



ADOPTING INDUSTRY 4.0 TECHNOLOGIES IN THE STATE OF MICHIGAN

MICHIGAN
PURE OPPORTUNITY.

WHY MICHIGAN

Michigan has been known for its manufacturing prowess and productivity for more than 120 years – and building on this deep heritage in manufacturing, the state is working to introduce new and advanced technology onto factory floors, integrating high-tech solutions into traditional manufacturing processes.

Defined as the convergence of digital and physical technologies, including connected factory, data analytics, modeling and visualization, 3D printing, advanced robotics and cybersecurity, Industry 4.0 and its integration into everyday processes is critical to advancing manufacturing efforts across the state and beyond.

As robotics and additive manufacturing become increasingly powerful, Michigan is focused on helping small- and medium-sized manufacturers and the state's workforce transition seamlessly to Industry 4.0 through education, programming and strategic partnerships within our high-tech innovative ecosystem.

MICHIGAN'S GOAL

Through a multi-pronged effort to support and encourage the adoption of Industry 4.0 technologies, Michigan plans to prepare 50 percent of all its manufacturers – 6,200 businesses – for adoption of Industry 4.0 technologies by 2025.

Through partnerships with organizations, ranging from industry and startups to government agencies and academia, the state is leveraging its manufacturing know-how, highly skilled workforce and strong quality of life to develop a world-class ecosystem where businesses of the future can thrive.

STRATEGIC PARTNERSHIPS

To help traditional manufacturers understand and implement these advanced technologies, the state is building on existing partnerships with Industry 4.0 leaders, including Automation Alley and the Michigan Manufacturing Technology Center to increase awareness of, and access to the tools and services available to help ensure statewide Industry 4.0 readiness and aid in the adoption of Industry 4.0 technologies.

Automation Alley

Through its Industry 4.0 Readiness Leadership Evaluation, Automation Alley will help manufacturing c-suite understand how Industry 4.0 will impact their culture, finances and technologies. This evaluation is the first step to helping business leaders transform their companies by fostering an organizational culture that embraces learning, change and ultimately technology acceptance.

Through MEDC support, Michigan's small- to medium-sized manufacturers will receive an essential membership with Automation Alley and access to resources, including its Industry 4.0 conference, Industry 4.0 Manufacturing Roadmap, education and support, and more.

Michigan Manufacturing Technology Center

Michigan Manufacturing Technology Center will provide technology assessments for small- to medium-sized manufacturers and their employees to help link the company's current processes and the Industry 4.0 technologies recommended for profitability improvement and job retention.

Through MEDC support, Michigan's small- to medium-sized manufacturers may receive course trainings for both a general overview and in-depth review of key Industry 4.0 technologies for businesses, including connectivity additive, cobotics and robotics, among others.

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DID YOU KNOW:

- Michigan has the **5th largest advanced manufacturing workforce** in the country, with more than 65,000 workers employed in advanced manufacturing industries in 2019.¹
- Michigan has more than **13,600 workers** employed in industries related to Industry 4.0 and automation, **the most in the nation.**²
- Employment in Michigan's advanced manufacturing industries grew nearly **twice as fast as the nation** on average between 2015 and 2019.³
- Michigan has the **most industrial robots in use out of any U.S. state** (28,000+), making up a 12 percent share of the U.S. total.⁴
- Automation Alley's Project DIAMOnD has connected the largest blockchain-enabled 3D printer network in the nation, with **300 connected 3D printers.**
- Michigan is home to the **nation's first Industry 4.0 Accelerator program**, launched by Automation Alley, lean Rocket Lab and Lawrence Tech's Centrepolis Accelerator.⁵

NOTABLE MICHIGAN INDUSTRY 4.0 COMPANIES

- FANUC
- Stryker Corporation
- KUKA
- ABB, Inc.
- Kawasaki Robotics
- Prosper-Tech Machine & Tool LLC
- Air & Liquid Systems
- Federal Group USA

FOR MORE INFORMATION:

VISIT [MICHIGANBUSINESS.ORG/INDUSTRY4-0/](https://michiganbusiness.org/industry4-0/).

Big changes are taking place in the world and once again, Michigan is at the forefront. Businesses are choosing Michigan for its diverse and abundant workforce, business-friendly environment, low cost of living and global supply chain assets. The next great revolution is happening right here. So get here or get left behind.

The Michigan Economic Development Corporation is the state's marketing arm and lead advocate for business development, job awareness and community development with the focus on growing Michigan's economy.



MICHIGAN ECONOMIC
DEVELOPMENT CORPORATION

michiganbusiness.org
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SOURCES:

1. Emsi, 2019.4 (QCEW, Non-QCEW, and Self-Employed). 2. Emsi, 2020.4 (QCEW, Non-QCEW, and Self-Employed). 3. Ibid.
4. Muro, M. (August 14, 2017). "Where the robots are." Brookings Institution. <https://www.brookings.edu/blog/the-avenue/2017/08/14/where-the-robots-are/>.
5. Automation Alley. Press release (Feb. 5, 2020)