

ANNUAL REPORT

NEW YORK MANUFACTURING EXTENSION PARTNERSHIP

NEWYORKMEP.ORG | INFO@NEWYORKMEP.ORG

NEW YORK MEP SUPPORTS ADVANCED TECHNOLOGIES

Throughout history, there have been periods of remarkable technological advancements where manufacturing has evolved to change the way we live.

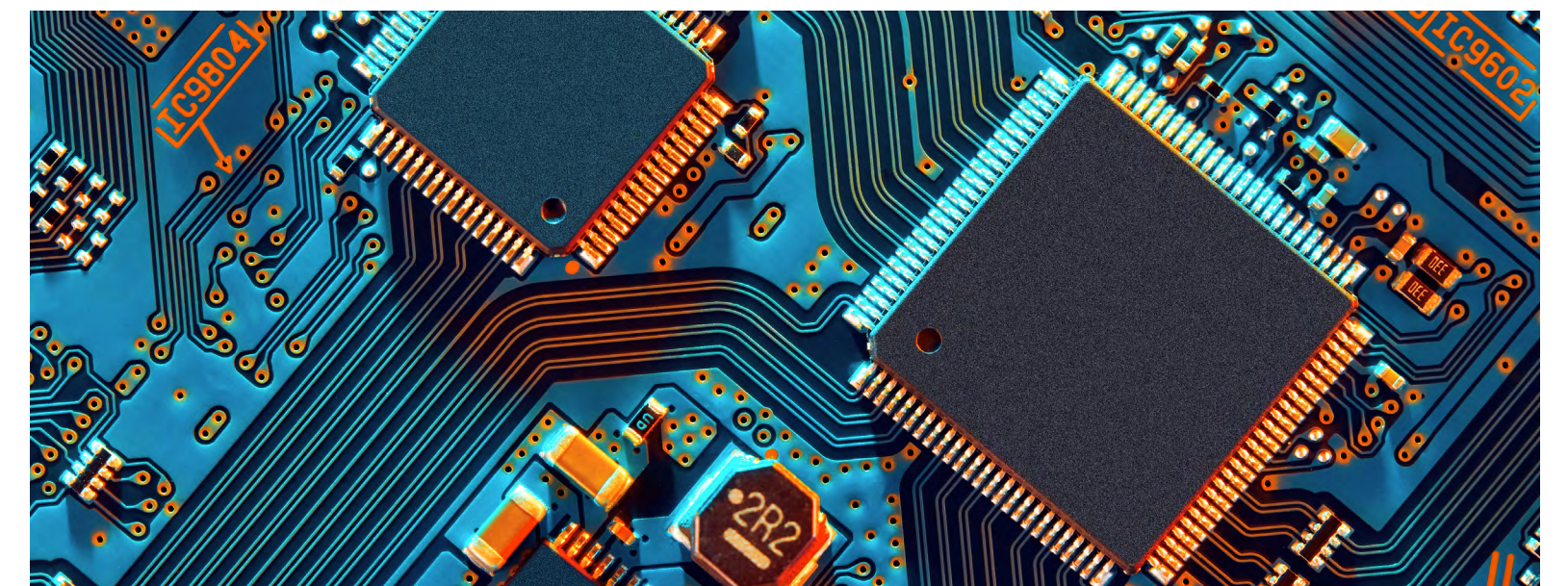
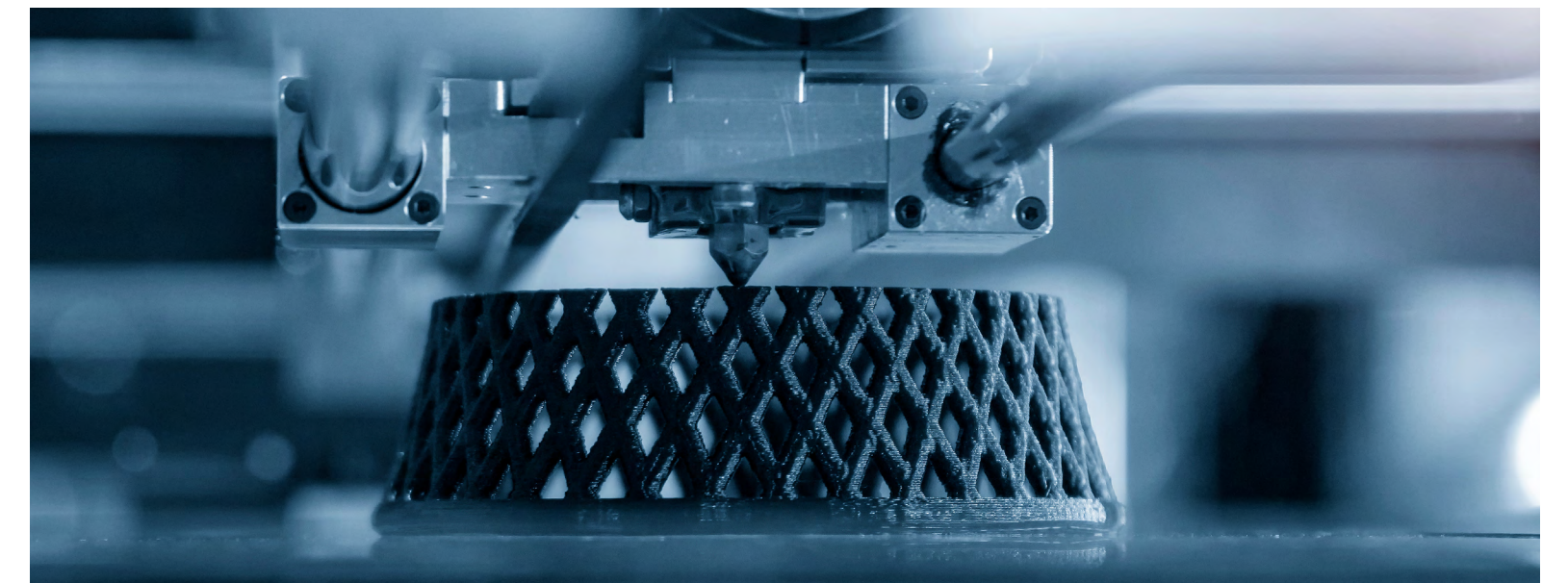
Industry 1.0: The first Industrial Revolution created new goods and new jobs through the use of steam and the introduction of manufacturing – growing cities and opportunities.

