



U.S. DEPARTMENT OF
ENERGY

Office of Economic
Impact and Diversity

MBDA Webinar

Advanced Manufacturing

Dr. J. Chris Ford

Technical Advisor to the Director
Office of Economic Impact & Diversity

US Department of Energy

Chris.Ford@hq.doe.gov



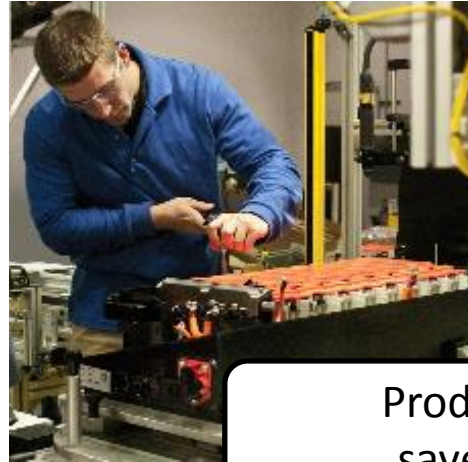
ENERGY.GOV

Clean Energy Manufacturing Initiative

1. Increase U.S. competitiveness in the production of clean energy products



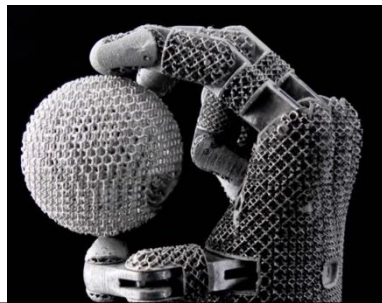
Products that generate clean energy



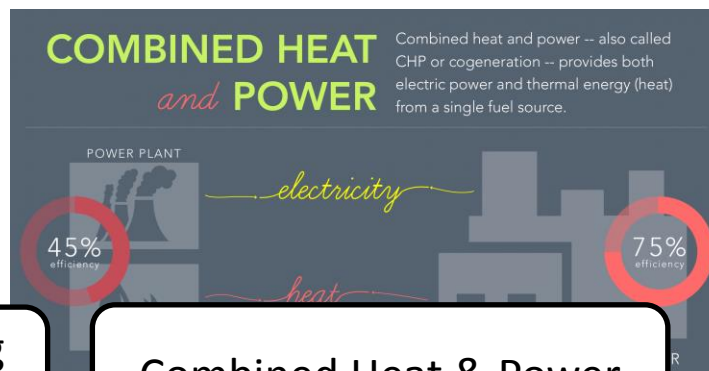
Products that save energy



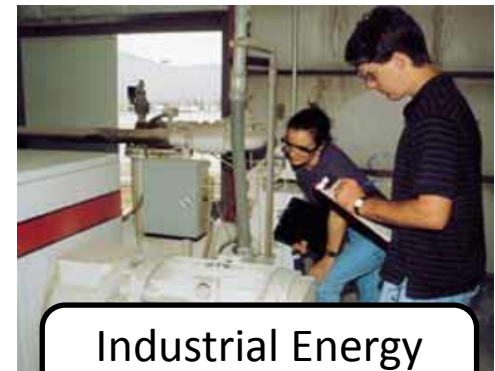
2. Increase U.S. manufacturing competitiveness across the board by increasing energy productivity



Advanced Manufacturing Technologies



Combined Heat & Power



Industrial Energy Efficiency



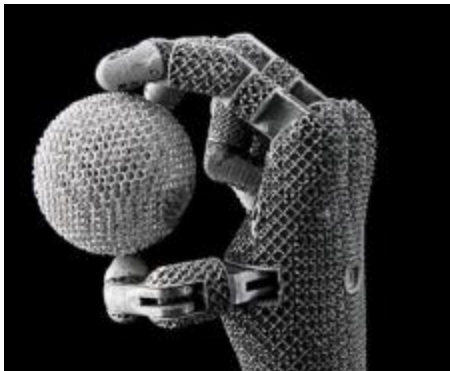
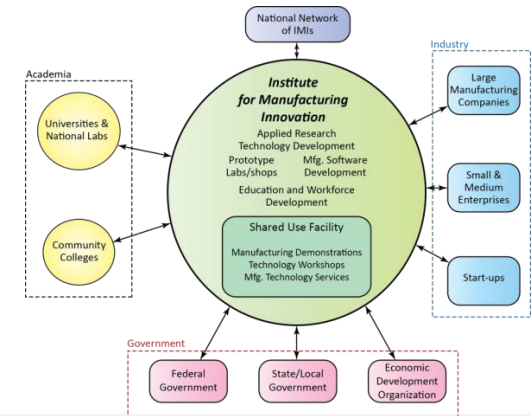
ENERGY.GOV

NNMI – National Network for Manufacturing Innovation

National Network for Manufacturing Innovation

A network of “Manufacturing Innovation Institutes”

- \$70-\$120M investments, matched by applicant
- Shared use facility, applied research, education and workforce development
- Academic, Industrial, Governmental members



Pilot Institute

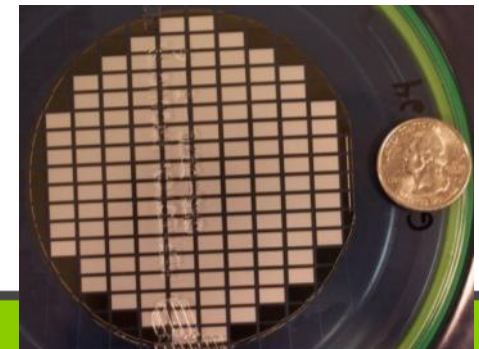
National Additive Manufacturing Innovation Institute

