

# TECH X HUB

AEROSPACE MATERIALS & MANUFACTURING

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**Ohio**

**Manufacturing  
Extension Partnership**



# Ohio

## Manufacturing Extension Partnership



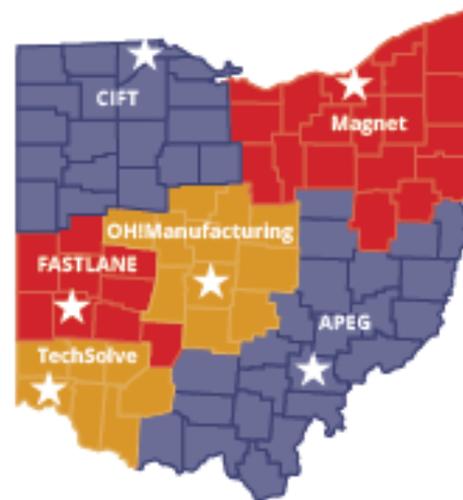
MEP was started by NIST over 20 years ago to be a catalyst for strengthening American manufacturing - accelerating its growth into a more efficient and powerful engine of innovation driving economic growth and job creation

FOCUS → Small + Medium Enterprises

There are 6 MEP affiliates in Ohio  
FASTLANE serves the West Central region

# Ohio

## Development Services Agency



**Northwest Region**  
Center for Innovative Food Technology (CIFT)

**West Central Region**  
FASTLANE

**Southwest Region**  
TechSolve, Inc.

**Southeast Region**  
Appalachian Partnership for Economic Growth (APEG)

**Northeast Region**  
The Manufacturing Advocacy and Growth Network (MAGNET)

**Central Region**  
OHIManufacturing



**FASTLANE**  
FOR GROWTH SOLUTIONS

**UDRI**  
UNIVERSITY  
of DAYTON  
RESEARCH  
INSTITUTE

FASTLANE MEP affiliate is a program within UDRI

The Manufacturing Extension Partnership is a manufacturing life line staffed by trusted advisors with a background in manufacturing.

MEP exists to:

Enhance your competitiveness

Move quickly to find you solutions

Engage the right resources

Delivery results for your operation



Manufacturing  
Extension Partnership

# MEP 5 Key Solution Areas

## Continuous Improvement

LEAN  
Six Sigma  
Kaisen  
ISO Quality 9001  
ISO Quality AS 9101  
ISO Quality TL 9001  
ISO Quality 13485  
ISO Quality 17025  
ISO Food Safety 22001  
OHSAS 18001  
5S  
Set Up reduction  
Kanban  
Lean Enterprise  
Statistical Process Control  
Root Cause Analysis  
Value Stream Mapping  
Succession Planning  
Business Planning  
Family Business Coaching  
Training

## Supply Chain Development

OEM Supplier Training  
Supplier Development  
Quality Standards Training  
Technical Assistance  
Technology  
Implementation

## Sustainability

ISO 14001  
ISO 50001  
E3 Energy, Environment,  
Gas/Fluid  
recovery/reclaiming  
Economy  
Energy Assessments  
Carbon Footprint Mapping  
Energy Management  
Training  
EPA Compliance

## Workforce Development

TWI  
Manufacturing Certifications  
Individual Training Certifications  
CNC Training  
Welding Training  
CAD Training  
Customized Training  
Leadership Training

## Technology Acceleration

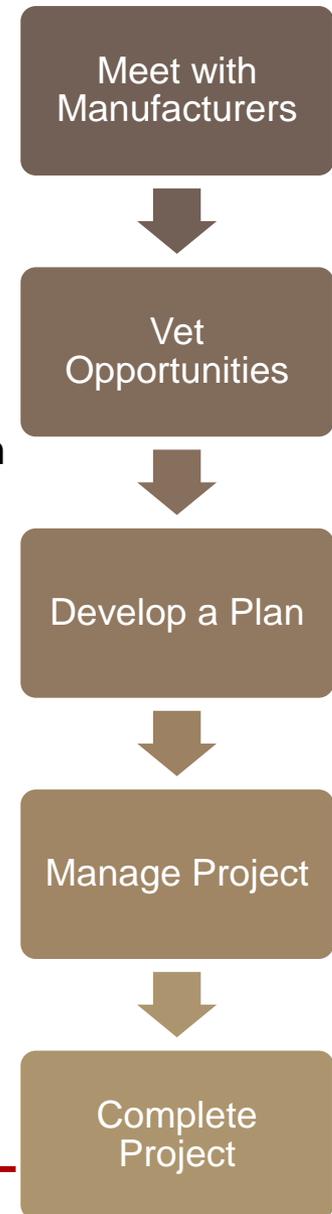
Product Design & Development  
Commercialization Management  
LEAN Product Development  
Growth Coaching  
Tech Transfer  
Testing & Validation  
Innovation Engineering  
Additive Manufacturing

# MEP How It Works

Our Manufacturing Growth Specialists act as Third Party Advisors and Project Managers to help you get projects done faster.

## How it Works:

1. Meet with Manufacturers:
  - Face-to-face, tour the facility and listen/understand growth challenges
2. Vet Opportunities:
  - Summarize observed/discussed challenges and identify priorities
  - Define SOW
  - Vet possible solution providers & present list to client (i.e. source/cost/timing etc.)
3. Develop a Plan:
  - Develop a measurable, budgeted plan with milestones
4. Manage Projects, Capture Impacts:
  - Monitor milestone accomplishments
  - Track company success and economic impact for Ohio



# Housed within UDRI, FASTLANE's strength is technology acceleration



- Over 470 research staff
- 218,000 sq ft facilities
- Second in U.S. in funded materials research
- Flexible, expedient contracting
- Flexible approach to intellectual property rights
- Materials & Processes
- Mechanical & Structural Technologies
- Energy & Environmental Technologies
- Sensors & Electronics
- Human Performance



The Materials and Manufacturing Aerospace Technology Hub is a resource for aerospace manufacturers to improve competitiveness by solving technical challenges, advancing technologies and identifying suppliers.

