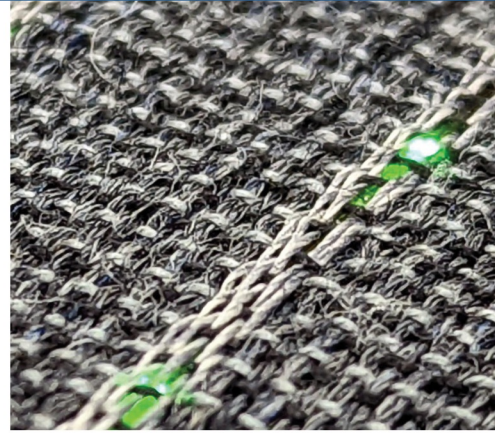
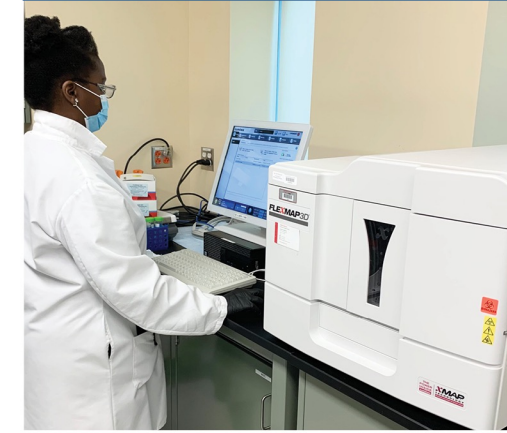
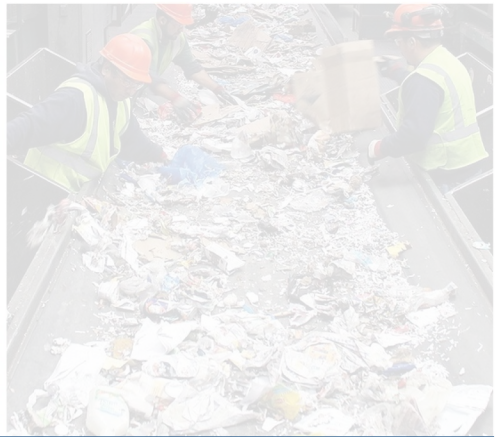
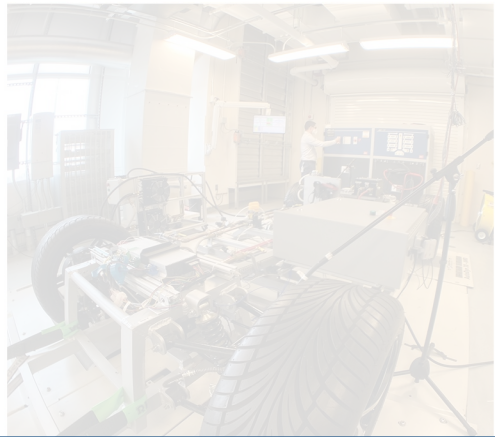
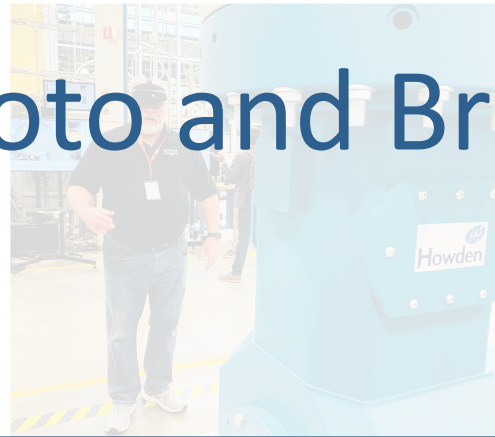


# Group Photo and Break





# Federal Funding Showcase

Federal agencies/bureaus to provide overview of their current funding priorities and opportunities relevant to Manufacturing USA institutes and their ecosystems.

Moderator: Said Jahanmir, Advanced Manufacturing National Program Office



Nancy Gilbert  
Economic  
Development Council



Thyagarajan Nandagopal  
National Science  
Foundation



John Vickers  
National Aeronautics  
and Space  
Administration



Zack Valdez  
Manufacturing and  
Energy Supply Chains,  
Department of Energy



Michael Taylor  
Manufacturing  
Extension Program



# EDA Resources

2023 Manufacturing USA Network Meeting  
Nancy Gilbert, Sr. Program Analyst

# Mission

*To lead the federal economic development agenda by promoting innovation and competitiveness, preparing American regions for growth and success in the worldwide economy.*

---

## ■ Investment Priorities

- Equity
- Recovery & Resilience
- Workforce Development
- Manufacturing
- Technology Based Economic Development
- Environmentally Sustainable Development
- Exports and Foreign Direct Investment

## Eligible Applicants for EDA Funding

- **Economic Development District Organizations**
- **Federally Recognized Tribal Organizations**
- **State and Local Governments**
- **Institutions of Higher Education**
- **Public and Private Nonprofits**
- **A Consortium of these entities**

**\*\* Some EDA programs can also fund the following entities:**

- Public-Private Partnerships
- Science or Research Parks
- A Federal Laboratory
- A Venture Development Organization
- EDOs focused primarily on science, technology, innovation, entrepreneurship or access to capital
- Industry groups or firms in relevant technology, innovation or manufacturing sectors
- Labor organizations or workforce training organizations



# EDA Programs and Funding Opportunities



---

## Regional Technology and Innovation Hubs (Tech Hubs)

**open**

Develops centers of regional innovation into global leaders for industries essential to U.S. economic and national security

---

## STEM Talent Challenge

**open**

Demand-driven workforce pipelines for the innovation economy

---

## Economic Adjustment Assistance (EAA)

**open**

Strategy and implementation grants to promote resilient economies

---

## Recompete Pilot Program

**opens soon**

Reduces prime-age employment gaps in distressed areas

---

## Build to Scale (B2S)

**opens soon**

Builds inclusive innovation ecosystems for scalable startups

---

## Build Back Better Regional Challenge (BBBRC)

60 Finalists, 21 Awardees building inclusive regional industry clusters

---

## Good Jobs Challenge (GJC)

32 regional workforce systems serving 15 industries

EDA Project Development and Program Specialists

Connect with  
EDA's  
Ecosystem  
Partners



# Contact Us

---



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EDA news at [www.eda.gov](http://www.eda.gov)

For questions:

Nancy Gilbert  
Senior Program Analyst  
Economic Development Integration  
U.S. Economic Development Administration  
1401 Constitution Avenue NW, Washington DC

[ngilbert@eda.gov](mailto:ngilbert@eda.gov)

202.568.1914



# Accelerating Research to Impact

Thyaga Nandagopal  
Division Director, Innovation and Technology Ecosystems  
Directorate for Technology, Innovation and Partnerships

National Science Foundation



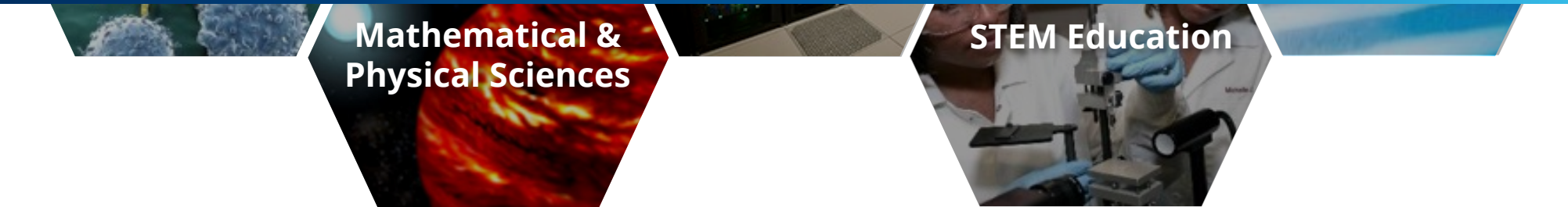
# NSF Mission



# A new “horizontal” to enhance use-inspired and translational research



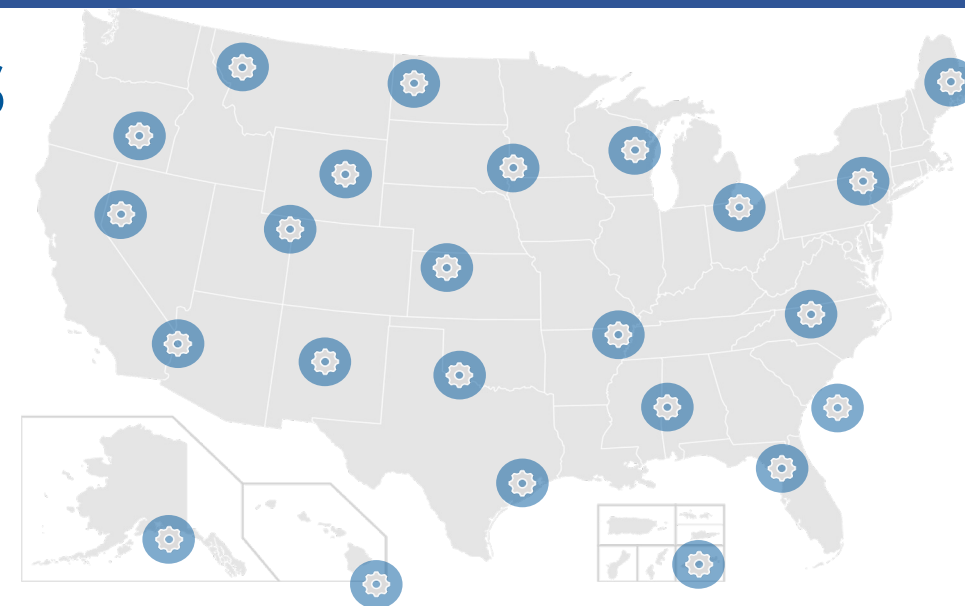
## DIRECTORATE FOR TECHNOLOGY, INNOVATION AND PARTNERSHIPS (TIP)





# NSF Regional Innovation Engines

Supports the development of diverse, regional coalitions to engage in use-inspired research, drive research results to the market and society, promote workforce development, and ultimately stimulate the economy and create new jobs.



