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For Open Publication

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Department of Defense
OFFICE OF PREPUBLICATION AND SECURITY REVIEW

Workforce Development and the Manufacturing USA Institutes

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Office of the Deputy Assistant Secretary of
Defense for Manufacturing and Industrial
Base Policy

The Network



Since Launching in 2012:

- \$1B+ Federal; \$2B+ non-Federal
- 1,300+ companies, universities, and non-profits involved
- 46 states represented*



Additive Manufacturing
Youngstown, OH



Robotics Manufacturing
Pittsburgh, PA



Integrated Photonics
Albany, NY



Recycling Materials
Rochester, NY



Tissue Biofabrication
Manchester, NH



Digital Manufacturing and Design
Chicago, IL



Clean Energy
Los Angeles, CA

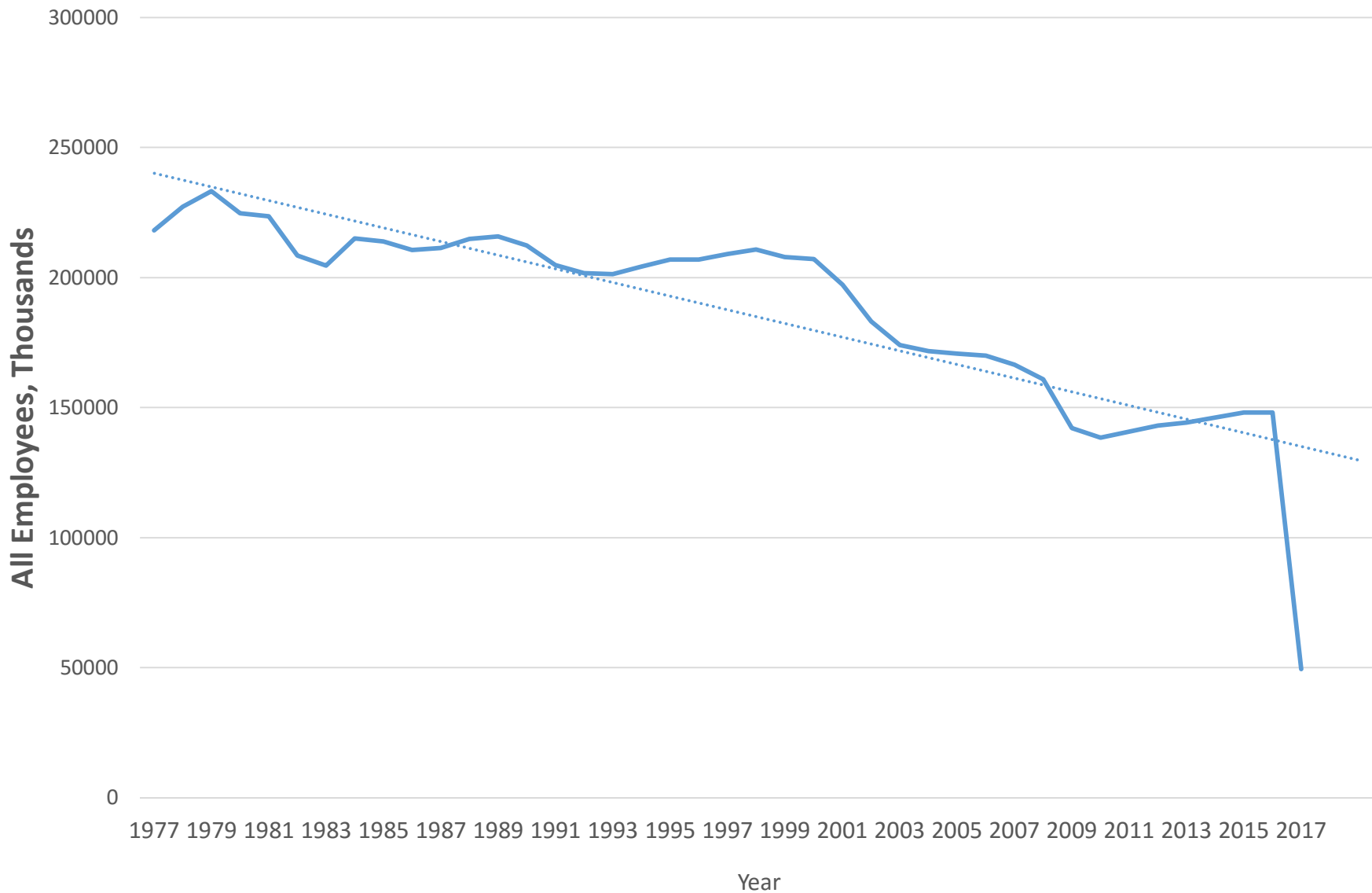


DOD	8 Institutes
DOE	5 Institutes
DOC	1 Institute

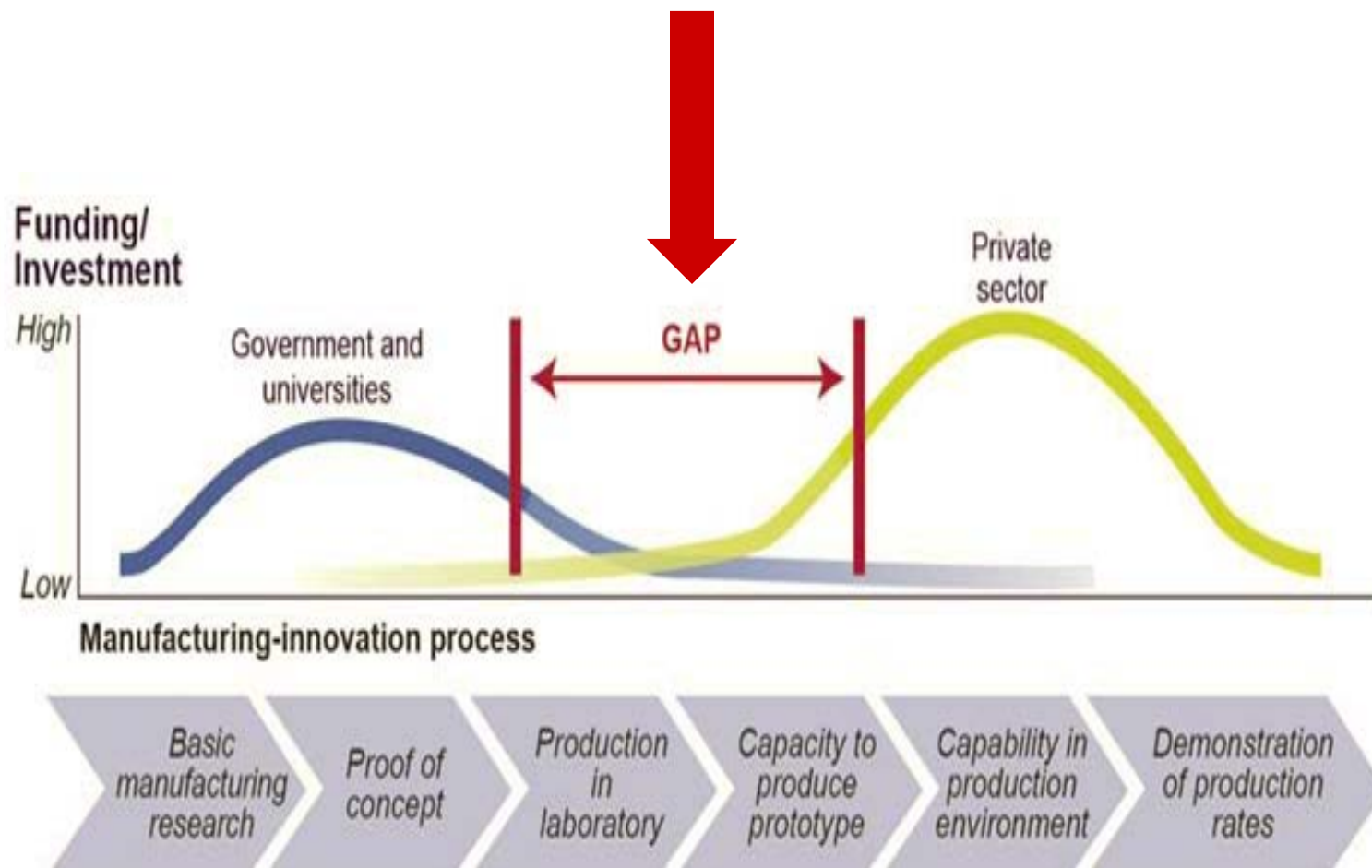


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The Challenge



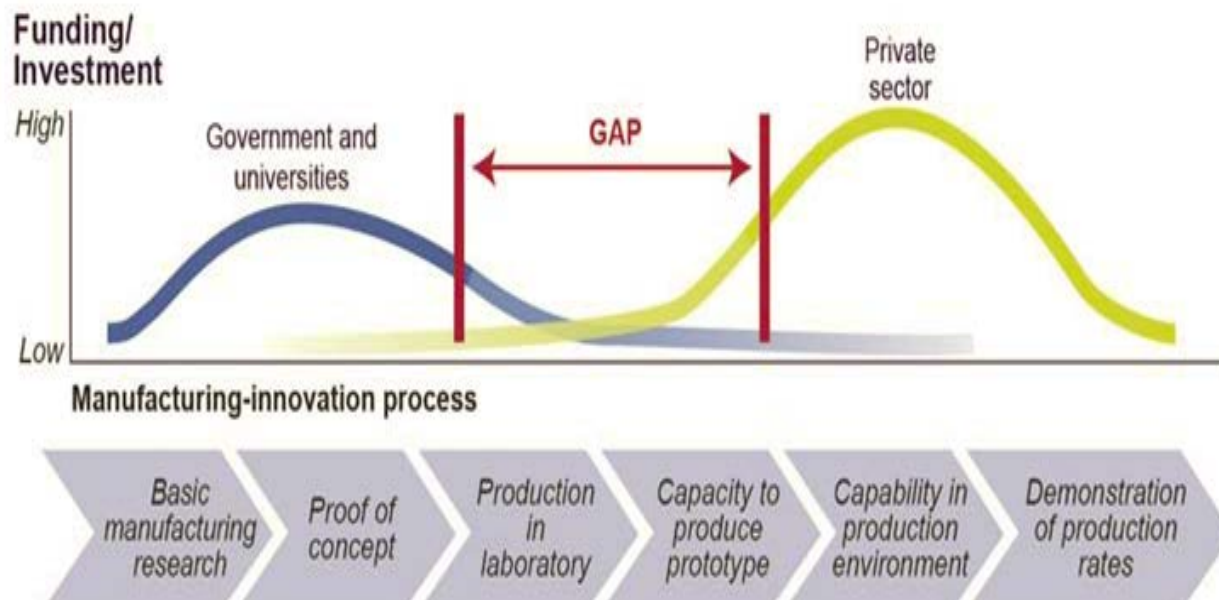
The Challenge



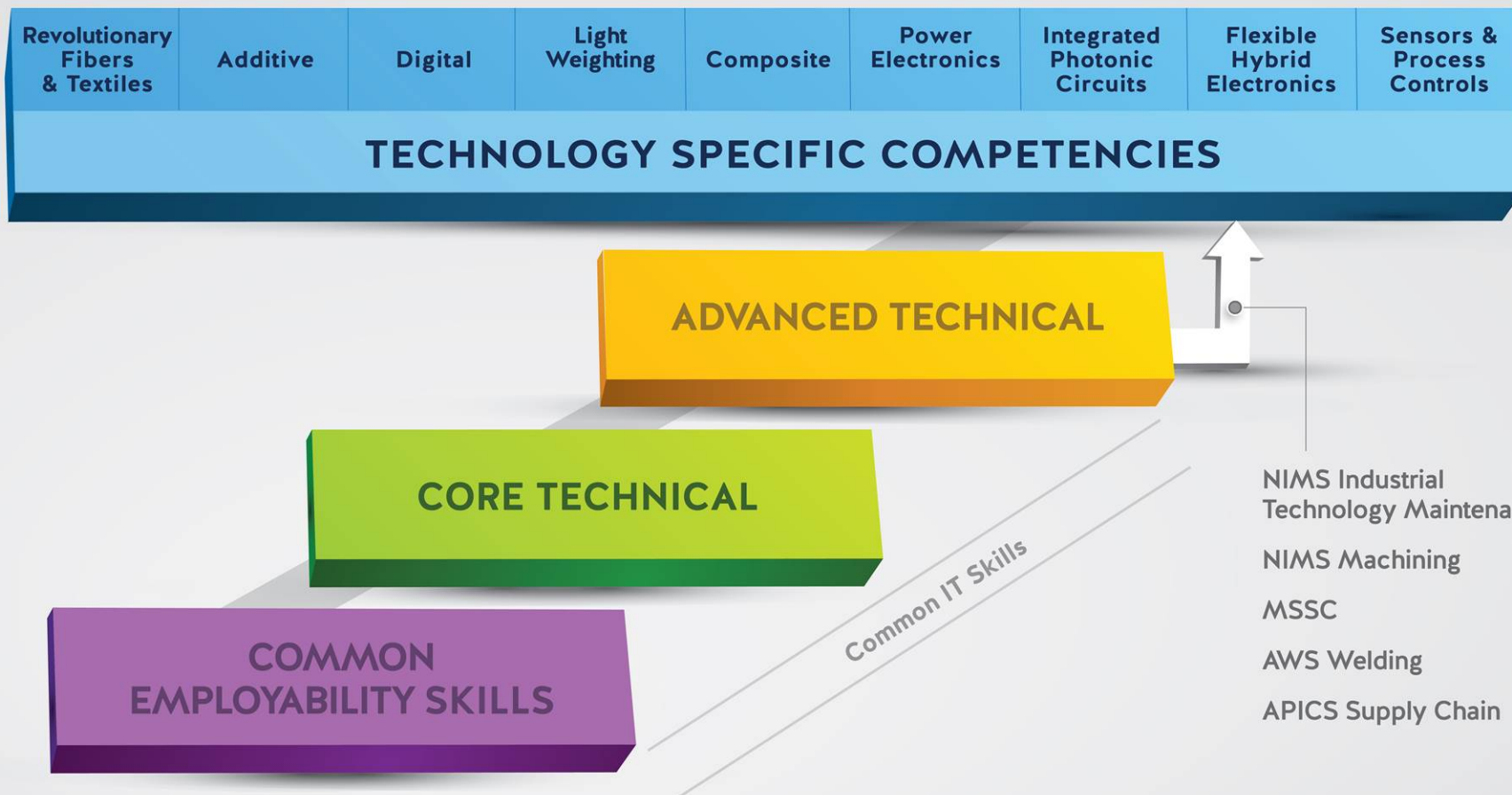
The Challenge



The Goal



Multi-Skilled Technician Competency Model



Multi-Skilled Technician Competency Model



Multi-Skilled Technician Competency Model



COMMON IT SKILLS

IT Support
Information Security
Programming, Development,