- \$40M investment from USG, \$20M from Industry
- Center in Youngstown OH, housing several state-of-the-art industrial additive manufacturing tools
- Consortium of public and private sector stakeholders

EERE's Next Generation Power Electronics Manufacturing Institute

Wide Bandgap Semiconductor Device Manufacturing

- \$70M investment, matched by applicant
- Facility will focus on manufacturing devices
- Applications: Solar inverters, motor drives, grid integration



ENERGY.GOV

Technology Commercialization Initiative Overview

- Increase participation of minority business enterprises (MBEs) and minority serving institutions (MSIs) in the DOE innovation ecosystem.
- Develop novel technology transfer and commercialization strategies (Pilot phase).
- Interagency collaboration:
 - NIST-
 - MBDA-Atlanta office specializes in advanced manufacturing.
 - SBA
- Track economic impact in minority communities.



Technology Commercialization Initiative

Economic Impact:

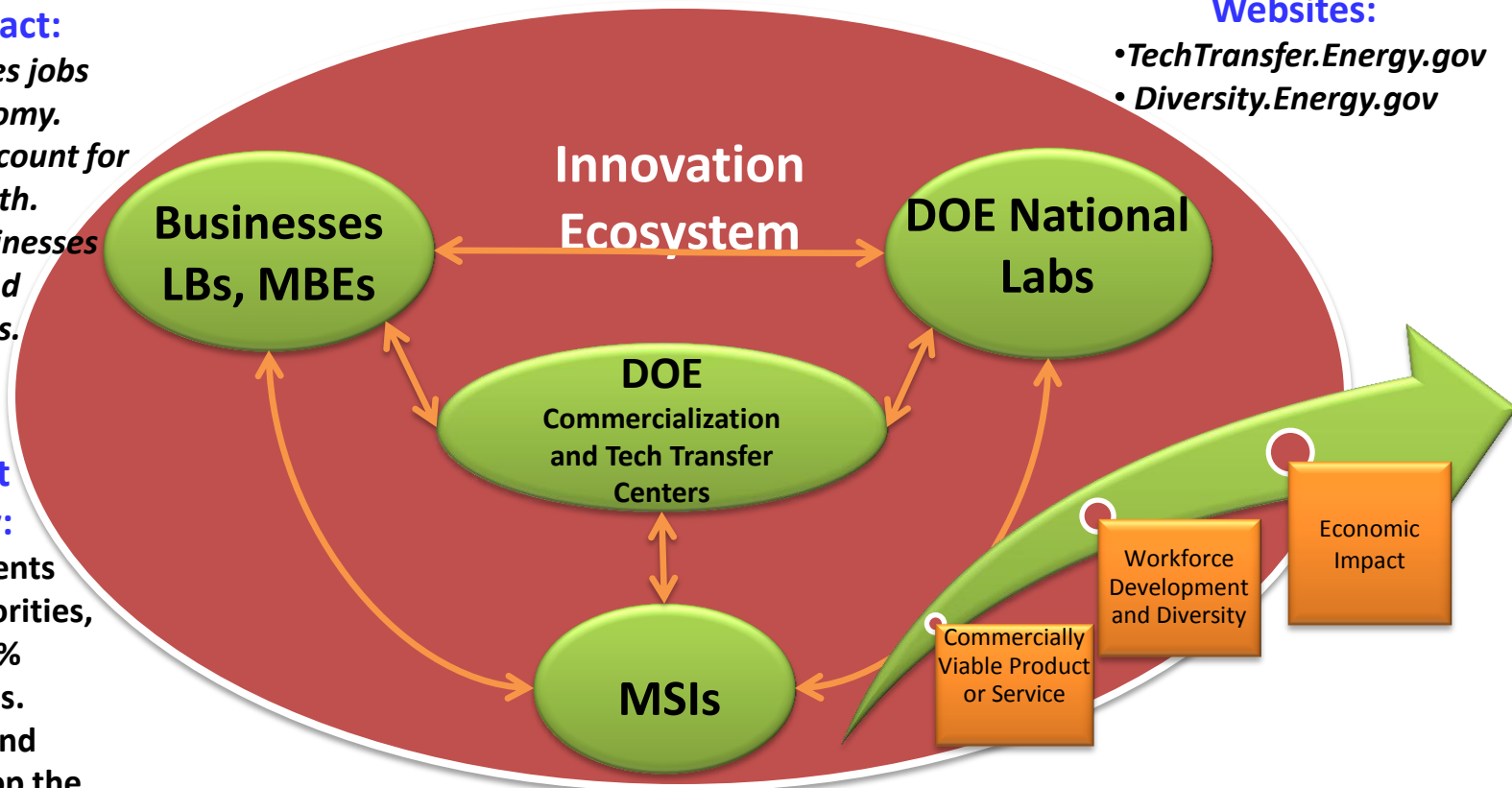
- Tech transfer creates jobs and grows the economy.
- Small businesses account for 67% of net job growth.
- Leverage large businesses resources, brand, and distribution channels.

Workforce Development and Diversity:

- 70% of college students are women and minorities, but only make up 45% receive STEM degrees.
- DOE National labs and MSIs can help develop the 21st century STEM workforce
- Address skills gap in key energy sectors and manufacturing.

Websites:

- TechTransfer.Energy.gov
- Diversity.Energy.gov



Mission: *To catalyze DOE commercialization activities and increase the number of MBEs and MSIs in the DOE technology transfer and commercialization ecosystem.*

Advanced Manufacturing Tech. Comm. Pilot Labs



Advanced Manufacturing Pilot Labs



ENERGY.GOV