter 2020

Automation and Robotics 24

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MANUFACTURING MONTHLY THEMES
KEEP PACE WITH A TRANSFORMING INDUSTRY

Manufacturing requires a variety of resources and skillsets to produce quality products. Engineering, research and development, business development, sales and marketing, logistics and transportation; it's a complex industry. Workforce challenges, training, upskilling efforts, and process improvements are always on the mind of any business leader. To ensure New Jersey manufacturers can keep up with all these complexities, NJMEP is highlighting a new manufacturing theme every month! The fourth quarter of the year showcased Cybersecurity, Apprenticeships, and R&D Tax Credits.

OCTOBER – CYBERSECURITY – NATIONAL CYBERSECURITY AWARENESS MONTH

Cybersecurity continues to be a massive concern for the nation. Each day brings about new headlines featuring cyber-attacks from foreign governments, independent cyber criminals, or organized syndicates. Attacks on critical digital infrastructure and databases continue to increase. Manufacturers are a prime target.

Most manufacturing operations are small or medium sized. Large businesses like Lockheed Martin or Boeing rely on contractors to produce many of the components that go into their products. This creates a challenge when it comes to remaining cyber secure. If a supplier is further down in the supply chain, they can pose an immediate risk to national security. Once they're infected, they can unknowingly pass on malware to their customers. The Department of Defense created new rules and regulations based on the NIST 800-171 framework that all DoD contractors will need to follow to mitigate this risk.

October was the ideal month to bring attention to this critical theme. Manufacturing Day provided a platform to highlight the importance of Cybersecurity in the manufacturing industry. DoD contractors may be required to follow new guidelines, but the fact that cyber-attacks could cost any business millions of dollars cannot be overlooked. Every manufacturer will benefit by adding a cybersecurity plan and procedures to their business strategy.

NOVEMBER – APPRENTICESHIPS

National Apprenticeship Week is celebrated every November but this year called for an entire month. 2020 had a devastating impact on many apprenticeship programs since COVID-19 created countless challenges with large gatherings. Apprenticeships provide manufacturers with an invaluable foundation of industry-relevant knowledge. Much of that experience comes from hands-on work or engaging with an instructor. However, the value of apprenticeship is too important to keep on hold. Workforce development had to continue forward and November was a month to celebrate that flexibility. It was a time to address the next steps forward for the industry and workforce development in New Jersey.

NJMEP hosted two unique National Apprenticeship Months events with a focus on the value of these upskilling opportunities for the industry, employer, and the individual. The events highlighted COVID-compliant apprenticeship strategies as well as reviewing the current state of the talent pipeline and creating ways to improve in 2021.

The entire industry came together to celebrate apprenticeships in November. Not only were manufacturers attending these vitally important events, New Jersey legislators were involved, too. Bolstering the manufacturing talent pipeline through apprenticeships, requires close collaboration between industry, government, and education. Thought-leaders and academics from all over the state came out in support of these programs and the value they offer to students. New Jersey has taken tremendous strides forward but there is still plenty of work left to be done

DECEMBER – R&D TAX CREDITS

Nearly every manufacturing business takes part in research and development. Manufacturers are at the forefront of progress, touching nearly every industry imaginable. When a manufacturing operation improves a process, the entire supply chain benefits. This is one of the reasons why R&D tax credits are available to these businesses.

New Jersey manufacturing businesses can qualify for R&D Tax credits. A facility doesn't need to necessarily have a cleanroom or a material science expert on staff to take advantage of this program. Manufacturers of all kinds of performing qualifiable R&D functions without even realizing. December was a time to understand how businesses can start benefiting from R&D tax credits. Businesses could be owed substantial credits. Learning more about R&D tax credits and seeing if a business qualifies is a fantastic way to start the new year.

Each month NJMEP will continue to celebrate one of the many themes and topics that embody manufacturing. Follow along with the Manufacturing Monthly Theme on Twitter, Facebook, and LinkedIn by following @NJMEP. Share your thoughts about the topic or ask questions on how these topics may impact your business. It's vital the manufacturing community continues to collaborate and move forward as a whole.

The 6th Man

Manufacturing Helps the U.S. Fight Back Against COVID-19

BY: MICHAEL WOMACK
MARKETING PROJECT MANAGER

The United States of America is a team effort. Citizens, businesses, government, all play a specific role towards strengthening the country. Manufacturing has unfortunately been put on the figurative bench as public perception continues to misrepresent the industry's progress and importance. That is, until the COVID-19 pandemic reinforced the importance of this vital industry.

Basketball fans will know the term, 'Sixth man.' This term refers to players who are not starters but come off the bench much more often than other reserves. The individual may even play more minutes and even post similar statistics as starters. Having a reliable Sixth Man can secure a team the win.

MANUFACTURING IS THE COUNTRY'S SIXTH MAN.

"Powerful enemies must be out-fought and out-produced," President Franklin Roosevelt told Congress less than a month after Pearl Harbor. He continued with, "We must out-produce them overwhelmingly, so that there can be no question of our ability to provide a crushing superiority of equipment in any theatre of the world war." The world is back at war, but this time it is fighting against an invisible enemy.

NEW JERSEY MANUFACTURING STANDING STRONG

Manufacturing is once again being called off the bench, to help push the country and the world through this devastating pandemic. In New Jersey, all manufacturing was deemed essential because a seamless running supply chain was too critical to hinder. Manufacturing is responsible for the food we eat, the electronics we depend on while stay-at-home orders were imposed, the medicine we require, health care equipment, Personal Protection Equipment we all now need, every single object, component, or material around the room right now was all manufactured.

ALL EYES ON MANUFACTURING

All eyes were on life-sciences and pharmaceutical manufacturers when COVID-19 cases started rising in the United States. The call was made to develop, manufacture, and distribute a safe vaccine as quickly as possible.

COVID-19 presented an entirely new challenge, never seen in modern history, The entire economy was put on hold. potentially hindering the production of a vaccine. Still, everyone wanted a vaccine to be produced but few realize the manufacturing resources this initiative requires. Not only do scientists from all over the world need to study the virus, but manufacturers like Pfizer needed to prepare for an unprecedented demand for a completely new vaccine. Producing a vaccine on such a massive scale is no easy feat. It requires unparalleled coordination, an in-depth understanding of a complex manufacturing process, and the resources to distribute the vaccine to millions of people all over the country and around the world.

The public may not realize that manufacturing still matters but everyone that receives a vaccine will have the Sixth Man to thank, United States manufacturing.

Beyond the vaccine itself, manufacturers of all kinds are involved in this incredible undertaking. Businesses that manufacture dry-ice like the family-run Baltimore company Capitol Carbonic which was contacted by Pfizer because they needed quarter-inch dry-ice pellets are critical. Companies that produce the vaccine packaging will be involved. Labeling manufacturers will need to be highly engaged to ensure all the vaccine packaging is correctly labeled. There are copious links in the modern supply chain, all vital. Each must be able to do their jobs to accomplish such a monumental goal to develop, manufacture, and distribute vaccines to a public crushed by a global pandemic.

ALL MANUFACTURING IS ESSENTIAL

Consistently reinforcing the fact that all manufacturing is essential has been the theme of 2020. This message started in New Jersey with NJMEP's advocacy to ensure all manufacturing was considered an essential business once stay-at-home orders were being enacted in the state. The case was made that choosing select manufacturers to remain open would be inefficient and wildly ineffective. An auto-parts manufacturer may not seem essential at first, but the trucks responsible for distributing the vaccine will need to have a constant flow of replacement parts just in case one breaks down. A packaging manufacturer may not look essential from the outside, but the second a vaccine manufacturer can't ship their life-saving product being they can't source labels, it becomes clear that the supply chain is a fragile organism.

In New Jersey, commercial print shops like Hatteras Press started producing face shields. Cosmetics & Perfume Filling & Packaging, Inc. switched from packing perfume to bottling hand sanitizer. Henderson Promos began the certification process to produce FDA approved face masks and began manufacturing. Concept Print put their screen-printing business on hold to produce masks and gowns. A flashlight manufacturer, TekTite began making plastic face shields. Apparel manufacturer, Unionwear shifted to producing plastic face shields and gowns. Jim Hofmann, STEM teacher at Newton NJ High School even began collaborating with colleagues and students to 3D print face shields. All these examples are just a drop in the bucket compared to the full list of New Jersey manufacturers that retooled, remained agile, and repositioned themselves to start producing Personal Protection Equipment (PPE). Without these businesses going above and beyond to help address the massive demand for PPE, there's no telling how many more lives may have been lost.

Manufacturers support other manufacturers, up and downstream. The supply chain is an intricate weave of sub-contractors, OEM's, small businesses, massive corporations, logistics providers, distributors, all of them essential.

THE 6TH MAN – UNITED STATES MANUFACTURING

A global pandemic is a destructive force. However, there can be positives that come out of such a trying situation. Communities come together to give back and work hard to overcome the situation at hand. Food drives like NJMEP's Manufacturing Cares initiative raised over $100,000 in 2020 alone, more than doubling any previous record. Large U.S. manufacturers like Pfizer will do whatever it takes to create a life-saving vaccine. New Jersey manufacturers retooled to support those critical front-line healthcare workers.

