



**Utah Advanced
Materials and
Manufacturing
Initiative:
Local Solution Center
Network**

UAMMI

The Utah Composites Cluster

- 60 Years of Global Market Leadership (Pioneered by Hercules and Thiokol)
- Now with the Complete Supply-Chain: Fiber to aerospace to sports recreation
- Over 15,000 employees (and growing) in over 60 small and large companies
- Advanced Materials Manufacturing covers 30% of Utah's counties and is served by 8 universities and colleges
- Poised for Continued Utah Leadership in a Key technology growth industry



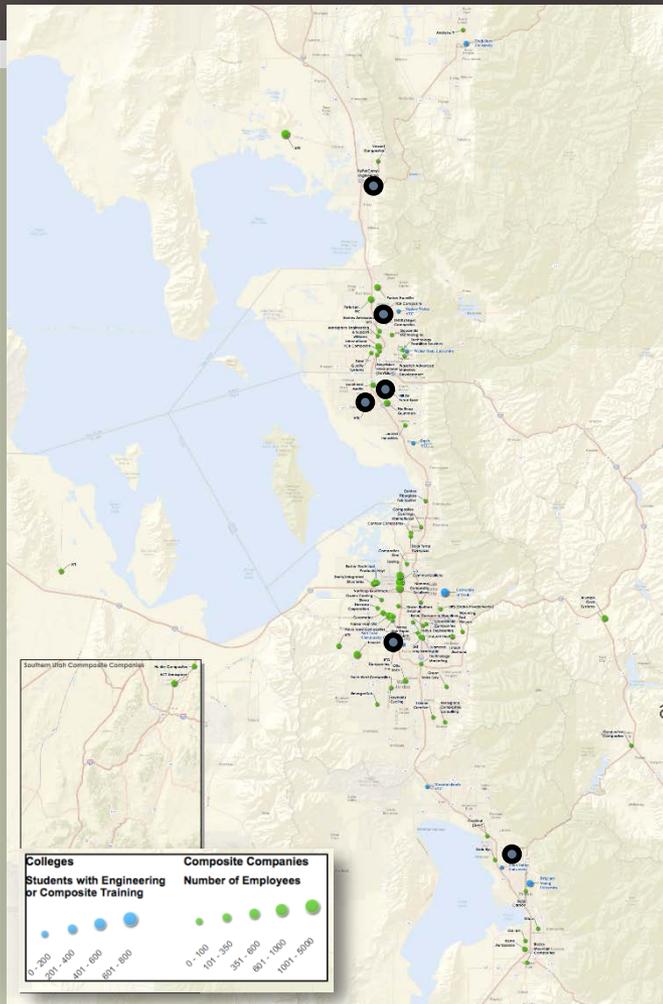
A Utah BluePrint for Economic Growth

- Cluster-based economic development and the Utah Advanced Materials Manufacturing Initiative (UAMMI)

Bringing together:

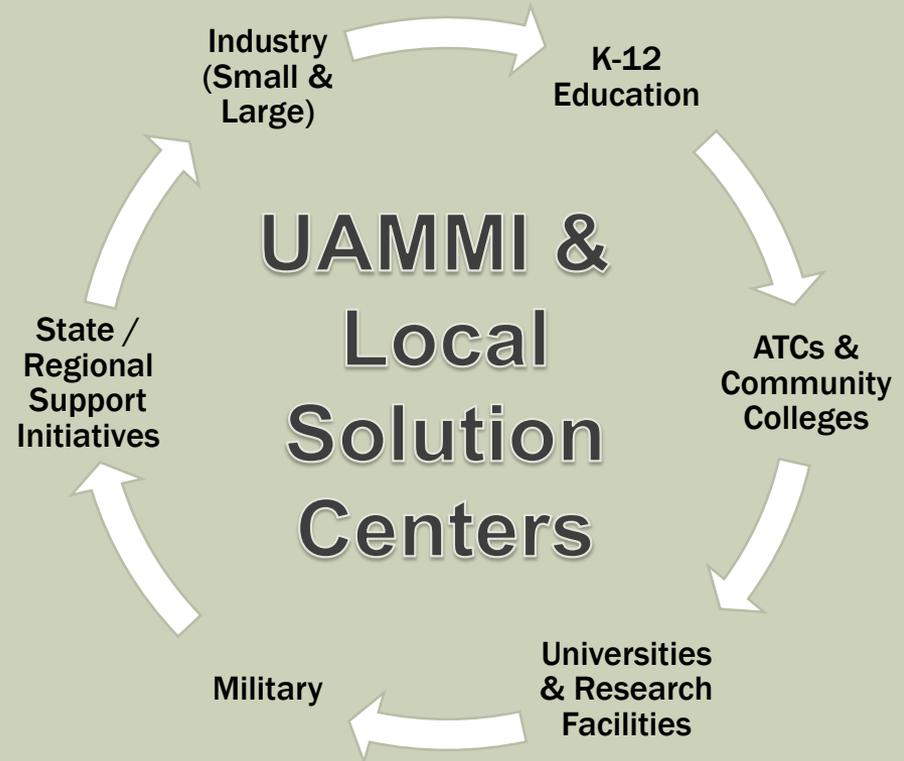
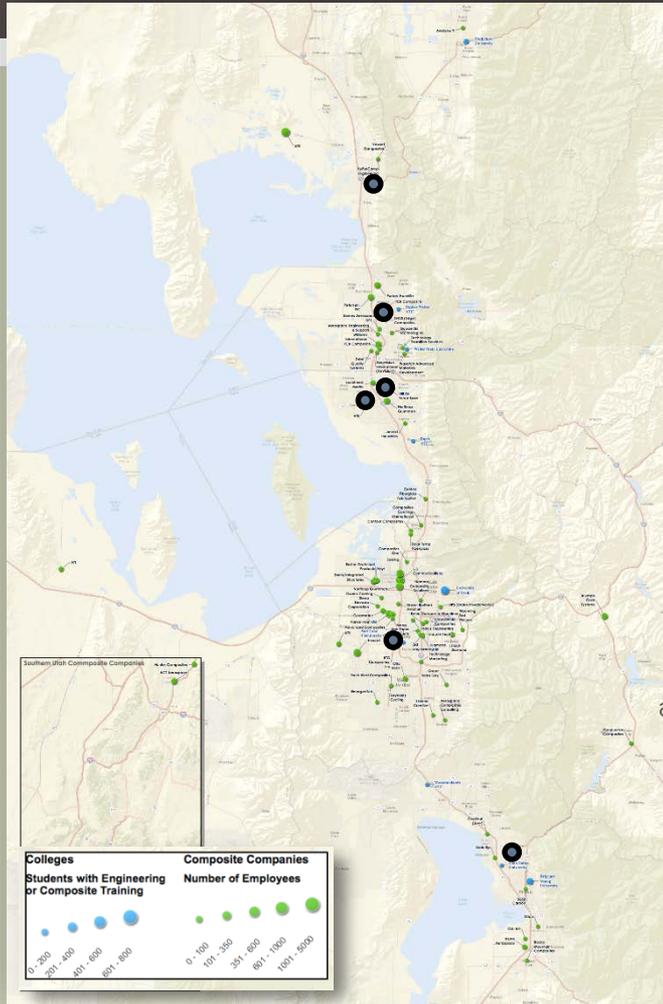
- Integration Management (LSI)
- Industry (small and large)
- Innovation (universities, corporate research)
- Workforce development and training (universities, ATC/CC, DWS, STEM)
- Supply-chain Support (GOED, EDCUtah, UMA)
- Funding – investment dollars (state, private, federal)

UAMMI & Local Solution Centers



- **Multi-year goal**
 - UAMMI Oversight and Integration
 - Six centers—Each with a technology focus
 - Non-destructive testing
 - Robotics and continuous manufacturing
 - Rapid prototyping
 - Additive manufacturing/3D printing
 - Additional new Manufacturing Technologies
- **What is the Focus?**
 - Practical collaboration and solutions
 - Workforce development/training
 - Supply Chain Support and integration
 - Research/Technology/Innovation access
 - Incubation
 - Trade/Investment/Capital Access

