Advancing AI for Manufacturing through Public Private Partnerships

Rob Ivester, May 6, 2026

An interagency team building partnerships with U.S. industry and academia

Advanced Manufacturing Creates

ECONOMIC COMPETITIVENESS

INNOVATIVE PRODUCTS IN THE MARKETPLACE

NATIONAL SECURITY

AGILE, COST-EFFECTIVE MANUFACTURING PROCESSES

ENERGY SECURITY

BUILDING A STRONG FUTURE

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National Needs: Invented Here, Made Here

- U.S. leads the world in innovation and inventions.
- Institutes were created to help ensure these inventions get out of the labs and turned into products **manufactured in the U.S.** – instead of other countries.

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About Manufacturing USA

VISION: Securing U.S. Global Leadership in Advanced Manufacturing

MISSION: Connecting people, ideas, and technology to:

- Solve industry-relevant advanced manufacturing challenges
- Enhance industrial competitiveness and economic growth
- Strengthen our economic and national security

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Strategic Goals

GOAL 1

Increase the competitiveness of U.S. manufacturing

GOAL 2

Facilitate the transition of innovative technologies into scalable, cost-effective, and high-performing domestic manufacturing capabilities

GOAL 3

Accelerate the development of an advanced manufacturing workforce

GOAL 4

Promote a network of institutes that build long-term support for and from their communities

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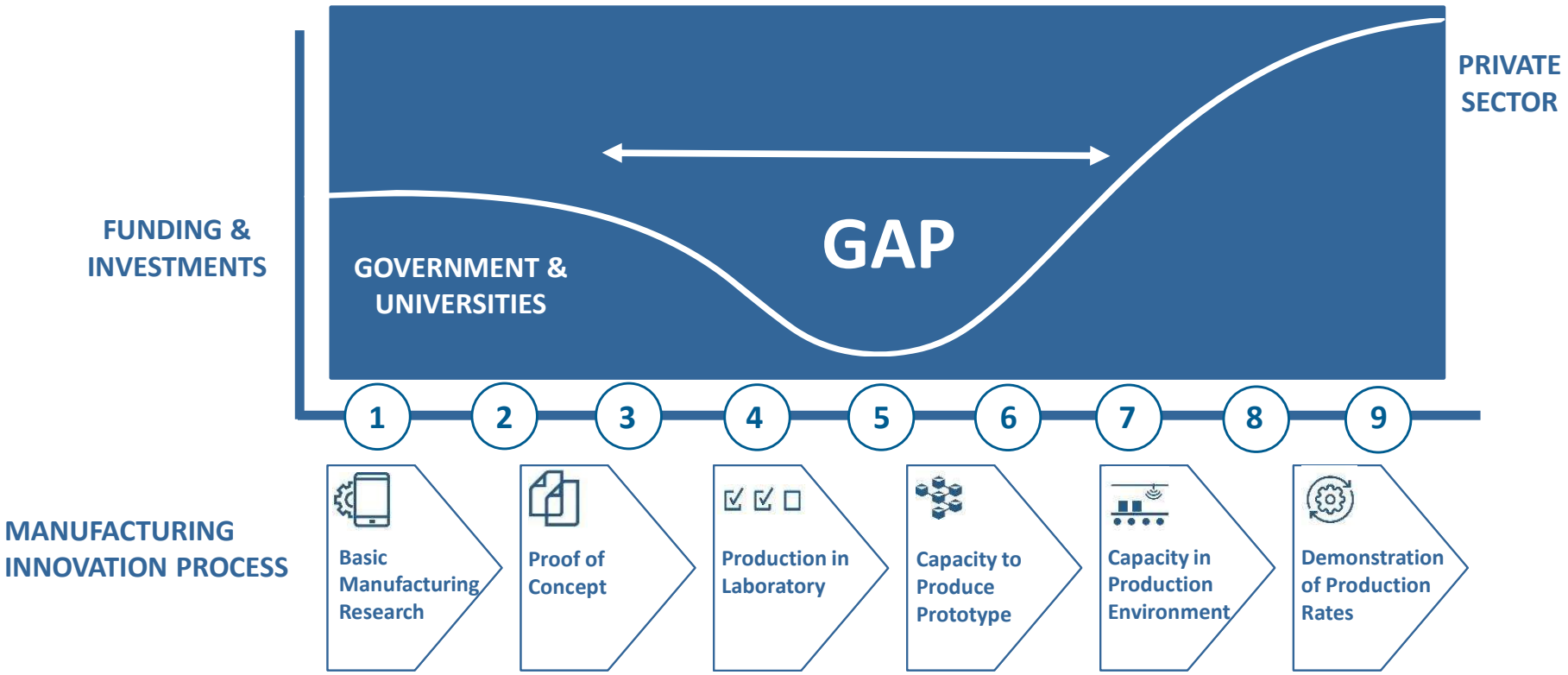
Manufacturing USA Purpose