Manufacturing is a key player. This industry is essential and has saved countless lives by continuing to provide critical products throughout the pandemic. The value of manufacturing cannot be ignored. The 6th man plays an important role when it comes to Basketball; when it comes to the well-being of the country, manufacturing is invaluable.

https://www.dailymail.co.uk/news/article-9009809/Inside-family-run-Baltimore-warehouse-making-dry-ice-pellets-Pfizer-vaccine-cool.html?ns_mchannel=rss&ns_campaign=1490&ito=1490

https://portcitydaily.com/local-news/2020/12/01/gov-roy-cooper-announces-pfizer-vaccine-distribution-to-north-carolinians-in-coming-weeks-free-read/

https://www.njmep.org/blog/new-jersey-manufacturers-fight-back-covid-19/

American Manufacturing

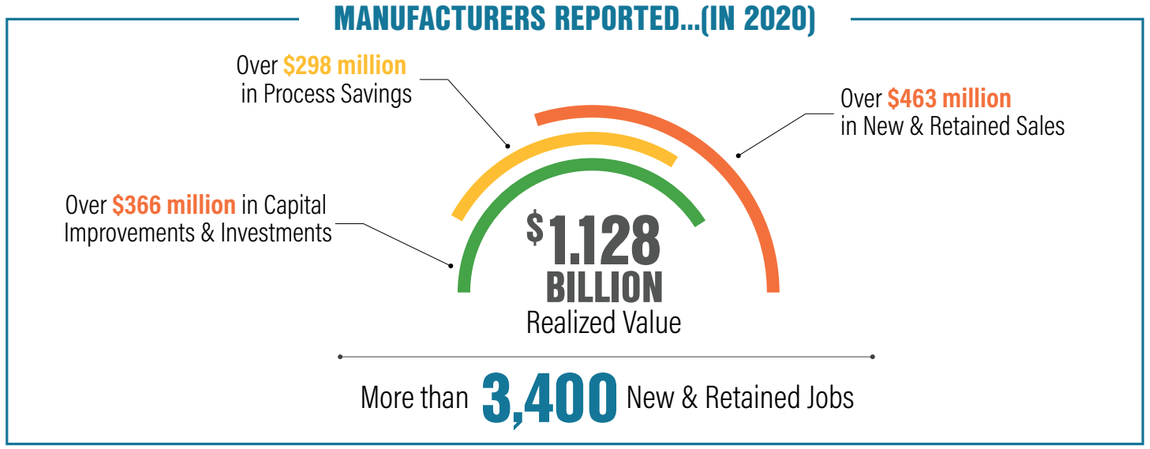
Tracking the Impact on New Jersey

The Impact of Manufacturing, STEM, Transportation & Logistics - Public Perception is Changing

The real impact of manufacturing was lost on the general public. Manufactuing fell off as a talking point for important decision makers in local and state government for nearly two decades. An unavoidable skills gap was one catalyst for bringing the industry back into the spotlight. Now with a pandemic raging across the United States of America and around the globe, the industry is once again in the spotlight.

STEM firms, transportation and logistics professionals, and manufacturing businesses of all sizes stepped up to the tremendous challenge the world is facing and kept Americans fed and supplied. The world relied on the greatest scientists, engineers, and innovators to create, produce, and distribute a vaccine for a novel virus in under a year. COVID-19 and the response from the manufacturing industry strengthened the position that the impact manufacturing has on the nation must accelerate and not dissipate.

Manufacturing made an impact, and here's how the industry continues to be supported in New Jersey.



New Jersey Manufacturing Extension Program (NJMEP) has a Quantifiable Impact on New Jersey Manufacturing

Most New Jersey manufacturers are small or medium-sized businesses. COVID-19 was a direct threat to this industry as the lives and livelihoods of these small organizations were in question at the start of the pandemic. NJMEP had teams working day and night to ensure New Jersey manufacturing businesses would remain open and have the information they needed to operate safely.

Every quarter the National Institute of Standards and Technology (NIST) requires its Manufacturing Extension Program (MEP) centers to be surveyed by an independent third party to gauge the centers impact on their local manufacturers. In the first three quarters of 2020, NJMEP recorded an impact of $1,128,235,302 . Manufacturers had support when they needed it most.

"The economic impact reinforces the importance of manufacturing on New Jersey's economy, while the collective impact is impressive, the services provided is essential to improving the competitiveness of New Jersey's manufacturers."

JOHN W. KENNEDY, PH.D, CEO, NJMEP

Manufacturing Cares and It Shows

The economic impact is an unavoidable topic when discussing 2020 from a business perspective. What should also be included in the conversation is the local community and how it is being affected by the virus and devastated industries. "1.2 million New Jersey residents could be facing hunger this year alone." said Debby Scheinholtz, Senior Director, Corporate Relations, and Volunteers from the Community FoodBank of New Jersey (CFBNJ) in a conversation with NJMEP when discussing the monies raised from the 'Manufacturing Cares' food drive.

NJMEP, Commerce and Industry Association of New Jersey (CIANJ), and Employment Horizons come together to run a food drive every year. This year exemplified the importance of community outreach such as the 'Manufacturing Cares' initiative.

When layoffs spiked at a jaw dropping rate, the demand put on foodbanks was unimaginable. Couple the monstruous increase in demand with the dramatic end of volunteer groups and there could have been an absolute catastrophe on the horizon. However, thanks to the great work by the amazing people at the Community FoodBank of New Jersey, Fulfill NJ, and all the organizations that come together to help support them, millions of meals were provided to those that needed some support.

The 'Manufacturing Cares' food drive raised over $100,000 in 2020 alone. For every $1 donated, 3 meals can be provided to a hungry individual. In 2020, over 300,000 meals were able to be distributed as a direct result of the 'Manufacturing Cares' food drive. Manufacturing, academia, government, and the local community came together to help those facing the most disruptive economic symptoms of COVID-19. This is an impact that cannot be overlooked.

Education and The Skills Gap – Workforce Development is Key

An impact recorded during NIST surveys is new or retained jobs as a result of engaging with an MEP center. In New Jersey it was recorded that projects generate 3,400 new jobs or helped retained those jobs in the first 3 quarters. The massive skills gap that is slowly beginning to be bridged thanks to work by programs like the Pro-Action Education Network™ and workforce development grants like GAINS and PACE help bring manufacturing to the forefront.

Programs like NJMEP's Registered Apprenticeship program, Project 160, and Open Enrollment offerings are vital to create a real impact on the working population of New Jersey. The average salary for a full-time manufacturing professional is over $92,000 according to the 2020 Manufacturing Industry Report. Giving people the skills they need to take part in an incredible and fulfilling industry is just another step forward that was still possible to take in 2020.

Undeniable Impact on All Fronts

All of these impacts came at a time where it was unclear if any businesses would be allowed to remain open and operating. NJMEP worked with the Governor's office to ensure all manufacturing is considered essential in New Jersey. Instead of having to close for the first four months of the pandemic, New Jersey manufactures were able to remain open and do their part in keeping the supply chain strong. Many of these businesses even retooled and began producing personal protection equipment (PPE) to help dig the country out of its severe PPE shortage.

Manufacturing showed its true colors during this crisis. The public's interest and understanding of the industry continues to increase. The businesses recording the above impact are responsible for many of the achievements that continue to mount in the fight against the deadly disease.

Through continued innovation, the ability to remain agile and opportunistic, while at the same time thinking about local community positioned the manufacturing industry to continue through this unprecedented humanitarian crisis and economic disrupter. There are amazing successes that have come out of this disaster.

Manufacturing is essential. NJMEP helps support this industry through a variety of means including, training, consultatory services, the introduction to new funding vehicles and opportunities, advocacy and collaborative partnerships, and sponsoring scholarships and local food drives. Informing the manufacturing community that there is support, and they can turn to experts to help them through their most challenging production bottlenecks or operational disruptions is critical.

NJMEP only works with New Jersey businesses but there is a Manufacturing Extension Program (MEP) in every state and Puerto Rico. Contact NJMEP today at 973-998-9801 or find a local MEP center by visiting the NIST MEP National Network directory.

COVID Overload

MAKE A POSITIVE DIFFERENCE TODAY

BY JOHN W. KENNEDY, PH.D.,
CHIEF EXECUTIVE OFFICER
NEW JERSEY MANUFACTURING EXTENSION PROGRAM, INC. (NJMEP)

This weekend I got tired of watching the shows that make some sense to me. The ones that focus on engineering, building things, cars, and history. I have viewed them repeatedly and just gave up. I have long since tired of the dramas and thrillers that are focused on the best way to get away with murder. The Sitcoms that like to project so many adults and parents as idiots. Not to mention the reality shows who's only reality is how to treat others poorly.

I don't consider myself a prude, always loved the Action Flicks that had real stunts and car chases, but I'm worried that I am moving in that direction.

Therefore, I decided to watch a few of the entertainment shows put together by performers of all genres with many celebrities famous for being famous, media personalities, and business icons. I was very thankful for them telling me things that I never knew before…

- Our Families are really important to us as human beings
- The places we call homes are refuges from the daily grind
- That we need to take care of people that need more help than ourselves

How about…

- That Science Matters
- That we're all in this together – stay at home
- All children are being well-educated at home
- That these last 9 months are unprecedented in history and that these are the most difficult times to grow up in for children

The first (3) are 'no brainer's… have we not all lived by these mantras most of our lives? Do we need celebrities in huge homes with pools and tennis courts, on a beach, or at a mountain retreat to tell us that our families, our homes, and those in need are important to us?

As for the other (4) – let me address them through my own perspective:

- As an Engineer – Science does matter to me. However, most Scientists will tell you that Science evolves as the data sets grow. What applied 6-months ago may not apply today. The more we know…the better. I don't want to sound glib at all, as we've lost too many good people during this time, but I am glad to see the number of cases increase at a higher rate than the severe ones and the deaths. To me this means that eventually a vaccine and herd immunity we will get us to the other side of this crisis.
- We're not all in this together, because we all come from different places in life. Those that can afford to stay home do so…others need to go to work. Some of those listed as 'Essential' have to go to work…regardless. Medical Staffs, 1st Responders, Manufacturers, Military, Food Store Employees, and many more – go quietly to work to keep us safe, cared for, and fed.
- My son is 30 now, and to be honest, I'm glad that he did not have to 'learn' through this pandemic. This is not a negative indictment of Schools or Teachers, but having listened to so many parents, I am concerned about the loss of a year+ of anyone's education. Not all of us learn the same way. Not all of us have the same access to computers and Internet. Not all of us have parents that can augment teaching or be at home with us every day.

How long will it take our children to recover from all this? Educationally & Mentally? None of us know.

I've heard this last one often over the past year and ask that each of us stop and look back (just a little) in the history of our Country. The Civil War, Great Depression, WW II (about 60 million civilians were killed worldwide), all appear to me to be more impactful than 2020 on many levels.

Yep, it stinks that weddings, proms, and other rights of passages were altered or cancelled, but maybe this will force people to find other reasons to connect in the future. I myself have missed several funerals for people close to me, but it also taught me to cherish the present to ensure that I remember them properly and that other great memories get created.

I sometimes wonder why we focus on one thing and not others… about 500,000 people die in the U.S. from smoking related illnesses… about 70,000 from drug overdoses… about 50,000 suicides… every year. Where is the sense of urgency?

The one that bothers me the most – 9 million people in the world die every year from hunger or hunger-related illnesses – 3.1 million are children. Yes, COVID is horrible, but I believe it, will be something we can overcome. Why not hunger?

