



Welcome to the Manufacturing USA Network Meeting

April 30 - May 1, 2024

Advanced Manufacturing National Program Office

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



Manufacturing USA: Celebrating 10 Years



Justina Gallegos, Deputy Director for Industrial Innovation, Office of Science and Technology Policy, White House
on behalf of Dr. Arati Phabhakar, Director, OSTP



10 Years of Advancing U.S. Manufacturing



Manufacturing USA: Celebrating 10 Years

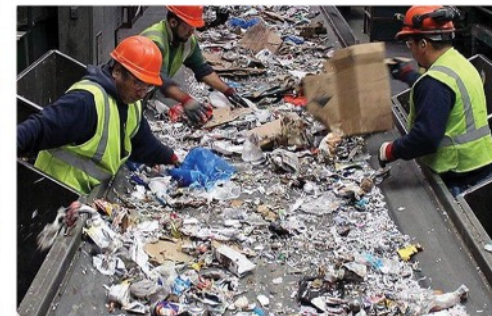
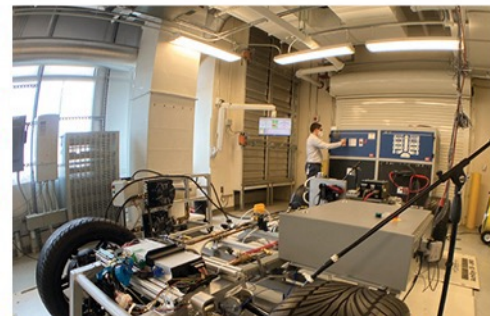


Congresswoman Haley Stevens
House Manufacturing Caucus Co-Chair



10 Years of Advancing U.S. Manufacturing





Break and Group Photo



Regional Collaborations

Building Partnerships and Leveraging Local Innovation Ecosystems

Moderator: Susan Ipri-Brown, NIST Office of Advanced Manufacturing



Matt Bogoshian
American Manufacturing
Communities Collaborative
Executive Director



Kimberly Gibson
America Makes
Additive Manufacturing
Ecosystem Director



Ira Moskowitz
ARM Institute
Chief Executive Officer

Agenda

- Matt Bogoshian - AMCC
- Panel
 - Kimberly Gibson – America Makes
 - Ira Moskowitz – ARM Institute
 - Matt Bogoshian - AMCC
- Q&A



The American Manufacturing Communities Collaborative

Helpful Factors for Integrating Institutes into Regional Manufacturing Initiatives

Speaker:

Matt Bogoshian – Executive Director





AMCC's History of Strengthening Regional Manufacturing Ecosystems of Support Through Bottom-up Initiatives.

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A New Federal Interagency Policy Model Emerges

The National Economic Council collaborates with an Interagency Working Group leading to the [Investing in Manufacturing Communities Partnership](#) (IMCP) program.

“The IMCP is designed to reward communities that demonstrate best practices in attracting and expanding manufacturing by bringing together key local stakeholders and using long-term planning that integrates targeted public and private investments across a community’s industrial ecosystem to create broad-based prosperity.” – EDA Fact Sheet (2013).

