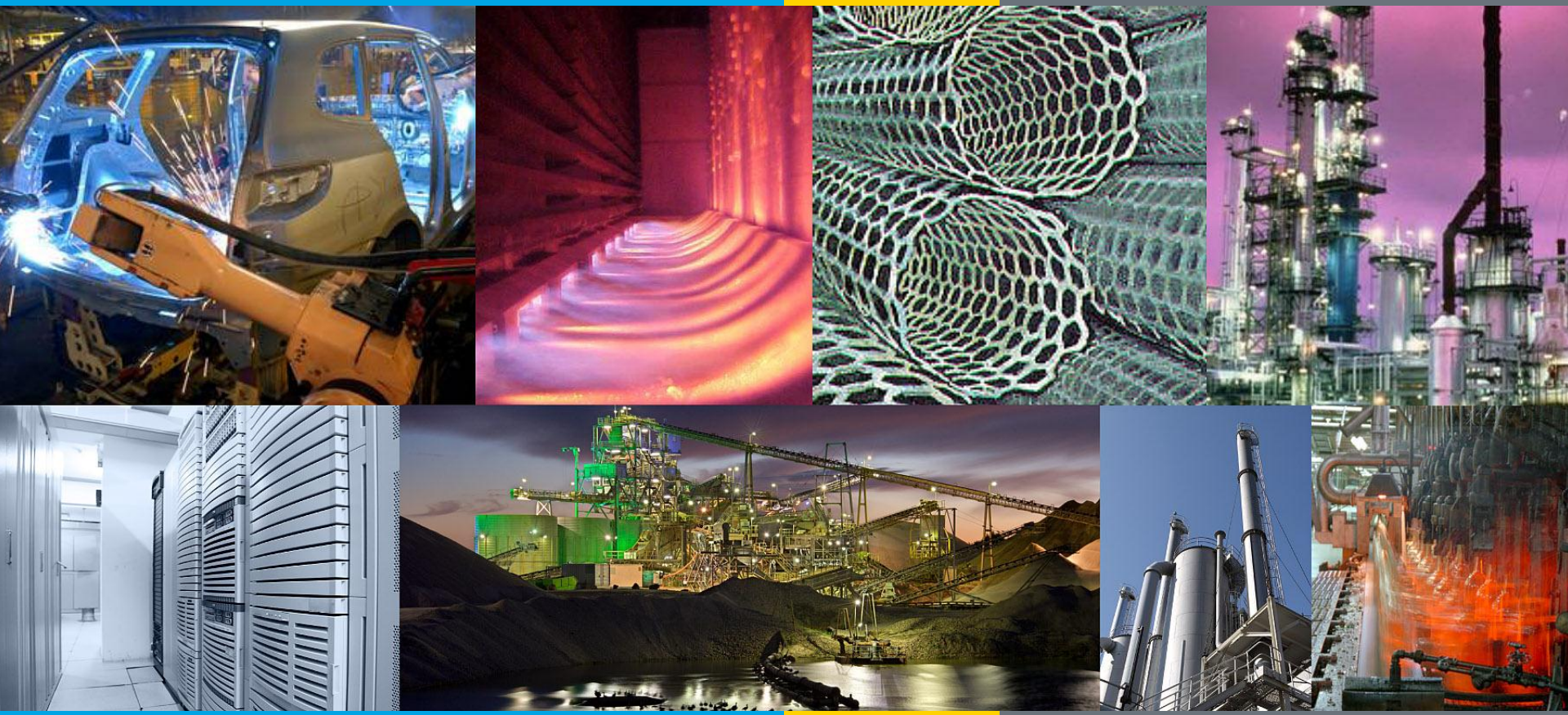
U.S. DEPARTMENT OF ENERGY | Energy Efficiency & Renewable Energy



Advanced Manufacturing Jobs & Innovation Accelerator Overview

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AMO Goal: Reduce energy consumption of manufactured goods across product life-cycles by 50% over 10 years by targeting the production, use, and/or deployment of advanced manufacturing technologies

AMO Strategy: Co-invest with other agencies/industry to produce and deploy technologies *at a scale meaningful to manufacturers*

Next Generation Materials

Pervasive materials technologies that lead to better products

Next Generation Manufacturing Processes

Broadly applicable processes that lead to better production

Technology Deployment

Promote better energy use practices to capture U.S. competitive advantage

Technology Projects and User Facilities

- Manufacturing Demonstration Facilities
  - Increase adaptability of manufacturers through alternate materials and process pathways
  - Reduce technical risk to make business case
- National Network for Manufacturing Innovation (Pilot Institute)
- Innovative Manufacturing Initiative and SBIR
  - Competitively-selected, cost-shared technology projects
- Advanced Manufacturing Jobs & Innovation Accelerator

Targeted Partnerships

- Stakeholder Engagement and Partnerships
- Better Buildings, Better Plants
- Industrial Assessment Centers
- Combined Heat and Power

