IMC Announces Fall Training Calendar for Central Pennsylvania Manufacturers

written by Lauri Moon | June 9, 2026

IMC Announces Fall Training Calendar for Central Pennsylvania Manufacturers

IMC has officially released its upcoming fall training calendar, offering a broad range of professional development opportunities designed to help Central Pennsylvania manufacturers strengthen their workforce, improve operations, and stay competitive.

Manufacturers across the region are encouraged to explore the full list of events at IMC Events Calendar

Training Opportunities for Every Role in Manufacturing

These opportunities reflect the diverse needs of today's manufacturing environment, with programs tailored to employees at every level – from frontline operators to supervisors and executives – to individuals on and off the plant floor. IMC's trainings support key functional areas including leadership, operations, safety, quality, compliance, human resources, and business growth.

Participants can choose from sessions such as:

- **Leadership & Workforce Development**
  Programs like *How to Give Effective Performance Reviews* help supervisors strengthen communication, develop their teams, and drive productivity on the plant floor.
- **Safety & Compliance**
  Courses such as *Create a Winning Safety Culture* and OSHA-focused training reinforce best practices, helping organizations move beyond compliance toward a culture of accountability and engagement.
- **Continuous Improvement & Lean Manufacturing**
  Lean training introduces proven tools to eliminate waste, streamline processes, and improve efficiency—key drivers of profitability and long-term growth.
- **Technology, AI & Cybersecurity**
  With sessions on AI applications in marketing and cybersecurity frameworks

like CMMC, IMC is equipping manufacturers to adapt to evolving digital demands.

- **Business Growth & Strategy**
  Workshops focused on marketing, sales, human resources, and operational strategy help companies position themselves for sustainable success in a rapidly changing marketplace.

This variety reflects IMC's mission to provide practical, real-world training that delivers measurable results across all aspects of manufacturing operations.

Supporting Central PA's Manufacturing Community

IMC has been serving manufacturers in Central Pennsylvania since 1988, offering hands-on training and resources that drive innovation, productivity, and growth. As part of the Pennsylvania Industrial Resource Center (IRC) Network and U.S. Manufacturing Extension Partnership (MEP) program, IMC connects companies with proven strategies and expertise to remain competitive in today's economy.

The fall training calendar continues that commitment—bringing relevant, timely topics to the region's manufacturers while addressing workforce development challenges and emerging industry trends.

Register Early—Seats Fill Quickly

Many of IMC's training sessions are offered in small-group formats to maximize interaction and learning outcomes. As a result, space is often limited and sessions can fill quickly.

Manufacturers are encouraged to review the full training schedule and **register early to secure their seats**.

 View and register for events: IMC Events Calendar

Why Your Manufacturing Firm Needs AI Agentic Systems — Now

written by admin | June 9, 2026

Modern manufacturing is facing a perfect storm: retiring experts, widening skill gaps, rising complexity, and increasing pressure for efficiency. AI agentic systems offer a practical, immediate path to protect your knowledge, empower your workforce, and future-proof your operations. Early adopters are already gaining a competitive edge — and the window to build private, organization-specific agents is closing fast.

Below are the **10 most compelling reasons** to begin your AI agent journey today. For additional insights, attend our April 24th Webinar.

10 Reasons to Adopt AI Agentic Systems

1. **Protect Your Proprietary Know-How**

As open-agent ecosystems expand, generic AI will shape industry norms. Building private agents now ensures your unique processes, methods, and tribal knowledge remain protected and don’t get diluted into public models.

2. **Capture Tacit Knowledge Before It’s Lost**

Retirements and turnover threaten decades of expertise. AI agents preserve critical insights, troubleshooting logic, and best practices that would otherwise disappear.

3. **Accelerate New-Hire Productivity**

Agentic systems act as on-demand mentors, giving new workers instant access to expert guidance and reducing ramp-up time.

4. **Reduce Training Costs and Skill Gaps**

AI agents deliver consistent, real-time instruction — lowering training hours, minimizing rework, and supporting upskilling without pulling senior staff off the floor.