Industry 2.0: In the second Industrial Revolution we forged better materials and harnessed the power of oil and electricity to expand what was possible.

Industry 3.0: After the “Digital Revolution” we possessed computers a million times cheaper and more powerful than the best supercomputer only 25 years ago.

Industry 4.0: The fourth Industrial Revolution involves a range of technological breakthroughs that are fusing the physical, digital, and biological worlds, including technologies such as robotics, artificial intelligence, advanced materials, nanotechnology, and 3D printing.

While it’s remarkable to see these advancements, it’s important to remember that Industry 4.0 will not happen without support. It requires innovation. It requires expertise. It requires manufacturing.



NY MEP TECHNOLOGY INITIATIVES

NY MEP centers have championed initiatives to help New York manufacturers overcome challenges and become more competitive.

Industry 4.0: Manufacturers who struggled with workforce shortages, rising costs, and global competition looked to NY MEP for guidance and implementation of solutions that included robotics, artificial intelligence (AI), augmented reality, and automation.

Supply Chain: A manufacturer's supply chain is vital to ongoing operations and profitability. NY MEP provided expertise to help with supply chain strategy, improved logistics, and potential for reshoring.

Advanced Materials: Targeted training and funding were provided to help manufacturers develop and integrate new materials, which was of crucial importance in improving product performance, reducing costs, and finding viable replacements for finite resources.

Cybersecurity: Manufacturers involved in the DoD supply chain, and others who just want to keep their data secure, took advantage of assessments, grants, training, and implementation to tackle prevalent cybersecurity challenges.

Microelectronics: Through alliances focused on bolstering the semiconductor industry and reducing reliance on overseas suppliers, NY MEP is leveraging assets to position NYS as a world-leading, next-generation microelectronics manufacturing hub.

Advanced Manufacturing Initiative



Industry 4.0



Supply Chain



Advanced Materials



Cybersecurity

[See the Full AMI Report >>](#)

NY MEP NETWORK SERVICES

NY MEP provides critical services and expert guidance designed to help manufacturers stay competitive, adapt to technological advancements, and achieve sustainable growth in an increasingly complex market.

