

# 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