5. **Strengthen Safety and Compliance**

Agents reinforce correct procedures, monitor for deviations, and provide step-by-step support to reduce risk and maintain regulatory alignment.

6. **Improve Process Consistency and Quality**

AI agents follow defined logic every time, reducing variability across shifts and helping teams hit higher first-pass yield.

7. **Boost Workforce Efficiency Without Adding Headcount**

Agents automate repetitive tasks, documentation, troubleshooting, and decision

support — freeing your people to focus on higher-value work.

8. **Increase Resilience Against Labor Shortages**

When staffing changes occur, AI agents maintain continuity, stability, and operational performance.

9. **Unlock Continuous Improvement at Scale**

Agents learn from every interaction, surfacing improvement opportunities and standardizing best practices across teams and facilities.

10. **Stay Competitive in a Rapidly Evolving Industry**

Manufacturers who adopt agentic systems now will outperform peers in agility, cost control, and workforce capability as AI becomes the new operational baseline.

Your Next Step

AI agentic systems are no longer experimental — they're becoming essential infrastructure. The manufacturers who act now will own their knowledge, strengthen their workforce, and build a durable competitive advantage.

Join us April 24th for our 10 Reasons to Adopt AI Agent Systems webinar.

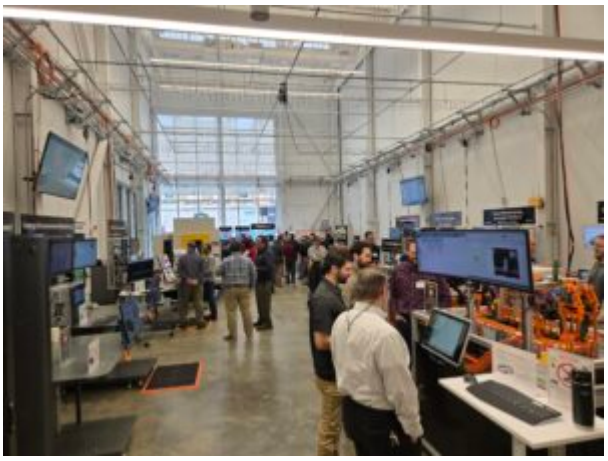
Download our 10 Reasons to Adopt AI Agentic Flyer

This article was created with assistance from Microsoft Copilot and refined by the IMC team.

IMC Joins CESMII Smart

Manufacturing Roadshow to Showcase Innovation Across Pennsylvania

written by Lauri Moon | June 9, 2026

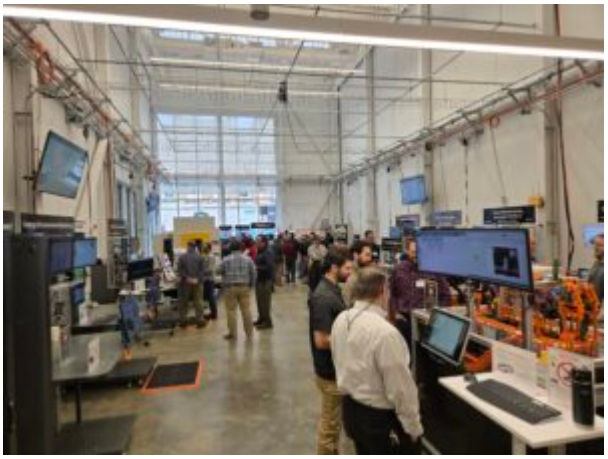


On December 11, 2025, the Innovative Manufacturers' Center (IMC) along with approximately 100 industry manufacturing professionals, attended the CESMII Smart Manufacturing Roadshow hosted by the Digital Foundry in New Kensington, PA, an event highlighting **the power of Smart Manufacturing** for small to large manufacturers across Pennsylvania.

Participants explored the latest technologies, heard real-world success stories, and learned how **Smart Manufacturing drives efficiency, growth, and competitiveness**. Industry leaders including JV Manufacturing, MSA Safety, Pulva Corporation, Zoll Medical Device Company, and Pittsburgh's iconic Mancini Bakery shared how assessing needs and applying Smart Manufacturing technologies helped them meet, and often **exceed, their operational goals**.