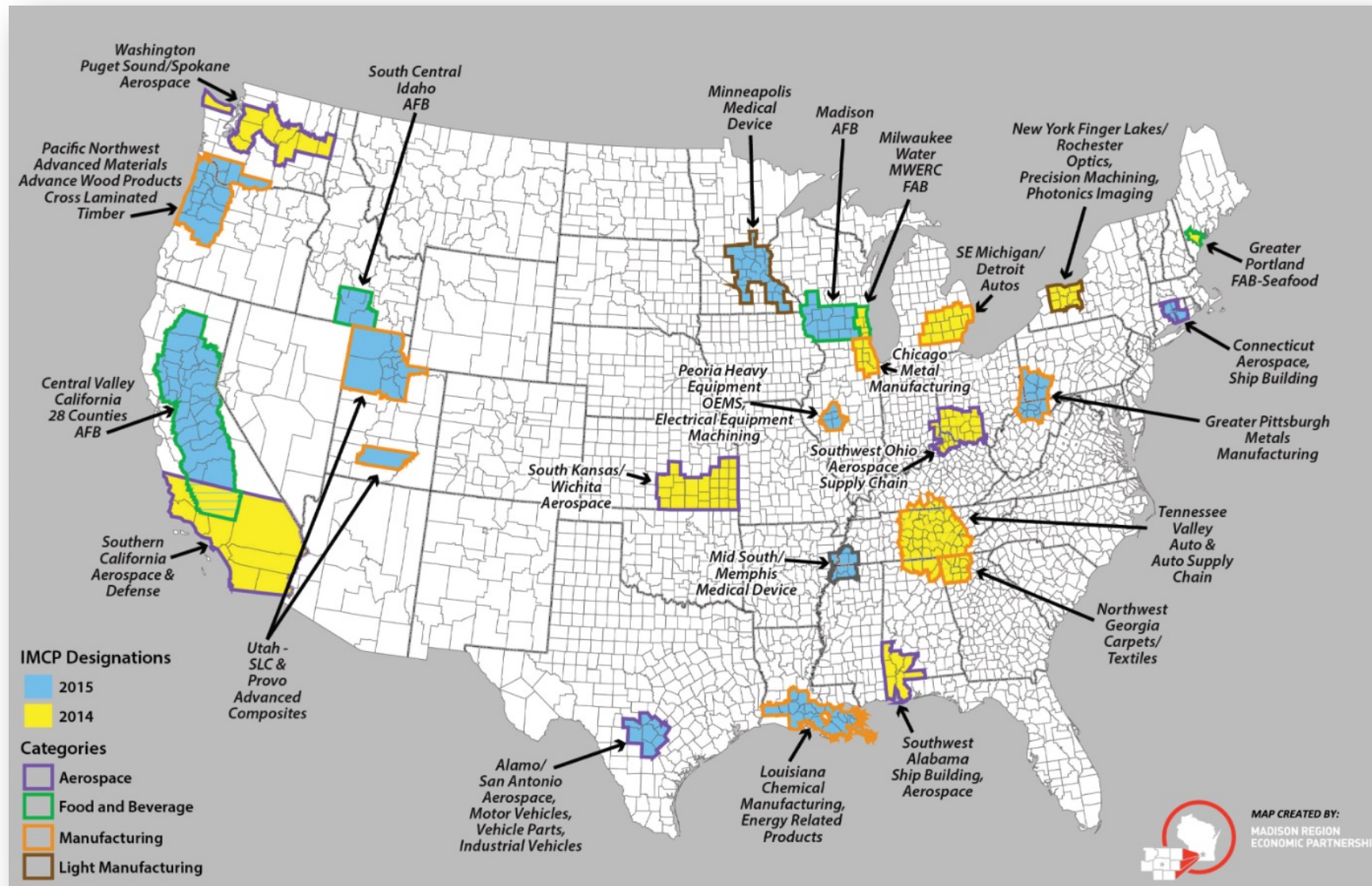
Communities meet rigorous selection criteria with 3 key elements:

1. Organize a diverse regional public/private backbone organization.
 2. Conduct a regional SWOT analysis.
 3. Create a regional plan that strengthens the Big 6 areas essential for a thriving manufacturing ecosystem: 1) Workforce and Training, 2) Research and Innovation, 3) Infrastructure and Site Development, 4) Supply Chain Support, 5) Trade & International Investment, and 6) Operational Improvement & Capital Access.
- **Over 70 US regions first apply for IMCP designations showing large demand**



24 Regions Designated as IMCP Communities in 2 Years

- Designation came with technical assistance, some preference for grants, branding
- Community of practice develops amongst the regions





IMCP Ends, but Bottom-up Leadership Persists

Regional consortia leaders double-down on collaboration:

- Stakeholders continue holding weekly national conference call meetings
- Regions interact with one another nationally, sharing best practices
- Public, private, and non-profit partners in regions increase collaboration
- Federal staff continue assisting the evolving IMCP network stakeholders

IMCP communities organize a national Summit in DC, leading to:

- Creation of a new non-profit backbone organization (AMCC)
- Outreach to Congress for the IMCP model to become law in DOD federal program (DMCSP)



[AMCC regional consortia leaders advocate for DMCSP with the U.S. House Manufacturing Caucus \(2019\)](#)



IMCP Regions Pursue New Opportunities, Strengthen Collaborations

DMCSP Projects FY 2020 - 2022



Several IMCP regions receive designation and funding through DMCSP:

- 4 of 6 DMC designees in 2020 originated from IMCP
- 3 of 5 DMC designees in 2021 originated from IMCP
- 3 of 6 DMC designees in 2022 originated from IMCP

AMCC Undertakes Organizational Strategic Plan

Built by regional and national stakeholders to assist all American regions in adopting this bottom-up intervention approach.

Bottom-up Regional Development in Manufacturing is Driving the National Agenda



- Legend**
- EDA IMCP
 - DOD DMCS
 - EDA Build Back Better Regional Challenge
 - NSF Innovation Engines
 - EDA Recompete Pilot Program
 - EDA Tech Hubs
 - SBA Regional Innovation Clusters
 - DOE LEAP Communities

Congressional Research Service
Informing the legislative debate since 1914

Regional Innovation: Federal Programs and Issues for Consideration

April 3, 2023

Congressional Research Service

[2023 CRS overview of federal regional innovation programs](#)

Opportunity to align with regional federal programs: Institutes, EDA EDDs and EDRs, Nat'l. Labs, NIST MEPS, DOE IACs, SBA GAFCs and more. **All need to be integrated locally and regionally for greater collective impact!**



Revitalizing U.S. Manufacturing is a Complex Challenge with many Players

How do we make smarter decisions and more effective public-private partnerships in regions that produce better outcomes?



Prioritize Key Industries

- Defense
- Energy
- Transportation
- Agriculture
- IT/Communications
- Health

[WH report on priority industries](#)

6

Focus on Ecosystem Components

1. Workforce & Training
2. Research & Innovation
3. Infrastructure & Site Development
4. Supply Chain Support
5. Trade & International Investment
6. Operational Improvement & Capital Access

[More on the Big 6](#)



Toward Sustainable Development

- Economic competitiveness
- Social Equity and Inclusion
- Environmental Sustainability
- National Security

AMCC Sustainable Development Webinars:

- [DEL in Manufacturing](#)
- [Manufacturing and the Environment](#)
- [Cybersecurity and Manufacturing](#)

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[WH report on priority industries](#)

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Effective Ways Institutes Can Build Trust More Broadly and Quickly in Manufacturing Regions

- 1. Consistently Create Forcing Functions:** Intentionally incorporate Institutes into manufacturing related place-based initiatives, e.g. DMCSF requirement, Tech Hub NOFO language, etc.
- 2. Consistently Show Up:** Attend regular meetups among regional stakeholders across federal/state/nonprofit initiatives, e.g. AMCC's weekly 30-minute national call, an annual Interagency Manufacturing Momentum Summit, etc.
- 3. Consistently Provide Value for Free and Engage:** Share easy to use and free access to recommended info, tools, tactics, and engage for free as much as possible via online newsletters like the AMCC Update, meetups, convenings, follow-up meetings etc.

AMCC distinguishes three types of metrics that reveal the strength and gaps of a manufacturing system.

1. Manufacturing Metrics:

Throughputs and outputs of manufacturing activity by a manufacturer, group of manufacturers, or in a geographical region.

Data currently gathered by NIST MEPS.