Technology Adoption and Commercialization

- Product Design and Development
- Industry 4.0, Robotics, Automation
- Advanced Materials
- Advanced Manufacturing Technology Services

Planning and Research

- Market Research
- Strategic Planning and Leadership Support
- Technology-Driven Market Intelligence
- Technology Scouting

Business Improvement

- Lean and Process Improvement
- Supply Chain
- Sustainability and Energy

Risk Management

- Cybersecurity Services
- Business Continuity Planning
- Food Industry Services
- ISO and Quality Management

Business Growth

- Exporting
- Marketing and Sales
- Workforce Development



NY MEP SUCCESS STORIES

NY MEP helps manufacturers modernize their facilities and operations by delivering practical, tech-forward solutions. Whether it's improving operational efficiency, adopting lean and smart manufacturing practices, or gaining access to advanced equipment and technologies, we support companies looking to innovate and stay competitive.

Increasing Throughput and Decreasing Lead Time within Final Assembly

Hope's Windows has multiple plants on their campus. Plant One houses the fabrication processes, which are then sent to Plant Three for finishing operations (i.e. inspection, outside coating, prime, paint, final assembly, and packaging). An increase in sales volume led to some production issues that contributed to a negative effect on Hope's Windows' throughput and on-time delivery. The lead time increased from approximately 15 weeks to over 19 weeks.

Hope's Windows engaged Insyte Consulting, part of the New York MEP and the MEP National Network™, to assess the current state of the operations in Plant Three. A current state value stream map of the operations was created to help pinpoint the areas that were bottlenecks in moving material through the system.

Based on the assessment, Insyte provided the company with a series of recommendations. The recommendations included utilizing the concept of division of labor within the assembly cells, establishing and posting production expectations for each job, organizing work areas with visual cues, establishing a designated area for required components, and ensuring upstream processes were correct prior to reaching the assembly cells.

The Hope's Windows project team prioritized these recommendations and an action plan for implementation was created and executed to guide the workforce in implementing the improvements that will decrease lead time, increase on-time delivery, and increase throughput.

Jamestown, NY | Insyte Consulting

Successful Lean Process Implementation

Island Components Group is a Long Island manufacturer designing and manufacturing the highest-performance motors, electromechanical servo-actuators and rotating components in the precision motion industry. Based in the Hauppauge Industrial park, they provide aerospace, defense and space customers with advanced design capabilities and superior customer service.

The client's department, initially laid out in a quadrangular configuration, housed various sub-assemblies, each responsible for producing 75 units daily to complete an electric motor assembly, followed by testing. Despite meeting production targets, the overall equipment effectiveness system indicated an overinflated work-in-process inventory number and there were many inconsistencies in first pass yield data and deferred defect reviews revealed efficiency gaps.

LIMEP, part of the NY MEP and the MEP National Network™, was enlisted to apply lean principles to enhance productivity within the constraints of the current workforce, processes, equipment, and space. The Island Components team received extensive training in the Toyota Production System, concentrating on just-in-time, Jidoka, and standard work principles. Kanban systems were established for feeder lines, ensuring seamless sub-assembly replenishment at workstations. Additionally, the materials/purchasing manager received a plan for every part template and training essential for sustaining just-in-time material replenishment without disrupting the flow of work. The overhaul culminated in an output surge from 75 to 120 units daily and a dramatic WIP reduction from 717 to 156 pieces, attributed to the adoption of one-piece flow and strategic bottleneck management.

Hauppauge, NY | Long Island MEP

Troy Startup Makes Western Hemisphere's First 3D-Printed Ceramic Wall with CEG's Support

MetaOrnate is a Troy, NY startup that makes ceramic architectural facades via additive manufacturing, also known as 3D printing. Riley Studebaker founded the company in early 2023, following his move to the Capital Region to become a lecturer on robotic building materials at Rensselaer Polytechnic Institute's School of Architecture. When Studebaker moved to the Capital Region in January 2023, he planned to start a company that designs and produces 3D-printed ceramic facades, though he was not sure how long it would take to scale the business. He had gained experience in this field at the University of Pennsylvania Weitzman School of Design, where he had received his Master of Science in design with a concentration in robotics and autonomous systems and where he later worked as a researcher. Both UPenn and RPI have the 3D printing and robotic arm equipment that Studebaker would need to produce the highly decorative ceramic facades, but gaining access to such technology for a private enterprise usually would be challenging.