Experts from the Collaborative Ecosystems Smart Manufacturing Innovation Institute (CESMII) and other industry related representatives also outlined opportunities for manufacturers to assess their readiness and develop a customized Smart Manufacturing Roadmap with support from organizations like the IMC, Digital Foundry, and other CESMII-certified professionals.

IMC is proud to be home to one of only six Certified Smart Manufacturing Roadmap Professionals in Pennsylvania. Contact IMC Business Advisor, Rick Terry, to learn how Smart Manufacturing can benefit your operation or to schedule a consultation.



Happy Manufacturing Month!

written by Lauri Moon | June 9, 2026

MFG DAY

Celebrating Manufacturing: October Is Manufacturing Month & Friday Is National Manufacturing Day

Every October, manufacturers across the U.S. are spotlighted for their vital role in innovation, jobs, and regional growth. While *National Manufacturing Day* (this Friday) offers a special moment to rally attention to the sector, **Manufacturing Month** provides the entire span of October to highlight achievements, challenges, and opportunities across manufacturing.

At the **Innovative Manufacturers' Center (IMC)**, this observance resonates deeply. We partner with manufacturers in Central Pennsylvania to drive innovation, operational excellence, growth, and resiliency. As we mark this annual celebration, we want to reflect on why it matters — and how IMC helps regional manufacturers gain the competitive edge year-round.

Why Manufacturing Month / Day Matters

- **Raise awareness**: Many don't realize how central manufacturing is to local and national economies — to supply chains, innovation, skill development, and exports. October gives us a focused moment to tell that story.
- **Inspire future talent**: Highlighting manufacturing helps attract students, career-changers, and underrepresented groups toward high-skill roles in advanced manufacturing.
- **Encourage continuous improvement**: The cadence of awareness spurs companies to review processes, adopt new technologies, and revisit training investments.
- **Strengthen collaboration**: It offers a chance for regional partners (economic development, education, workforce, government) to align better with manufacturers' needs.

As a public-private partnership, IMC is deeply committed to ensuring Central Pennsylvania manufacturers don't just survive — they thrive.

IMC’s Role in Supporting Manufacturers During & Beyond October

1. Continuous Improvement & Operational Excellence

One of IMC’s core pillars is helping manufacturers optimize process flows, reduce waste, and unlock productivity gains. Our offerings include, but are not limited to:

- **Lean Manufacturing Level One Practitioner Certification**
- **Transformation and deployment of Lean Systems**
- **Problem Solving with Root Cause Analysis (RCA)**
- **Supply Chain Optimization**

These tools help manufacturers move from reactive firefighting to strategic, sustainable performance improvement — a perfect theme for Manufacturing Month.

2. Innovation & Technology Enablement

Staying ahead in 21st-century manufacturing means embracing new tools and approaches. IMC provides:

- **Advanced Manufacturing Technologies**
- **Digital transformation / SMART-PA Programs**

- **Clean Energy Manufacturing Consulting**
- **Technology Scouting and Innovation Systems**

These help local manufacturers explore smarter production, energy efficiency, and R&D-driven differentiation.

3. Business Growth, Sales & Marketing

Producing excellent goods is only half the battle — finding customers, scaling, and sustaining margins is equally critical. IMC assists with:

- **Sales development and marketing strategy**
- **Brand development**
- **Business continuity planning**
- **Export / international trade & compliance support**

By integrating growth strategies with operations, we help manufacturers translate capability into revenue and resilience.

4. People & Leadership Development

Advanced processes and technologies require not just investment — but skilled people. IMC offers training in:

- **HR best practices tailored to manufacturing**
- **Supervisor & leadership development**
- **Change management and culture building (e.g., "Winning Teams" approach)**
- **Safety, environmental compliance, and certification readiness**

Manufacturing Month shines a light on training — a chance for organizations to close skill gaps and empower their teams.