So, instead of dwelling on all the negativity and the craziness that exists on far too many levels…I am going to take more time and support the feeding of our neighbors and their children during this time and in the future. Over the past 7-years the NJMEP 'Manufacturing Cares' Annual Food Drive has provided over 600,000 meals, but that just isn't enough.

A $5 dollar gift to the Community Foodbank of NJ, Fulfill, or one of the other great foodbanks or soup kitchens in our area, means 15 meals. Maybe one less latte this week. If your company can offer some product or collect items to donate…very cool.

As I grow older, I tend to channel my Mom's words almost daily, and one of her favorites was to tell me each morning to "Make a Positive Difference Today". That's what I'm going to do for the remainder of 2020. One less something each day will add up to quite a few meals for someone in need.

If you can't find the right place to donate to support our neighbors, try the 'Manufacturing Cares' food drive online – www.njmep.org/manufacturing-cares/food-drive

'MADE in New Jersey' MFG Day 2020 Donations Top **$20,000**!

Manufacturing Continues to Care

Manufacturing is an impactful industry. Every action has a direct affect on a consumer, employee, the economy, or the community. 'Manufacturing Cares' is an initiative to coordinate the industry's efforts to make an even more substantial impact on New Jersey's citizens.

Manufacturing Day Raises Over $20,000!

Thanks to the efforts of the New Jersey manufacturing community, NJMEP's virtual 'Made in New Jersey' Manufacturing Day event raised over $20,000 for New Jersey food banks.

Fulfill New Jersey and the Community FoodBank of New Jersey will both receive $10,000 in donations that are directly attributed to NJMEP's 'MADE in New Jersey' Manufacturing Day 2020 event that took place on October 2nd. Each dollar donated provides up to three meals to those in need. The $20,000 raised during Manufacturing Day would be enough to provide 60,000 meals to food-insecure New Jersey residence. At a time where uncertainty is the only constant, more people than ever are turning to community food banks and pantries to feed themselves and their families.

Both Fulfill and the Community FoodBank of New Jersey have continued to work through this chaotic time. Never closing to ensure New Jersians had access to the food they need throughout the pandemic was no small feat. Their effort and commitment to the cause did not stop there. Upon learning they would receive $10,000 in dominations from the 'Manufacturing Cares' portion of the 'Made in New Jersey' Manufacturing Day event, they each committed to doubling the donation. That is a total of $40,000 being donated to New Jersey community food banks because of the effort by manufacturers from around the state. Both Fulfill and the Community FoodBank of New Jersey will receive a total of $20,000 each for their respective food bank.

'MADE in New Jersey' Manufacturing Day was forced to be redesigned in response to the COVID-19 pandemic. It would have been easy to just cancel or push the event back until next year. However, there was too much good that a 'MADE in New Jersey' Manufacturing Day can accomplish and in these turbulent times, a Manufacturing Day was exactly what the industry and community needed. 50% of all registration fees were set aside under the 'Manufacturing Cares' initiative and went toward the food drive.

'Manufacturing Cares' Food Drive Breaking Every Record

The 'Manufacturing Cares' initiative pools together resources' from the entire manufacturing industry, Madison Rotary Club, CIANJ, and Event Horizons to have the largest impact possible. NJMEP is a direct point of contact with the sprawling New Jersey manufacturing industry. Together, each of these entities reaches a unique audience to greatly expands the impact of 'Manufacturing Cares.'

2020 was an interesting year. Chaos and crisis where the only constant. When tragedy strikes, the only guarantee is that citizens will require more support. Demand for community food banks like the Community FoodBank of New Jersey and Fulfill skyrocket. The community turned to New Jersey food banks at an unprecedented rate. These organizations needed ta steady stream of donations to keep up with demand.

Even in an uncertain environment, the manufacturing industry turned out to support their local communities. The 'Manufacturing Cares' food drive raised over $100,000in total throughout 2020. That equates to over 100,000 meals for food-insecure New Jersey residents. This dollar figure shattered any record ever set for the 'Manufacturing Cares' food drive.

Manufacturing is a vitally important industry to the nation's economy. Beyond that fact, New Jersey manufacturing is an industry that continues to give back to the local community. These businesses provide competitive career opportunities, they bring money into the state, and through the 'Manufacturing Cares' food drive, they can give back and support local communities.

Keep the momentum going and donate to the 'Manufacturing Cares' food drive today!

Visit njmep.org/manufacturing-cares/food-drive and take action.

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

Parkway Kew & Word Center Printing

Parkway Kew

This New Jersey manufacturing business has been in operation since 1953, quickly becoming a leader in the hard surfacing space. In 1993 they moved to North Brunswick, New Jersey and expanded the business to serve wire mills, shipping terminals, and the oil & gas industry. Parkway Kew is constantly looking to expand its capabilities thanks to leaderships willingness to improve.

"We are and have to be the leader," explained Eugene Klein Sr., President, while discussing his businesses track record for innovative thinking and new capital investments. This unwavering need to push the boundaries and expand its capabilities allows Parkway Kew to maintain a reputation for quality and reliability.

Rejecting progress is easy but is often a recipe for disaster. Businesses that do not adapt and grow are prone to failure. Parkway Kew is a shining example of how a manufacturing organization can thrive and remain an industry leader when innovation and continuous improvement are built into a business strategy. Not only is Parkway Kew actively working on expanding their capabilities and expertise, but they also rely on a family-oriented culture to encourage and engage their workforce. Another example of this organization taking a critical step forward can be seen in their Success Story on page 17.

World Center Printing

Some manufacturers are shining examples of how remaining agile and innovative can help them thrive in uncertain environments. Word Center Printing is in Hamilton Township, New Jersey, and is one of those businesses that is constantly looking toward the future to provide clients with the highest quality services while at the same time setting them apart from the competition. They've been in business since 1983 and never stopped working to improve the business.

"In printing, you have to adapt and pivot constantly", said Marilyn Silverman, Owner, during an interview. Her drive and determination to continuously improve allowed Word Center Printing to work through the disruptions brought about by the pandemic.

Manufacturing is a challenging industry, especially today. Technology is in a constant state of advancement. Business leaders are experiencing unprecedented global supply chain challenges. Marketing opportunities are plentiful but locating and utilizing the right channels is not as straightforward as in the past. Marilyn and her team are committed to their customer and are determined to push forward. Word Center Printing took an incredible step toward progress in 2020. The latest transformation Word Center Printing underwent can be reviewed in their Success Story on page 19.

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.

SUCCESS STORY:
INNOVATION & GROWTH

PARKWAY KEW SCORES BIG WITH R&D TAX CREDITS INNOVATION DRIVES BUSINESS FORWARD

BACKGROUND

Parkway Kew Corp was established in 1952 by Eugene Walter Klien, a welding supply salesman. A partnership with Parkway Welding in 1953 helped create a foundation that could support consistent growth and innovation. Currently, its headquarters is in North Brunswick, New Jersey, and has been Parkways Kew Corps home since 1999.

Leadership is constantly looking toward the future. A family-orientated culture, commitment to continuous improvement, and innovative thinking created a business that provides its customers with the highest quality products. Parkways Kew Corp offers customers a wide selection of hard surfacing options for use in a variety of industries. Its main areas of business include oil & gas, wire mills, and shipping terminals but can support any industry that has worn parts.

PK
Est. 1952

CHALLENGE

Competition is fierce in Parkway Kew's industry. Parkway Kew manufactures highly custom and specialized products. The company is constantly evaluating its business to find new ways to provide more value to their customers. Consistently working to maintain their cutting-edge operation through investments in new equipment, technologies, and personnel is extraordinarily expensive. Ensuring cash flow can both cover new investments and carry them over to the next job is vital.

"We are and have to be the leader," stated Eugene Klein Sr., President, Parkway Kew.

COVID-19 put a tremendous amount of pressure on the business as well. Sales dropped and their customers weren't as active as originally projected. This dip in business, coupled with the company's commitment to continuously investing in their equipment and workforce encouraged leadership to begin considering different ways to help bring in some additional capital. After a recommendation, a solution was discovered.

SOLUTION

After consulting with their NJMEP Account Manager, it was identified that Parkway Kew would be an ideal candidate for R&D Tax Credits.

NJMEP worked with Parkway Kew and took an extremely close look at their facility and operations. An in-depth study was performed which determined that the client could be eligible for tax credits. NJMEP went to work identifying the right resource to help the client to outline and document the four qualifying criteria below:

- The goal must be to discover some technological information that does not already exist within the organization.
- There must be a level of technical uncertainty related to the product or process development.
- Any qualifying event must have a process of experimentation to prove or disprove a technical theory.
- The research must have goals attributable to function, efficiency, capacity, or other performance criteria.

Once the preliminary information and eligible R&D costs were reviewed by NJMEP, they were combined with information relating to gross revenue and other factors that allowed NJMEP to provide Parkway Kew with an approximate Federal R&D tax credit.

NJMEP then proceeded to prepare the technical support documentation for Parkway Kew. The report outlines and demonstrates the activities that qualify as "R&D" within the meaning of the credit and its guidelines.

The Entire R&D Tax Credit Process Includes:

- Reviewing the list of development projects and selected eligible R&D projects
- Client preparing a narrative or description of each project for the accounting firm's review.
- The accounting firm reviewed the narrative and made some revisions to eliminate ineligible areas or activities
- The client supplied information enabling the accounting firm to allocate costs to the eligible projects
- NJMEP worked with the client to gather costs related to the R&D projects
- The accounting firm prepared the necessary tax forms and submitted the tax return and R&D tax credit on the client's behalf

Every step of the way NJMEP worked with Parkway Kew to help them secure the largest possible R&D Tax Credit. Innovation and a commitment to continuous improvement ensure Parkway Kew will continue to lead their industry. The R&D Tax Credits they received gave them the ability to remain competitive and continue to innovate, even in a COVID-19 business environment.

RESULTS

Parkway Kew identified a substantial financial impact from the work NJMEP conducted over 2019-2020.

- **INCREASED SALES: $100,000**
- **RETAINED SALES: $50,000**
- **EMPLOYEE CREATION: 4**
- **EMPLOYEE RETAINED: 16**
- **COST SAVINGS: $15,000**

"[Working with NJMEP] worked well for us. R&D Tax Credits allows us to recoup some of our losses. We would continue to innovate regardless but if they want to help us recoup some of that investment, we'd be happy to take the support!"