Gaining access to that technology was less challenging in the Capital Region. The first time Studebaker walked into the Tech Valley Center of Gravity (TVCOG), he saw the UR5 robotic arm made by Universal Robots and realized his startup would get off the ground faster than anticipated. The UR5 programmable robotic arm has a reach of 33.5 inches (850 mm) and a payload of 11 pounds (5 kg). The device is owned by FuzeHub, part of the New York MEP and the MEP National Network™. The Center for Economic Growth (CEG) Director of Technical Services Tom Bell had advocated for the UR5's placement at the TVCOG and worked to attract entrepreneur interest in its utilization. In early 2023, CEG entered into an agreement with FuzeHub to borrow the UR5.

Troy, NY | Center for Economic Growth

MAKING AN IMPACT ON NYS MANUFACTURING

Delivering an outsized impact

In communities across New York State, the NY MEP delivers a massive impact. NY MEP is creating or saving one job for every \$1,490 in federal and state government funding. The NY MEP has helped thousands of companies and is the only program dedicated to supporting small and mid-sized manufacturers' competitiveness.



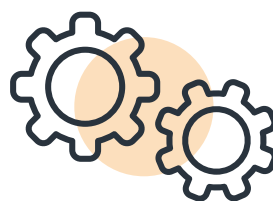
\$1.3 B⁺

Economic Impact
in company cost savings,
increased/retained sales, capital
expenditures, and funds acquired.



6,555

Total increased
and saved jobs



4,425

Completed Manufacturing
Projects over 5 years

“

From Buffalo to Albany, MEP Centers have proven to be one of the best bangs for your buck investments the federal government can make helping create thousands of new good-paying jobs and billions in new investment throughout New York. These centers are how we attract new supply chains, get workers the hands-on training they need, and bring back jobs from overseas.

