Bottom-Up: Advancing the Manufacturing Community Model

House Manufacturing Caucus Virtual Briefing
October 7, 2pm EDT
American Manufacturing Communities Collaborative
Agenda

2:00-2:05 Introduction, Agenda and Welcome
Matt Bogoshian, AMCC Executive Director
House Manufacturing Caucus, Logan Hoover, Legislative Director, Tom Reed NY CD 23

2:05-2:10 Recent History of the Model
Matt Bogoshian, AMCC Executive Director

2:10-2:20 Why This Model Matters
Andy Stettner, Senior Fellow, The Century Foundation

2:20-2:30 How This Model May Expand: The Endless Frontier Act
Geo Saba, Legislative Director, Ro Khanna CA CD 17

2:30-2:55 Three Illustrations of the Model
Pennsylvania, Petra Mitchell, President and CEO of Catalyst Connection
Kansas, Deborah Franklin, AVP Strategic Initiatives, Wichita State University
Washington, Sarah Lee, Governor’s Sector Lead, Washington State Department of Commerce

2:55-3:00 Questions and Closing
2:00-2:05 Welcome

House Manufacturing Caucus, Logan Hoover, Legislative Director
Caucus Co-chair Congressman Tom Reed, NY CD 23
2:05-2:10 Overview Matt Bogoshian, AMCC Executive Director

→ 2014 Investing in Manufacturing Communities Partnership (IMCP) unfunded designations (13 federal agencies)
  ◆ Communities meet rigorous selection criteria:
    ● Organize a diverse public/private backbone organization
    ● Conduct a regional SWOT analysis
    ● Create a plan that addresses workforce, supply, research, infrastructure, trade & capital access
  ◆ Over 70 US regions apply for Designation

→ 24 Regions Designated as IMCP Communities in 2 Years
  ◆ Designation comes with technical assistance, some preference for grants, branding, bottom up know how
  ◆ Community of practice develops amongst the regions
  ◆ AMCC Formed in 2018

→ New DMCSP iteration of the model authorized and funded, 40 regions apply in 2020, 6 Designated with links to Manufacturing USA Institutes

→ New Iterations of the Model Being Proposed in Congress; e.g. Endless Frontier Act, America Leads Act, Energy Technology Transfer Act
2:10-2:20  Why This Model Matters
Andy Stettner, Senior Fellow, The Century Foundation

Restarting the Manufacturing Recovery

Manufacturing Jobs 2000-2020
A model of rebirth and recovery

**NATIONAL DRIVERS**
- Level the Playing Field
- Create Demand

**REGIONAL DRIVERS**
- Spur Innovation + Advanced Manufacturing
- Retain, Restore, + Grow Sustainable Industries
- Reinvest in Workers
- Mobilize Responsible Capital for High Road Growth

**OUTCOMES**
- Revitalized Regional Economies
- Globally Competitive Manufacturing Sector
- Strong, Diverse Regional Industrial Clusters
- High Value High-Wage Family-Sustaining Jobs
- Socially Inclusivity and Economic Growth
Manufacturing can help to drive an equitable recovery
Don’t take my word for it

- **Bartik (2018)** Fastest growing manufacturing-intensive regions invested in:
  - a) expanded services to small & medium manufacturers, investing in infrastructure, and increase spending on workers skills.

- **Muro & Katz (2010)** Clusters foster innovation; strengthen entrepreneurship; enhance productivity & income-levels, and employment growth in industries.

- **Pisano & Shih (2012)** Manufacturing depends on a set of shared resources to foster innovation. Outsourcing of production has stifled invention and job growth.
Example: DMCSP

$25 million FY2020 – 6 grants

- Pennsylvania/West Virginia/Ohio
- Ohio
- Utah
- Alabama
- Connecticut
- California
2:20-2:30  How This Model May Expand: The Endless Frontier Act
Geo Saba, Legislative Director, CA CD 17

• Bipartisan, Bicameral (Khanna/Gallagher H.R. 6978—Schumer/Young S. 3832)
  10 Democrats and 8 Republicans cosponsors

• The National Science Foundation (NSF) would be renamed the National Science and Technology Foundation (NSTF) and task a new deputy director with funding fundamental research related to specific recognized global technology challenges with geostrategic implications for the United States.

• The new Directorate would be given DARPA-like authorities, with the option to utilize program managers for selecting awardees.

• The authorization for the new Directorate would be $100 billion over five years to reinvigorate American leadership in the discovery and application of key technologies that will define global competitiveness (AI, semiconductors, robotics, advanced manufacturing, biotech, cybersecurity etc).

• An additional $10 billion would be authorized over five years for the Commerce Department to designate 10 to 15 regional technology hubs, awarding funds for comprehensive investment initiatives that position regions across the country to be global centers for the research, development, and production of key technologies.
2:30-2:55 Three Illustrations of the Model

**Pennsylvania, Petra Mitchell, President and CEO of Catalyst Connection**

Kansas, Deborah Franklin, AVP Strategic Initiatives, Wichita State University

Washington, Sarah Lee, Governor’s Sector Lead, Washington State Department of Commerce
The “Greater Pittsburgh Metals Manufacturing Community” (GPMMC) is a partnership of government, university, industry, workforce and economic development organizations in southwest Pennsylvania and northwest West Virginia, who are working to build upon the region’s historic strengths in metals and materials, strong supplier networks, world class research universities, abundant energy and water, and available brownfields sites, to drive economic and community revitalization in the region and beyond. Fourteen co-applicants and over 100 supporting partners continue to work together to leverage strengths, secure resources and implement initiatives to grow and support advanced manufacturing industries.
### Key Technology Sector