UAMMI & Local Solution Centers Combines Six Key Ecosystem Elements

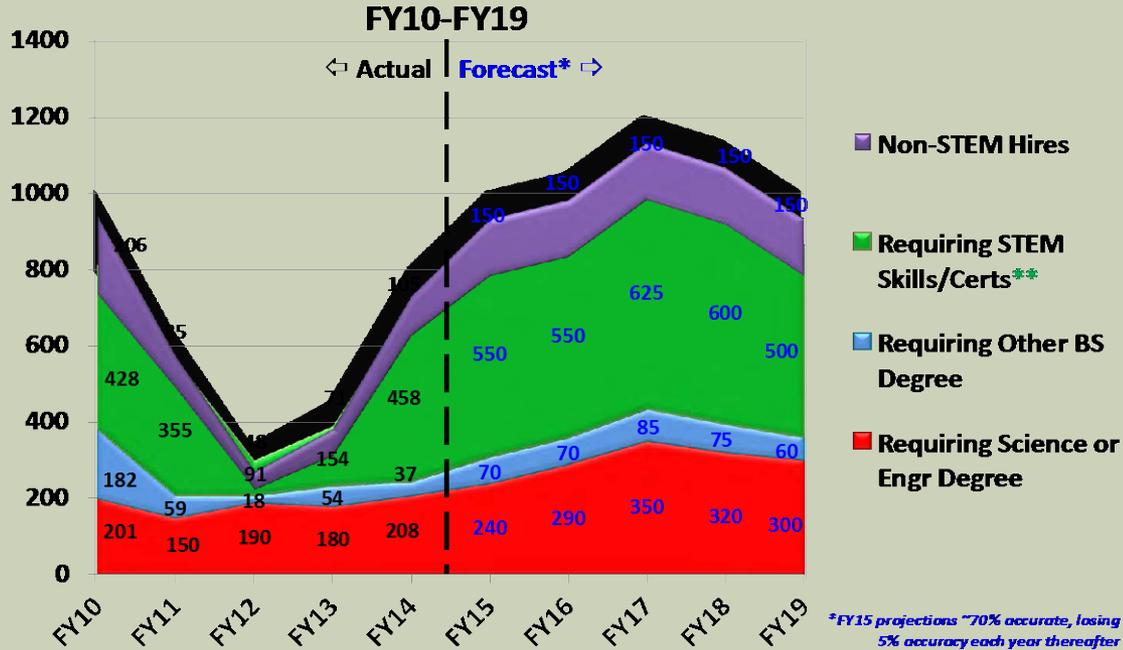


Utah's Advanced Composites Cluster Workforce Needs

Hill Air Force Base alone forecasts the following trained employee needs



Hill Air Force Base Hiring Demands



(College Degree not required, but proficiency in applied math, other tech certifications are used to rank candidates)**

In addition Hill's vendors, suppliers and competing commercial manufacturers have similar increasing trained workforce needs showing a growing need for a highly trained workforce

UAMMI IMCP Designation

Awarded July 8, 2015

UAMMI brings subject matter expertise related to all six ecosystem elements and provides a clear focus for Advanced Materials Manufacturing promotion in Utah with broad industry, government and academic support.

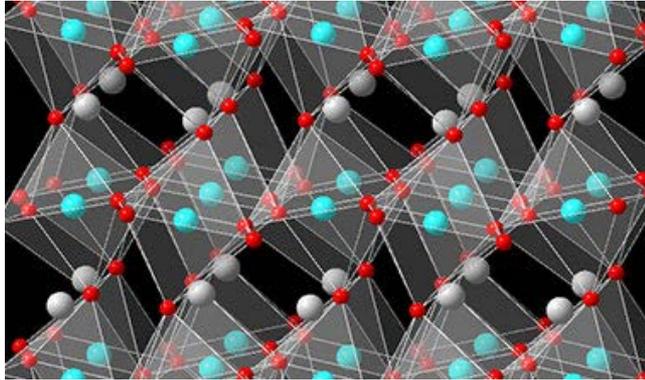
UAMMI's IMCP designation proposal included 79 letters of support:

- **43 industry / industry associations (33% small business)**
- **2 Federal (Congressman Bishop & Department of the Air Force (HAFB))**
- **6 State (Governor, House and Senate, DWS, GOED, USOE)**
- **21 Local Government (County, City, Other municipalities)**
- **7 capital organizations**

Implementation:

- Preferential Consideration to compete for \$1.3B Federal \$\$
- \$750k State Legislative Support (One Time) to:
 - Establish scope of industry and eco-system UAMMI support
 - Complete workforce review and scope of effective training programs
 - Confirm need and structure of Innovation Centers
 - Identify Research needs through Industry/Academic Collaboration

Research Review—Industry/Academ



Univ. of Utah, USU, Weber State

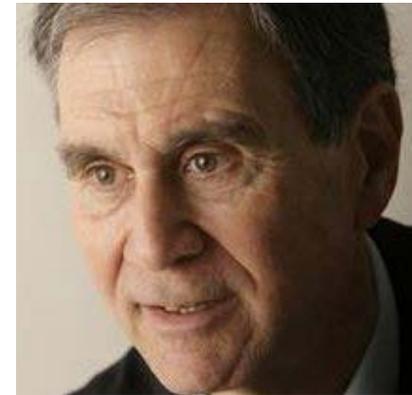
Aligning Advanced Materials Research to Address Industry Pain



Andrew Buffmire, EL



Mike Therson, PI



Ned Weinschenker, IM