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National Partners: An All-of-Government Approach

17 Institutes Members in **50 States + Puerto Rico**

9 Partner Federal Agencies

DOC sponsors 1 Institute Serves as **National Program Office**

DOE sponsors 7 Institutes

DOD sponsors 8 Institutes

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Manufacturing USA Network: 17 Institutes

ELECTRONICS

AIM Photonics — Integrated Photonics
Albany, NY
Rochester, NY

NextFlex — Flexible Hybrid Electronics
San Jose, CA

PowerAmerica — Wide Bandgap Semiconductors
Raleigh, NC

MATERIALS

AFFOA — Advanced Fibers and Textiles
Cambridge, MA

IACMI — The Composites Institute — Advanced Composites
Knoxville, TN

LIFT — The National Advanced Materials and Manufacturing Innovation Institute — Materials
Detroit, MI

REMADE Institute — Sustainable Manufacturing
Rochester, NY

DIGITAL/AUTOMATION

America Makes — Additive Manufacturing
Youngstown, OH
El Paso, TX

ARM Institute — Advanced Robotics
Pittsburgh, PA

CESMII — The Smart Manufacturing Institute — Smart Manufacturing
Los Angeles, CA

CyManII — the cybersecurity manufacturing innovation institute — Cybersecurity in Manufacturing
San Antonio, TX

MxD — The Digital Manufacturing & Cybersecurity Institute — Digital Manufacturing
Chicago, IL

BIOMANUFACTURING

biofabusa — Regenerative Manufacturing
Manchester, NH

BioMADE — Bioindustrial Manufacturing
St. Paul, MN

NIIMBL — Biopharmaceutical Manufacturing
Newark, DE

ENERGY/PROCESSES

EPIC — Electrified Processes for Industrial eXCellence — Electrified Industrial Processes
Tempe, AZ

RAPID — Transforming Process Industries — Modular Chemical Process Intensification
New York, NY

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AI for Resilient Manufacturing Institute Competition

- $70M anticipated funding over 5-7 years, with potential for renewal
- Minimum of 1:1 non-federal co-investment required by statute
- Was open to all non-federal entities
- Applicants were encouraged to form consortia to submit proposals

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Together We are Securing America's Manufacturing Future

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Get involved: ManufacturingUSA.com @MFGUSA MFGUSA

Questions?