**Competitive Edge:**

Innovation hub for solving CNC machining challenges, utilizing regional equipment assets for project activity

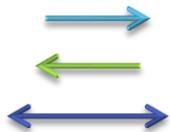
**R&D:**

Vetting and acceleration of materials and manufacturing innovations for next generation aircraft

**Supply Chain:**

Supplier and technology scouting & supply chain development for near-term procurement opportunities

# CNC Machining Solution Provider



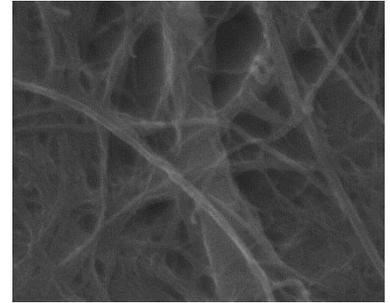
- **Technical challenges** direct from customers to Hub
- **Solutions** direct from Hub to customers
- **Communication flow**



Customer to the Hub

# Research & Technology Materials Consortium

- How it works:
  1. We invite new project concepts from small businesses and academia throughout Ohio and regularly review new ideas with collaborating aircraft manufacturers.
  2. If your material or technology peaks interest, we work together to shape a screening program to investigate or vet the technology and accelerate its development.
  3. Tech Hub serves as a neutral, non-profit program manager to ensure proper handling of intellectual property and export controls.
- Primary areas of interest include materials and advanced manufacturing innovations, generally in the TRL 1 - 5 and MRL 4 - 5 range.

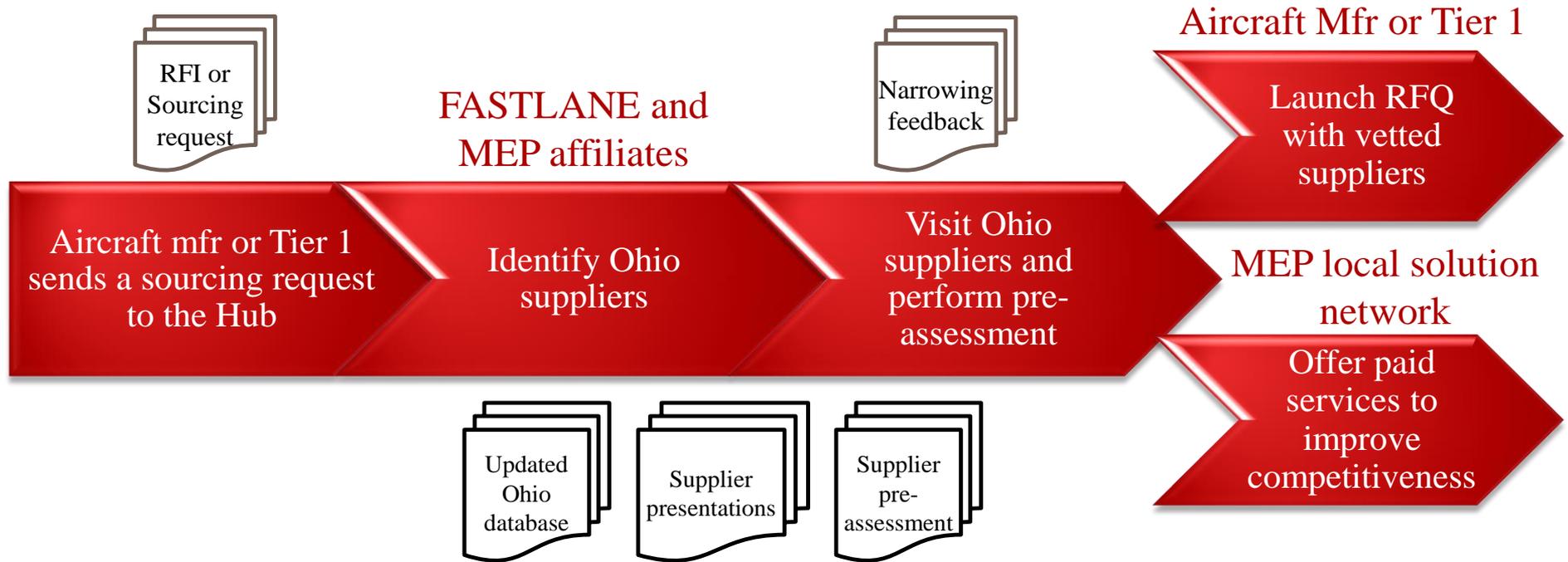


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If you have an innovative technology, we would like to hear about it!

# Supply chain and technology scouting

## Reactive approach (need identified)



Input

Output

Strategic focus on CNC machining and advanced manufacturing, typically TRL 6-9 / MRL 6-10. Suppliers generally must be AS9100 certified or willing to become certified.

# Key Takeaways

- The Manufacturing Extension Partnership is a resource for manufacturers to grow business and improve competitiveness
- Tech Hub is an MEP program to better position Ohio's supply chain to respond to commercial aviation opportunities
- FASTLANE at UDRI leads the Tech Hub program for Ohio MEP
- Contact us to learn more and explore collaboration opportunities

Questions/Discussion

Thank you

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