SUCCESS STORY:
INNOVATION & GROWTH

WORD CENTER PRINTING REGAINS LOST GROUND WITH DIGITAL MARKETING TRAINING

BACKGROUND

Word Center Printing, established in 1983, began as a copy shop and quickly grew into a full-service commercial printing company located in Hamilton Township, New Jersey. Company leadership is dedicated to continuous improvement and innovation. Investing in the future has been fundamental in Word Center Printing's continued success and is a cornerstone of its business strategy. Word Center Printing provides full printing, graphic design, and copying services. The Word Center Printing team is committed to providing the highest quality product and the most value possible to all its customers.

"In printing, you have to adapt and pivot constantly" explained Marilyn Silverman, Owner, Word Center Printing.

WORD CENTER PRINTING

CHALLENGE

COVID-19 had an impact on nearly every person and business around the world. Word Center Printing was not immune to the disruptions brought on by the pandemic. Even though NJMEP helped ensure all manufacturing would be considered essential and remain open, without a steady stream of business manufacturers couldn't maintain cash flow. Word Center Printing's largest customer closed once stay-at-home orders were enacted. This had a monumental impact on the manufacturer's bottom line.

"I thought to myself, we're going to have to get more business doing other things or we're going to die here. So, I looked at Social Media marketing, but it was a mystery," said Marilyn Silverman, Owner, Word Center Printing.

Through close collaboration with Word Center Printing's NJMEP Account Manager, the need for marketing upskilling was identified soon after the first engagement with the manufacturer. To help offset the impact of losing their biggest customer for over 2 months due to the pandemic, a solution was identified by exploring service options with NJMEP.

SOLUTION

The CARES ACT included funds that would be provided to MEP centers like NJMEP to create opportunities that will help manufacturers weather this uncertain business landscape. One of the programs that were developed is 'Digital Marketing for Manufacturers in 2020.' This program is comprised of five, 4-hour training sessions on a variety of marketing topics. A live instructor guides the manufacturer through five sessions that include 'Your Website and Search Engine Optimization, Content Management Systems,' 'Automated Marketing (Hubspot, Salesforce, Act-On),' 'Brand Strategy,' 'Social Media,' 'Other Media – Podcasts, Blogging, Apps and Video.'

'Digital Marketing for Manufacturer in 2020' was the ideal solution to address the needs of Word Center Printing. It would provide the upskilling opportunity to Marilyn so she can implement her new skills to drive more business.

Marilyn worked with NJMEP and its marketing resource for a total of 20 hours. Every module in the 'Digital Marketing for Manufacturers in 2020' curriculum is specifically designed to be easily absorbed and implemented by the manufacturer. Marilyn had direct access to a digital marketing expert so she can ask questions and use real-world examples to ensure the training would be utilized and drive results.

RESULTS

NJMEP was able to provide the following value to Word Center Printing throughout 2020:

- **INCREASED SALES: COVID-19 CAUSED SALES TO DROP 30% YEAR OVER YEAR, BUT A REINVIGORATED MARKETING EFFORT IS HELPING DRIVE NEW BUSINESS.**
- **RETAINED SALES: $45,000**
- **EMPLOYEES RETAINED: 4**

"Once COVID-19 hit, I immediately heard from NJMEP that we were allowed to remain open. That was a lifesaver for us. We did an extensive upgrade of our website and NJMEP's resource taught me and the staff how to boost posts on Facebook. He also taught me the value of having relevant Google Reviews and how to put more emphasis on the services that we wanted to sell."

Marilyn Silverman, Owner, Word Center Printing.

THE GROWTH OF 'MADE IN NEW JERSEY'

'ESSENTIAL MANUFACTURERS' NEED TO BE HIGHLIGHTED

Manufacturing businesses are essential in New Jersey. The workforce is considered essential personnel. For decades manufacturing as an industry was being forgotten. Unfortunately, it took a global pandemic to highlight just how crucial local manufacturing is to the entire nation.

During the first wave of the COVID-19 pandemic, the 'MADE in New Jersey' program underwent a transformation.

'MADE IN NEW JERSEY' IS OFFICIAL

'MADE in New Jersey' is similar to the 'Made in USA' sticker found on American made on products. At first, the "MADE in New Jersey' was handled entirely by the New Jersey Manufacturing Extension Program (NJMEP). NJMEP would vet companies and approve or deny their request based on their manufacturing presence here in the Garden State. Over the past few years NJMEP's collaboration with the State of New Jersey has increased exponentially thanks a great deal to the New Jersey Legislative Manufacturing Caucus. Now the State of New Jersey recognizes the importance of the 'MADE in New Jersey' title and it has become an official business directory of New Jersey manufacturing companies.

This massive step forward for the 'MADE in New Jersey' program greatly expands the validity of the title and gives participating manufacturers an incredible amount of exposure at no cost.

One of the first changes to the program was its logo. Including "Essential Manufacturer" was a necessity at the start of the pandemic. Manufacturing heroes from all over the state were displaying their "Essential Manufacturer" 'MADE in New Jersey' logos at their facility. The combination of that powerful statement with the New Jersey seal shows just how important the industry, and its workforce is to the state.

GROWTH OF 'MADE IN NEW JERSEY'

Popularity of the 'MADE in New Jersey' program skyrocketed throughout the pandemic. Manufacturers were actively working to show the world that their products were made domestically as well as that they are considered essential.

Along with the logo to include on a manufacturer's website, every 'MADE in New Jersey' manufacturing company is provided with a complimentary 'MADE in New Jersey' profile on NJMEP.org. This directory of manufacturers includes their website, company description, contact information, and product photos and/or videos.

During a time where the business environment was uncertain, orders slowed, and the business landscape shifted, additional exposure and brand visibility is vital. The 'MADE in New Jersey' program provided all that and more.

Hundreds of New Jersey manufacturers are official 'MADE in New Jersey' businesses. 11,000 manufacturing and STEM firms call this state their home. Each one can expand their brand-visibility and show customers exactly where their products are manufactured just by becoming an official "MADE in New Jersey' business. Participation is expanding, rapidly. The logo can be seen on the parkway stuck to cars and trucks. It can be seen walking through industrial parks as businesses began positing their "Essential Manufacturer" logo on their buildings. Manufacturers are incorporating their 'MADE in New Jersey' branding on their websites. 'MADE in New Jersey' continues to expand, rapidly.

HOW TO BECOME 'MADE IN NEW JERSEY'

Every manufacturer currently making products in New Jersey is eligible to join the official 'MADE in New Jersey' listing. Participation is completely complimentary and there are no obligations. The goal of the 'MADE in New Jersey' program is to highlight the states incredible manufacturers and to provide these businesses a no-cost way to promote their business.

Registering only takes a couple minutes. There are no requirements besides having a manufacturing presence in the state. Once a business signs up, they become an officially recognized 'MADE in New Jersey' company.

As the 'MADE in New Jersey' program expands, the logo will mean more. Changing the public's perception of the industry begins with education. Many don't understand that New Jersey is still manufacturing. Joining the 'MADE in New Jersey' program helps businesses spread the word about their products and services but at the same time helps show the world that manufacturing is alive and well in the Garden State. Join the 'MADE in New Jersey' program by visiting njmep.org/made-in-new-jersey.

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.

Welcoming the Latest Made in New Jersey Manufacturers

These Businesses Drive the NJ Economy Forward

A & A COATINGS is a leader in the Thermal Spray Coatings space for over 70 years. Located right in South Plainfield New Jersey, this manufacturer has an unassailable dedication to quality.

ACCENT PRINTING SOLUTIONS ensures their clients can communicate their message through high-quality print material. Based in New Providence, New Jersey, they've been in business since 1989.

ANDREWS GLASS is based in Vineland, New Jersey, and has been a leader in custom glass fabrication since 1948. A mix of scientific and precision glassmaking capabilities allows them to stand out from the competition.

DIVERSIFIED HEAT TRANSFER INC (DHT) are experts when it comes to the manufacturing of refrigeration equipment and systems. Located in Towaco, New Jersey, they've been in business since 1932.

DONRAY PRINTING supplies sublimation paper to a variety of industries in the United States. They have their own line of sublimation products which are all manufactured in NJ and have been since 1986.

GLASS FLOORING SYSTEMS pushes the boundaries for walkable-skylights and glass flooring systems with their patented framing systems. This innovator is based right in Whippany, NJ.

MORRE-TEC INDUSTRIES, INC. produces its own line of specialty chemicals as well as distributes products through partnerships with ICL, Industrial Products, and more. The manufacturer is based in Union, NJ.

NATIONAL PUBLIC SEATING National Public Seating manufactures metal folding and stackable chairs. They have been supplying customers with superior quality products since 1997 from their HQ in Clifton, NJ.

QUALITY PACKAGING SPECIALISTS INTERNATIONAL (QPSI) is an industry-leading contract packaging, marketing service provider, and supply chain management organization based in Florence, NJ.

SUPERIOR GLASS & METAL LLC. is located in Wyckoff, New Jersey, and has been a leader in the installation of glass and glassing while providing custom metal fabrication for over 30 years.

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 still make 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.

Food Product Labels Clean Up Their Acts

As we close in on 2021, we are rapidly approaching the January deadline set by the Food and Drug Administration for food and beverage companies to comply with its new nutrition label regulations. For the first time in 20 years, the FDA has made changes to the design and information requirements of the nutrition facts that appear on all packaged food products in the U.S. – a move that includes more prominent serving size and calorie information, as well as the addition of added sugar data, among others.

Although we are still several months out from the cutoff, many larger companies have been quick to adopt the changes and have already started using the new labels on their packaging. It is perhaps a smart move on their part, considering that the new requirements fit right in line with buyer trends.

Now, more than ever, consumers want transparency from their food manufacturers. They also want to know whether the ingredients in their food products are "clean" – that is, whether they contain natural ingredients that are easy to recognize, understand, and pronounce – as they have become much more aware of how processed and artificial ingredients could, potentially, harm them.

While clean labels and ingredient transparency do share some similarities, they are also two very different trends. The new label requirements, however, help to accomplish both.

By definition, a clean label product is one that uses as few ingredients as possible and contains only ingredients that are as wholesome as possible. According to Food Dive, a 2018 L.E.K. study found that more than 60% of consumers look for products with labels containing keywords and phrases like "no artificial ingredients," "no preservatives" and "all natural." Although the FDA's new labeling requirements do not put any sort of restrictions on what ingredients can or can't go into packaged food products, they do help to make it explicitly clear what is or isn't present in every product – most notably, added sugars.