2. Programmatic Metrics:

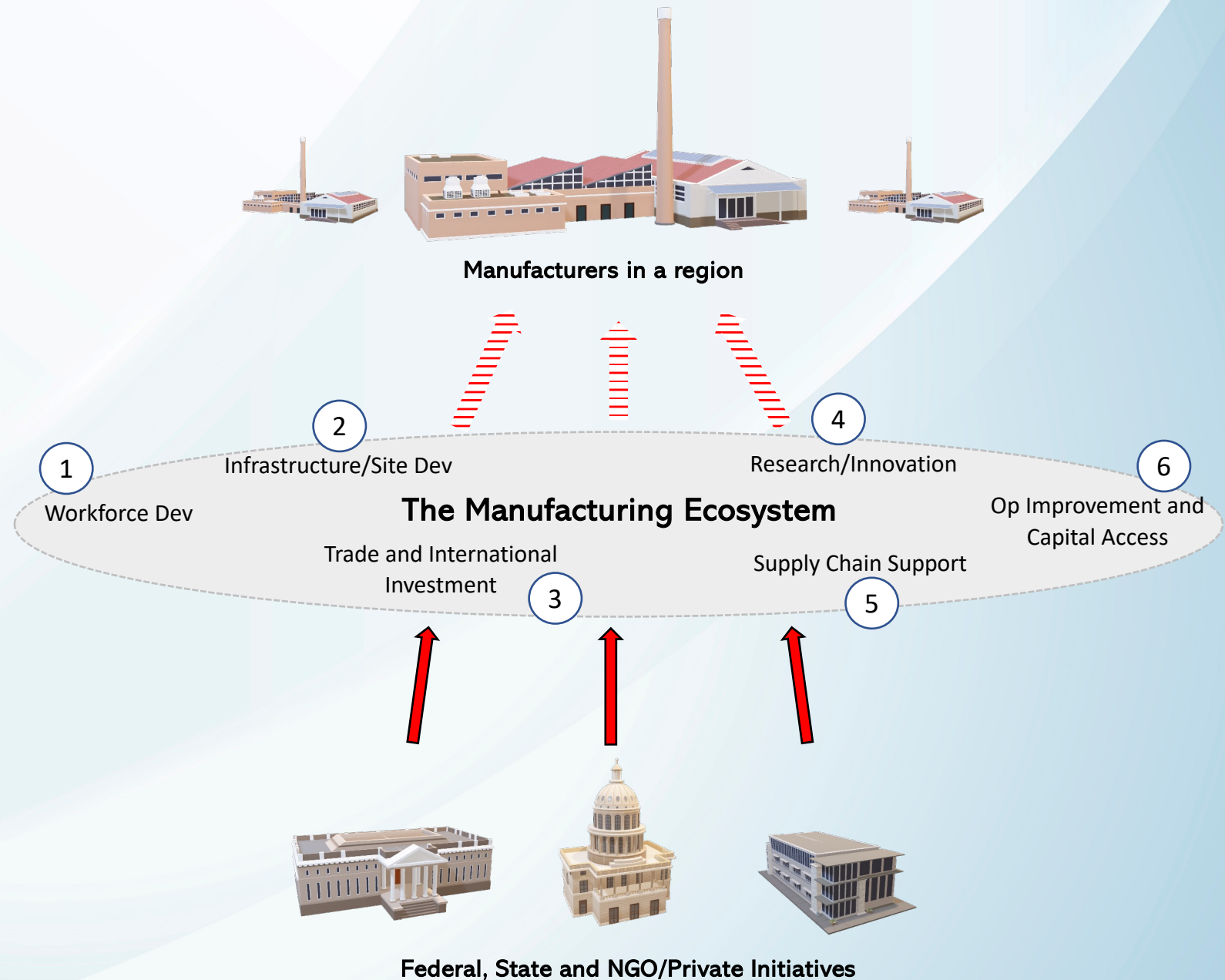
Public and private interventions that seek to enhance the strength of regional manufacturing.

Data gathered within each program administered by Federal, State or NGO/Private sources.

3. Ecosystem Metrics:

The outputs and outcomes resulting from the interactions between stakeholders in a region, i.e., a university/NGO collaboration targeting workforce development.