NSF Engines are funded **up to \$160 million** for **up to 10 years**

NSF Engine Development Awards - up to **\$1 million** for **up to 2 years** to plan for a future Engine. (**44 Awards made!**)



# NSF ENGINES

## DEVELOPMENT AWARDS

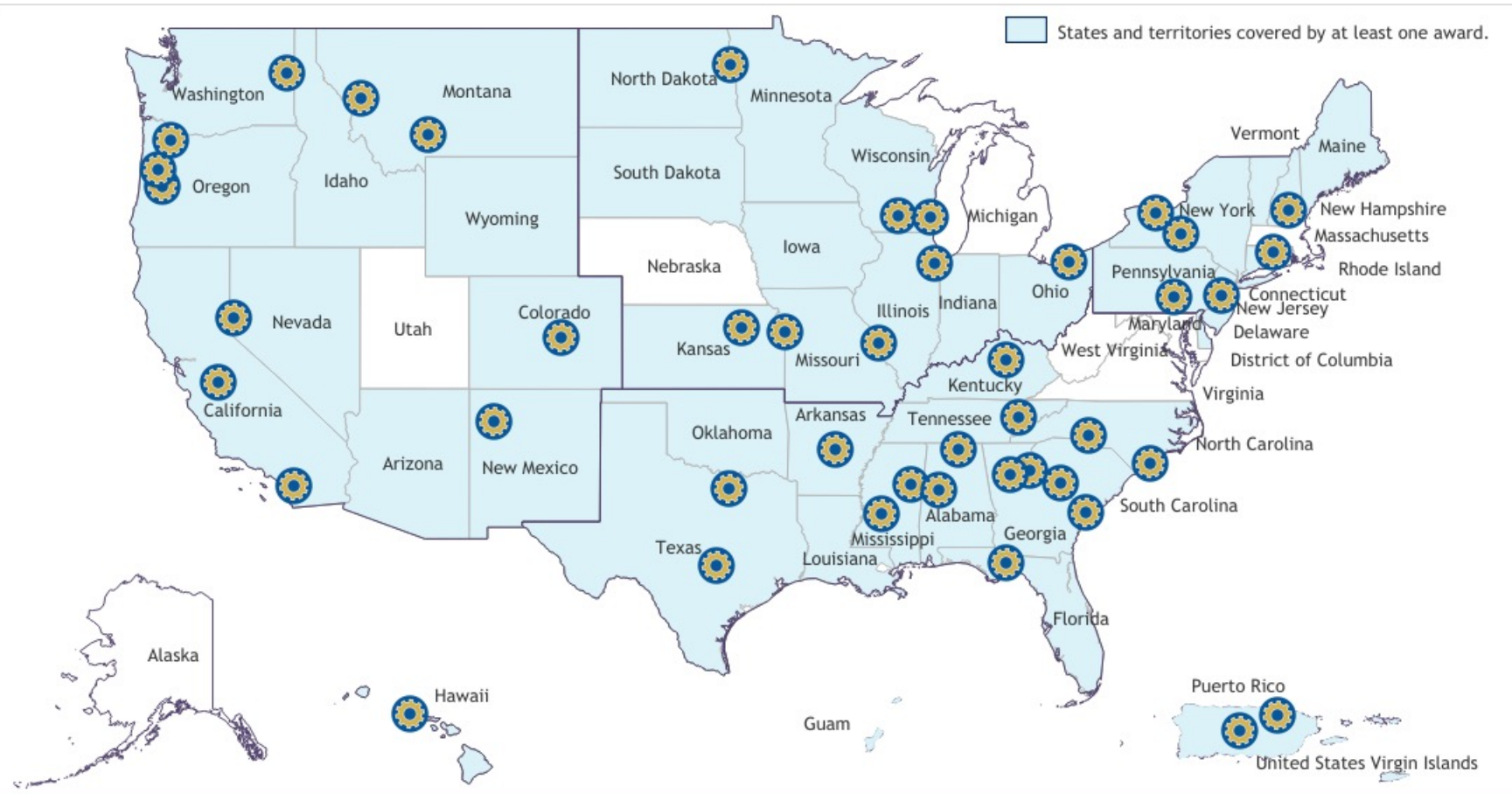


### 44 NSF Engines Development Awards

Hover over each Engine icon to see the details.

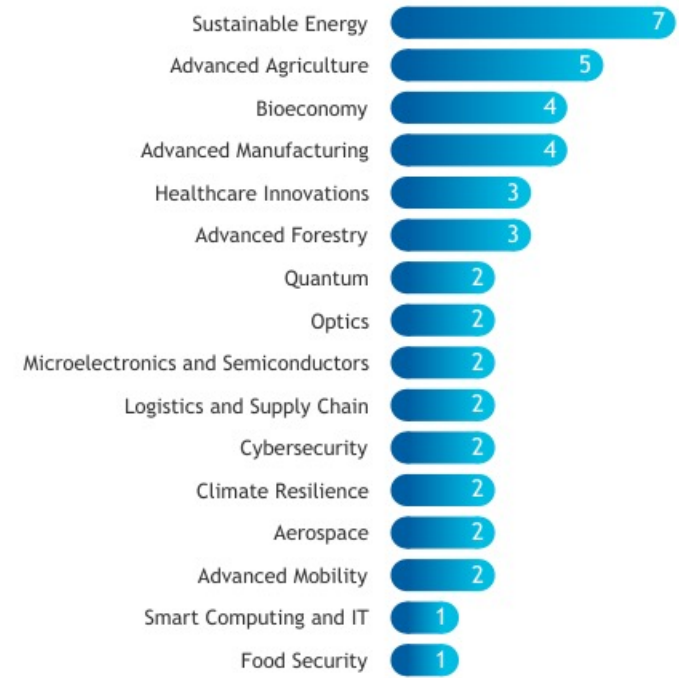
Search

The first-ever NSF Engines Development Awards will help regional partners collaborate to advance key technologies, address societal challenges, and create economic opportunities. The awards to 44 unique teams span universities, nonprofits, business and other organizations across U.S. states and territories.



### Topics

Each Award is aligned with one of the following topics   
 Click on a topic of interest to see the details.





# Convergence Accelerator

Convergence Accelerator multidisciplinary teams use convergence research fundamentals and innovation processes to stimulate innovative idea sharing and development of sustainable solutions.

## PHASE I (PLANNING):







Up to \$750,000 over 9 months

## PHASE II (IMPLEMENTATION):

Up to \$5 Million over 24 months



# Convergence Accelerator

 <b>Track A</b> Open Knowledge Networks	 <b>Track B</b> AI and the Future of Work	 <b>Track C</b> Quantum Technology	 <b>Track D</b> AI-Innovation Data Sharing & Modeling	 <b>Track E</b> Networked Blue Economy	 <b>Track F</b> Trust & Authenticity in Communication Systems
<b>2019 COHORT</b>		<b>2020 COHORT</b>		<b>2021 COHORT</b>	



Phase 2		Phase 2		Phase 1		
 <b>Track G</b> Securely Operating Through 5G Infrastructure (joint with DOD)	 <b>Track H</b> Enhancing Opportunities for Persons with Disabilities	 <b>Track I</b> Sustainable Materials for Global Challenges	 <b>Track J</b> Food & Nutrition Security	 <b>Track K</b> Equitable Water Solutions	 <b>Track L</b> Real-World Chemical Sensing Applications	 <b>Track M</b> Bio-Inspired Design Innovations
<b>2022 COHORT</b>				<b>2023 COHORT</b>		

# Partnerships for Innovation (PFI)

- Translational research toward proof-of-concept of a future product, process or service.
- For researchers with NSF funding
- Two Tracks:
  - Technology Translation

**2 years  
up to \$550,000**



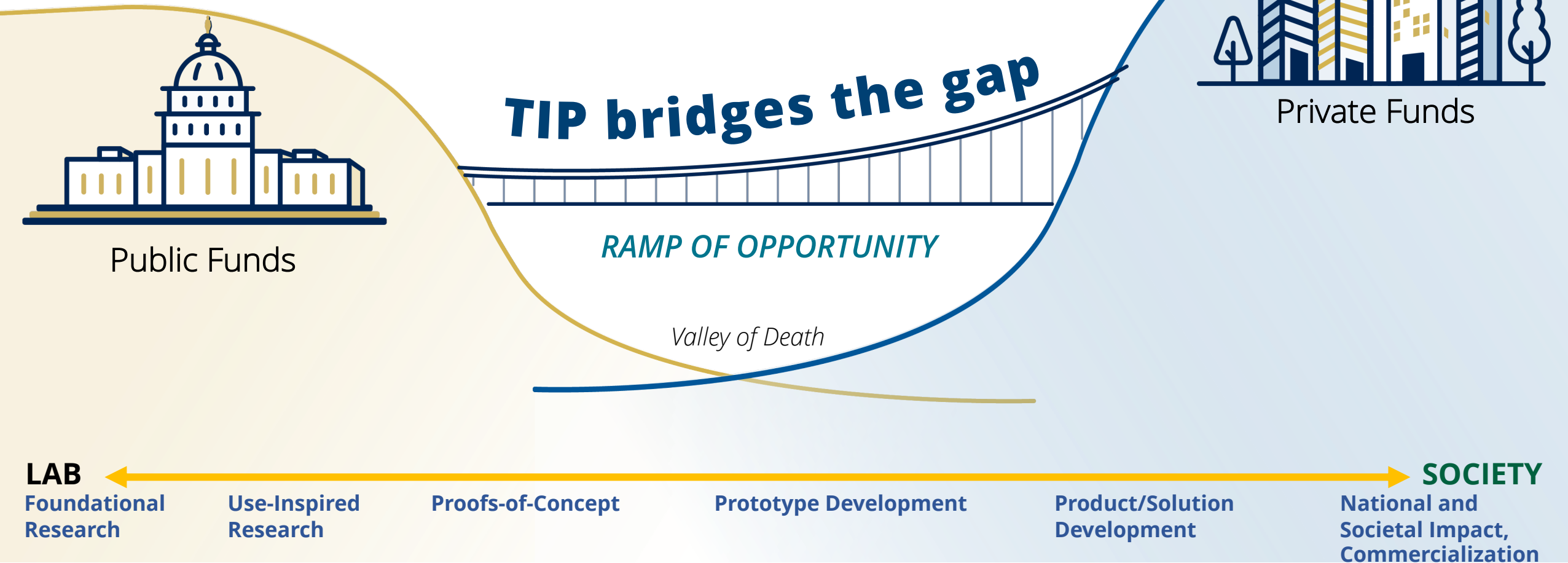
- Research Partnerships (industry partner required)