Ideas for Manufacturers to Leverage the Month

Here are a few ideas your operations or leadership teams could consider during October:

- Host a **shop floor open house** or virtual factory tour to show local schools, civic groups, or partners what modern manufacturing looks like.
- Run a **"continuous improvement blitz"** for a small but visible process (e.g., reduce setup time, streamline changeovers).
- Offer a **mini training or lunch-and-learn** (e.g. basic root cause analysis, 5S) to raise internal awareness of operational excellence.
- Conduct a **technology audit or pilot** — identify one small digital or automation upgrade you can trial before year's end.
- Use the month as a **talent recruitment window** — promote manufacturing careers, internships, apprenticeships, or job shadow days.

If you'd like help designing or executing any of these ideas, IMC is ready to assist!

What's Coming Up at IMC This October

Here's a snapshot of select upcoming training events you might find beneficial:

- **Manufacturing Your Way to a Pennsylvania Tax Credit** Webinar — October 8
- **Problem Solving with Root Cause Analysis** (Williamsport) — October 9

- **Problem Solving with Root Cause Analysis** (Altoona) — October 16
- **Strategic Succession Planning for Supervisors** — October 22
- **IMC & Tasseron Sensors PM Exchange** — October 23
- **OSHA 10-Hour Training** — October 29

These are just a few of the offerings scheduled throughout the month. Click here to visit the full schedule of IMC's upcoming training and events.

A Call to Action

As we observe National Manufacturing Day and celebrate Manufacturing Month, we encourage you — whether as a manufacturing leader, employee, or community stakeholder — to reflect on how we can push the boundaries of what "manufacturing" means today.

Ask yourself:

- What process or system could we challenge or improve?
- Which new technology or automation could we pilot?
- What training does our workforce need to stay competitive?
- How can we better tell our manufacturing story to partners, young talent, or local communities?

If you'd like to meet with IMC to ideate, plan, or initiate any initiatives tied to Manufacturing Month (or beyond), we're here as your partner. Let's use this October momentum to build stronger, more innovative, and more resilient manufacturing in Central Pennsylvania. Contact IMC today by emailing info@imcpa.com or calling 800-326-9467.

IMC Business Advisor, Rick Terry, Earns Smart Manufacturing Acceleration Roadmap Professional Certification

written by Lauri Moon | June 9, 2026

The Innovative Manufacturers Center (IMC) is proud to announce that Frederick (Rick) Terry, Business Advisor, has successfully earned the CESMII Smart Manufacturing Acceleration Roadmap Professional Certification from Rensselaer at Work, a division of Rensselaer Polytechnic Institute.

The CESMII developed certification recognizes professionals who demonstrate advanced knowledge and practical skills in designing and implementing customizable strategies that accelerate digital transformation within manufacturing operations. Through the program, participants learn to align emerging technologies with business objectives, streamline production processes, and drive innovation across manufacturing systems.

“Rick’s achievement reflects not only a personal commitment to professional growth, but also IMC’s dedication to advancing modern manufacturing practices,” said

Dennis Gilbert, President at IMC. “This expertise will further strengthen IMC’s ability to deliver smarter, more efficient, and more resilient solutions for our partners and clients.”

Rensselaer at Work is recognized for its focus on equipping professionals with future-ready skills in engineering, science, and technology management. The Smart Manufacturing Acceleration Roadmap Certification is designed for leaders who are driving transformation in an increasingly data-driven and competitive industry.

Terry will apply this certification to enhance IMC’s initiatives in process optimization, data integration, automation strategies, and digital innovation, helping position the organization and our manufacturing clients at the forefront of smart manufacturing.

Contact Rick Terry at rickt@imcpa.com or (570) 329-3200 and discover how this certification can help your company accelerate your digital transformation!

Who Owns the Ideas? AI, Intellectual Property, and the Future of Manufacturing

written by Tricia Carl | June 9, 2026

In today's world of manufacturing, artificial intelligence (AI) is no longer just the future—It's a current tool being used to design products, optimize supply chains, predict maintenance needs, and even generate new ideas. But as AI becomes more integrated into manufacturing, one question becomes critical: Who owns the ideas created by AI?

AI as a "Co-Inventor"

Manufacturers using AI to assist in new product design or R&D may wonder whether the results generated can be protected with patents, copyrights, or trade secrets. And to make the issue even murkier: Intellectual property laws weren't built for machines that "think."