Original Label

Nutrition Facts
Serving Size 2/3 cup (55g)
Servings Per Container 8

Amount Per Serving	
Calories 230	Calories from Fat 72
	% Daily Value*
Total Fat 8g	**12%**
Saturated Fat 1g	**5%**
Trans Fat 0g	
Cholesterol 0mg	**0%**
Sodium 160mg	**7%**
Total Carbohydrate 37g	**12%**
Dietary Fiber 4g	**16%**
Sugars 12g	
Protein 3g	
Vitamin A	10%
Vitamin C	8%
Calcium	20%
Iron	45%

* Percent Daily Values are based on a 2,000 calorie diet. Your daily value may be higher or lower depending on your calorie needs.

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

New Label

Nutrition Facts
8 servings per container
Serving size **2/3 cup (55g)**

Amount per serving	
Calories	**230**
	% Daily Value*
Total Fat 8g	**10%**
Saturated Fat 1g	**5%**
Trans Fat 0g	
Cholesterol 0mg	**0%**
Sodium 160mg	**7%**
Total Carbohydrate 37g	**13%**
Dietary Fiber 4g	**14%**
Total Sugars 12g	
Includes 10g Added Sugars	**20%**
Protein 3g	
Vitamin D 2mcg	10%
Calcium 260mg	20%
Iron 8mg	45%
Potassium 235mg	6%

* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

1. The serving size now appears in larger, bold fc and some serving sizes have been updated.
2. Calories are now display in larger, bolder font.
3. Daily Values have been updated.
4. Added sugars, vitamin D and potassium are now listed. Manufacturers must declare the amount in addition to percent Daily Value for vitamins and minerals.

SOURCE: FDA (March 2020), *What's New with the Nutrition Facts Label;* https://www.fda.gov/media/135197/download

For the clean label folk, if a product must contain sugar, they want to see that it contains real sugar, as opposed to a chemically laden alternative sweetener, and they want to know how much of it is naturally derived, versus what has been added in during the manufacturing process. Those who are more interested in ingredient transparency, meanwhile, just want to know exactly what's in the food they're eating. They may not care whether the item contains sugar versus a sugar substitute; they just want to know definitively which it is, and how much of it is in there.

As such, nutrition labels are now required to include the number of grams, as well as the percent Daily Value (%DV), of added sugars found in all packaged food and beverage products. The FDA has also opted to utilize the word "includes" before the amount of added sugars on the label, to clearly indicate that added sugars are included in the number of grams of total sugars in the product.

The FDA has also: updated some amounts to reflect more realistic serving sizes and made that information larger and bolder; increased the font size of the number of calories per serving; updated %DVs to reflect new recommendations; and, for the micronutrients, added Vitamin D and potassium and removed Vitamins A and C.

According to the FDA, these labeling updates are aimed at making it easier for individuals to make informed choices about their dietary needs and preferences. It is simply an added bonus that they also make it easier for manufacturers to showcase to that their consumers that they are listening and taking their clean label and ingredient transparency wishes seriously. Either way, it's a win-win.

Automation and Robotics:

Exploring the Critical Questions

BY: PETER OKUN
DIRECTOR OF MARKETING AND PUBLIC RELATIONS

Our society is undergoing numerous technological changes and the spread of advanced automation, robotics, and artificial intelligence (AI) is transforming the way manufacturers work. In just a couple of decades, it will be quite different from what it is today. One significant factor that impacts and transforms various aspects of everyday life is the rapid expansion of the artificial intelligence and robotics industry.

Robotic automation has found its way into many different areas in manufacturing. Robots perform tasks like welding, assembly, shipping, handling raw materials, and product packing. More and more manufacturers are leveraging robotic automation for a wider number of applications.

Late adopters, who would clearly benefit from automation, are looking for answers to their questions: Are robots too expensive for our business? Is our business too small to make use of robotics? Are robots difficult to program and operate? Will robotics cost human workers their jobs?

The simple answer: No.

Robotic automation and AI can be used across industries by many types and sizes of manufacturing businesses.

In the manufacturing sector, technological change and transformations in production processes are pointing towards changes in business models. Developments in advanced automation, robotics, artificial intelligence (AI), machine learning, sensor technology, data analytics, and 3D printing are altering the way in which operations are carried out. That there will be impacts upon the makeup of the workforce is obvious; but the precise nature of the long-term changes to work in the manufacturing sector is debated.

The factors leading to the intensification of industrial automation in recent years, including the growth of AI, are expansions in the capacity for data storage and advances in data analytics, computational power, and internet connectivity. Along with these, improvements in transferring digital instructions to the physical world, such as robotics and 3D printing are, according to some experts, on the precipice of transforming the world of work.

Robots first started being used in industry in the early 1960's. Since then, they've come a long way. Robots can now be installed in less time and for less cost than in previous decades. Increased sales have seen prices come down dramatically. Built-in state-of-the-art facilities, robots feature quality enhancements and regulated safety standards that translate to savings on labor costs and unscheduled downtime. Robots can also operate 24/7, increasing production minimizing downtime.

Robots are used in high production, high volume environments and can also scale down to be used in growing businesses. Modern robots can be used in low- to medium-volume manufacturing environments. Thanks to recent advancements, they can be programmed and set up for new tasks quickly. Mobile bases allow them to be used in multiple areas of manufacturing facilities.

There is a common misconception that robots and artificial intelligence will displace many jobs. This fear is not without reason. Business owners and manufacturers benefit from the implementation of machine learning algorithms and various kinds of robots primarily for the sake of increased productivity. Such a seismic shift can be compared to the Industrial Revolution when society shifted from agriculture to manufacturing.

Artificial intelligence and robotics, like other new technologies, are not totally destructive for employment.

The main goal of emerging technologies is not to replace actual employees in their jobs, but to make all processes safer and more efficient. It's not a confrontation, but rather a beneficial collaboration between automated robotics and humans.

Humans are needed to develop software for machines, maintain and fix equipment, or make decisions based on data generated by intelligent technologies. People will not lose their workplaces irrevocably. There will be new jobs, the so-called adjacencies, meaning that people will be cooperating with technologies. The primary difference is that for actual employees, they will create business strategies, design, and develop new concepts of implementing smart machines in real life, control and analyze the results.

To make this possible, manufacturers will have to adapt to the changing reality, upgrading employees' skills and gaining additional knowledge.

To drive job creation during the adoption of ubiquitous AI and robotics in the future, companies should start investing in training and education of current employees as one can hardly imagine a manufacturing business without automatic lines, steel robotic arms and CNC industrial machines. Robots in the manufacturing industry have become the new normal, and they are making significant strides in improving various production processes.

Current trends for robotics in manufacturing include hardware integration with smart technologies such as IoT solutions, artificial intelligence and machine learning algorithms, Big Data and cloud computing. Thus, smart manufacturing is evolving. Such robotic systems are not only able to carry out basic repetitive operations such as loading, assembling, or modifying parts. They can also perform cognitive tasks, making instant decisions and improving processes without human intervention.

Benefits of using robots and AI in manufacturing

OPTIMIZED PRODUCTIVITY. Robotic equipment can be programmed to operate at a constant optimal speed without pause. As a result, automated machines produce more and within a shorter time than do human workers. The remote management facilitates quick settings or fixing of issues. Moreover, the automated equipment is highly customizable and can flexibly switch between tasks, improving production efficiencies.

IMPROVED QUALITY. Intelligent machines eliminate human error and can provide almost 100 percent accuracy, thus improving the quality of the output. This in turn enhances customer satisfaction, as defective products are not likely to reach end users.

REDUCED COSTS. As soon as one robot can replace dozens of workers, factory owners save on employee wages. The upfront costs are offset by a quick ROI that can be achieved within two years. This is possible due to increased productivity and a higher speed of throughput. Robots can work in lights-out conditions and don't require climate control, which saves on utilities.

SAFETY. Numerous manufacturing jobs involve higher physical risks and work in hazardous conditions. Smart machines replace people in hazardous environments, minimizing workplace injuries and the detrimental effect on workers' health. High-risk industries such as mining or fertilizer production turn to robots to avoid adverse events, ensuring the safety of their workers.

Pending Energy issues that you ignore at your peril

BY: STEVEN S. GOLDENBERG
SHAREHOLDER, GIORDANO, HALLERAN, & CIESLA ATTORNEYS AT LAW & NEW JERSEY LARGE ENERGY USERS COALITION (NJEUC)

Your electric bill recently increased significantly due to the State's authorization of Zero Emission Credits ("ZECs"), subsidies that support the continuing operation of the State's three nuclear power plants. ZECs were the result of an acrimonious, multi-year legislative battle during which PSEG and Exelon threatened to close the plants, the State's largest source of "clean" energy, to obtain the Legislature's authorization of $300 million in annual subsidies to those plants deemed eligible for assistance after a proceeding convened by the Board of Public Utilities ("BPU").

In the BPU's controversial proceeding, all independent experts and the agency's own professional staff concluded that the nuclear plants were profitable and not eligible to receive subsidies. However, an eleventh-hour threat by PSEG to immediately close all three plants unless each received subsidies coerced the BPU Commissioners, who characterized PSEG's threat as a "hostage taking" and "highway robbery", to ignore the advice of the experts and award the subsidies.

The Commissioners expressed concern regarding the impact of the subsidies on the State's manufacturers and they were right to do so. While the $0.004 (four tenths of a cent) per kilowatthour subsidy appears small, when multiplied by the many kilowatthours of electricity that manufacturers consume each year, the subsidy translates into a significant charge. The average charge paid by members of the NJ Large Energy Users Coalition ("NJLEUC") is $570,000 per year. ZECs are payable for at least three years, and potentially 10 years or more. The ZEC II proceeding, in which the Companies seek to extend the subsidies for three additional years, is currently pending at the BPU.

The BPU's Order approving ZECs is currently on appeal. Rate Counsel, NJLEUC and others have argued that the Order is arbitrary and capricious because it was the result of duress, rather than based on the record, and that the subsidy amount is not just and reasonable because it was provided to the Legislature by PSEG's Chairman and has never been formally reviewed as required.