**3 years  
up to \$1 million**

<https://new.nsf.gov/funding/initiatives/pfi>



# NSF programs power technology breakthroughs

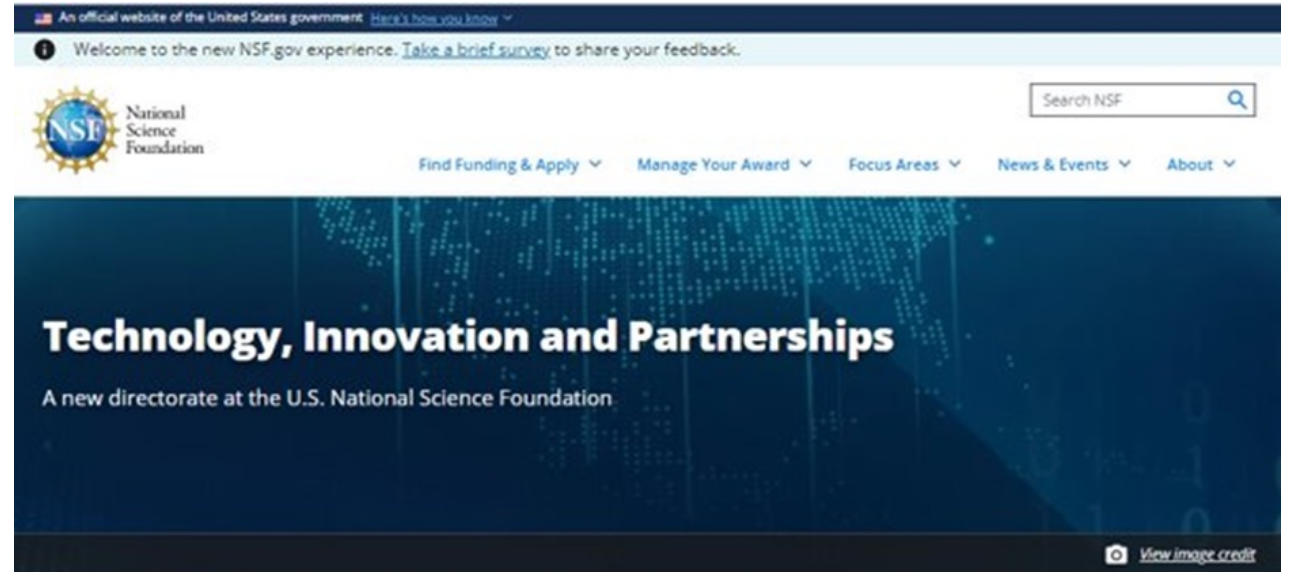


# Learn about TIP

- Programs & funding opportunities
- Stay informed with our newsletter
- Resources and upcoming events
- Job opportunities



Visit [new.nsf.gov/tip/latest](https://new.nsf.gov/tip/latest)



[Home](#) / [Directorate for Technology, Innovation and Partnerships \(TIP\)](#) / [Latest](#)

One year ago, under the leadership of Director Sethuraman Panchanathan, the U.S. National Science Foundation announced the establishment of the Directorate for Technology, Innovation and Partnerships, or TIP, the agency's first new directorate in more than 30 years.

Just a few months later, Congress passed the "CHIPS and Science Act," authorizing the establishment of the directorate and charging it with the critical mission of advancing U.S. competitiveness through investments that accelerate the development of key technologies and address pressing societal and economic challenges.

## Learn More About TIP

- [More About TIP](#)
- [TIP Resources](#)
- [Funding Opportunities](#)
- [Broad Agency Announcements](#)
- [Stay Informed with our Newsletter](#)
- [TIP Leadership](#)
- [TIP Staff](#)
- [Careers](#)



The background of the slide is a composite image of space. On the left, a large, detailed view of the Moon's surface is shown, with its characteristic grey and white craters and maria. To its upper left, the reddish-orange surface of Mars is visible. A small satellite or probe is positioned between the Moon and Mars, emitting a bright blue beam of light that extends towards the right. The rest of the background is a dark, star-filled space. In the bottom right corner, there is a black silhouette of a person's head and shoulders, looking towards the left.

**EXPLORESPACE TECH**  
TECHNOLOGY DRIVES EXPLORATION

# NASA Funding Priorities and Opportunities Manufacturing USA Network Meeting

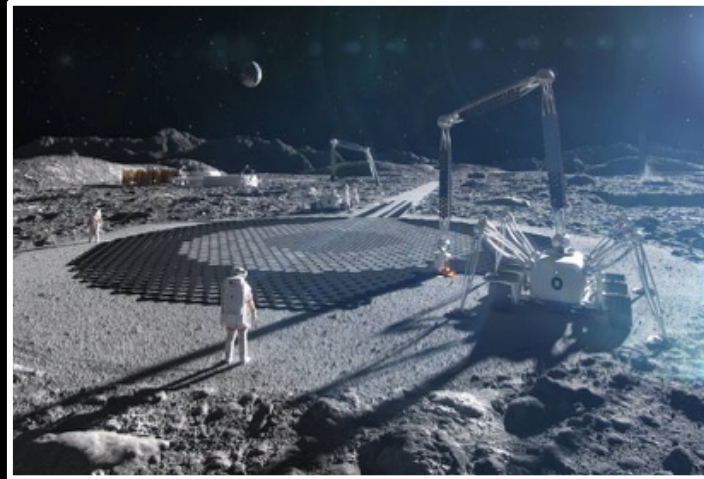
John Vickers | Principal Technologist, Space Technology Mission Directorate | May 25,  
2023



# How We Explore... NASA Mission Directorates



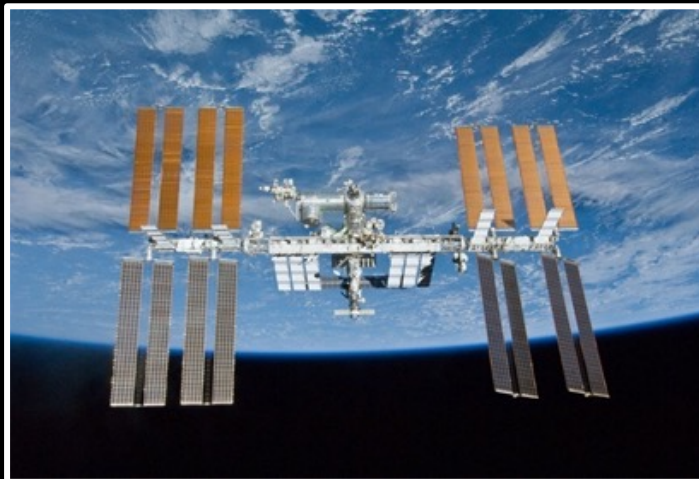
**Exploration Systems  
Development**



**Space Technology**



**Aeronautics Research**



**Space Operations**



**Science**



# SPACE TECHNOLOGY PORTFOLIO

## EARLY-STAGE INNOVATION AND PARTNERSHIPS

- Space Tech Research Grants
- Early-Stage Innovation
- Center Innovation Fund
- Early Career Initiative
- Prizes, Challenges & Crowdsourcing
- NASA Innovation Advanced Concepts

## SBIR/STTR PROGRAMS

- Small Business Innovation Research
- Small Business
- Technology Transfer

## TECHNOLOGY MATURATION

- Game Changing Development
- Lunar Surface Innovation Initiative

## TECHNOLOGY DEMONSTRATION

- Technology Demonstration Missions
- Small Spacecraft Technology
- Flight Opportunities

Technology Drives Exploration

LOW

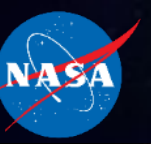
MID

Technology Readiness Level

HIGH



# Develop Technologies Supporting Emerging Space Industries



*Priorities - Targeted advanced manufacturing outcomes aligned with space industry trends that will shape the course of research and development over many years*

## In-Space Manufacturing and Space Infrastructure



A catalyst for space infrastructure and economic opportunities  
> 50% Mass reduction, > 99% 3D printer readiness.