What This Means

Patents typically require a human inventor.

Copyrights require a human author.

And trade secrets require measures to keep something confidential—but what happens when AI develops something "new" without direct human involvement?

Who owns the design? If your AI system generates an innovative design, can you patent it? If AI writes a process manual or creates a visual model, can you copyright it?

Currently, in most jurisdictions, IP rights apply only to human creators. AI itself cannot own property rights or hold legal rights—at least not yet.

Practical Implications for Manufacturers

Manufacturers can take practical steps to manage risk and capture value:

- Clarify roles: When using AI tools from vendors or cloud platforms, check who owns the results—some terms of service may give ownership to the provider.
- Human oversight: Ensure there's a human in the loop who can be clearly

identified as the contributor or author, especially for patentable ideas.
- Data Protection: Since AI relies heavily on training data, be cautious about feeding in sensitive or proprietary information that could become part of a shared model.
- Auditability: Keep clear records of how AI systems are used in the innovation process to support any future IP claims.

Looking Ahead

This area is evolving fast. Courts and lawmakers do not have a definitive answer on whether AI-generated work is protected under traditional IP laws. For now, manufacturers should see AI as a powerful tool, but it should be carefully managed when it comes to IP rights.

Disclaimer: This content is for informational purposes only and does not constitute legal advice. If you have questions about intellectual property or the use of AI in your business, consult a qualified attorney.

Written by Tricia Carl, Business Advisor, Innovative Manufacturers Center (IMC)

Manufacturers Can Receive up to $500K for Facility and Equipment Upgrades

written by Lauri Moon | June 9, 2026

A new federal initiative is creating powerful opportunities for Pennsylvania manufacturers to modernize their operations, reduce emissions, and strengthen competitiveness. Through the Reducing Industrial Sector Emissions in Pennsylvania (RISE PA) program, small and mid-sized manufacturers may be eligible for **grants of up to $500,000** to cover **50% of total project costs**, including equipment, labor, and related costs. The application process for these funds requires a no-cost Energy Assessment by a qualified Assessor, provided by IMC**.**

Funded by the U.S. Environmental Protection Agency's Climate Pollution Reduction Grants, RISE PA is designed to help manufacturers reduce greenhouse gas emissions while improving energy efficiency, and operational performance. With $40 million allocated specifically to support manufacturers in Pennsylvania, the program will fund high-impact projects that advance sustainable manufacturing practices and drive long-term cost savings.

Who's Eligible?
To qualify, manufacturers must operate active facilities in Pennsylvania with fewer than 500 employees. Projects must aim to reduce industrial emissions through strategies such as:

- Energy efficiency improvements
- Electrification of systems and processes
- Integration of low-carbon or renewable fuels
- On-site renewable energy installations

- Carbon capture technologies
- Reduction of fugitive or process-related emissions

What's Covered?
Projects may focus on upgrading core energy systems such as boilers, compressed air, HVAC, motors, lighting, process heating, or refrigeration. Waste reduction and resource efficiency initiatives are also eligible—providing an added path to operational improvements and cost reductions.

Why Act Now?
This is a **competitive grant program**, and funding will be awarded to applicants with the most compelling, impactful projects. A required first step is the completion of a qualified site assessment to identify energy savings and emissions reduction opportunities. These assessments also provide valuable insights that can help strengthen your grant application and prioritize investments that offer the greatest return.

Benefits of Participation

- Up to $500,000 in funding to support capital improvements
- Reduced energy and operational costs
- Enhanced environmental performance and compliance
- Increased market competitiveness and supply chain appeal
- Accelerated progress toward sustainability and carbon reduction goals

This grant opportunity comes at a critical time for manufacturers facing rising energy costs, increasing regulatory pressure, and growing customer demand for sustainable practices. RISE PA funding can help de-risk your next capital investment and ensure that your facility is equipped for the future of manufacturing.

Get Started
The path to funding starts with a site-level assessment and strategic planning. Now is the time to identify potential projects and prepare for a strong application.

Don't leave money on the table.
If you're planning facility upgrades, considering equipment modernization, or aiming to reduce your carbon footprint, this is the time to act.

