Advanced Manufacturing Office Research & Development Consortia

The Advanced Manufacturing Office (AMO) is the only technology development office within the U.S. Government that is dedicated to improving the energy and material efficiency, productivity, and competitiveness of manufacturers across the industrial sector.

R&D Consortia

The Advanced Manufacturing R&D Consortia subprogram helps the United States position itself as a world leader in strategic areas of manufacturing by bringing together manufacturers, suppliers, companies, institutions of higher education, national laboratories, and state and local governments in public-private R&D consortia. These partnerships create an innovation ecosystem that accelerates technology development and facilitates the transition of innovative advanced manufacturing technologies to industry.

Clean Energy Smart Manufacturing Innovation Institute (CESMII)

The focus of the Clean Energy Smart Manufacturing Innovation Institute (CESMII) is the research and development of technologies and solutions that can capture, share, and process in real-time the increasing amounts of information available at manufacturing facilities. CESMII was launched in 2016 and is the ninth institute in the Manufacturing USA network.

Critical Materials Institute

The focus of the Critical Materials Institute (CMI) is to develop solutions across the materials life cycle as well as reduce the impact of supply chain disruptions for key materials needed for manufacturing. CMI is a multidisciplinary Energy Innovation Hub established in 2013 and is led by Ames Laboratory.

Institute for Advanced Composites Manufacturing Innovation (IACMI)

The focus of the Institute for Advanced Composites Manufacturing Innovation (IACMI) is to develop lower-cost, higher-speed, and more-efficient manufacturing and recycling processes for advanced composite materials. IACMI was launched in 2015 and is the fifth institute in the Manufacturing USA network.

Manufacturing Demonstration Facility (MDF)

The focus of the Manufacturing Demonstration Facility (MDF) at Oak Ridge National Laboratory is to develop and aid the adoption of additive manufacturing (AM) and composite technologies within U.S. small-, medium-, and large-scale industries for clean energy applications. The MDF is the Department of Energy’s first research facility established to provide industry with affordable and convenient access to infrastructure, tools, and expertise to facilitate rapid adoption of advanced additive manufacturing technologies.

Rapid Advancement in Process Intensification Deployment (RAPID) Institute

The focus of the Rapid Advancement in Process Intensification Deployment (RAPID) Institute is breakthrough technologies to dramatically improve the
energy efficiency of novel manufacturing processes and enable development of modular processes. RAPID was launched in 2017 and is the tenth Institute in the Manufacturing USA network.

PowerAmerica
The focus of PowerAmerica is to develop advanced manufacturing processes for wide bandgap semiconductors that will enable electronic components to be smaller, faster and more efficient than semiconductors made from silicon. PowerAmerica was launched in 2014 and is the fourth institute in the Manufacturing USA network.

REMADE Institute
The focus of the Remade Institute is towards innovations that could dramatically reduce the energy required to manufacture key materials and improve overall manufacturing energy efficiency through increased material reuse, recycling, and remanufacturing. REMADE was launched in 2017 and is the thirteenth institute in the Manufacturing USA network.

Manufacturing USA
Manufacturing USA brings together industry, academia and federal partners within a growing network of advanced manufacturing institutes to increase U.S. manufacturing competitiveness and promote a robust and sustainable national manufacturing R&D infrastructure. The Advanced Manufacturing Office supports five institutes that bridge the gap between applied research and product development with a focus in key technology areas that encourage investment and production in their region and across the United States.