Problem!! Without ecosystem metrics, it is unclear how Federal/State interventions produce lasting outcomes in communities that support manufacturers.





Participate in AMCC!

- Join our **consistent, weekly 30-minute national Monday call** to get connected with public/private stakeholders from across the nation! (message David to be added)
- Explore americanmcc.org
- Get our **consistent, weekly newsletter updates** at americanmcc.org/subscribe
- Chat with us today on how we can add value to your work
- Learn more about the regional [open-source ecosystem metrics tool](#) development process, our [Roadshows](#) and [Manufacturing An American Century](#) podcast.
- Contact us by email:
matt.bogoshian@amccmail.org
david.vansiclen@amccmail.org





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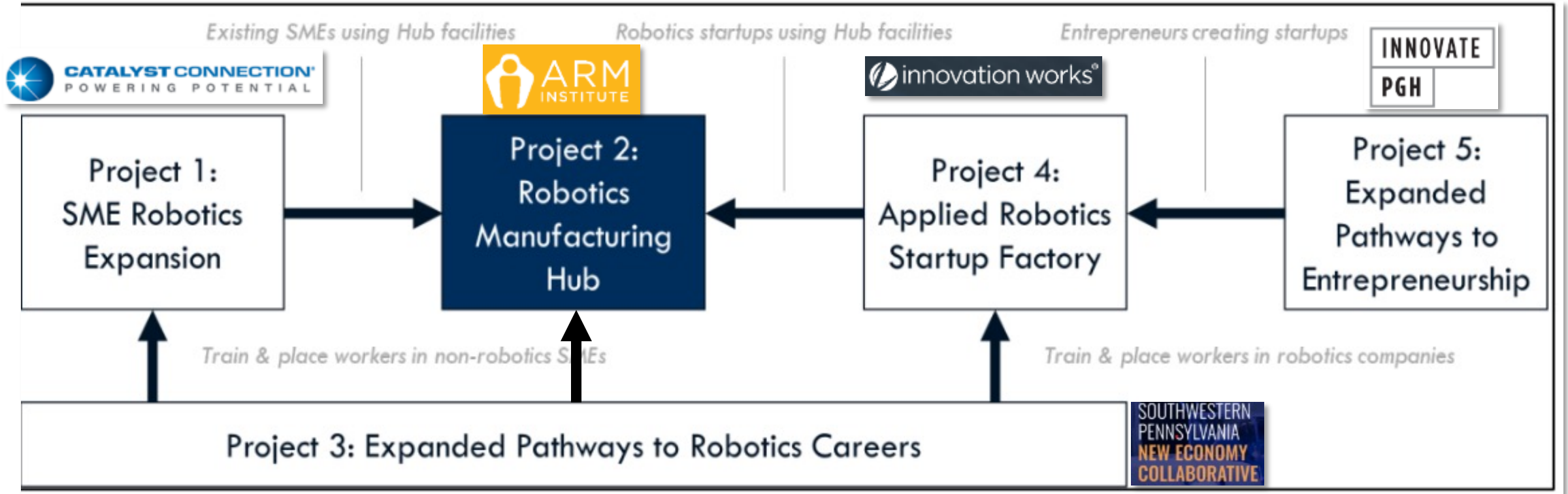
ARM
INSTITUTE

ARM Institute |
Regional Collaborations

Manufacturing USA Network Meeting
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Robotics Manufacturing Hub (RMH)