<table>
<thead>
<tr>
<th>NAICS</th>
<th>Description</th>
<th>2019 Location Quotient</th>
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<tbody>
<tr>
<td>327</td>
<td>Non-metallic Mineral Manufacturing</td>
<td>1.72</td>
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<tr>
<td>331</td>
<td>Primary Metal Manufacturing</td>
<td>3.53</td>
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<tr>
<td>332</td>
<td>Fabricated Metal Product Manufacturing</td>
<td>1.34</td>
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<tr>
<td>333</td>
<td>Machinery Manufacturing</td>
<td>1.05</td>
</tr>
<tr>
<td>541715</td>
<td>Research and Development in the Physical, Engineering and Life Sciences</td>
<td>1.91</td>
</tr>
</tbody>
</table>
The competitive advantage of the (Greater Pittsburgh) region is no longer its rivers and raw materials but its high-skilled workers, world-class research institutions, and technology-intense advanced manufacturing.

- Brookings Institution, Sept 2017

Greater Pittsburgh Metals and Materials Manufacturing Community (GPMMMC)

**Highlights of $36M+ Investments/ Successes**

- AMNOW – US Army technology insertion and eco-systems for supply chains for additive manufacturing (3D Printing)
- Advanced Robotics in Manufacturing (ARM) Institute - **Accelerating US Manufacturing Renaissance with People and Robots**
- “Explore the New Manufacturing“ / “Making Your Future“ Campaigns - **Connecting students, parents, job seekers, employers**
- TEAM Consortium - Community college collaboration for workforce development

Sources of funding: DOD, DOC, EDA, ARC, Private Foundations and Industry
ABOUT
Catalyst Connection is a Southwestern Pennsylvania economic development organization dedicated to serving manufacturers. For more than 30 years, Catalyst has operated with a focus on powering potential through delivering technical assistance and management consulting services and developing long-standing partnerships across the region. Catalyst maintains a deeply held commitment to modernizing manufacturing and enabling opportunity across business enterprises, individuals, and throughout communities. Catalyst Connection is supported, in part, by the Commonwealth of Pennsylvania’s Department of Community and Economic Development, and by the National Institute of Standards and Technology’s Hollings Manufacturing Extension Partnerships.

VISION STATEMENT
Southwestern Pennsylvania will be a leading manufacturing center in the world.

MISSION STATEMENT
Our mission is to advance the performance of manufacturing companies in Southwestern Pennsylvania by accelerating their growth and productivity improvements.

Primary Point of Contact

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LEAD APPLICANT: Catalyst Connection

Integrating metals and advanced materials with artificial intelligence, additive manufacturing, and robotics
AIM Higher Consortium Objective and Approach

Assist small and medium sized Manufacturers (SMMs) in the defense supply chain improve productivity, increase competitiveness, grow their business and create and retain high paying family sustaining jobs BY

*Integrating metals and advanced materials with artificial intelligence, additive manufacturing, and robotics*

**Connections:**
Access to supply chain members and partners who can assist SMMs with advanced technology

**Resources:**
Industry information and resources to implement business improvements

**News and Events:**
The latest news and events related to Defense Supply Chains and advanced technology

**Grants and Training:**
Technical assistance and Incumbent Worker Training with grant funding of up to $5000
2:30-2:55 Three Illustrations of the Model

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MANUFACTURING DEVELOPMENT CYCLE
(MULTIPLE COMPANY)

consistent laboratory need

NEW PRODUCTION MODEL DEVELOPMENT

NIAR

Wichita State University
Improve Manufacturing Agility

Workforce and Innovation

Increase production agility while staying on budget and on time through 360 degree planning, simulation, and real-time insights to optimize the global supply chain network.

Improve manufacturing quality through unified change management, full supplier traceability, and real-time tracking of the disposition of quality issues to ensure rapid implementation of corrective actions.

Optimized planning and execution through real-time visibility across the supply chain to assess performance and rapidly implement corrective actions.

Improve first time quality through virtual assembly and manufacturing planning visibility and control in real time.
2:30-2:55 Three Illustrations of the Model

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MODEL IS PERFECT FRAME FOR ECONOMIC RECOVERY:

PUBLIC INVESTMENTS THAT:

• REQUIRE PARTNERSHIPS
• SUPPORT COLLABORATIONS
• BUY DOWN RISK
• LEVERAGE MORE INVESTMENT
• ARE SUSTAINABLE
LIKE MARITIME BLUE...

AN EDA I6 CHALLENGE INVESTMENT THAT:

• BUILT PUBLIC/PRIVATE INDUSTRY CLUSTER
• LAUNCHED 11 INNOVATIVE COMPANIES
• LANDED $500M IN NEW INVESTMENT
• LAUNCHED 6 JOINT INDUSTRY PROJECTS
ZERO EMISSION FAST FOIL FERRY

JOINT INDUSTRY PROJECT THAT:

• PULLED **SUPPLY** CHAIN & **VALUE** CHAIN TOGETHER

• LEVERAGED PUBLIC & PRIVATE DOLLARS

NEXT STEP:

• BUY DOWN RISK FOR FIRST VESSEL
POST PANDEMIC Rx FOR RECOVERY:

EDA $15M CARES ACT GRANT TO:

• **REINVENT** OUR STRUGGLING INDUSTRY SECTORS

• BUILD PUBLIC/PRIVATE PARTNERSHIPS

• DEVELOP **Sustainable** FINANCIAL ECOSYSTEMS

• BUY DOWN RISK

• LEVERAGE MORE INVESTMENT

Sarah Lee, Governor’s Advanced Manufacturing Sector Lead: sarah.lee@commerce.wa.gov
2:55-3:00 Questions and Closing

Matt Bogoshian, AMCC Executive Director

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