

# Informational Update: Advanced Manufacturing

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ENG Advisory Committee Meeting

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# Advanced Manufacturing

- Context
  - The President's Advanced Manufacturing Agenda
  - NSF/ENG core programs across the Directorate – budget has been increasing
- Recap of Prior AdCom meetings
  - 2011: Discussion of AMP
  - 2012: Interagency panel focused on partnerships
- Today
  - Interagency Coordination
  - Related collaborative initiatives under Adv. Mfg. Umbrella
  - Feedback and Discussion



# Interagency Coordination and Collaboration

- President's Advanced Manufacturing Initiatives:
  - Pilot Institute on Additive Manufacturing (2012)
  - 3 Additional “Manufacturing Institutes” DOE and DOD 2013
  - Dept. of Commerce Investing in Manufacturing Communities
- Specific NSF activities of interest to our partners:
  - NSF center, innovation, and industrial partnership programs
  - Educational activities / advanced manufacturing workforce.
  - Linkages to existing NSF grantees / students
  - SBIR/STTR: collaboration with institutes.
- Coordination is occurring at multiple levels



# Additional DOD/DOE Institutes in FY13 and FY14

- Topic driven, “mission relevant,” applied research through pilot-scale development activities.
- NSF is partnering with DOE and DOD on each institute
- DOE and DOD expect that our research community will be part of teams
  - Leverage ongoing NSF (and DOE, DOD) research at universities
  - Education / workforce development (ATE, fellowships, etc.)
  - Learning from basic research priorities and sharing basic research “needs” with NSF to strengthen linkages with institutes
- The President has asked Congress to authorize and fund 15 more institutes as part of the DoC (NIST) budget request



# Investing in Manufacturing Communities

## Department of Commerce

- IMC Goals:
  - Maximize effectiveness of Federal resources through coordination and info sharing across agencies
  - Encourage states to develop rigorous plans and utilize best practices
  - Help localities leverage investments to attract domestic and foreign investments particularly in advanced manufacturing
- NSF community is viewed as critical part of regional ecosystems: education, research, and innovation programs



# Related Programs with Significant Interagency Coordination/Collaboration and Advanced Manufacturing Content

- National Robotics Initiative
- National Nanotechnology Initiative
  - Sustainable Nanomanufacturing Signature Initiative
- Materials Genome Initiative
  - Designing Materials to Revolutionize and Engineer our Future (DMREF)
- Cyber Physical Systems
  - Smart Manufacturing
  - Cyber Manufacturing
- Systems Engineering and Design
  - NASA, DOE, DOD, Commerce, and NSF coordination



# Thank You!

- Thoughts?
- Questions?
- Discussion?