- Senator Democratic Leader Chuck Schumer,
U.S. Senator, New York State

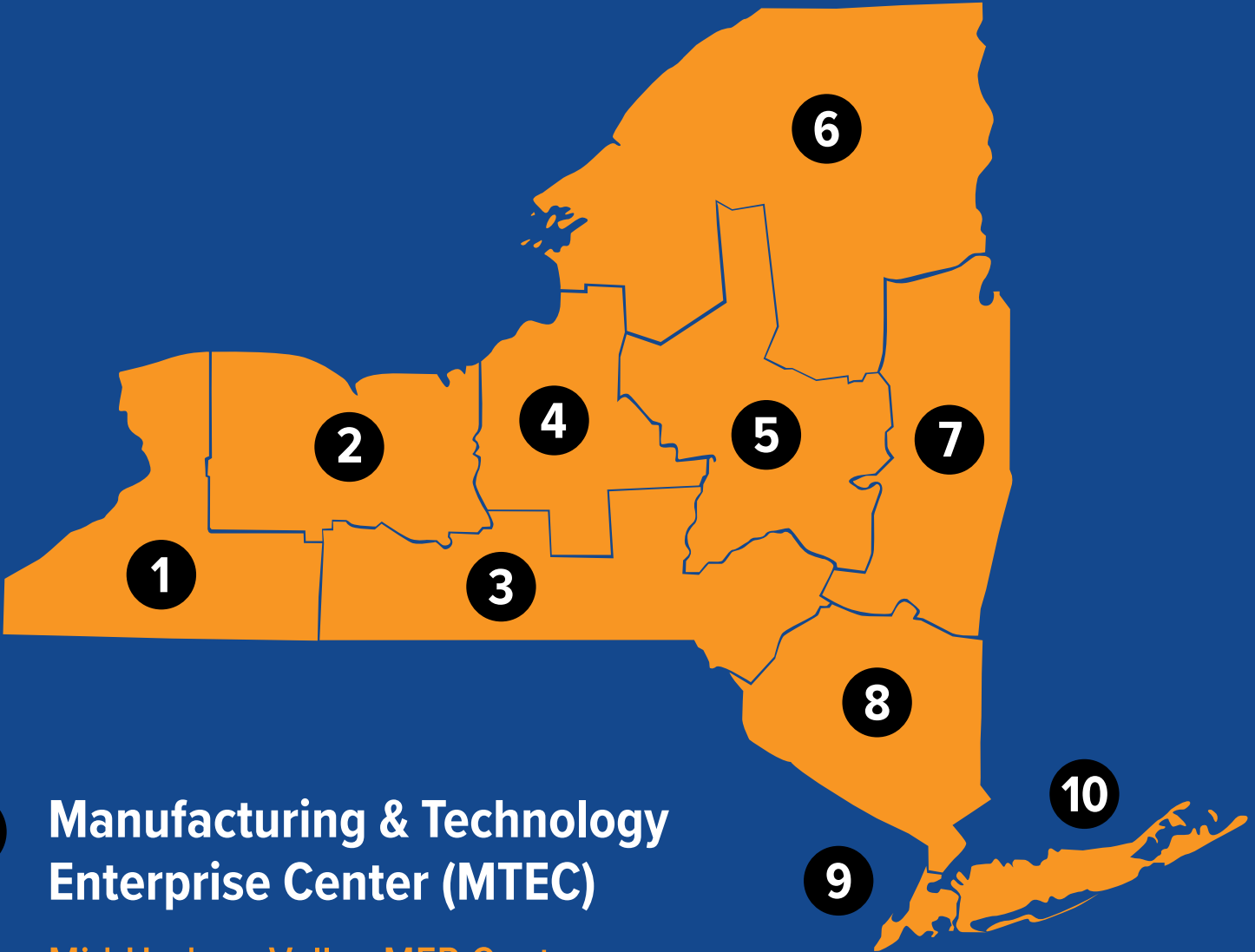
MEET THE NY MEP CENTERS

The New York State Manufacturing Extension Partnership (NY MEP) is a vital resource for small to medium-sized manufacturers across New York State. Through its network of 10 regional centers and one statewide nonprofit organization, NY MEP provides customized services and expert guidance designed to help manufacturers stay competitive, adapt to technological advancements, and achieve sustainable growth in an increasingly complex market.

NY MEP is supported through a combination of federal and state funding: It is part of the National Institute of Standards and Technology’s Hollings Manufacturing Extension Partnership and is administered by Empire State Development’s Division of Science, Technology & Innovation (NYSTAR).



- 1 Insyte Consulting**
Western New York MEP Center
716-636-3626
- 2 NextCorps**
Finger Lakes MEP Center
585-214-2400
- 3 Alliance for Manufacturing and Technology (AMT)**
Southern Tier MEP Center
607-774-0022
- 4 TDO**
Central New York MEP Center
315-425-5144
- 5 Advanced Institute for Manufacturing (AIM)**
Mohawk Valley MEP Center
315-624-9800
- 6 CITEC Consulting Group**
North Country MEP Center
315-268-3778
- 7 The Center for Economic Growth (CEG)**
Capital Region MEP Center
518-465-8975



- 8 Manufacturing & Technology Enterprise Center (MTEC)**
Mid-Hudson Valley MEP Center
845-391-8214
- 9 ITAC**
New York City MEP Center
212-809-3900
- 10 Long Island MEP (LIMEP)**
Long Island MEP Center
631-216-7516

FuzeHub
Statewide MEP Center
518-768-7030

THE LEADERSHIP OF NY MEP

Manufacturing Experts and Trusted Advisors
with In-Depth Business Experience

NY MEP is led by business and technical experts with many decades of manufacturing experience. Within each of the state’s 10 regions, and across New York State as a whole, these creative problem solvers are helping manufacturers to improve their operations and overcome obstacles to growth.

Each NY MEP Center Director leads a team of professionals who are passionate about problem solving. Whether a manufacturer’s challenges involve workforce training, supplier scouting, cybersecurity, or something else, NY MEP’s leaders can turn to their teams to get great results.

NY MEP’s leaders also look for ways to collaborate with each other, and to bring programs that are available at the national level back home to New York State. When it’s time to get to work and advance manufacturing for everyone, look for these leaders to bring out the best in their teams, each other, and the manufacturers they serve.



Ben Verschueren

Executive Director, NYSTAR,
Empire State Development



Elena Garuc

FuzeHub
Statewide MEP Center



Don Wiesenforth

The Center for Economic Growth (CEG)
Capital Region MEP Center



Cory Albrecht

Advanced Institute for
Manufacturing (AIM)
Mohawk Valley MEP Center



James D’Agostino

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