1

## 3D Printing / Additive Manufacturing



Revolutionized product design and manufacturing  
>50% Cost reduction, accelerated time to market

2

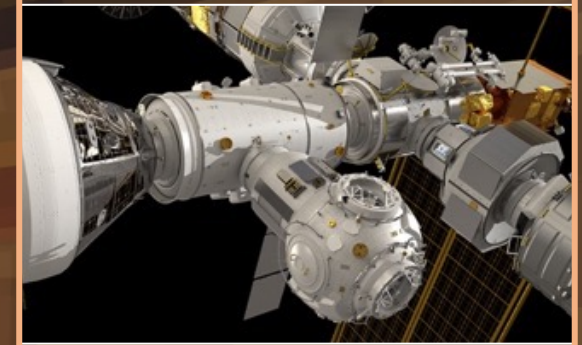
## Digital Transformation Digital Twins and Artificial Intelligence



More intelligent and more accurate predictions and capabilities  
>50% of physical resources replaced with virtual

3

## Lightweight Composite Spacecraft



High high strength-to-weight ratio and dimensional stability  
50% More payload, equipment, and experiments

4



# Funding Opportunities and Announcements



## Looking for Funding?

The Funding Opportunities tool can help match your needs to NASA funding resources.



Help articles and other resources

NASA's Notices of Funding Opportunities are located in the NASA Solicitation and Proposal Integrated Review and Evaluation System (NSPIRES) and TechPort  
(<https://nspires.nasaprs.com>)  
(<https://techport.nasa.gov/home>)



Supporting research in science and technology is an important part of NASA's overall mission. NASA solicits this research through the release of various research announcements in a wide range of science and technology disciplines. NASA uses a peer review process to evaluate and select research proposals submitted in response to these research announcements. Researchers can help NASA achieve national research objectives by submitting research proposals and conducting awarded research.

### Solicitations

NSPIRES now allow users to [SEARCH](#) for and view Proposals and NOIs [due in 30 days](#), [FUTURE](#), and [OPEN, CLOSED/PAST](#) NASA research announcements. The full text of the Solicitation Announcements and information about selected proposals, if available, can be viewed and downloaded.

#### Proposals/NOI Due in the Next 30 days

Showing 1 to 19 of 19 entries

Title	Number	Sponsor Org	NOI Due	Prop Due
A.2 Land Cover/Land Use Change - Multi-Source Land Imaging	<a href="#">NNH23ZDA001N-LCLUC</a>	NASA:HQ.SMD:ES	-	05/23/2023
A.46 Earth Science Applications: Ecological Conservation Impact Assessment	<a href="#">NNH23ZDA001N-ECIA</a>	NASA:HQ.SMD:ES	-	05/24/2023

### Interested in developing technology with NASA?

Tell us about the types of opportunities you are looking for. Please note, this page is for informational purposes only, and solicitation dates are subject to change. This information does not constitute a solicitation. To respond to a funding opportunity listed, please access and respond according to the provided solicitation link. NASA does not collect or store any of the information provided by users of this page.

**Your roles or organization:**

- General Public / Innovator
- Small Business
- Large Business
- Non-Profit or Research Institution
- International
- NASA
- Undergraduate Student
- Graduate Student
- High School Student
- Other Academic Researcher
- Minority-Serving Institution
- Middle School Student

**Funding Needed**

\$0 - \$15,000,000

**Technology Maturity** 3

TRL 1 - 9

These opportunities might be a good fit for you: Clear all filters 35 results found

Funding Opportunity	Average Project Funding	Average Duration (Months)	Frequency	Next Opportunity	Mission Directorate	Topic-Specific or Open
<a href="#">Announcement of Collaboration Opportunity</a>	\$1,000,000	24	Every 2-3 years	TBD	STMD	Topic
<a href="#">BIG Idea Challenge</a>	\$180,000	9	Annual	2024/01	STMD	Topic
<a href="#">Centennial Challenges</a>	\$500,000	36	Ongoing	Ongoing	STMD	Topic
<a href="#">Early Career Faculty</a>	\$600,000	36	Annual	2024/02	STMD	Topic
<a href="#">Early Stage Innovations</a>	\$650,000	36	Annual	2023/05	STMD	Topic





# QUESTIONS?

[www.nasa.gov](http://www.nasa.gov)

[john.h.vickers@nasa.gov](mailto:john.h.vickers@nasa.gov)





# Manufacturing & Energy Supply Chains

Zack Valdez, Ph.D.  
Chief of Staff  
[Zack.Valdez@hq.doe.gov](mailto:Zack.Valdez@hq.doe.gov)

May 25th, 2023



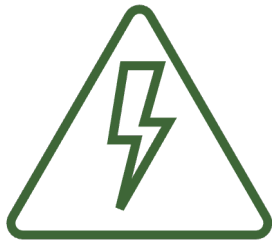


## Leveraging all available resources for a holistic solution



# DOE's Office of Manufacturing & Energy Supply Chains

Responsible for **strengthening and securing manufacturing and energy supply chains** needed to modernize the nation's energy infrastructure and support a clean and equitable energy transition.



**Cultivate energy  
sector industrial base**



**Engage with  
ALL stakeholders**



**Develop clean  
domestic  
manufacturing**



**Create  
Jobs**

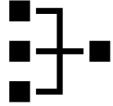
# Manufacturing & Energy Supply Chain BIL Funding



- **Facility and Workforce Assistance**: Address regional manufacturing and supply chain challenges and train the next generation of energy engineers
  - **EWD** - Industrial Assessment Centers, Expansion, and Implementation (\$550M) - ongoing
  - **SMMs** - Manufacturer/Industrial/ Recycling Grants in Distressed Communities (\$750M) - first 1/2 out
  - State Manufacturing Leadership (\$50M BIL) - ongoing



# Manufacturing & Energy Supply Chain BIL Funding



- **Energy Sector Industrial Base:** Assess and identify national and regional energy sector supply chain gaps and challenges, and strategies to address those issues
  - ICE to eV conversions (\$2B) – RFI analysis

# Manufacturing & Energy Supply Chain BIL Funding

- 45X – A new **Advanced Manufacturing production tax credit** is created for production of clean energy technology components that are produced in the U.S. or by a U.S. possession (solar, wind, battery, critical minerals).
- 48C - The new and expanded **Advanced Energy Investment Tax Credit** credits up to 30 percent of the qualified investment in property used in a qualifying advanced energy project. **(capped at \$10B)**

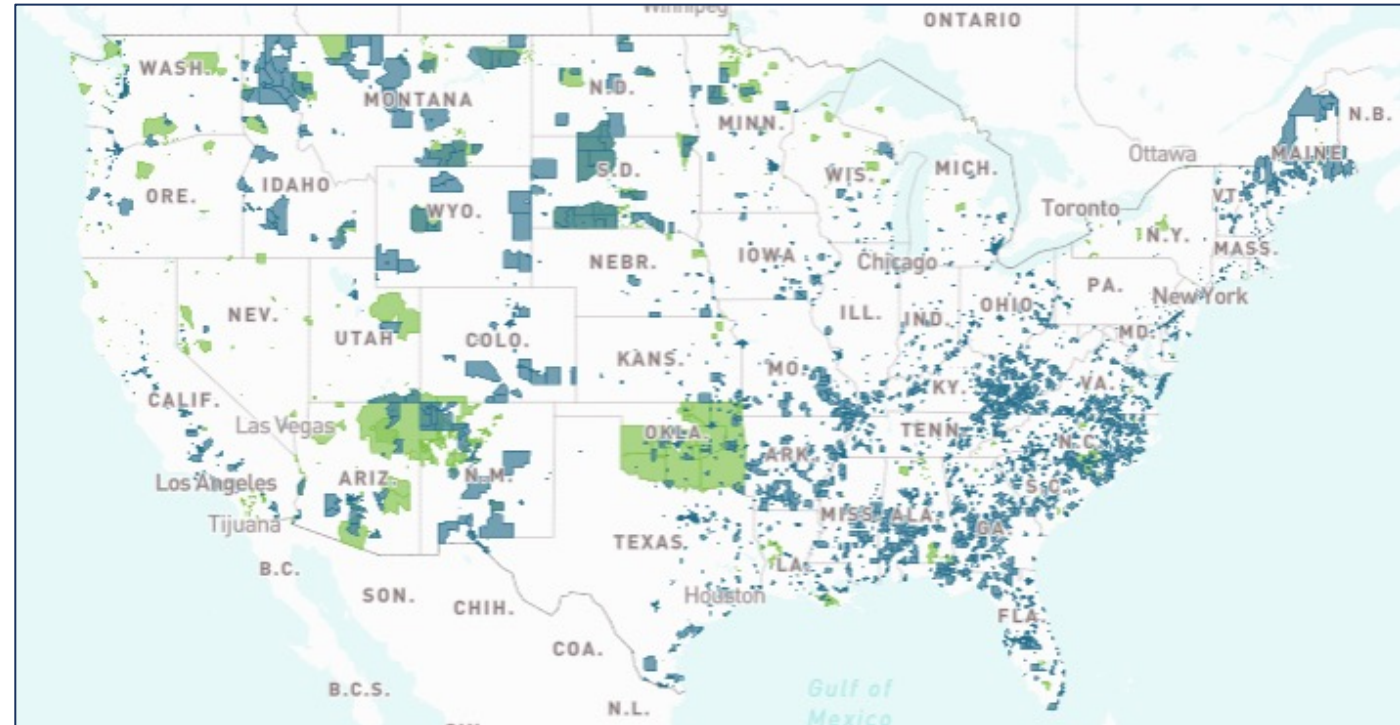


# Justice40 Disadvantaged Communities

**Regional Innovation Ecosystems**

**Robust Domestic Supply Chains**

**Community Benefits Plans**



[Office of Manufacturing and Energy Supply Chains | Department of Energy](#)