Engineering
Software Testing
& Quality Assurance
Infrastructure Administration
Strategic Planning
& Business Management
Information Management Analytics

COMMON EMPLOYABILITY SKILLS

PERSONAL SKILLS

Integrity • Initiative
Dependability
Reliability • Adaptability
Professionalism

WORKPLACE SKILLS

Planning & Organization
Problem Solving • Decision Making
Business Fundamentals
Customer Focus
Working with Tools
& Technology

APPLIED KNOWLEDGE

Reading • Math
Writing • Science
Critical Thinking
Technology

PEOPLE SKILLS

Teamwork
Communication
Respect

Multi-Skilled Technician Competency Model



CORE TECHNICAL

Safety
Measurement
Quality
Control
Materials
Processes
Machine Tools
Production

Packaging
Maintenance
Electrical
Pneumatic
Hydraulic
Machine Control
High Vacuum
Laser

Multi-Skilled Technician Competency Model



**ADVANCED
TECHNICAL**

NIMS Industrial Technology Maintenance

NIMS Machining

MSSC

AWS Welding

APICS Supply Chain

Multi-Skilled Technician Competency Model



TECHNOLOGY SPECIFIC COMPETENCIES

Revolutionary Fibers & Textiles

Additive

Digital

Light Weighting

Composite

Power Electronics

Integrated Photonic Circuits

Flexible Hybrid Electronics

Sensors & Process Controls

Veteran Transition Programs



America Makes

National Additive Manufacturing Innovation Institute



ADVANCED MANUFACTURING
CERTIFICATION PROGRAM

The Goal