For more details on how to qualify and prepare for the RISE PA Grant Program, contact IMC today at info@imcpa.com or (570) 329-3200.

What Is Lean Selling—and Why Does It Matter?

written by admin | June 9, 2026

Many manufacturers invest heavily in improving operations, reducing waste, and increasing efficiency on the production floor through lean manufacturing principles. But when it comes to sales, it's not uncommon for teams to fall back on instinct, charisma, or trial and error. That's where Lean Selling comes in.

Lean Selling applies the discipline of lean thinking to the sales process. It's about working smarter, not harder focusing on qualified opportunities, reducing wasted effort, and closing more deals by following a clear, repeatable system.

One of the key concepts behind Lean Selling is understanding the "Buyer's System." Most buyers have their own process for gathering information, comparing options, and delaying decisions. Without a structured approach, sellers often fall into the trap of giving away their expertise for free, chasing prospects who will never buy, or submitting proposals that go nowhere.

Lean Selling helps sales professionals identify real opportunities early in the process. By asking better questions and uncovering "compelling reasons to buy,"

sellers can determine if a prospect is a good fit—and move forward with greater confidence. It also involves getting clarity on budgets and decision-making processes before investing significant time and resources into a potential deal.

Another core idea is consistency. Sales teams that use a documented, systematic process can track what's working, learn from both wins and losses, and continually improve over time—just like a lean production line. This shift from "winging it" to working with a reliable sales framework leads to more predictable outcomes and less frustration.

Ultimately, Lean Selling empowers teams to stop relying on a few unpredictable buyers and start building a more sustainable pipeline. It's about eliminating waste, maximizing value, and aligning the sales function with the same efficiency-focused mindset that drives success in operations.

Want to learn how to implement Lean Selling within your facility? Register for IMC's upcoming Lean Selling – Having A Systematic Approach to Sales versus "Winging it"!

Corrective Action: Turning Tough Conversations into Positive Change

written by admin | June 9, 2026

In every manufacturing environment, performance issues and behavior problems inevitably arise. The question isn't whether challenges will occur, it's how supervisors and HR professionals choose to respond. That's where corrective action comes in.

Corrective action is more than just enforcing rules or issuing warnings. Done well, it's a structured, thoughtful process that helps employees understand expectations, correct course when necessary, and ultimately contribute more successfully to the team. When applied with empathy, consistency, and clarity, corrective action becomes a powerful tool for building trust and sustaining a high-performing workplace culture.

But too often, policies get lost in translation. Supervisors may struggle to apply guidelines fairly, conversations feel awkward or confrontational, and mixed messages from leadership create confusion. That's why many organizations are rethinking how they approach discipline—not as a punitive measure, but as a leadership skill grounded in emotional intelligence, clear communication, and organizational alignment.

HR professionals in manufacturing play a critical role in guiding this shift. Whether it's coaching a supervisor through a difficult conversation, aligning leadership on policy interpretation, or creating a culture where fairness and accountability go hand in hand, your influence matters. And like any skill, effective corrective action requires practice, support, and ongoing development.

If you're ready to sharpen your approach and better support your team, we've developed a training series designed specifically for HR leaders and frontline managers in manufacturing.

Want more insights and practical tools? Register for IMC's 4-part weekly webinar series on Corrective Action from September 24 through October 15. Click here to secure your spot!

The Rise of Artificial Intelligence in U.S. Manufacturing

written by Lauri Moon | June 9, 2026

From predictive maintenance to generative design, artificial intelligence (AI) is transforming how manufacturers improve efficiency, enhance quality, and remain competitive in a rapidly evolving global marketplace. While some manufacturers are already utilizing AI in their operations, others face barriers to implementation. In this infographic, discover the impact of AI on manufacturing today and in the future, and learn how IMC, as part of the MEP National Network, connects manufacturers with expert guidance, hands-on support, and access to cutting-edge AI solutions tailored to their needs.