**Zack Valdez**  
**[Zack.Valdez@hq.doe.gov](mailto:Zack.Valdez@hq.doe.gov)**



**MESC**  
OFFICE OF MANUFACTURING AND ENERGY SUPPLY CHAINS



**MESC**  
OFFICE OF MANUFACTURING AND ENERGY SUPPLY CHAINS



# The MEP National Network

Michael Taylor, Senior Engineer, National Programs  
May 25, 2023



<https://www.nist.gov/mep/mep-national-network>



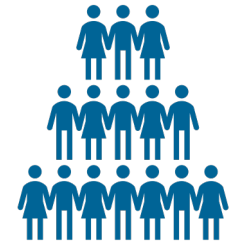
Over  
**1,450**  
  
Manufacturing  
Experts

## Partners

- Educational institutions
- Federal agencies & labs
- State & local government
- OEMs

Nearly  
**2,100**  
 Service  
Providers  
& Partners

Interacted with  
More than



**33,500**  
Manufacturers  
in FY 2022

**NATIONAL  
NETWORK**  
One Center in  
Every State and  
Puerto Rico

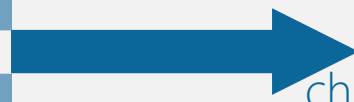
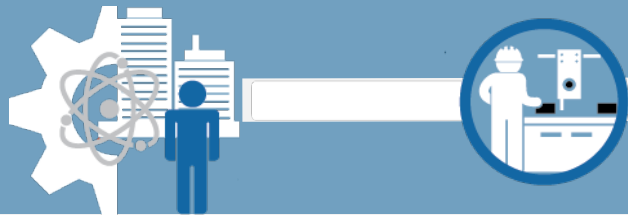


Approximately  
**430**  
Service  
Locations



## Technology

## Transfer



Solving industry  
challenges together







# FY22 Impact Survey Results

In FY 2022, the MEP National Network interacted with more than 33,500 U.S. manufacturers from nearly all manufacturing industries

Over **116,700 JOBS** Created or Retained

**\$15.7 BILLION**  
in New and Retained Sales 

**\$4.5 BILLION**   
in Total Investment in U.S. Manufacturing

**\$1.5 BILLION**   
in Cost Savings



# Helping SMMs Overcome Challenges



**Narrowing the  
workforce gap**



**Mitigating supply  
chain vulnerabilities**



**Leveraging  
technology**





## MEPNN Resources and Collaborations



MxD Digital Manufacturing Playbook Award and MOU



Working Groups



MEP Advanced Tech Team



MATTR+



Supplier Scouting



# Connect with Us



**Visit Our Blog**

[www.nist.gov/blogs/manufacturing-innovation-blog](http://www.nist.gov/blogs/manufacturing-innovation-blog)

**Visit Our Website**

[www.nist.gov/mep](http://www.nist.gov/mep)

**Contact Us:**

[Michael.taylor@nist.gov](mailto:Michael.taylor@nist.gov)

[jose.colucci-rios@nist.gov](mailto:jose.colucci-rios@nist.gov)



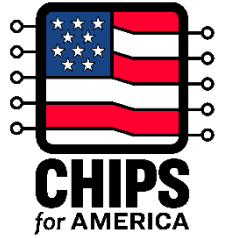


# CHIPS and Science Act – Manufacturing USA Opportunities

General information and updates from the CHIPS Program Office (Incentives and R&D). This session will also include a summary of the Manufacturing USA RFI input from the institutes.



Dr. Eric Lin  
Interim CHIPS Research and Development Program Director  
NIST



# CHIPS Research and Development

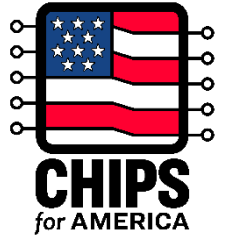
Eric Lin  
Interim Director  
CHIPS Research and Development Office

May 25, 2023

NIST



# CHIPS for America Vision



## Economic Security

This act enables us to build more resilient supply chains for important components.



## National Security

This act enables us to bring the most sophisticated technologies back to the U.S.

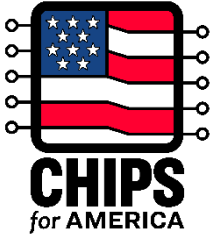


## Future Innovation

Chips are key to the technologies and industries of the future, so we need to be at the forefront. This act will ensure long-term U.S. leadership in the sector.



# CHIPS for America Incentives



## \$39 billion for manufacturing

Two component programs:

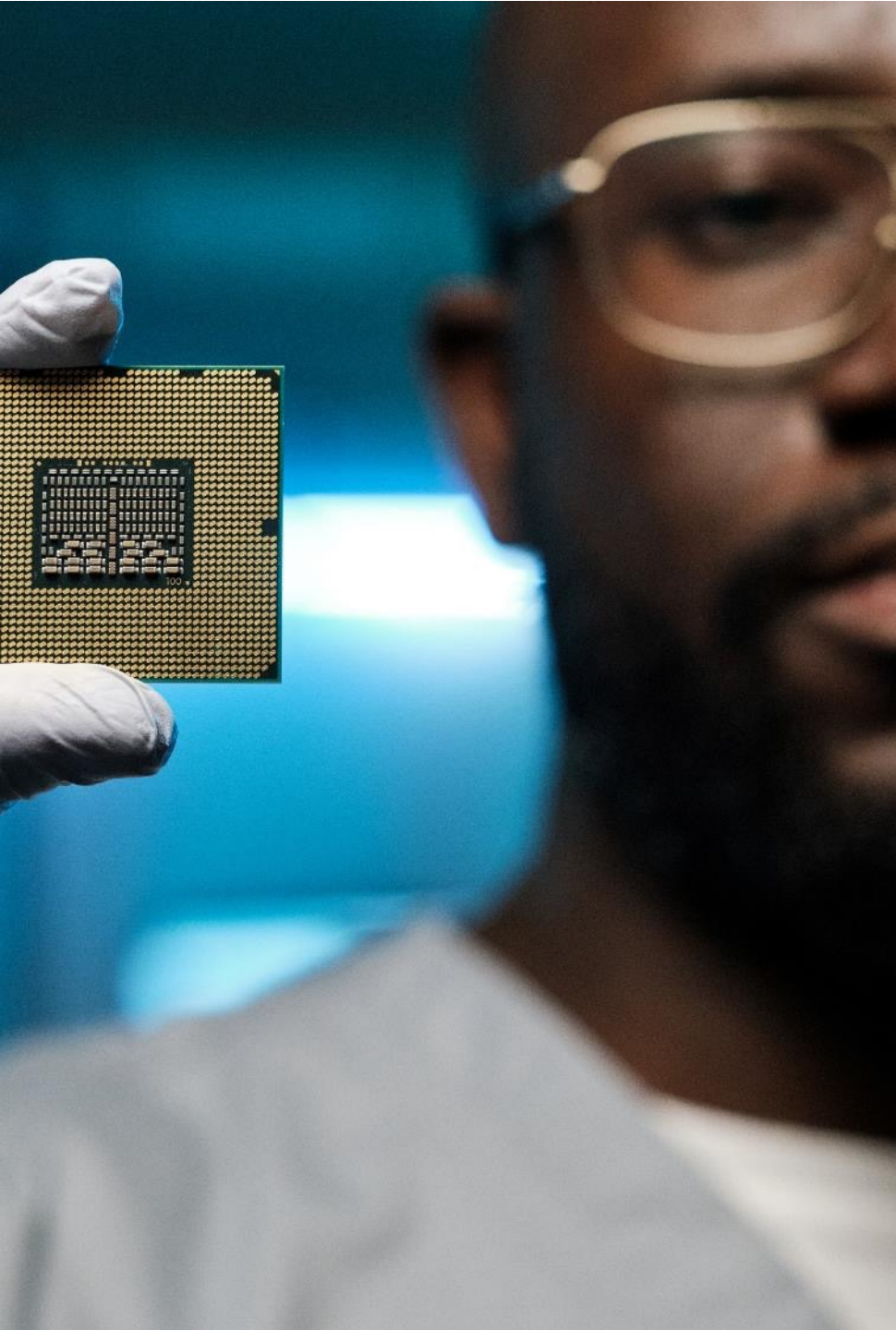
1. Attract large-scale investments in advanced technologies such as leading-edge logic and memory
2. Incentivize expansion of manufacturing capacity for mature and other types of semiconductors

## \$11 billion for R&D

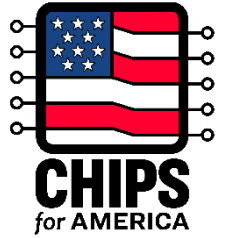
- National Semiconductor Technology Center
- National Advanced Packaging Manufacturing Program
- Manufacturing USA institute(s)
- National Institute of Standards and Technology measurement science

Together with CHIPS initiatives from other agencies, including DOD, State, NSF, and Treasury

Workforce development



# Manufacturing incentives will generate:

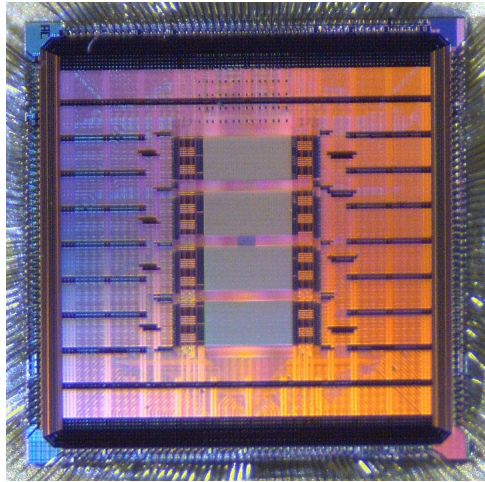
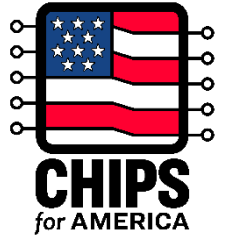


Large-scale investments in  
leading-edge logic and memory  
manufacturing clusters

Manufacturing capacity for

- Mature and current-gen chips
- New and specialty technologies
- Suppliers to the industry

# CHIPS R&D Vision



## U.S. Technology Leadership

The U.S. invents, develops, and deploys the foundational semiconductor technology of the future.