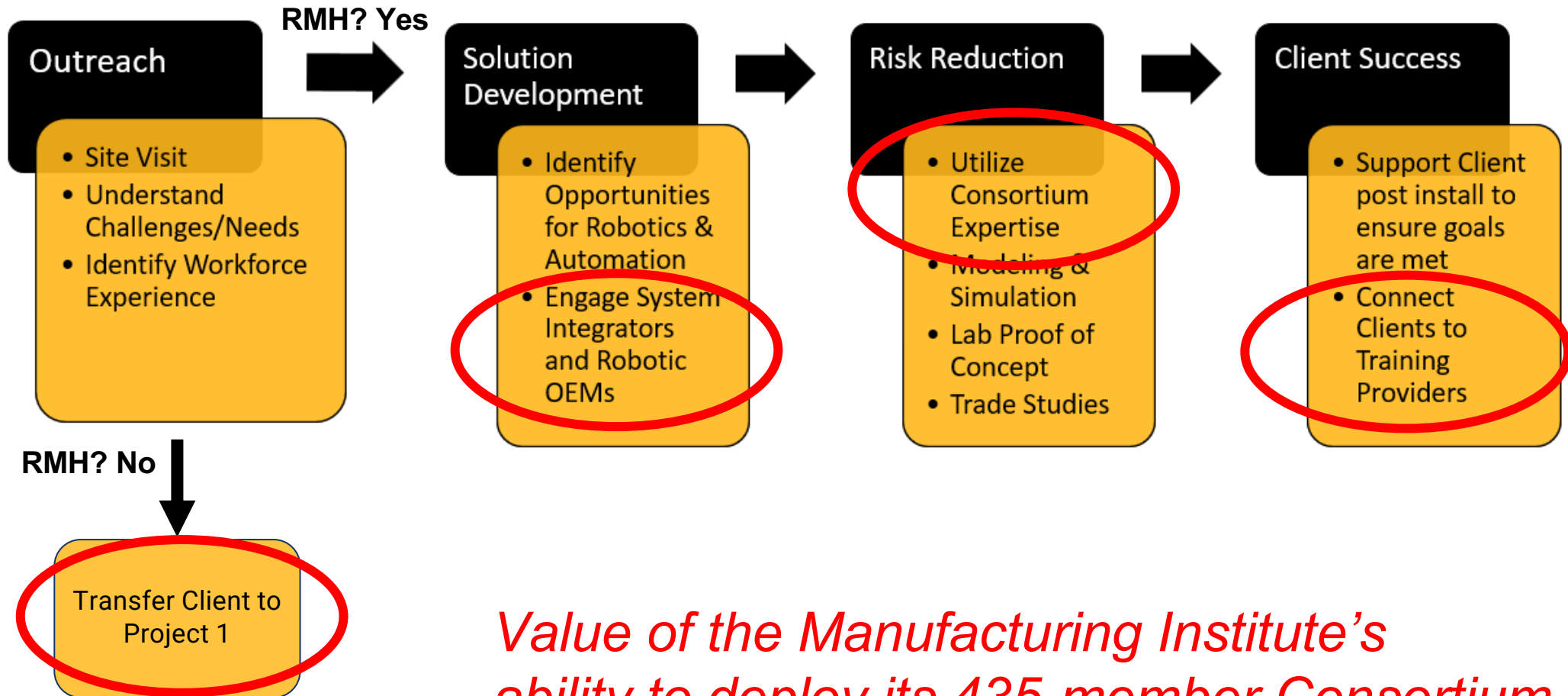
Part of \$62.7M BBB EDA Regional Challenge Award in Southwest PA