Unfortunately, the Companies' pursuit of windfall profits has not ended with ZECs. The Companies have advanced additional proposals that seek to leverage to their advantage a recent Order of the Federal Energy Regulatory Commission ("FERC") that could inhibit the State's ability to attain its 2050 clean energy goals. The FERC Order could threaten the ability of renewable resources like solar and wind to clear the PJM capacity auction--which must occur for these resources to be compensated for the capacity (the ability to generate electricity) they provide-- rendering them less competitive than fossil generation. In response, the State is considering an option available from PJM known as the Fixed Resource Requirement ("FRR"), which would allow the State to withdraw from the PJM capacity market and assume responsibility for procuring needed capacity freed of FERC's restrictions.

While the State's frustration with FERC is understandable, it is evident that the Companies' FRR proposals are motivated by greed, rather than a desire to advance the State's clean energy goals. In fact, the potential for windfall profits from their proposals is so substantial that the Companies volunteered to give up the $300 million annual ZEC subsidy to secure their new deal. What the Companies seek is complicated and difficult to describe in an article. Suffice it to say that the deal would lead to the partial re-regulation of the nuclear plants, applying the largely untested FRR device which would be fraught with unknown and unintended consequences, including huge potential financial risks to ratepayers, that could completely eclipse FRR's limited benefits.

For example, under the Companies' proposals, responsibility for the business and market risks associated with their deregulated nuclear plants, which were assumed by the Companies' shareholders as part of the 1999 restructuring of the electric industry, would be shifted back to ratepayers. This is offensive to the business community, which properly assumed that the Companies would honor the deal they struck during the restructuring--which included ratepayers' payment of $3 billion in stranded costs to compensate the Companies for the projected losses of the nuclear plants in the newly competitive power markets, and authorization to the Companies to charge lucrative, uncapped market-based rates for their power. In return, ratepayers were relieved of further responsibility for the risks associated with the continuing operation of the plants.

Ratepayers kept their end of the bargain, with some businesses paying up to $100,000 per month in stranded costs throughout a fifteen year-long transition period. Even after the plants proved to be highly profitable, ratepayers were still required to pay the stranded costs, as they were made irrevocable by the restructuring law. However, under the Companies' interpretation of the ZEC law and the terms of their FRR proposals, ratepayers would again be responsible for the costs and risks associated with the nuclear plants. In fact, the Companies would require ratepayers to hold the Companies harmless from all such risks, while the Companies retain for themselves all the benefits of their restructuring bargain, including the authorization to charge market-based rates without obligation to share profits with ratepayers. No rational business would agree to such a one-sided arrangement.

Unfortunately, it gets worse. The State's "declaration of independence" from the PJM market through FRR would be accompanied by forfeiture of the many consumer protections and active regulatory oversight provided by the PJM capacity auction, which are designed to reduce costs and prevent exercises of market power by generators. Under FRR, these responsibilities would be assumed by the BPU, as well as the significant responsibility to procure sufficient capacity to serve all customer load in a newly created "FRR delivery area", functions the BPU has not performed for more than two decades.

Further, FRR is a "non-market" solution that would not involve a competitive auction. Instead, capacity would be procured directly by the State or a designated "FRR Entity" through negotiated long-term bilateral agreements with local generators. This is problematic because the PJM Market Monitor has long determined PSEG and Exelon to have substantial market power in New Jersey, with PSEG at times owning up to 90% of the generating facilities in its service territory. As businesses well know, unless mitigated, market power provides an opportunity for companies to command artificially higher prices for their products. Many will recall that the Companies' substantial market power was the reason the State refused to authorize their proposed merger in 2005.

The Companies' FRR proposals would further enhance their market power. The Companies have proposed a "tiered" procurement that would initially include only clean generation, purportedly to advance the State's energy goals. However, analysis has revealed that the proposed procurement would be completely dominated by the output of the Companies' nuclear plants, with only a small fraction of eligible clean generation available from other sources. The fact that the FRR rules mandate that a portion of the generation be procured from within the FRR delivery area will require the State to negotiate power purchase agreements with the Companies, who will be flush with market power and secure in the knowledge that the State would be a captive customer.

Further, unlike the PJM auction, under FRR the Companies would have the option to withhold their capacity from the State's procurement and sell it elsewhere. This could have enormous consequences, as FRR would impose draconian, ratepayer-paid performance penalties, should the State fail to procure the capacity needed to satisfy its load requirements. You would be correct if you conclude that this scenario provides a silver platter opportunity for the Companies to exercise market power by withholding their power—which is what the Companies threatened to obtain BPU approval of ZECs.

So what can you do about all of this? Now more than ever, it is important for the business community to be heard by the BPU, our elected representatives and the media. It is understandable that many businesses did not fully appreciate the financial and other implications of the ZEC debates, but now you are on notice and the battle has only expanded. These issues will be decided by the BPU in the coming months and it is imperative that businesses be heard. When the Commissioners approved the ZEC subsidies, they expressed concerns regarding the impact of their action on manufacturers. Their concerns are well-founded and should be shared by all businesses. Be heard. And please consider joining the NJ Large Energy Users Coalition, which is opposing these proposals on your behalf.

Steven S. Goldenberg is a Shareholder of Giordano, Halleran & Ciesla, PC of Red Bank, and is Chair of the firm's Energy, Climate Change and Public Utilities Practice Group. He represents the New Jersey Large Energy Users Coalition.

MANUFACTURING SALESPEOPLE WANTED

BY: MITCH CAHN
PRESIDENT, UNIONWEAR.

New Jersey's economy is shifting away from retail and service and towards manufacturing and logistics, and the pandemic has only accelerated this trend. However, a shortage of qualified technical salespeople coupled with the very long onboarding time it takes to sell custom manufacturing could stifle growth in manufacturing.

Salespeople who have sold widgets out of inventory will encounter a number of pitfalls when they have to sell a factory's capability to produce custom widgets, because every manufacturing salesperson has two clients: the customer, and the factory. The salesperson's role is getting them to meet in the middle. This involves negotiating due dates, manufacturing processes, materials, quantities, and more.

Successful manufacturing salespeople must:

- Be intimately familiar with the companies process and materials that are both in stock and accessible (and what accessibility means vis a vis timing and quantities).
- Drive clients toward what the company can do, but sometimes drive the factory toward what the client needs.
- Negotiate delivery dates. Both client and factory will buffer their dates and the salesperson needs to employ strategies to bring them closer together, like splitting up quantities or sacrificing other client dates to make orders happen. Questioning a client's assertion of a drop-dead date is a delicate but necessary skill.
- Configure and deliver price quotes at different quantity levels, often with different quality levels to give clients a choice.
- Convince clients to change their conception of how their product will look or be manufactured to meet a price point.
- Relate bad news to the client in a way that keeps them satisfied and willing to reorder (missed due date, short shipment or back order)
- Sell your factory on making something a client wants that is currently not in your company's core competency
- Know the complete order processing and manufacturing time frame so you know where there may be pitfalls or places you can intervene and expedite.
- Cross sell clients into other products made by the company or upsell them to added on features or higher quality products.
- Know the segment(s) of the market they are selling to -- how clients like to buy, how they are reselling or using your product, the competition and their pricing trends, traditional markups, trends that could cause a spike or slowdown in sales, seasonality and cyclicality.
- Know how the company prices its products, where margins are tight and where there is room to negotiate, what factors might cause pricing changes in the near future, what the true bottom line price is at both large and small quantities.
- Understand the fundamentals of written contracts and the key points of all your contracts that might be negotiated--price, delivery, credit, service, guarantees, etc.
- Always make price the least important part of any negotiation by stressing the qualities of your company and product and coming off as an unbiased expert in your product category.
- Understand MRP, ERP, Capacity Scheduling, Supply Chain Management, and Outsourcing.

Manufacturers would do well to incorporate these elements into their hiring practices, screening, and sales onboarding.

NEW JERSEY'S E-COMMERCE INDUSTRY PREVAILS WITH HELP FROM R&D TAX CREDITS

Federal and State R&D Tax Credits provide excellent opportunities for many businesses in New Jersey involved in the E-commerce industry to distinguish themselves from the competition.

BY: CHARLES R. GOULDING AND PREETI SULIBHAVI

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The rapid growth in New Jersey's E-Commerce sector has greatly accelerated as a result of the pandemic. New Jersey is perfectly located to meet the needs of product sellers and logistics companies serving the NYC metropolitan area, the mid Atlantic, Philadelphia and Washington D.C. New Jersey has 11,000 manufacturers and 110,000 retailers, most of which are now doing some sort of e-commerce.

E-COMMERCE

A sheltering, at home public is shying away from retail and restaurants. Working with NJMEP, our New Jersey clients are taking advantage of E-commerce and R&D tax credits. The industries these clients are in vary, but generally they include:

1. Food processors,
2. Apparel manufacturers and distributors,
3. Candy, energy bar and snack companies,
4. Personal care product including cosmetics and hair products
5. Giftware
6. Home goods and décor items
7. Kitchen and cooking products/ appliances
8. Electronics
9. Jewelry
10. Pharmaceuticals
11. Parts Companies

RETAIL E-COMMERCE CONVERSION

The November 2020 announcement by TJ Maxx that it was starting an E-commerce initiative was significant. TJ Maxx, owner of the largely successful 4,000 TJ Maxx, Marshalls and HomeGoods store brands, has been a steadfast retail holdout that long resisted E-Commerce. In November 2020 things changed. Its CEO, Ernie Herrman, said, "Customers have been reluctant to return to bricks-and-mortar stores."[i] Also, in November, Amazon announced a major e-commerce prescription drug program that caused major drug retailers to suddenly reduce their prices.

In fact, in-store spending fell by 52%[ii] in the Northeast this past Black Friday; it fell by 42% in the Southern United States. This past 2020 Black Friday was all about online retail and e-commerce appeared to be the panacea for Covid – wary shoppers this year.

JEWELRY

When people hear Tiffany[iii] they think of the quintessential 5th Avenue New York retail jewelry store. However that small location pales in comparison to Tiffany's huge distribution centers in Whippany, New Jersey and Parsippany, New Jersey. The days of visiting jewelry stores and trying on a piece before purchasing has now been limited to fine occasions (i.e. engagements, anniversaries, etc.). Between 2017 and 2018, online jewelry sales increased by more than 14%.[iv] The 42 jewelry retailers tracked by "Internet Retailer" generated more than $5 billion in e-commerce sales in 2018. It appears that consumers are losing their hesitations about buying expensive jewelry online.

