

# Ohio's Advanced Technologies Renaissance



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## Topics:

- Reshoring and expansion of new technology industries / investment
- What these careers and roles are!
- New and enhanced education / training pathways
- CSCC and Adv Tech industry partnerships

# Ohio Manufacturing by the numbers

- Manufacturing is the largest of Ohio's 20 economic sectors, including government, with 15.7% of total output in 2022
- As of Q3 2023, Ohio's manufacturing GDP was \$133.16 billion, making it fourth in the nation, trailing only California, Texas and Illinois
- There were over 700 new Ohio manufacturing investment projects between 2020 and 2022

\*2024 Ohio Manufacturing Counts – The Ohio Manufacturers Association



# The changing world of Technology

- Industry 4.0 technology is changing the way we manufacture goods.
- Facilities produce products using Smart technology including robotics, sensors, networked devices, data collection and artificial intelligence
- Facility equipment not only forms, cuts, mixes, welds and paints but records data and senses changes in the system
- This allows a facility to be safer, cleaner and more efficient in producing



# A new set of Skills and Competencies

- Safety
- Electrical, Mechanical, & Fluid Power Systems
- Troubleshooting & Preventative Maintenance
- Use of tools (hand tools, measurement, etc.)
- Automation & Robotics
- Industrial Internet of Things (IIOT)
- Programming
- Data Analytics
- Lean Manufacturing
- Quality analysis
- Documentation, Compliance and Regulations



# Technician! Technician! Technician!

- Engineering Technicians and Industrial Technicians lead the list of the Ohio In Demand careers!
- Many roles are Equipment and Process focused
- Usually require at least two Technicians for every Engineering role
- Technician roles requires a Technical certificate or Technical Associates degree to enter



# A Technician in her own words



# Columbus State Community College Pathways to Success

- New **credit and non-credit** programs being offered at CSCC including certificate and Associate degree programs
- Most **skills required** for these Advanced Technology roles **are common across Adv Tech industry sectors.**
- **Engineering Technology A.A.S.** programs prepare individuals for most Technician roles
- Community colleges are increasingly partnering with local High School and Career Technical schools to create **better articulation** for students
- Industry will often provide **tuition assistance** to employees for Associate and Bachelors degree courses





# CSCC Pathways in Advanced Technologies Lead to Increased Economic opportunity!

- CSCC is offering a **two semester semiconductor technician fundamentals certificate** which stacks into our EMET AAS.
- The semiconductor certificate and EMET AAS both provide individuals with an **opportunity to become an Intel Manufacturing Technician**
- CSCC Engineering Technology AAS programs prepare students for careers in Semiconductor, EV, Biotech, Clean energy and traditional manufacturing.
- CSCC continues to expand our Advanced Technology industry partnerships with increased Earn and Learn experiences



# Columbus State and Industry Partnerships

