many of the Industry 4.0 technologies, includes materials process development, covering everything from rare earth to hypersonic materials and lightweight armor; new methods to join metals to composites and plastics, making entire systems lighter and more efficient; and the development of strategies and solutions that connect advanced materials, processes, systems and talent.

Recognizing that, along with technology, jobs and skills are evolving at an accelerating pace, LIFT also understands that a move to future manufacturing will require a talented workforce and talent development approaches to help companies prepare for new technologies and processes.

To that end, the IACMI/LIFT collaboration also includes seven unique labs in an innovative learning center equipped to prepare students for the most in-demand manufacturing careers. The labs are powered by LIFT's three-year IGNITE curriculum, a competency model for multi-skilled technicians that focuses on materials science and advanced manufacturing systems.

Through efforts like these, the partnership is tapping into the agility behind Michigan's well-known ability to pivot, adapting to changing needs and competitive dynamics.

Michigan underscored its reputation for manufacturing agility more than 70 years ago when, almost overnight, the state's carmakers reinvented themselves as the Arsenal of Democracy, building the planes, tanks, guns and other equipment that helped win the Second World War.

More recently, the state again demonstrated its adaptability by converting automotive assembly plants to produce the personal protective equipment needed by the country's healthcare professionals working at the frontline of the COVID pandemic.

This rich tradition has made Michigan home to a diverse range of industries employing Industry 4.0 technology, including metals, machinery and chemical products manufacturing, aerospace and medical equipment manufacturing and cybersecurity.

That breadth of expertise, coupled with a clear-eyed and comprehensive view of the Industry 4.0 revolution, will keep Michigan well-positioned to maintain its manufacturing leadership into the future.

To learn more about how Michigan is providing the resources and services to help manufacturing businesses prepare for Industry 4.0, go to michiganbusiness.org/industry4-0.

ADVANCED MANUFACTURING CONTINUES TO GROW IN VINELAND, NJ

With a low cost of doing business and a focused economic development strategy, the City of Vineland, New Jersey is building a strong, diverse economy which includes the expansion of existing businesses, the arrival of new ones and the development of new industrial park space. Even as the country has dealt with the effects of the COVID-19 Pandemic, the collaborative spirit in Vineland continues to thrive, and both the public and private sector are invested and passionate about moving development initiatives forward, which currently total more than $100 million.

Vineland is conveniently located along New Jersey Route 55, providing a quick and direct connection to the New Jersey Turnpike, and Interstates 95 and 295. These arteries link the city with major markets along the east coast, including Philadelphia, Baltimore, Washington D.C. and New York City. Vineland offers rail service to destinations across the United States and Canada, and is home to several logistics firms which transport ready products throughout North America. Additionally, freight air service and three deep water port facilities with Foreign Trade Zone status are just a short drive away.

Now in his second term, Mayor Anthony Fanucci has brought a distinctly pro-business approach to city government, which comes from his background in the private sector. His progressive economic development policies and marketing strategies are encouraging the entrepreneurial spirit and attracting new capital investment in industries like Scientific Glass, Plastic Molding and Food Processing.

"Selecting the right location is a key component of any strategic business model," Mayor Fanucci said. "Companies must look for the right blend of incentives, workforce, municipal infrastructure

Chemglass, which ships scientific glass products worldwide, recently completed an 80,000-square foot expansion, which houses their bioscience and machine operations, adjacent to their existing Vineland facility.

PHOTO: CITY OF VINELAND

and business climate to be successful. In addition, our municipal electric and water utilities provide among the lowest rates in the state. Vineland offers these advantages, and much more. Our economic development team provides a one-stop source for moving projects forward through the development and approval process."

For example, Comar, a premier supplier of specialty packaging solutions and custom molded medical devices and assemblies, has been undergoing rapid expansion, including a new $20 million, 159,000-square-foot Vineland location, which will house injection molding machines, proprietary automation and packaging equipment. Scheduled for completion in the second quarter of 2021, the new facility will create over 100 new, good paying jobs.

"This investment builds on our existing facilities around the country, and represents another exciting milestone for our organization," said Comar CEO Mike Ruggieri. "The new South Jersey location will provide a best-in-class GMP compliant work environment for our employees and allow us to better serve our customers in the medical, pharmaceutical and consumer wellness markets."

The American glass industry got its start in southern New Jersey because of the natural resources available in the area. Much of that history is centered in Vineland, which today remains a leader in the manufacture and distribution of chemical and scientific glassware. In fact, the city is playing a critical role in the fight against COVID-19 thanks to the work of Corning Pharmaceutical Glass and their revolutionary new Valor Glass product. The company, which recently completed a 26,000-square-foot expansion, was enlisted by the U.S. Government as part of Operation Warp Speed to increase production of the product. With its robust exterior, Valor Glass is ideal for storing drugs in extremely cold temperatures for extended periods, which is essential for both the Pfizer and Moderna vaccines.

According to Corning Pharmaceutical Glass regional manager David Lucht, "Between June 2020 and January 2021, we quadrupled our manufacturing capacity. In the last three months of 2020 alone, the company made enough Valor Glass vials to support 100 million vaccine doses. The entire process starts in Vineland, where its skilled workforce manufactures the tubes for Corning's U.S.-based glass products. The tubes are then shipped to our facility in Big Flats, New York to convert them into vials for drug storage."

> *"We are excited about the future and our ability to keep the momentum going. As new projects move through the planning process, we are expanding our existing city-owned industrial sites."*
>
> — MAYOR ANTHONY FANUCCI, CITY OF VINELAND

Vineland's position in the scientific glass sector continues to expand. Gerresheimer AG, which produces a broad range of products for pharma, health and biotech uses, recently cut the ribbon on a new Glass Innovation and Technology Center adjacent to their existing Tubular Glass Converting Plant. The Center will bring together specialized experts and engineers in glass technology who will work to develop new products and technologies for the global market.

"We are leading in health and well-being delivery by developing first-class glass solutions to meet the highest quality requirements," said Gerresheimer CEO Dietmar Siemssen. "At the new Innovation Center, we are able to bundle our glass expertise and all of our experts in one location to develop new products and technologies in conjunction with our customers. This will provide enhanced value propositions for our clients, including Gx Elite Glass, ready-to-fill vials, strengthened glass and much more to come."

Manufacturing operations in the Food Processing sector also continue to grow in Vineland with the addition of Rovagnati Specialty Meats. The first phase of their North American headquarters, which includes a 64,000-square-foot production and distribution facility scheduled to open in the second quarter of 2021, will produce and distribute salami, bresaola, prosciutto and mortadella. According to company officials, "The USA represents a great opportunity for quality Italian products. The uniqueness of our supply chains and the ability to produce products containing high value content, already appreciated by American consumers, creates a significant development area for the entire category. The new production plant in Vineland, NJ will allow us to increase our presence in the American continent."

"We are excited about the future and our ability to keep the momentum going," Mayor Fanucci continued. "As new projects move through the planning process, we are expanding our existing city-owned industrial sites.

Additionally, we have supported efforts to develop a new 285-acre, privately owned Industrial Park anchored by Northeast Precast, a state-of-the-art precast concrete manufacturer of commercial products and residential foundation wall systems."

"Our commitment to your success begins with our focus on your needs. We understand the challenges you will face and are anxious to meet with you regarding available sites throughout the city. Your business is important to our community, and we are excited to be your partner in finding the perfect location for your business to thrive. Give us a call and find out why 'It's Always Growing Season' in Vineland," Mayor Fanucci concluded.