Tiffany & Co. Customer Fulfillment Center, Parsippany, NJ [Source: BusinessYab]

FOOD

With reduced restaurant hours, travel constraints and seating limits, Americans are eating home-cooked meals, and prepared meals. We work with multiple New Jersey prepared food companies that are using technology to showcase products on the web, process orders and coordinate preparation and delivery. Sales of packaged and prepared foods that were declining pre-pandemic have since rebounded. Some of our food industry clients have had to become resourceful during this time and modify their product offerings as well as streamline their production processes (i.e. maintaining Covid guidelines for distancing, etc.).

Meal Kit Delivery Services

SHOPIFY SOFTWARE ENABLES E-COMMERCE VENDORS TO HAVE MORE OPTIONS

Shopify has revolutionized the e-commerce industry in that it provides online vendors an easy-to-use alternative to Amazon. Shopify has provided smaller vendors with an online selling platform on which they can manage, market and sell their products. Customers have a consistent experience while on the site and vendors can manage their payments, shipping and inventory on this platform, as well. Shopify is also less expensive than Amazon's Professional plan option and more scalable and transparent. In the third quarter of 2020, Shopify's gross merchandise value was $30.9 billion, more than double that of a year ago. Shopify has been expanding its offerings on the e-commerce "back-end," including logistics, shipping and fulfillment. Shopify has a market cap that exceeds $100 billion. Last year it surpassed Ebay to become the second largest e-commerce preference in the United States, following only Amazon.[v] In September 2019, Shopify announced the acquisition of 6 River Systems, a Massachusetts-based fulfillment solutions company.[vi] This purchase was intended to help fulfill the growing demand for its e-commerce platform.

THE FEDEX TAX CASE

The Federal tax authority for E-Commerce and Distribution centers obtaining R &D tax credits became clear when FedEx won a major tax case for a large R&D tax claim. In the late 1990s, Federal Express incurred large expenses developing internal use software related to package tracking. It has always been understood that internal software R&D tax claims had to be a bit more innovative, involve some more economic risk, and not be available off the shelf. The IRS challenged the FedEx claim asserting that internal software claims "had to be unique or novel, had to be as significant and inventive as prior software based on new regulations." The court, however, disagreed with the IRS' approach and allowed Federal Express to take the R&D tax credit. In recent years, software has become much more integral to the U.S. economy, and the FedEx case highlights how the entire transportation, logistics, and distribution industry is no different. It became clear that the transportation, logistics, and distribution industry can be entitled to R&D tax credits thanks to Federal Express winning this important tax case.

E-COMMERCE TECHNOLOGY EXAMPLES

Globally, the e-commerce industry is worth about $22.1 trillion according to the United Nations Conference on Trade and Development (UNCTAD). In 2019 alone, it is expected that internet retailers will have amassed approximately $1.92 billion in global sales. Large online retailers are revolutionizing the way in which consumers shop in today's market. In meeting consumer demands, online retailers and ecommerce companies must invest heavily in research and development, enabling them to continually innovate and improve on existing products and processes. E-commerce companies engage in extensive research and development whether it is improvement in warehouse and distribution processes, software integration, or custom developments, internet retailers are vigilant about consistently improving processes.

The volume of goods being processed in today's E-Commerce facilities is so immense that these businesses must automate to increase throughput. The projects we work on include, and are not limited, to warehouse management systems (WMS), conveyor systems, automation, sensors, voice-activated robots, robots for picking, packing, and truck loading, and collaborative robots, or "co-bots," for logistics support.

E-commerce is an industry that is at the intersection of warehouse improvements and software development. A warehouse is not merely a large building that stores items. On the contrary, there is a lot of logistics coordination, inventory accuracy and throughput analysis that is often underway at these warehouse/fulfillment centers. One of our e-commerce clients had several improvement projects that included: development of data warehouse solutions; new inventory solutions for warehouse operations and a whole host of software development projects to improve and streamline the online experience for their customers. E-commerce vendors are also implementing new social distancing software applications.

Just as this article was being submitted for publication, Facebook announced it was acquiring Kustomer, a start-up focused on providing agents with better data and a more unified picture of users by bringing together social media channels and companies. The deal is reportedly worth $1 billion[vii] and will help take Facebook from a messaging app to a purchasing one. This will require more sophisticated e-commerce platform and software development.

THE RESEARCH & DEVELOPMENT TAX CREDIT

Enacted in 1981, the federal Research and Development (R&D) Tax Credit allows a credit of up to 13% of eligible spending for new and improved products and processes. Qualified research must meet the following four criteria:

- New or improved products, processes, or software
- Technological in nature
- Elimination of uncertainty
- Process of experimentation

Eligible costs include employee wages, cost of supplies, cost of testing, contract research expenses, and costs associated with developing a patent. On December 18, 2015, President Obama signed the bill making the R&D Tax Credit permanent. Since 2016, the R&D credit has been used to offset Alternative Minimum Tax (AMT) and startup businesses can utilize the credit against $250,000 per year in payroll tax liabilities.

THE NEW JERSEY STATE R&D TAX CREDIT

The New Jersey R&D tax credit utilizes the same definition as the Federal credit and provides a credit of 10% of the excess qualified research expenses over a base amount plus 10% of the basic research payments.[viii]

There is a significant emphasis on the design process to determine what will meet the functional needs of the product as well as be flexible, adaptable and reusable for other product-types. The equipment integrated into the process must not only perform a singular function, but should also be able to be adaptable to various packaging processes and products.

CONCLUSION

New Jersey is an ideal E-commerce location. Particularly in this new Covid environment, retailers are looking online to expand. In fact, Macy's has focused heavily on its digital presence over the past few years and it paid off during this Coronavirus Pandemic since the lack of physical store sales was compensated for with a healthy 53% gain in online sales. While this was not enough to completely offset the steep decline in physical store sales this year, it did support Macy's enough during this time. So much so that Macy's has decided to "go dark" and turn some of its brick and mortar retail shops into regional fulfillment centers for online orders. Obviously, Macy's is not alone in this online trend. New Jersey also has deep in-state resources for automation and software that will help aid in this new trend. New Jersey E-Commerce sellers should contact NJMEP to obtain incentives for their innovation activities.

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Preeti Sulibhavi, CPA, is a Tax Analyst with R&D Tax Savers.

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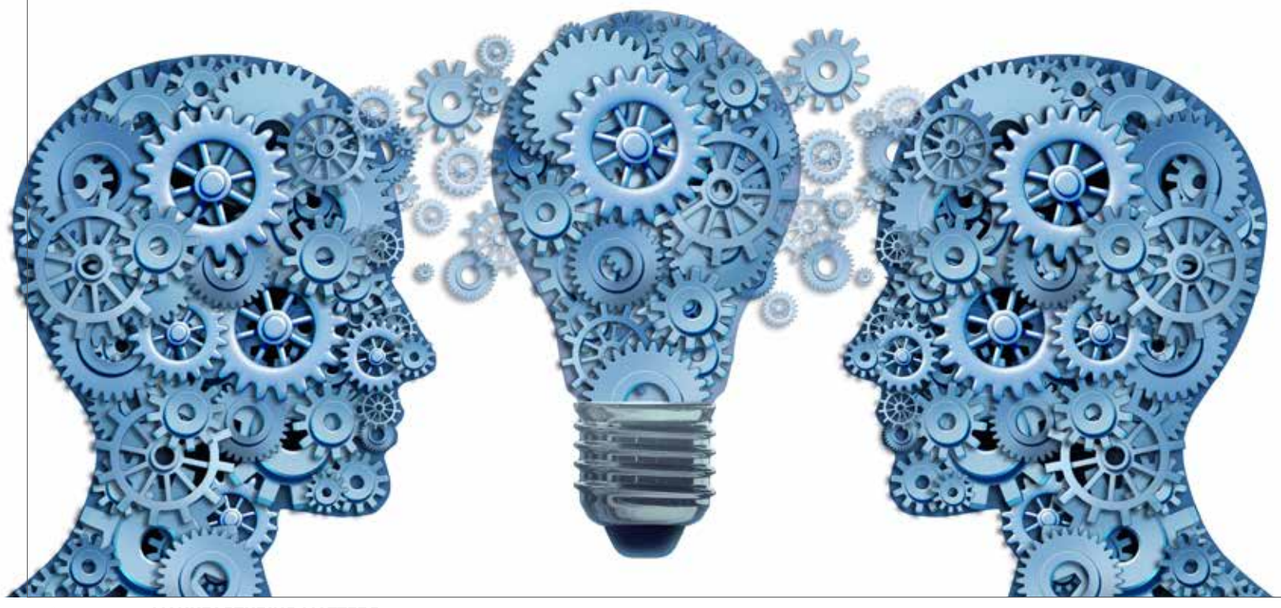
The Goal: Innovate Everything; Your Products, Your Processes, Your People

If you examine nearly every industry, you can find who planted the seeds for innovation and you can trace their growth. Often, it's not what we thought. For example, when the American automobile industry struggled to compete with the onslaught of Asian and European imports, a delegation was sent to Japan to try and understand the country's success formula. What they witnessed surprised them in more ways than one. The actual assembly line process used by the Japanese automakers appeared to be both more efficient and more effective than the one invented by Henry Ford and still used by American automakers up until the 1970's. The big surprise came when the Americans inquired how the process originated. In fact, the brains behind the process was none other than an American named W. Ernst Deming. American industry had, up to that point, largely ignored Deming's work. Shame on us!



BY: PAUL STECK
PRESIDENT OF
EXOTHERMIC MOLDING, INC.

The American photographic industry all but gave away its market share to overseas competition. While Rochester, New York based Kodak® should have been the heir apparent of digital photography, the company failed to embrace the new technology. Camera manufactures from Asia flooded the U.S. market with their products and consumers loved them. The last camera made in the U.S. was manufactured by plastics fabricator Berkey-Keystone of Clifton, New Jersey; its plant shuttered years ago.

In the plastics industry, we have found breakthrough new processes and new materials in unlikely places. For example, the now popular Reaction Injection Molding (known as RIM) involves mixing two different chemicals in exact radio under pressure to form a thermoset polymer. Where did it originate? From Bayer®, the maker of aspirin! While the process itself was innovative for years, the materials used remained the same. There has been little advancement in polyurethane chemistries, which had their limitations. As a result, RIM remained primarily attached to polyurethane. However, there have been recent innovations. For example, Proxima® by Materia is moving in to fill that space. Processors like our company are finding new market applications in advanced materials markets. While many designers gravitated to and embraced thermoforming, which appeared to save money at the outset, they soon found that both tolerances and detail were limited, requiring additional parts that in turn, added to costs. The cosmetics with these processes have limitations, as well. Certain markets like medical devices, for example, demand a more refined appearance. For those manufacturers requiring large and complex parts, RIM proved more cost competitive in the long run.

