Advanced Manufacturing Partnership 2.0 Update

Overview

- Builds from recommendations of original AMP
  - Outcome of PCAST Advanced Manufacturing Report (2011)
- FOCIs
  - Innovation
  - Workforce
AMP 2.0 Working Teams

- Transformative Manufacturing Technologies
- Demand-Driven Workforce Development
- National Network for Manufacturing Innovation (NNMI)
- Scale up Policy
- The Image of Manufacturing

FOCI and Key Challenges

- FOCI:
  - Innovation: TMTs, NNMI, Scale-up
  - Workforce
    - Demand-driven
    - Image of Manufacturing
- Key Challenges
  - How to articulate/imbed recommendations for action
  - Public/Private Collaboration
    - Actions that can be taken in private sectors
Transformative Manufacturing Technologies

- Digital Manufacturing
- Advanced Sensing, Control and Platforms for Manufacturing (ASCPM)
- Advanced Materials Manufacturing (AMM)
  - Structural composites
  - Biomanufacturing
  - Undergirding requirements: Database standards, reliability standards, etc.

Demand Driven Workforce Development

- High school to college ecosystem
- Cross-industry, cross disciplinary enablers
- Stackable credentials
  - Apprenticeship role
- Veterans Focus
  - Military skill certification
  - Re-training/repurposing of skills
  - Partnering with Veterans Administration
National Network for Manufacturing Innovation (NNMI)

- Intellectual Property (IP) Policy
  - IP ownership
  - Data rights
  - Publications
  - Revenue models

- Governance and Structure
  - Harmonization across government agencies
  - Membership
  - Differentiation by industry

Scale-up Policy

- High Tech Start-Ups
  - Venture funding
  - Corporate strategic funding
    - Incentives (e.g., tax credits)
  - Public/private investment funds
  - Shared infrastructure

- Existing SMEs
  - Banking gaps
  - Connection to financing sources

- Challenge
  - Broad technologies that benefit industry as a whole, not a specific company
The Image of Manufacturing

- Tainted Image- 4 D’s (Dirty, Dark, Dangerous, Declining)
- Manufacturing as a career
- Transferability of demand-driven skills
- National media campaign
- Alignment with professional organization
- Coordination with academic institutions and STEM initiatives
- Take advantage of the moment
  - National Manufacturing Day
  - The Maker Moment

Going Forward

- Gather/Refine all recommendations
- Review by steering committee in summer
- Review by PCAST
- Formal Report