Manufacturing USA Network

2023 Impacts

Collaborate on **920+** major applied research and development projects

Engage **150,700+** people with workforce knowledge and skills in advanced

Work with **2,900+** Member Organizations

Invest **$539.9M** in these activities from state, industry, and federal funds

2023 Impacts

920+ major applied research and development projects

150,700+ people with workforce knowledge and skills in advanced manufacturing

2,900+ Member Organizations

$539.9M in these activities from state, industry, and federal funds

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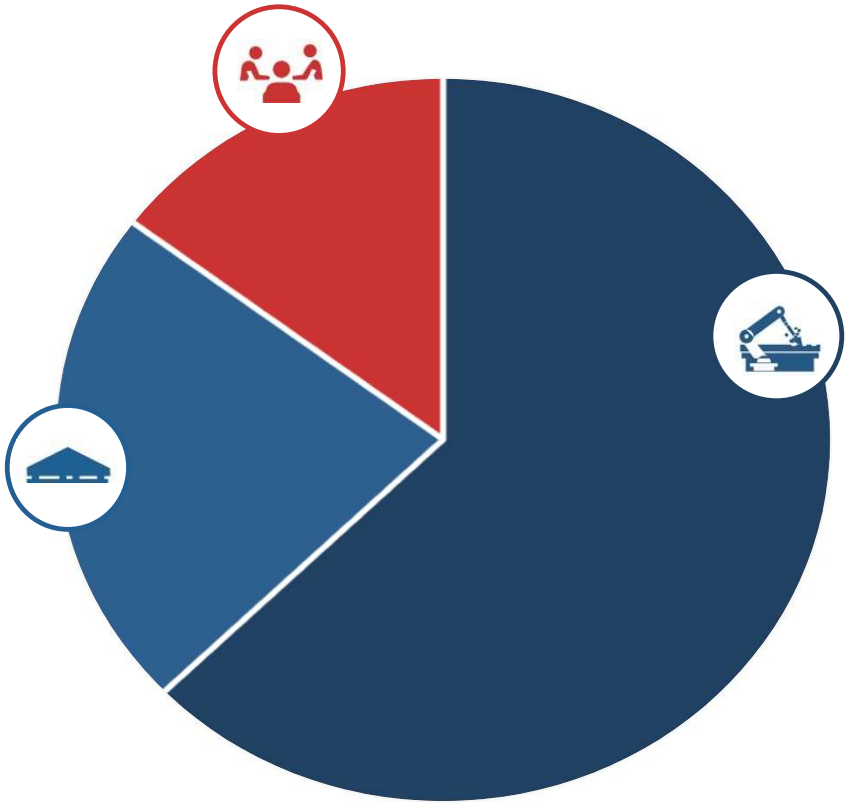
Our efforts help ensure **what's invented here is made here by a skilled American workforce.**

Manufacturing USA Network: 2900+ Member Organizations



62% Manufacturing Firms

73% are small and medium-sized

22% Community Colleges, Major Research Universities

16% State and Local Economic Development Entities

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P(2 Updated 2023 number per Dr. Jones
Pollard, Shelly M. (Fed), 10/7/2024

P(4 [@Jones, Christina M. (Fed)] Please confirm the updated talking points
Pollard, Shelly M. (Fed), 10/7/2024

Workforce Development

Developing Programs that **Increase the U.S. Manufacturing Workforce**

Training the Next Generation Workforce for **Innovative and Smart Manufacturing Jobs**

Creating Advanced Manufacturing **Jobs**

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How Can Manufacturing USA Help You?

If you are a…

Company

- Access to state-of-the-art equipment and facilities
- Tiered membership and benefit options
- Pre-competitive collaboration between member organizations
- Ownership of intellectual property
- Collaborate on advanced manufacturing education and workforce development

Federal Laboratory

- Better understanding of industrial challenges
- Collaborate on projects with industry and academia
- Access to state-of-the-art facilities

University/College

- Access to funding for applied research
- Involvement in applied research as well as education and workforce training programs
- Hands-on training and work-based learning opportunities for students of any age
- Support to develop curricula that align with on-demand careers and skills

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NIST OAM Program Office Role

Convene, Coordinate, Support Manufacturing USA

Public Service Award Funding

Cross-network coordination, including new Manufacturing USA Council

Advanced Manufacturing Education and Workforce Development

Shared resources and services

Triennial Strategic Plan + Annual Report to Congress

Information to the public, including ManufacturingUSA.com

NIST-Sponsored Manufacturing USA Institutes

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MFG USA: Building Advanced Manufacturing Ecosystems

1. What and where are the capabilities needed for key objectives?

2. How can we build on existing capabilities to strengthen impact?

3. How can we integrate components to create new, shared capabilities?

4. Where are the gaps, and how do we address these as an integrated ecosystem?

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