

Additive Manufacturing Consortium

Operated by EWI

The Additive Manufacturing Consortium (AMC) brings together a diverse group of industry, government, academic, and research organizations to positively impact the AM landscape through collaborative meetings and cooperative projects.

Mission:

To accelerate and advance the manufacturing readiness of additive manufacturing (AM) technologies and to increase industry adoption of AM at scale

Goals:

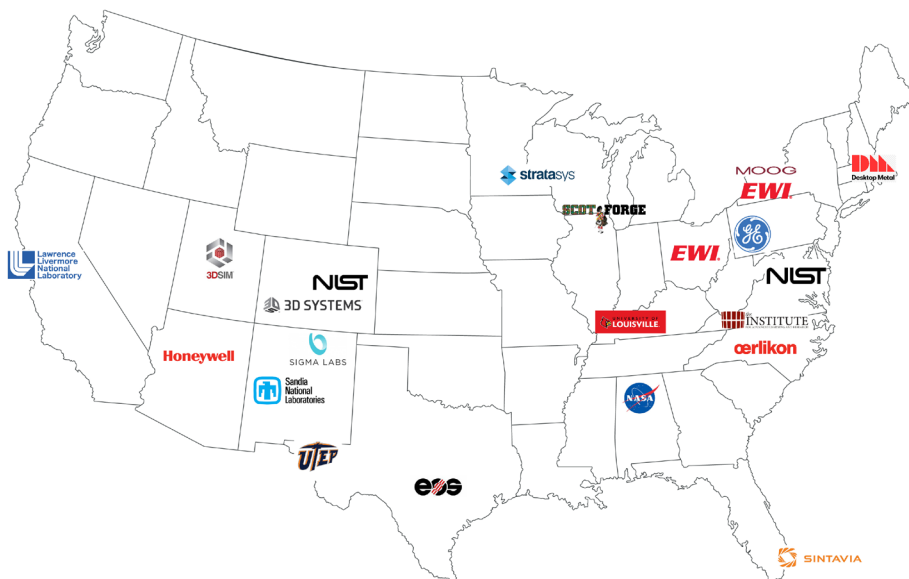
- To be a platform for **collaboration** across global industry, academia, and government entities.
- To develop and support group-sponsored, **pre-competitive** AM research projects.
- To partner on government funding **opportunities**.
- To provide a **forum** for networking and informed discussion of AM trends, challenges, and opportunities.

Member Companies:

AMC comprises a wide range of industries including aerospace, space, defense, automotive, medical, oil and gas, and consumer/commercial products. Members come from industry, academia, and government, as well as equipment and material suppliers.

Activities:

The cornerstone of AMC is technical discussion and the advancement of AM and complementary technologies. Members, partners, and invited guests meet to discuss AM topics. Meetings consist of technical talks, tours, and informal social events to encourage extended conversation and promote collaboration.



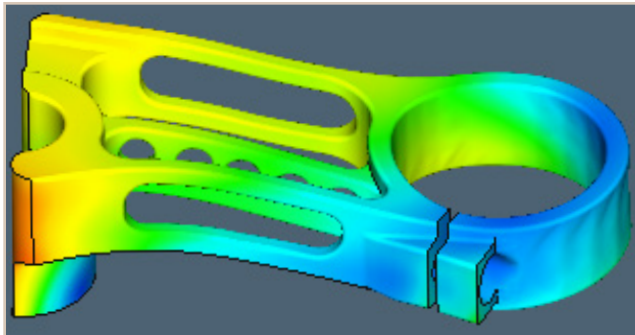
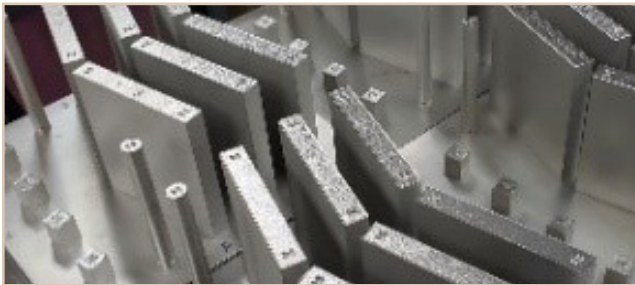
AMC meetings are co-hosted by consortia members throughout the USA

The AMC Project Portfolio

AMC projects are funded annually by approximately \$2 million in cash and in-kind investments from its members.

Current projects include:

- **Phase 2 Faster L-PBF Consolidation Rates via High-Powered Lasers**
- **Phase 3 Post Finishing Evaluation and Powder Removal Verification Techniques**
- **Additive Manufacturing of High Entropy Alloys**
- **Alternative Alloys to Ti64 for both Powder and Wire Titanium Metal Additives**



Members have access to results from previous AMC projects, including:

- **Phase 2 Continuation on Commercially Available High Strength Aluminum Materials and the Effects of Elevated Temperature and Fatigue Testing on Mechanical Properties**
Study the effect of heat treating on the fatigue and elevated temperature mechanical properties.
- **Evaluation of Post Process Techniques for AM**
Processing a part using eight post process techniques and comparing results
- **In-Process Monitoring & Defect Rectification**
Evaluate performance of different repair strategies over varying L-PBF defect modes and levels as well as evaluate current commercial systems
- **Study of Inconel 625 and 718**
Study effect of chemistry changes from different powder suppliers on microstructure and material properties
- **DED Multi-material/ Repair**
Utilize Calphad simulation to produce a functionally graded component using DED
- **Low Angle Printing**
Evaluate and compare the ability of Velo3D, SLM, EOS, Trumpf, and 3DSystems to print low angle parts in Nickel718 and Ti64 without supports
- **Evaluation and Comparison of Different Powder Measurement Techniques**
Evaluate the various systems available and conduct a round robin study of how systems work and determine optimum usage for materials and particle sizes

Get Started

For more information or how to join the **Additive Manufacturing Consortium**, please contact:

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