MEP
A National Resource to Help U.S. Small Manufacturers Implement Digital Manufacturing

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MISSION

To enhance the productivity and technological performance of U.S. Manufacturing.

• MEP built on nationwide system of centers located in all 50 states and Puerto Rico.
• Each MEP center is a partnership between the federal gov and a variety of public and private entities, including state, university, and nonprofit organizations.
• MEP centers help thousands of manufacturers reinvent themselves, increase profits, create and maintain jobs, and establish a foundation for long-term business growth and productivity.
MEP Program in Short

**National Network**
At least one center in all 50 U.S. states plus Puerto Rico; ~1500 field staff in >400 service locations assisting U.S. manufacturers

**Local → National Connection**
System of Centers providing localized service to manufacturers in each State – with National reach and resources

**Partnership Model**
Federal, State and Industry

**MEP Budget & Business Model**
$128 Million Federal Budget with Cost Share Requirements for Centers

**Global Competitiveness**
Program provides direct, hands-on tech & business assistance to domestic manufacturers to help them compete and grow

**Digital Manufacturing Relevance**
Annually serve >30,000 small U.S. manufacturers – *can facilitate Digital Mfg-related outreach to small U.S. manufacturers*
What MEP Does

- Work with small and medium size manufacturers to help them create and retain jobs, increase profits and save time and money
- Focus on meeting manufacturer’s short term needs, but in context of overall company strategy
- Reach over 30,000 manufacturing firms and complete over 10,000 projects per year
- Provide companies with a consistent set of assistance services including:
  - Technology Acceleration
  - Workforce Development
  - Innovation and Growth
  - Sustainability
  - Supply Chain Development
  - Quality Systems and Lean Process
Client Impacts

30,131 Manufacturers served in FY2013

JOBS SAVED 43,914
JOBS CREATED 18,789
RETAINED SALES $6.2 Billion
NEW SALES $2.2 Billion
COST SAVINGS $1.2 Billion
CLIENT INVESTMENTS $2.5 Billion
MEP and MBE

- **2009 MBE Capabilities Assessment**
  - Small manufacturers are generally ready to operate with 3D data

- **MBE Education and Training Summits, 2010-2011**
  - Small manufacturers are interested in using 3D models as basis for design and production; are anticipating receipt of models, requirements

- **MBE Website, Launched 2010**
  - www.model-based-enterprise.org
  - Upgraded in 2014 by Catalyst Connection (MEP Center in Pittsburgh, PA)

- **2012 3D TDP Assessment**
  - 3D TDP Tool developed by ManTech contains all info needed to make a part and is better than 2D drawings

* MBE Analysis Metric
* Analysis & Results: 2/3 of participating suppliers are ready to operate in an MBE environment

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**MBE Analysis Metric**

- Level 4: 1%
- Level 3: 32%
- Level 2: 35%
- Level 1: 17%
- Level 1 Incomplete: 15%

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**MBE Website**

- www.model-based-enterprise.org

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**3D TDP Assessment**

- Level 0
- Level 1
- Level 2
- Level 3
- Level 4
- Level 5
- Level 6
MEP and Digital Manufacturing

- MEP operating M-TAC Pilot Projects (M-TAC = Manufacturing Technology Acceleration Center)
- M-TAC Projects focused on tech acceleration assistance to small manufacturers – set within context of specific supply chain needs.
- Transportation Equipment Manufacturing M-TAC
  - Led by California Manufacturing Technology Consulting (CA), w/MEP Center partners GENEDGE Alliance (VA), Illinois Manufacturing Excellence Center, Corporation for Manufacturing Excellence (CA)
  - Includes industries such as automotive, aerospace, trucking, shipping, rail.
  - Takes systems view of technology needs w/in these supply chains
  - Works with Top/Mid-Tier manufacturers to ID their needs, and needs of small manufacturers within their supply chains.
  - Also directly works with the supply chains’ small manufacturers to provide awareness about the needs of Top/Mid Tiers, as well as assistance in implementing specific technologies.
  - **One initial focus area: MBE within aerospace supply chain**
MEP and DMDII

- DOD/OSD and NIST MEP developing Formal Framework for Partnership between MEP and IMIs, including DMDII
  - Processing MOU between NIST MEP and DOD / OSD for DOD-led IMIs, starting with DMDII

- Organic efforts occurring that leverage local / regional MEP Center assets and resources to assist DMDII as they strive to engage, assist, and positively impact small manufacturers
  - IMEC (IL), Manufacturer’s Edge (CO) initial MEP Centers working with DMDII

- Anticipate partnerships developing per guidance flowing from MOU(s)
SAMPLE / POTENTIAL PARTNERSHIP EFFORTS

✓ **SME Awareness and Outreach**

- NIST MEP and DMDII jointly develop training content for MEP Center field staff to serve as consultants to small manufacturers
  - *Example: Digital Manufacturing 101, with DMDII*
- MEP Centers conduct manufacturing workshops to address groups of manufacturers about DMDII efforts, assets, resources, opportunities

✓ **SME Participation in DMDII R&D Planning**

- Local MEP Center or NIST MEP participate in DMDII Technical, Strategic Advisory, or other DMDII Committees – to represent voice of small manufacturers
SAMPLE / POTENTIAL PARTNERSHIP EFFORTS

✔ SME Participation in DMDII R&D Conduct

• DMDII and MEP (NIST MEP and MEP Centers) operate bulletin boards or conduct MEP Scouting to match interested and capable small manufacturers with formative proposal teams

✔ SME Implementation of DMDII R&D Results

• MEP serve as “clearinghouse” to present DMDII research results to relevant small manufacturers working with MEP Centers
Thank You

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