Project 2: \$14.2M Over 4 years

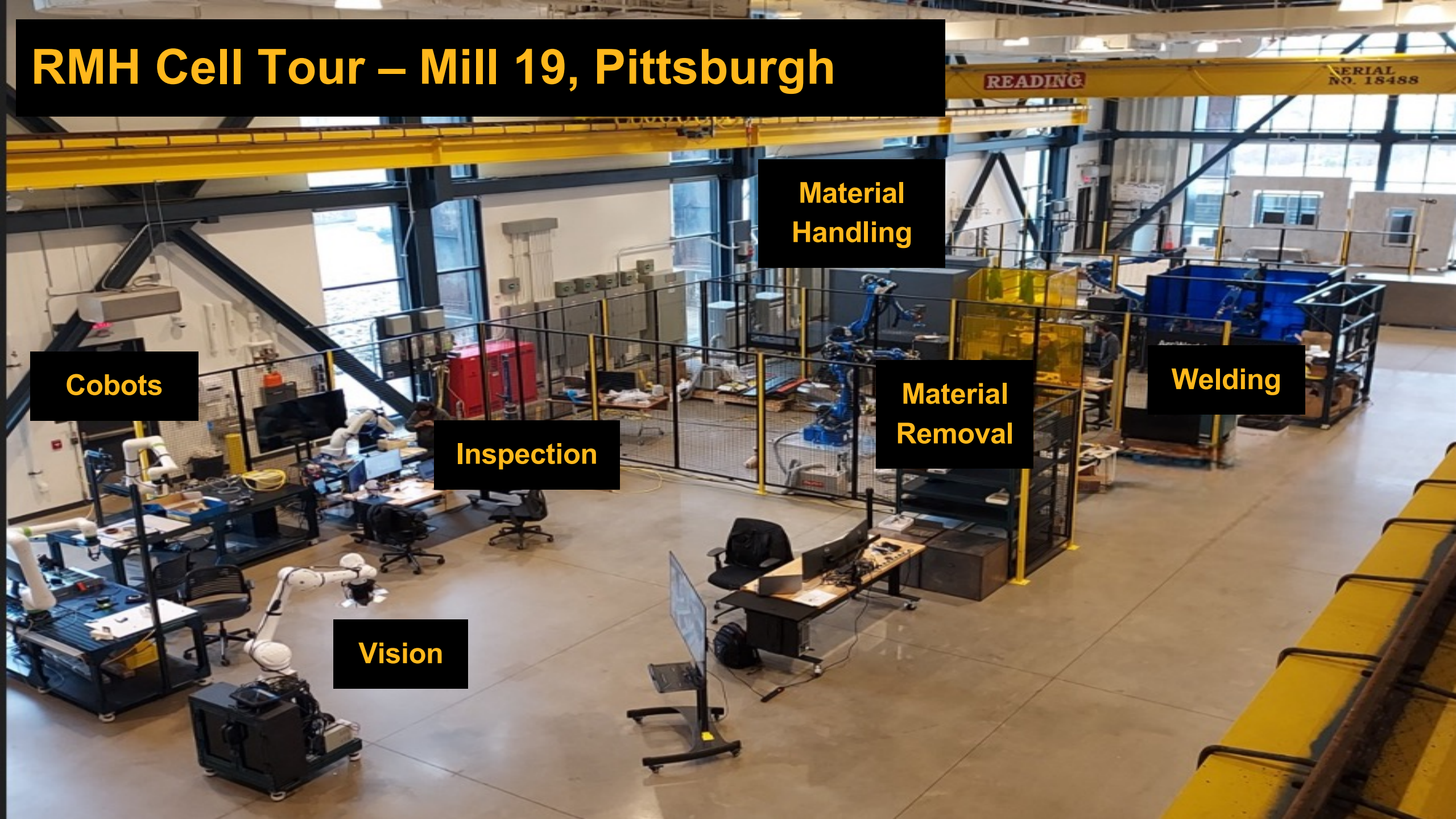
- De-risks the adoption of advanced robotics for regional SMMs using Mill 19, ARM's HQ
- Connects to 4 Innovation Accelerators in outlying areas

Robotics Manufacturing Hub (RMH) De-Risking Process



Value of the Manufacturing Institute's ability to deploy its 435-member Consortium

RMH Cell Tour – Mill 19, Pittsburgh



Cobots

**Material
Handling**

Inspection

**Material
Removal**

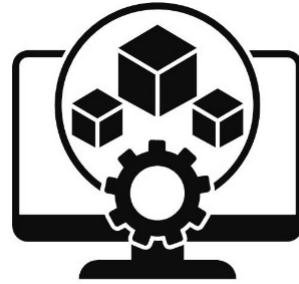
Welding

Vision

Services for SMMs



**On Site Automation
Assessment**



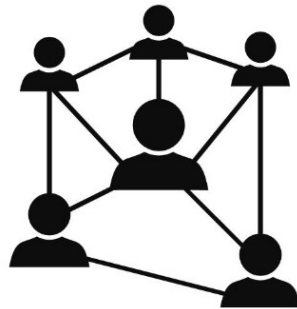
Modeling & Simulation



**Proof of Concepts and
Demonstrations**



**Business Case
Assessment**



**Access to ARM's
Network**



**Request for Proposal /
Quote Support**



**Workshops, Learning & Exploration
including Entrepreneurial Training at the 4
Innovation Accelerators**

Spotlight Story



RMH Solution:

- Process Redesign
- End Effector Study & Design
- Modeling & Simulation
- Partnership with vision system company
- Proof of Concept Demo



Problem:

- 37 lb cast suspension parts, spray oiled, crated
- 12,000/year, all done manually

Material Removal Workshop

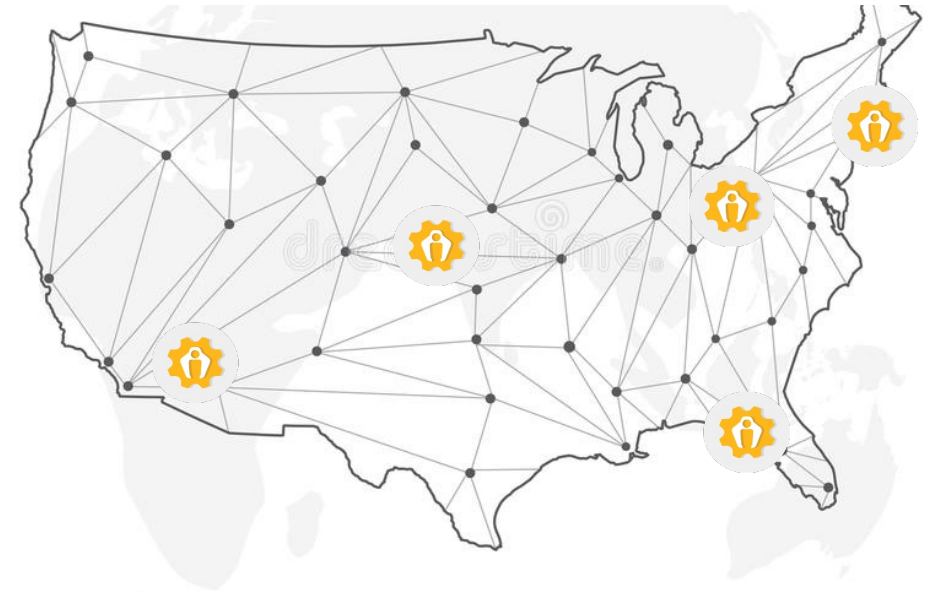


- 70+ attendees, 25 manufacturing companies
- 9 Robotic & Material Removal Experts
- Resulted in 4 new projects underway



Vision is to Scale **Nationally**

- **Build:** on de-risking concept that is showing initial success in Southwest PA
- **Vision:** Network of de-risking locations among ARM Institute consortium; hub and spoke model
- **Expand:** beyond SMMs; OEMs expressed interest



DoL “Comprehensive and Accessible Reemployment Through Equitable Employment Recovery” (CAREER) Grant

Goal: Connect dislocated job seekers to employment as economy recovers from pandemic

- **Original POP: October 2021 – September 2023 – in Florida**
 - Qualified Workforce Innovation and Opportunity Act (WIOA) candidates
 - 2-week bootcamp training culminating in interviews for employment
- **July 2023: White House names Pittsburgh as one of five Workforce Hubs**
 - DoL agreed to reallocate funding to Pittsburgh
 - Enabled ARM to partner with the emerging Hub: “Partner4Work” (Hub anchor, Workforce Board), Tooling-U, Allegheny County, New Century Careers, etc.
 - Skills Gap Analysis, Training, Job Matching; fast track to manufacturing careers



“Thanks to this program, my life has changed. I live in a nice house. Met the woman of my dreams and life is great”



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Lunch

