NASA Technology Days

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President & CEO
MAGNET

Cleveland, Ohio
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Northeast Ohio is a Manufacturing Region
Northeast Ohio is a Manufacturing Region

6,900
• 14.1% of region’s employment
• 19.0% of GRP
• 23.4% of region’s wages
• 40.5% of Ohio’s manufacturing employment
• 1.5 times more concentrated in mfg than nation
About MAGNET

• Non-profit organization with fundamental goal of helping manufacturers become more competitive and grow

• Founded in 1984 as the Cleveland Advanced Manufacturing Program (CAMP)

• Name changed to MAGNET in 2007 to reflect broader mission and geographic scope

• 35 FT employees + 2 PT and 5 interns

• FY13 budget ~ $7.2M; supported by State, Federal, philanthropic sources plus industrial revenue
Element of economic development system focused on 18-county region of Northeast Ohio

Edison Incubator (one of thirteen in State)

Ohio Edison Technology Center (one of six State centers) with special capabilities in new product development

Part of Ohio’s federally-supported Manufacturing Extension Partnership program (through National Institute of Standards)
Three Interrelated Priorities

1. Ensure Talent Pool
   As Workforce Intermediary:
   - Quantity: Increase Pipeline
   - Quality: Align Skill Levels
   - Nationally-recognized Center of Manufacturing Education

2. Create Favorable Manufacturing Environment
   - Global Awareness & Engagement
   - Incubator
   - Innovation Support Network
   - Access to Capital
   - Voice OF & FOR Manufacturing

3. Deliver Direct Consulting Services
   - Efficiency & Productivity
   - Quality
   - New Product Development
   - Export Expansion
   - Workforce Training
   - Sustainability

Five-Year Economic Impact: $793M
- Sales: $540 M
- Savings: $79 M
- Investment: $174 M
Jobs Created/Retained: 6,264
Major Focus on Innovation

PRISM
Partnership for Regional Innovation Services to Manufacturers
The goal of PRISM is to help Small-to-Mid-sized manufacturers realize their growth plans faster, cheaper, and with less risk while creating a continuous flow of innovations from concept thru launch by leveraging MAGNET’s capabilities and the region’s assets (capital, talent, higher education, government, and other companies) to create sustained manufacturing growth, including a flow of SMM job growth at scale.
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<td><strong>Case Western Reserve University</strong></td>
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<td>- Case School of Engineering</td>
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<td><strong>Lorain County Community College</strong></td>
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<td><strong>The University of Akron</strong></td>
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<td>- Univ. of Akron Research Foundation</td>
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<td>- Austen BioInnovation Institute</td>
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• Automotive Technology Expo  
  - Aimed at exploring potential of transferring NASA technologies to automotive supply chain

• Adopt-a-City Manufacturing Innovation Project  
  - Focused on helping Small-to-Mid-sized Manufacturers (SMM’s) with <$50M annual revenues) solve technology issues impeding commercialization
• SMM’s able to access:
  – Up to 40 Hours scientific and technological expertise from NASA
  – Low interest loans (up to $50K) from Cuyahoga County or City of Cleveland
• Fifty manufacturers applied through MAGNET-managed competitive selection process
• Nine winners selected:
  - BioInVision
  - Gotta Groove Records
  - Morrison Products Inc.
  - Sensor Development Corp.
  - Boundary Systems
  - MegaJoule
  - Pile Dynamics Inc.
  - Vadxx Energy
  - Zuga Medical Inc.
• Hope to replicate in other parts of region
Advanced Manufacturing Objectives

One: Enable Innovation
1. Establish a National AM Strategy
2. Increase R&D Funding
3. Establish National Network of AM Innovation Institutes
4. Empower/enhance University Collaboration on AM Research
5. Foster Environment for Technology Commercialization
6. Establish National AM Portal

Two: Secure Talent Pipeline
7. Correct Public Misconceptions about Manufacturing
8. Tap Talent Pool of Returning Veterans
9. Invest in Community College Level Education
10. Skills Certification and Accreditation Partnerships
11. Enhance AM University Programs
12. Launch Manufacturing Fellowships/Internships

Three: Improve Business Climate
13. Enact Tax Reform
14. Streamline Regulatory Policy
15. Improve Trade Policy
16. Update Energy Policy

Source: Report to the President on Capturing Domestic Competitive Advantage in Advanced Manufacturing, Executive Office of the President, AMP Steering Committee Report, Jul. 2012
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Announcement: Aug 16, 2012
Prime Awardee: National Center for Defense Mfg. & Machining (NCDMM)

- Providing ~$40M cost share
  - ~ $20M from industry
  - ~ $48M available for projects
- Strong leveraging of equipment and existing resources
- Strong business development
- Ties to many organic facilities
- Tiered membership-based model
A REGIONAL Center of Excellence, with a vision for NATIONAL PRESENCE
“Game Changing” Vision

Northeast Ohio is internationally renowned as a center of excellence in manufacturing education and product innovation

Through a network among higher education institutions, manufacturers, and other partners. . . NEO is:

1. Home to many growing manufacturing companies
2. Emerging as a hotbed of talent
3. Attracting manufacturing companies from elsewhere