## Accelerate Ideas to Market

A thriving ecosystem that is focused on getting the best ideas to commercial scale as quickly and cost effectively as possible.

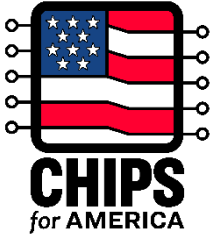


## Talent

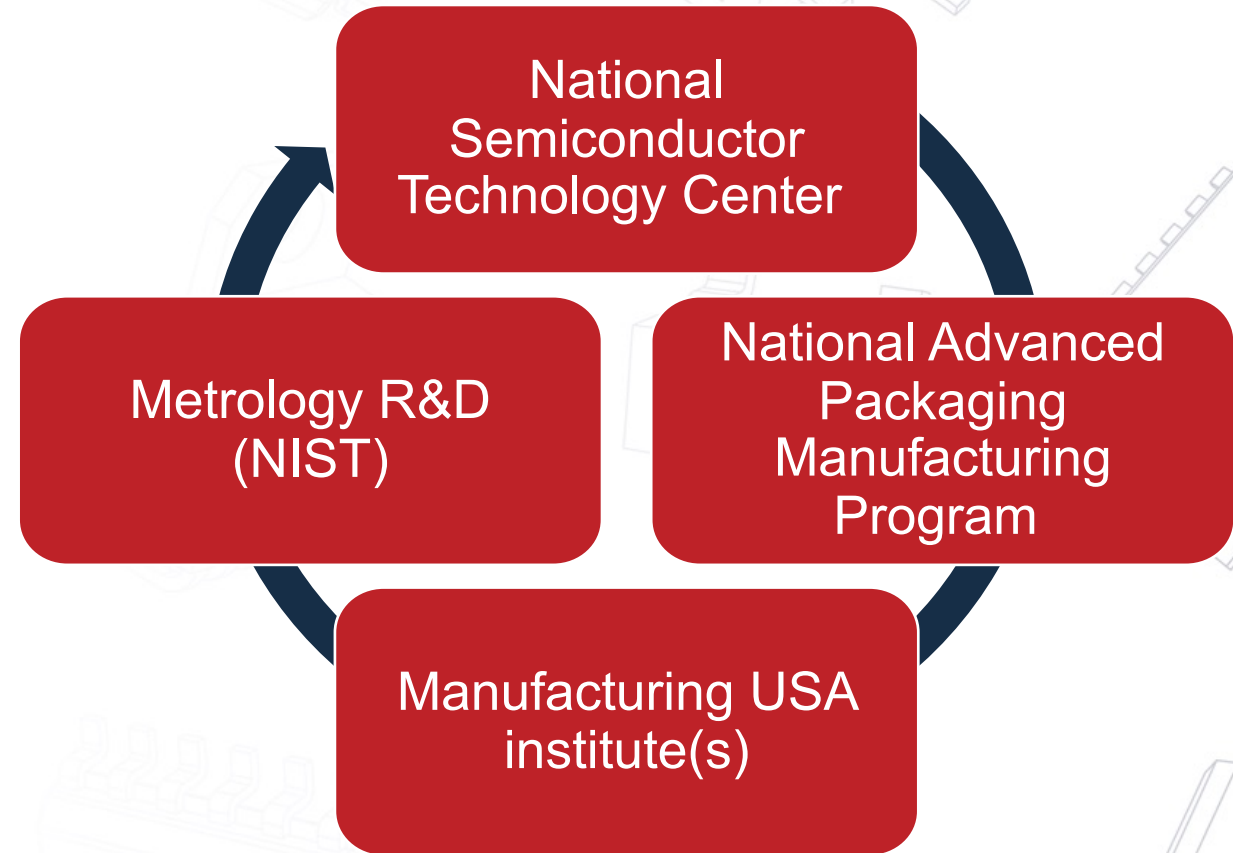
A new generation of skilled workers, inventors, designers, researchers, technicians, and others able to build and sustain semiconductor manufacturing in the U.S.



# Research & Development



- Strengthen and advance U.S. leadership in R&D
- An integrated ecosystem that drives innovation
- In partnership with industry, academia, government, and allies
- A strategic view of R&D infrastructure, participant value-proposition, and technology focus areas
- Informed by the Industrial Advisory Committee

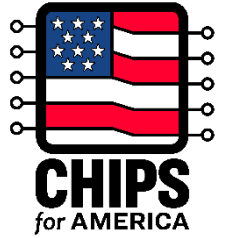


# Program Development Approach

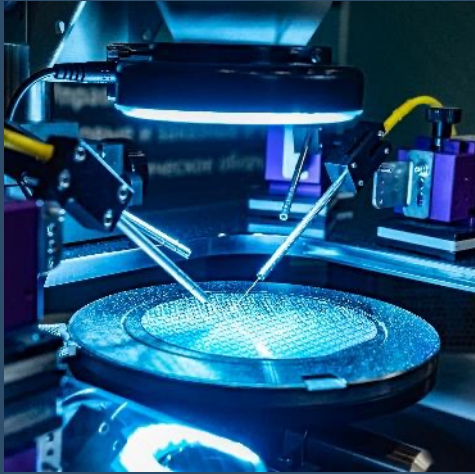
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- Build a national-scale innovation ecosystem
- Build and connect programs in stages
- Invest in the interfaces
- Invest in people





# National Semiconductor Technology Center

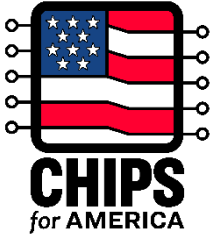


**Vision:** Will serve as the **focal point** for research and engineering throughout the semiconductor ecosystem, advancing and enabling disruptive innovation to provide U.S. leadership in the industries of the future.

**Structure:** A public-private consortium as an independent entity with a governing board informed and advised by industry, academia, government, and key stakeholders.



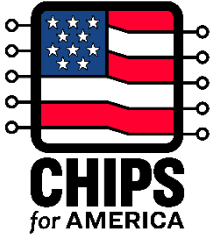
# National Semiconductor Technology Center



## Elements:

- Core of centrally operated, in-house research, engineering, and program capabilities combined with a network of directly funded and affiliated entities.
- Includes applied research, prototyping of devices and processes in a real-world environment, challenges related to scaling, start-up company support, or development of advanced manufacturing tools and processes.
- Focus research and engineering on challenging projects with a time horizon beyond 5 years.
- The NSTC will serve as a key convening body for the ecosystem.

# Programs



## Technology leadership

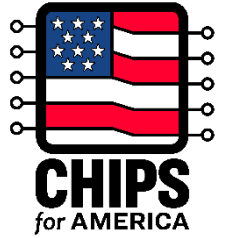
- Grand challenges and roadmaps, and standards and protocols
- Technical exchanges and advisors
- In-house and funded research
- Investment fund
- Security

## Community assets

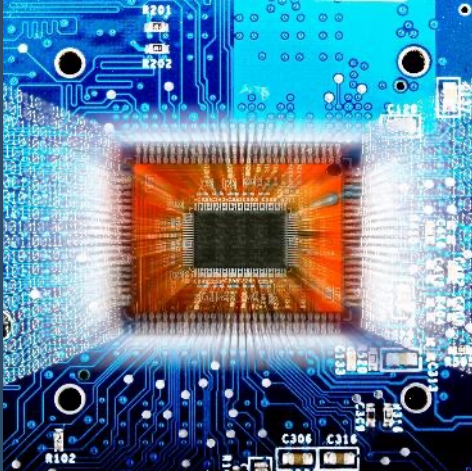
- Technical centers for prototyping, research, and experimentation
- Chiplets
- Design Enablement Gateway
- Data sets, multi-project wafer program
- Patents

## Workforce programs

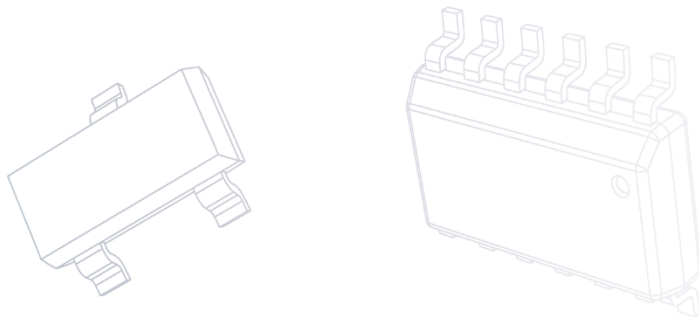
- Identify and scale gold-standard education models
- Information clearinghouse
- Career guidance, including for underserved populations



# National Advanced Packaging Manufacturing Program



- Strengthen semiconductor advanced test, assembly, and packaging capability in the domestic ecosystem
- Leverage public-private partnerships, that can include support for facilities managed by the NSTC and MFG USA
- Broad range of technologies:
  - Heterogeneous integration
  - Wafer and panel-based approaches
  - Tooling and automation
  - Substrate technology





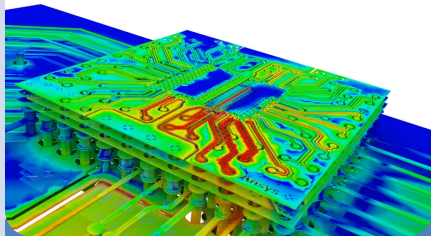
# NAPMP Target Areas

Technology innovation

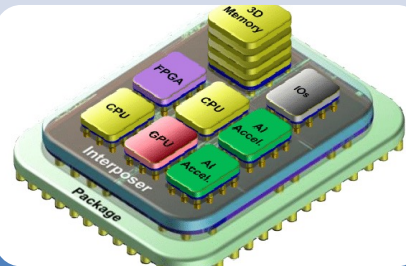
Create an R&D environment advancing the state-of-the art in advanced packaging.