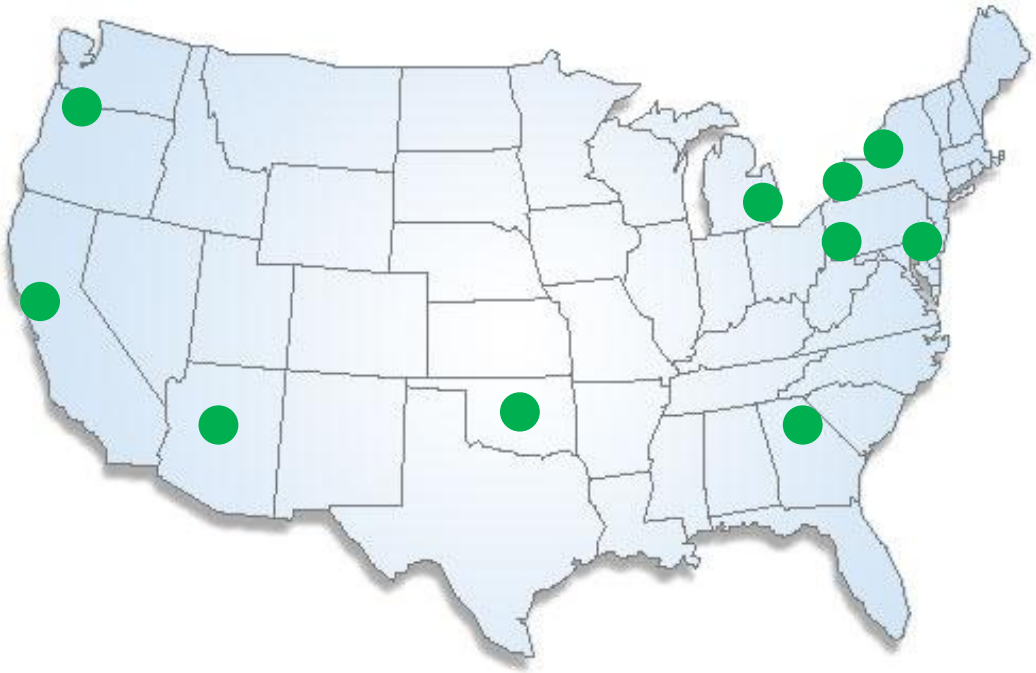
TRL 2-6 | TRL 2-8 | TRL 9

Advanced Manufacturing Jobs & Innovation Accelerator

JOBS & INNOVATION ACCELERATOR CHALLENGE

- Interagency initiative to support advanced manufacturing and drive *high-potential industry clusters* across the U.S.
  - Clusters are regional concentrations of firms and supporting institutions that:
    - Develop organically based on regional competitive advantages and resources
    - Focus on a technology or market sector
    - Increase productivity through frequent and collaborative interactions, sharing of best practices, and common resources and infrastructure
- Five agencies provide funding for complementary activities:
  - Department of Commerce Economic Development Administration (EDA) and NIST Manufacturing Extension Partnership (MEP)
  - Department of Energy Advanced Manufacturing Office (AMO)
  - Department of Labor Employment and Training Administration (ETA)
  - Small Business Administration (SBA)
- Accelerate innovations from idea to commercialized product to create a skilled workforce, grow the economy, and enhance the competitiveness of U.S. manufacturers.

Accelerator Awardees



- 10 grants awarded following a competitive review process to regional clusters across the U.S.
- Range of technology areas including carbon fiber and composites, lightweight metals, optics, and bio-inspired manufacturing

- Regional winner: *Agile Electro-Mechanical Product Accelerator*
  - Partners include Innovation Works, National Center for Defense Manufacturing and Machining, Catalyst Connection
  - Focus on metals manufacturing and electrical equipment with an impact on region's energy, life sciences, and advanced electronics industries
  - Establish the Agile Hardware Design Center to accelerate start-ups

CHP Executive Order

U.S. DEPARTMENT OF ENERGY | Energy Efficiency & Renewable Energy

- On August 30th, 2012, President Obama signed an Executive Order to accelerate investments in industrial energy efficiency (EE), including combined heat and power (CHP)
  - National **goal of 40 GW** of new CHP installation over the next decade
  - Expand participation in the **Better Buildings, Better Plants program**
  - Significant opportunity for DOE to support states' efforts to address barriers to accelerate investment in industrial EE and CHP
  - New DOE/EPA report "Combined Heat and Power: A Clean Energy Solution": http://www1.eere.energy.gov/manufacturing/distributedenergy/pdfs/chp_clean_energy_solution.pdf

- **Dialogue meetings**
  - **Southeast** Industrial Energy Efficiency & Combined Heat and Power Regional Dialogue Meeting, January 24, 2013, Little Rock, Arkansas

    http://www1.eere.energy.gov/manufacturing/newsandevents/events_detail.html?event_id=7304
  - **Northeast / Mid-Atlantic**, March 13, 2013, Baltimore, Maryland

    http://www1.eere.energy.gov/manufacturing/newsandevents/events_detail.html?event_id=7305

- Eight regional **Clean Energy Application Centers** (CEACs)
  - Provide analysis of CHP market potential, education and outreach about CHP benefits, and technical information and site assessments
  - Mid-Atlantic CEAC, http://www.maceac.psu.edu/

Contact Katrina Pielli, katrina.pielli@ee.doe.gov, 202-287-5850.
Lead for DOE's efforts in support of the Executive Order.

Future Funding Priorities

- "Foundational" technology areas
  - Significant impact on life-cycle energy
  - U.S. has competitive advantage and capabilities
  - High economic impact in multiple markets
  - Platform, enabling other technologies and markets

- Anticipated funding priorities subject to appropriations, include:
  - R&D projects (IMI)
  - Manufacturing Demonstration Facilities
  - SBIR Phase I currently open (LOIs due December 17)
    - Multi-material joining, in-situ metrology, process controls
    - http://science.energy.gov/sbir/funding-opportunities/

http://www1.eere.energy.gov/manufacturing/ http://manufacturing.gov