> "Staying the same is a recipe for getting smaller."

We kept exploring and we tried several other technologies along the way that proved unsatisfactory. Staying the same is a recipe for getting smaller. We were already a small player in a small niche, which is not a scalable situation. So, how does one continue to grow? By finding new solutions. Where do you look for them? Ironically, start with your competitors. I found that meeting with them led me to answers I was seeking. For example, I became friendly with a competitor who eventually left his company to work in a similar industry with new and different chemistries.

His new employer sought to diversify their client base beyond the volatile oil and gas industry that used their product. This ultimately led to the discovery of a new material with higher potential. The new material, a Nobel Prize winning chemistry, had superior properties including far greater strength and lighter weight. By becoming an early adopter and investing in new equipment to process this material, we have been able to open up new verticals including robotics, military, fitness equipment and even space exploration.

The bottom line: don't be content. Always look for something new. Sometimes you must be willing to do some pioneering as part of that growth process. There were no established business models for us to follow in a fragmented industry. We had to figure out pricing and hope it would fly with our customers and our prospects. Take the time to visit your suppliers, your competitors and those with complementary technologies. Sniff around, ask questions, probe and press them for information. Look for win-win relationships for collaboration when you can't provide all of the solutions your customers require. Most important, before venturing into new territory, call your customers and see if there is sufficient demand. In short, ask your old (existing) market about your new market. Educate yourself. Make educated decisions and be confident in your choices. Know when you need help and search until you find good advisors and associates to help move into new areas and innovate. Create your foundation of teams and a support structure including your employees, your advisors, professionals and trade associations.

Paul K. Steck is the President of Exothermic Molding, Inc. in Kenilworth, NJ, a second generation, family owned specialty plastics manufacturer established in 1971. Visit: www.exothermic.com

2020

THE ONLY SAFE WAY TO REVISIT 2020
NJMEP REVIEWS A TURBULENT YEAR

2020 is not going to have a conventional recap. The year was far from traditional. 2020 tested the resolve of every industry in New Jersey, the United States, and around the globe. Agility and adaptability were both essential to get businesses through the confusing and uncertain environment COVID-19 presented.

Manufacturing stepped up in a big way. Global supply chains fractured, and local manufacturers were tasked with picking up the slack. Events were postponed, rescheduled, and eventually transformed into entirely virtual experiences. Local manufacturers not only went above and beyond to fill supply chain voids but also showed their unwavering support for the local community. 2020 was challenging but it is also riddled with triumphs and successes.

Before reflecting on the past year, use the right perspective. With all the tragedies that took place, incredible people and organizations stood strong in the face of uncertainty. Amazing successes were realized in the face of chaos. Let's remember all those that were horrendously impacted by this terrible disease, but the industry and New Jersey must understand the progress that was made in such a trying time and plan to continuously improve.

ESSENTIAL MANUFACTURING

Shut down orders caused panic throughout the manufacturing community. At the start, available information was unclear and often inaccurate. NJMEP wasted no time ensuring manufacturers had a trusted resource they could turn to and find answers to questions that would impact their business, every single employee, and their families.

A revision of the MADE in New Jersey program coupled with a dramatic outreach effort to state government gave form to the Essential Manufacturing logo. NJMEP leadership spent their days and nights working with state and federal decision-makers to get answers to the question's manufacturers were asking. NJMEP spearheaded a collaborative effort to highlight the importance of declaring all New Jersey manufacturing as essential. The essential manufacturing logo became a symbol of the industry and its resilience in 2020. Manufacturers displayed the logo on their buildings and websites. New Jersey's manufacturers are continuing to help pull the nation forward and have been doing so throughout the past year.

CARES ACT AND NEW SUPPORT PROGRAMS

To stem the fallout from the initial wave of COVID-19, the CARES Act was introduced. Part of the CARES ACT funds were distributed to NIST and the National Network of MEP centers. Each center was to use the funds to aid their state manufacturers and the workforce. Two unique programs were born in New Jersey, Project 160, and Tri50.

PROJECT 160

The goal of Project 160 is to train and upskill 160 individuals to bolster the workforce during such an uncertain time. Manufacturing was already struggling with a talent pool issue. COVID-19 exacerbated this workforce challenge. Project 160 allows manufacturers to train their employees at no cost in four (4) fundamental Manufacturing Skills Standard Council (MSSC) modules. Additionally, manufacturers can sign up to interview newly trained potential hires. Workforce is still the primary concern for the industry. Project 160 is the solution.

TRI50

In a time where no one truly knows what the next month will hold, costs need to be kept low. Manufacturers can now take part in Tri50 programs. Tri50 includes a plethora of consulting and training services and includes 20 hours of complimentary offerings. NJMEP developed these programs to be completely customizable so nearly any challenge can be addressed at a dramatically reduced cost.

COVID VIRTUAL RESPONSE

2020 was the year when telecommunication was pushed to its absolute limit. A digital screen may never replace a handshake or an in-person meeting, but business needed to continue. The only option was to learn how to communicate effectively and naturally through a plethora of digital platforms.

COVID-19 created challenges when it came to hosting the variety of in-person training opportunities and industry-critical annual events hosted by NJMEP. Workshops, open enrollment training courses, Jersey Guys Golf Outing, and Manufacturing Day we all quickly switched over to virtual counterparts.

VIRTUAL TRAINING AND CONSULTING

NJMEP offers over 300 unique training courses specifically for manufacturing professionals. Administrative, line workers, production managers, the c-suite, every aspect of a manufacturing operation can find valuable courses to upskill themselves and their workforce. Once COVID-19 created the need to stop all in-person training, virtual options were developed. It took the entire team and close collaboration with industry experts to develop effective virtual training opportunities. After a few short weeks, and the entire in-person training catalog was switched to virtual options. Now NJMEP can effectively offer nearly the entire course catalog in a virtual environment.

JERSEY GUYS VIRTUAL

A golf outing isn't the same without the open air and beautiful fairways of the Minebrook Golf Club. Without knowing if golf courses were going to be open in July, and with normal attendance exceeding 100 individuals, a digital celebration was created instead.

Jersey Guys Golf Outing raises money for foodbank and NJMEP/Team Eagle Foundation-sponsored scholarships. These scholarships help veterans and families of active duty military to pursue higher education opportunities or vocational schooling. This event was too important to let pass by.

Jersey Guys Virtually yours
- With Real Life Heroes -

An online trivia game was developed to bring the community together and raise money for these incredible initiatives. The fifth annual Jersey Guys Golf Outing was not what anyone expected. Even though no one could have imagined an online trivia game would take the place of a golf outing, it brought smiles to people's faces during an impossibly challenging time. Not only did attendees have fun; over $17,000 was raised for the Community FoodBank of New Jersey, Fulfill NJ, The Anthony DeSantis 'Service to America' scholarship, as well as the Bob Beaman 'B-Involved' scholarship.

MANUFACTURING DAY VIRTUAL

'MADE in New Jersey' Manufacturing Day is New Jersey's largest manufacturing networking event of the year. Average attendance exceeds 600 manufacturing professionals and that audience grows year over year. COVID-19 restrictions made it impossible to host the event at the Marigold in Somerset, New Jersey in 2020. Manufacturing Day 2020 needed to be redesigned and reimagined.

Manufacturing is playing and has played a massive role in the state's ability to push through this natural disaster. All manufacturing is deemed essential and has been allowed to remain open throughout the pandemic. The frontline workers in the industry put themselves at risk to create safer working practices and at the same time produce the critical components, products, and equipment the world depends on, needed to be honored in some way. These efforts needed to be recognized.

The awards component of Manufacturing Day was removed. Instead of the normal process where manufacturers in six distinct categories; Manufacturer of the Year in Large, Medium, Small, Start Up, Innovator, and "Manufacturing Cares' for charitable contributions. Every manufacturer deserved recognition this past year. Each one stepped up tremendously. It would have been unjust to only call out a select few. Virtual 'MADE in New Jersey' Manufacturing Day was developed to celebrate the industry, its companies, and the workers.

A song, "Unsung Heroes" was produced by Andrew White, a professional musician that showcases the work these incredible New Jersey companies did during the pandemic. This became the Manufacturing Anthem. The song was debuted at Manufacturing Day, live in front of the over 800 virtual attendees. It was played over a video produced by NJMEP staff which featured New Jersey manufacturers at work and the Lower Trenton Bridge with the words "Trenton Makes, the World Takes" illuminated in NJMEP colors.

MANUFACTURING CARES

Local food banks were stretched to their absolute limit in 2020. In some areas, the need for food increased by over 60%. Organizations like the Community FoodBank of New Jersey and Fulfill NJ do an unbelievable job helping supply hungry New Jersey families with food on a normal year. In 2020 they were facing a staggering increase in demand but were also forced to wrestle with the added challenge of not being able to accept volunteers.

Every year NJMEP, CIANJ, and Employment Horizons collaborate on a food drive. No one was sure if support would continue at the start of the pandemic. With the economy losing its footing, it wasn't clear if people would have extra food or money to donate to these amazing operations. That was far from the reality.

The entire manufacturing industry stepped up and gave back to their local communities in the most incredible way imaginable. 'Manufacturing Cares' Food drive raised over $100,000 in cash in 2020 alone. Every $1 donated equals 3 meals for a hungry New Jersey resident in need. This food drive raised over 312,000 meals for our family, friends, and neighbors. NJMEP, Madison Rotary, Employment Horizons, CIANJ, and the manufacturing industry as a whole each contributed to this incredible effort.

2020 YEAR IN REVIEW

2020 was an unforgettable year. COVID-19 disrupted business and home life. There is no denying the fact that there were new challenges presented to both businesses and individuals. However, the world is overcoming these challenges and continues to move forward. Manufacturing is remaining agile to fill newly created voids in the market. NJMEP is remaining flexible to continue providing critical support to the industry. Disruptions are nothing new for manufacturing. No matter what 2021 holds, the industry can look back at 2020 and know that there are ways to remain competitive, even in a turbulent economic landscape.

Visit NJMEP.org to stay up-to-date with the latest programs, initiatives, and community-centric events that drive manufacturing forward.

NJMEP

Helping New Jersey Manufacture Success

STATE-OF-THE-STATE MANUFACTURING

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

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