



Case Study: National Smart Manufacturing Innovation – CESMII Smart Innovation Centers

Client/Organization:

CESMII – The Smart Manufacturing Institute (Funded by the U.S. Department of Energy)

Role:

Michael Maziarz, Director of Smart Manufacturing Innovation Centers

Overview

As Director of Smart Manufacturing Innovation Centers at CESMII, Michael Maziarz led a nationwide network of university, research, and industry partners dedicated to accelerating the adoption of Smart Manufacturing technologies across the U.S. industrial base.

This program was a cornerstone of CESMII’s national strategy—designed to democratize access to Industry 4.0 tools, foster innovation, and drive digital transformation for small and mid-sized manufacturers (SMMs).

The Challenge

U.S. manufacturers—especially SMMs—face significant barriers to adopting smart technologies due to limited resources, awareness, and access to digital infrastructure. The CESMII Innovation Centers were established to serve as regional hubs for:

- Demonstrating practical Smart Manufacturing solutions
- Providing hands-on workforce development and training
- Offering regional outreach and engagement for digital transformation

When Michael stepped into the leadership role, the program required stronger coordination, performance alignment, and strategic direction to meet national impact goals.

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Michael's Approach & Accomplishments

✓ Nationwide Program Leadership

- Managed and grew a national network of **Smart Manufacturing Innovation Centers (SMICs)** across key regions and industry sectors.
- Developed and standardized operational models to ensure consistency in outreach, impact measurement, and solution delivery.

✓ Strategic Alignment & Program Development

- Aligned SMIC objectives with **DOE-funded initiatives** and CESMII's national roadmap.
- Drove the **launch and integration of new centers** that addressed sector-specific challenges (e.g., aerospace, automotive, food & beverage).

✓ Industry & Academic Collaboration

- Built high-impact partnerships with **universities, research labs, OEMs, and technology providers** to create innovation pipelines.
- Facilitated cross-sector collaboration that brought real-world use cases into the hands of smaller manufacturers.

✓ Operational & Performance Optimization

- Instituted performance tracking and reporting systems to measure center output, engagement metrics, and technology adoption outcomes.
- Supported SMICs in developing customized **training programs, demonstrations, and pilot implementations** for local manufacturers.

✓ National Visibility & Ecosystem Impact

- Elevated the role of SMICs in CESMII's national ecosystem, making them a primary channel for workforce readiness and digital adoption.
- Contributed to the U.S. manufacturing innovation strategy by making Smart Manufacturing more **scalable, inclusive, and accessible**.

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The Results

- **Expanded national network** of operational Smart Innovation Centers
- **Increased awareness and adoption** of Smart Manufacturing among SMMs
- **Enhanced workforce training capacity** across regional hubs
- **Streamlined collaboration** between academia, government, and industry
- **Stronger program performance metrics** and reporting alignment with federal goals

SmartOpsUSA Connection

Michael's success leading CESMII's national network directly informs SMARTOpsUSA mission: enabling manufacturers—especially smaller operations—to unlock productivity and resilience through modern, data-driven operations.

SmartOpsUSA now builds on this national experience to deliver **hands-on consulting, training, and strategic planning** to manufacturers ready to take the next step in their Smart Manufacturing journey.

 **Ready to bring Smart Manufacturing to your factory floor?**
Contact SmartOpsUSA to learn how we can help you start or scale your digital transformation.

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