Ecosystem support

Investments to bolster the growth in domestic capacity and enhance capabilities for competitive edge.



Co-design and simulation



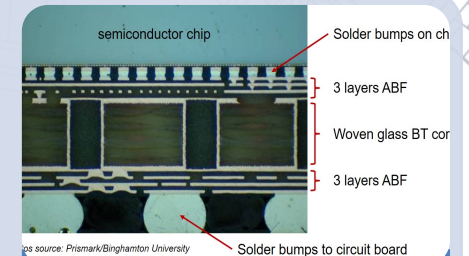
Chiplets



Pilot packaging facilities

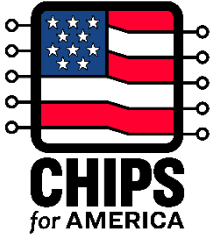


Tooling and automation



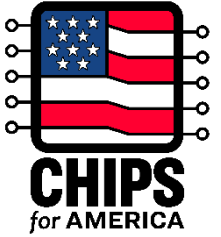
Materials and substrates

# NIST Metrology R&D



- Measurement science for new materials and packaging
- Physical metrology for next-generation microelectronics
- Computation and data
- Virtualization and automation
- Reference materials and data, and calibrations
- Standards for processes, cybersecurity, and test methods

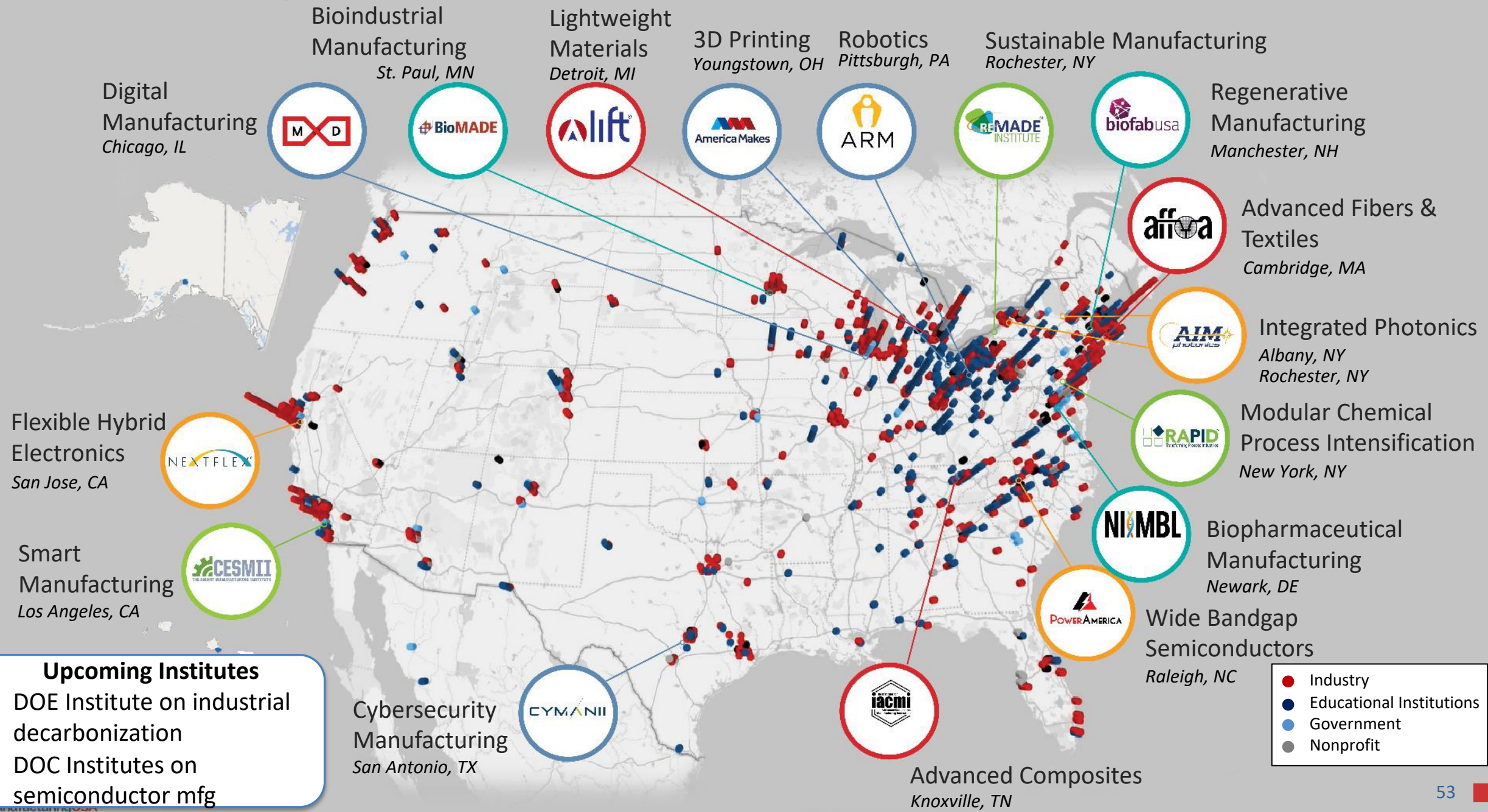
# Manufacturing USA Institute(s)



- Up to three new public-private partnership institutes in the Manufacturing USA network
- To advance research and commercialization of semiconductor manufacturing technologies
- Pre-competitive collaboration among researchers and manufacturers
- Ex: Virtualization, simulation, and automation; packaging
- Workforce training



# Manufacturing USA Institute Network



Digital Manufacturing  
Chicago, IL



Bioindustrial Manufacturing  
St. Paul, MN



Lightweight Materials  
Detroit, MI



3D Printing  
Youngstown, OH



Robotics  
Pittsburgh, PA



Sustainable Manufacturing  
Rochester, NY



Regenerative Manufacturing  
Manchester, NH



Advanced Fibers & Textiles  
Cambridge, MA



Integrated Photonics  
Albany, NY  
Rochester, NY



Modular Chemical Process Intensification  
New York, NY



Biopharmaceutical Manufacturing  
Newark, DE



Wide Bandgap Semiconductors  
Raleigh, NC



Advanced Composites  
Knoxville, TN



Cybersecurity Manufacturing  
San Antonio, TX



Flexible Hybrid Electronics  
San Jose, CA



Smart Manufacturing  
Los Angeles, CA

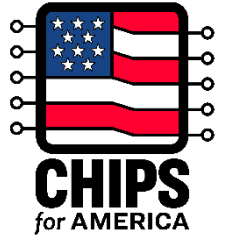


**Upcoming Institutes**

- DOE Institute on industrial decarbonization
- DOC Institutes on semiconductor mfg

● Industry
● Educational Institutions
● Government
● Nonprofit

# RFI for Manufacturing USA Semiconductor Institutes



Purpose: inform design of up to three Manufacturing USA semiconductor institutes authorized by CHIPS Act

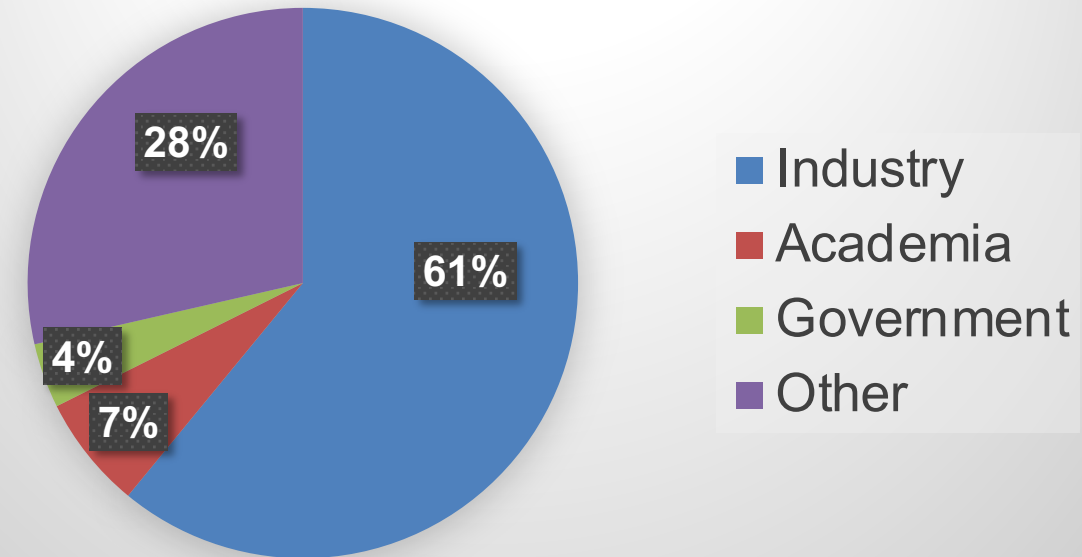
Three public webinars held with 463 registered participants

Public comment period Oct. 13 – Dec. 12, 2022

93 comments received\*

Public report to be submitted for clearance early March

RFI Responders

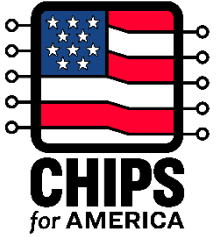


\*all comments received are publicly posted at <https://www.regulations.gov/docket/NIST-2022-0002/comments>





# Interagency Coordination

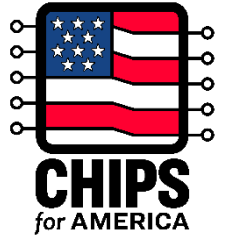


The impact of the CHIPS R&D program is maximized when integrated with programs across the USG.