The Rise of Artificial Intelligence (AI) in U.S. Manufacturing

EXPLORING THE IMPACT OF AI ON MANUFACTURING TODAY AND TOMORROW

AI in manufacturing refers to the use of intelligent algorithms and machine learning to *analyze* data, *optimize* operations, and *support* decision-making across the factory floor.

From predictive maintenance to generative design, AI transforms how manufacturers boost efficiency, enhance quality, and stay competitive in a rapidly evolving global marketplace.

Current AI Adoption in Manufacturing Operations

U.S. Manufacturers are already using AI across their organizations. It is helping to reduce costs, improve decision making, and enhance visibility with complex manufacturing processes.

46% of manufacturers are using AI tools such as chatbots in manufacturing operations.[1]

MORE THAN 80% of manufacturers said they expect to increase their AI use in the next 2 years.[1]

Overcoming Barriers to AI in U.S. Manufacturing[2]

While AI offers transformative potential, many manufacturers face common hurdles when it comes to implementation. Understanding these challenges is key to building successful, scalable AI strategies.

- *Data quality and availability*
- *High initial costs*
- *Skills gaps/ workforce readiness*
- *Data privacy and cybersecurity risks*
- *Integration with legacy systems*

AI Technologies Powering U.S. Manufacturing

These AI technologies are powering the next generation of smarter, faster, and more resilient U.S. manufacturing. From predicting equipment failures to enabling real-time decision-making, each plays a critical role on the factory floor.

Machine Learning (ML)

Processes massive streams of data to detect patterns, predict failures, and optimize operations faster than a human can.

USE CASES

Predictive Maintenance: Analyzes sensor data to predict equipment failures before they happen, minimizing downtime.

Quality Control: Detects subtle defects or anomalies in products through pattern recognition.

Demand Forecasting: Uses historical data to predict future inventory and production needs accurately.

AI-Powered Robotics

Intelligent machines that don't just follow preprogrammed instructions, they learn from experience. With AI, robots adapt to changing conditions, work safely with people, and handle complex tasks with precision.

USE CASES

Smart Assembly: AI enables robots to adapt to variable parts or product types, improving accuracy and flexibility on the line.

Collaborative Robots (Cobots): AI allows cobots to detect human presence, adjust force or behavior, and safely work side by side with people.

Autonomous Material Handling: AI-driven robots navigate factory floors using computer vision and path optimization algorithms to avoid obstacles and optimize delivery routes.

AI VS. AUTOMATION

Automation follows pre-programmed rules

AI learns, adapts, and improves decisions over time

Computer Vision and Image Recognition

AI-enabled cameras inspect products, monitor safety, and track inventory with unmatched speed and accuracy across the production floor.

USE CASES

Inspection and Defect Detection: Cameras and algorithms quickly inspect products for defects or inconsistencies that human eyes might miss.

Inventory Management: Automated visual inventory counts reduce human error and improve accuracy.

Safety Monitoring: Monitors production floors to detect safety hazards or compliance issues in real time.

Natural Language Processing (NLP)

From voice-activated controls to AI assistants, NLP allows workers to interact directly with machines using everyday language, improving speed and accessibility.

USE CASES

Voice-controlled Machinery: Enables hands-free machine control, reducing manual intervention and increasing safety.

Document Management: Automatically extracts critical data from manuals, quality reports, and safety documentation.

Chatbots and Virtual Assistants: Assists workers with immediate troubleshooting, training, and support through natural language interactions.

Predictive Analytics

AI turns data into insight, helping manufacturers anticipate disruptions, optimize production and make better decisions without hesitation.

USE CASES

Supply Chain Optimization: Uses data analytics to predict supply chain disruptions, enabling proactive risk management.

Resource Management: Predicts energy usage and raw material requirements and optimizes their allocation.

Production Scheduling: Accurately predicts optimal production schedules to maximize efficiency.

Digital Twins

Digital twins simulate equipment and systems using AI, allowing for real-time testing, predictive maintenance, and continuous improvement without physical trial and error.[3]

USE CASES

Process Simulation: Creates digital replicas of physical equipment or processes, enabling virtual testing and optimization.

Lifecycle Management: Simulates wear and tear or potential failures of machines, helping plan preventive actions.

