Building a scalable pathway for Maryland manufacturers

A PROGRAM STORY FROM MARYLAND MADE 4.0

PROGRAM
Maryland MADE 4.0

DELIVERED BY
Maryland Manufacturing Extension Partnership

CESMII ROLE
Smart Manufacturing Leadership Program

Maryland MADE 4.0, a program delivered by the Maryland Manufacturing Extension Partnership, is helping manufacturers across the state take practical steps toward smart manufacturing adoption. Through outreach, technology demonstrations, readiness assessments, technical assistance and technology road mapping, and workforce training, the program is giving small and medium-sized manufacturers a clearer path from awareness to action.

Maryland MADE 4.0 is partially funded through a grant from the State Manufacturing Leadership Program (SMLP) within the U.S. Department of Energy's Office of Critical Minerals and Energy Innovation (CMEI). The program enables small- and medium-sized manufacturers to deploy smart manufacturing technologies and access high-performance computing resources through funding from state entities.

The goal: Move manufacturers from awareness to action

For most small and medium-sized manufacturers, the barrier is not interest in smart manufacturing — it is knowing which step is the right first one, and who to trust for the answer. A statewide program needed a consistent way to meet manufacturers where they were, assess readiness, and hand them a credible next move.

CESMII serves as the Technical Assistance Field Manager for SMLP, providing ongoing support through monthly one-on-one meetings, program-wide office hours, Communities of Practice, roadmap tools, certification guidance, reporting support, and coordination with CMEI.

That support helps ensure Maryland program activities remain aligned with SMLP expectations and current technology outcomes — so every engagement across the state runs on the same structured framework rather than one facilitator's judgment.

IN PARTNERSHIP WITH

Impact summary

Current results supplied for Maryland SMLP / Maryland MADE 4.0 program reporting.

250
SMMs reached through outreach

83
Technology readiness assessments completed

190
Workers trained in smart manufacturing technology

The program's impact is visible through manufacturer engagements across Maryland. Technical assistance projects included the development of a technology and capacity roadmap that identified production bottlenecks and practical automation opportunities to support operational growth within the defense industry.

In another engagement, the program supported robotic welding training designed to help engineering teams improve repeatability and build internal automation capabilities — capacity that stays with the manufacturer after the project closes.

Together, these results show that Maryland MADE 4.0 is building more than awareness. It is building a smart manufacturing ecosystem — one supported by local leadership, CESMII TAFM guidance, structured Roadmap tools, and a practical pathway for manufacturers to modernize operations, strengthen workforce capability, and prepare for future growth.

> **"Maryland MADE 4.0 has given us a structured way to help manufacturers move from interest in smart manufacturing to meaningful action. By combining technology readiness surveys, hands-on demonstrations, technical assistance, and workforce training, we're helping manufacturers identify the right opportunities, reduce the uncertainty around technology adoption, and build the internal capabilities needed to sustain those investments long term."**
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> SARA KEITH, CENTER DIRECTOR, MARYLAND MEP

PROGRAM ACTIVITIES

- 60 SMMs engaged in pilots or demos
- 9 outreach events and webinars held
- 4 SM technology demonstration events
- 5 SM Roadmap assessments completed
- 3 SM Roadmap Professionals certified
- 8 technical assistance projects

See what's possible for your organization.

A CESMII Smart Manufacturing Roadmap aligns your people, processes and technology to accelerate results and minimize risk.

Get Started Today!

ABOUT CESMII

CESMII – the Smart Manufacturing Institute – has a total current investment commitment of $201M from Department of Energy funding and public/private partnership contributions, with a mandate to create a more competitive manufacturing environment in the US through advanced sensing, analytics, modeling, control, and platforms. CESMII is one of 17 Manufacturing USA institutes on this mission to increase manufacturing productivity, global competitiveness, and reinvestment by increasing energy productivity, improving economic performance and raising workforce capacity. For more information about CESMII, its history and Smart Manufacturing, visit cesmii.org.

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