We are working closely with DOD, NSF, DOE, and other agencies to realize this integration with guidance and support from the White House and OSTP.



# Program Development Timeline



Q1Y23

Q2Y23

Q3Y23

Q4Y23

National Semiconductor Technology Center

Strategy paper

Establish NSTC

National Advanced Packaging Manufacturing Program

Outline program strategy

Manufacturing USA institute(s)

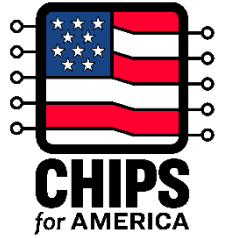
RFI Summary

Select topic(s); begin proposal process

Metrology R&D (NIST)

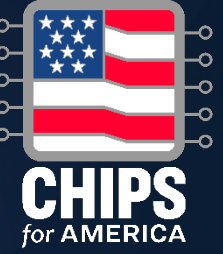
Internal investment

Select programs to begin



# Next Steps

- Coming soon
  - Selection Committee / NSTC Board
  - Industrial Advisory Committee, June 6
- Learn more
  - Visit [CHIPS.gov](https://www.chips.gov)
  - Read the NSTC Strategy paper
  - Join our mailing list



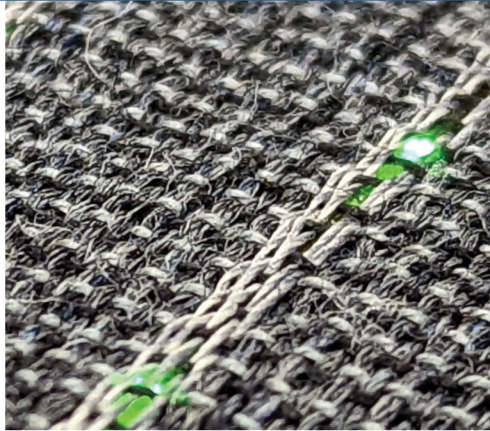
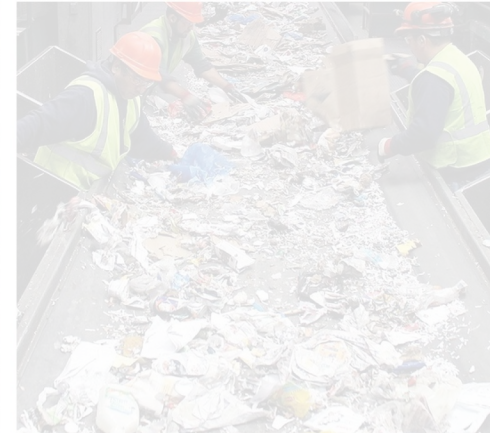
# Questions and Answers



# Lunch and Networking

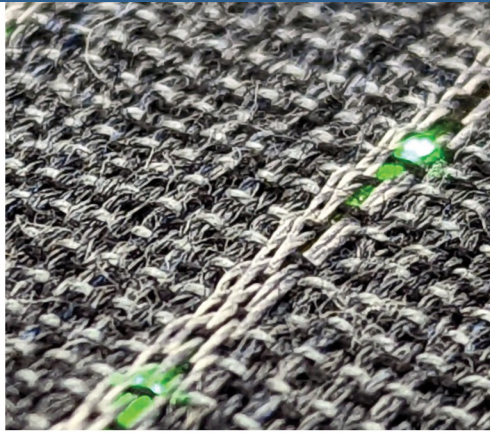
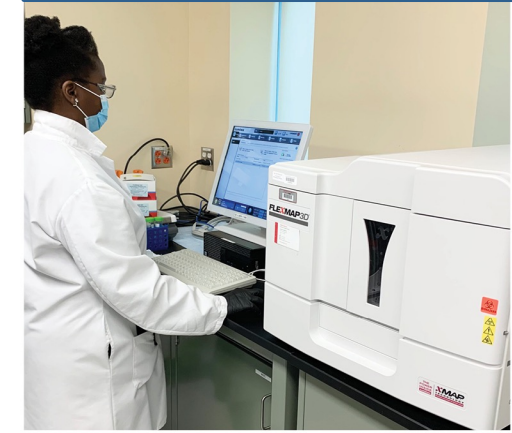
Food Court is downstairs.

Please return by 1:30 PM.





# NIST Manufacturing USA Public Service Funding Opportunities





# Purposes of Manufacturing USA



**IMPROVE  
COMPETITIVENESS**



**SECURE U.S.  
LEADERSHIP IN  
ADVANCED MFG**



**SCALE  
MANUFACTURING  
TECHNOLOGIES**



**DEVELOP ADVANCED  
MANUFACTURING  
WORKFORCE**



**PROVIDE SHARED  
RESOURCES AND  
FACILITIES**



**EXCHANGE BEST  
PRACTICES**



**INCREASE  
PARTNERSHIPS AND  
COLLABORATION**



**BOOST  
MANUFACTURING  
EMPLOYMENT**



**DEVELOP  
INNOVATION  
ECOSYSTEMS**



# Manufacturing USA Strategic Plan



## 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

# NIST/AMNPO Funding Authorities

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General Grant-making authority under NIST Organic Act

# FY 2023 Consolidated Appropriations Act

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NIST appropriations to implement the Research and Development, Competition, and Innovation Act (Division B of Public Law 117–167)

*Statute directs NIST to:*

- *expand opportunities within Manufacturing USA through integration of ‘covered entities’,*
- *promote domestic production of institute developed technologies.*



## Covered Entities: Defined in 42 USC § 18971

Historically Black Colleges and Universities (HBCUs)

a Tribal College or University

a minority-serving institution

a minority business enterprise (as such term is defined 15  
C.F.R. 1400.2)

a rural-serving institution of higher education (as such term is  
defined in 20 U.S.C. 1161q)

# Anticipated WEAVE Funding Opportunity

# Legal Disclaimer

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**NIST intends to issue a NOFO but where there is discrepancy between what is presented here and the published NOFO, the published NOFO controls.**



# Informational Webinar

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- Planned within the next two weeks
- We will send you updates as we have them
- Check NIST OAM website for link to NOFO and FAQs
- We plan to share slides and a recording of the session

# Anticipated Funding Opportunity

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## Objective

**Workforce, Education, and Vibrant Ecosystems (WEAVE)** Awards will fund high-impact projects within the Manufacturing USA network to support vibrant and inclusive advanced manufacturing ecosystems and expand successful institute-sponsored workforce development programs to promote domestic production of institute-developed technologies.

# Anticipated Funding Opportunity

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## Anticipated WEAVE Focus Areas

1. Partnerships amongst two or more institutes to build vibrant and diverse ecosystems, through increased engagement with covered entities.
2. Partnerships amongst two or more Institutes to pilot new or scale existing initiatives to promote the transition of institute-developed technologies.



# Anticipated Eligibility



Only  
Manufacturing  
USA institutes are  
eligible to apply

- AFFOA, AIM Photonics, America Makes, ARM Institute, BioFabUSA, BioMADE, CESMII, CyManII, EPIXC, IACMI, LIFT, MxD, NextFlex, NIIMBL, PowerAmerica, RAPID, & REMADE.



Requirement for  
Multi-Institute  
Proposal Teams

- Application submitted must represent a partnership of two or more current Manufacturing USA Institutes.

## Anticipated Funding and Period of Performance

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Non-federal cost-match is NOT required

Proposals up to \$3.5 M

Period of Performance: 24 months

# Project Teams

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Bring together key expertise across institutes, access to facilities, or specialized goods and services for a larger national or regional impact.

Encourage outreach to, recruitment of, and engagement with a diverse array of project participants.

Anticipate that Letters of commitment will be required from all partners committing resources to the project.



## Slido Discussion Question

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**What do you view as specific areas of need for resources within the mission of Manufacturing USA that are 1) in the national interest and 2) unlikely to be funded by the private sector?**

# National Workforce Strategy

Discussion on learnings and next steps from institute workshops and update on the national workforce strategy



Dr. Sue Helper  
Senior Advisor for  
Industrial Strategy  
White House  
Office of  
Management and  
Budget  
*(via phone)*



Brittany Stich  
Senior Advisor  
Employment and  
Training  
Administration  
U.S. Department of  
Labor



Luke Rhine  
Deputy Assistant  
Secretary  
Office of Career,  
Technical & Adult  
Education  
U.S. Dept of Education



Joanna Mikulski  
Senior Policy Advisor,  
Labor and Higher  
Education  
White House Domestic  
Policy Council



Piper O'Keefe  
Policy Analyst  
Office of Energy  
Jobs  
U.S. Department of  
Energy

# Vision: MFG USA as key participants in sector partnerships that build a strong workforce

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The Institutes are well positioned to promote **interaction** between the workforce system and technology development, and to help scale effective training programs.

**Sector partnerships bring together key actors in the workforce system in long-term partnership**

Evidence-based method of designing jobs/training to address recruitment, career path – not just short-term placement

**MFG USA involvement could build innovation into the workforce system**

Develop technology that improves jobs & competitiveness;  
Train on modern equipment

**Workforce system can aid MFG USA efforts**

Help identify training partners and students  
DOL data can identify demographic, turnover issues to better design and target training