Product Design and Customization: Accelerates development by virtually testing design modifications before physical implementation.

Fueling the Future: Why Manufacturers are Investing in AI[4]

72%	Reduce costs and improve operational efficiency
51%	Enhance operational visibility and responsiveness
41%	Improve process optimization and control
22%	Improve quality
21%	Create sustained competitive advantage
19%	Advance asset reliability
14%	Increase speed to market
11%	Boost customer experience

Putting AI to Work: Where Manufacturers are Deploying AI in their Operations[4]

39%	Manufacturing and production
33%	Inventory management
24%	Quality operations
24%	Research and development
21%	Information technology (IT) / Operational technology (OT)
17%	Equipment maintenance / Installation
11%	Supply chain
11%	Product design

Leveraging AI Today: AI's Role Across Factory Floors[4]

54%	Process improvement
54%	Preventative / Predictive maintenance
50%	Productivity and cost reduction
49%	Quality improvement
41%	Automated internal performance metrics and dashboards
40%	Production planning
32%	Plant floor internet of things analysis
24%	Robotics

How the MEP National Network™ Helps

The MEP National Network connects manufacturers with expert guidance, hands-on support, and access to cutting-edge AI solutions tailored to their needs. From strategy to implementation, MEP Centers help manufacturers unlock the power of AI to boost competitiveness and growth.

MEP CENTERS PROVIDE:

- AI-READINESS ASSESSMENTS
- TRAINING RESOURCES
- PROCESS IMPROVEMENT
- IMPLEMENTATION PLANNING AND SUPPORT
- BUSINESS PLANNING

Across the country, manufacturers are partnering with the MEP National Network™ to bring AI solutions to life. These real-world examples show how manufacturers are using AI to solve challenges, increase efficiency, and drive measurable results.

Georgia Manufacturing Extension Partnership (GaMEP) helped CJB Industries improve efficiency, quality, and cost savings through the implementation of AI. As CJB Industries grew, manual processes for handling custom batch sheets became a major bottleneck. GaMEP stepped in to help the company digitize operations and explore emerging technologies. They guided CJB through data visualization and real-time analysis tools and then introduced them to an AI startup that implemented generative AI to automate batch sheet processing. This resulted in significant monthly savings through better preventative maintenance, a boost in production capacity, and a reduction in the cost of non-conformance.

Manufacturing & Technology Resource Consortium (MTRC), part of the **New York MEP,** worked with *zBeats* to develop the first cloud-based, AI-enabled electrocardiogram (ECG) analysis platform. *zBeats* aimed to reduce the cost and complexity of traditional ECG analysis software while enabling real-time cardiac monitoring. This solution allowed zBeats to deliver scalable, real-time health insights while lowering long-term maintenance costs.

TechSolve, part of the **Ohio MEP**, provided solutions to Magellan Aerospace, Middletown, Inc. which replaced paper-based systems with a digital production dashboard and real-time data tracking. The transformation improved operational visibility, reduced rework, and streamlined quality control. By integrating connected digital systems, the company not only enhanced current performance but also established the critical data infrastructure needed to support future AI applications, such as predictive analytics and process optimization.

The Future of AI in Manufacturing

55% of manufacturers see AI as a ***game-changing technology***.[4]

78% ***of manufacturers*** *expect to increase investments in AI over the next two years.*[4]

AI Isn't Replacing People — It's Transforming How They Work

As manufacturers adopt AI, new roles are emerging that blend traditional manufacturing knowledge with digital skills. American workers will need new skills ranging from robotics operation and data analysis to interpreting AI-generated insights and integrating and managing smart systems.[5]

Investing in training today ensures U.S. manufacturers stay competitive tomorrow. The MEP National Network offers an extensive range of workforce development services and resources that address every stage of the employee lifecycle.

CONTACT IMC TO GET STARTED WWW.IMCPA.COM | 1-800-326-9467 | INFO@IMCPA.COM

MEP National Network™ IMC

1. https://manufacturingleadershipcouncil.com/manufacturers-see-ai-as-a-game-changer-as-they-ramp-up-investments-30826/?stream=ml-journal
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