

# Enabling Defense Capabilities though Bioindustrial Manufacturing

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- › August 28, 2023



# **BioMADE: the Bioindustrial Manufacturing Innovation Institute**

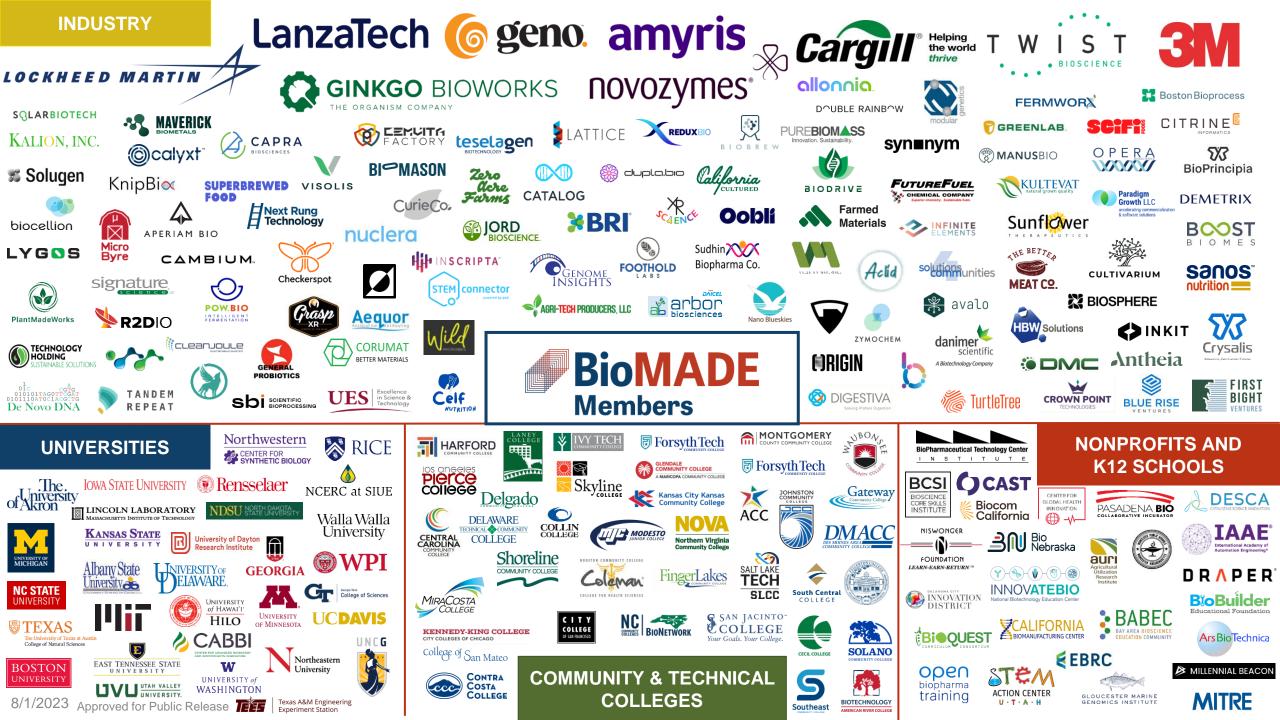
### About Us

BioMADE launched in 2021 and is an independent non-profit, public-private partnership initiated by the U.S. Department of Defense. In partnership with our members, we are securing America's future through biomanufacturing innovation, education, and collaboration by:

- Propelling new biotechnology products from lab to market
- Creating resilient supply chains
- Enabling the workforce of the future







# How BioMADE Advances U.S. Bioindustrial Manufacturing

## Strategies

- Create a dynamic member ecosystem
- Support member-led projects across the industry and defense industrial base
- Increase access to U.S. domestic scale-up infrastructure

### **Program Areas**

BioMADE co-invests with its members to advance projects in each of these three interconnected areas:

- Technology & Innovation
- Education & Workforce
  Development
- 4S Safety, Security, Sustainability, and Social Responsibility

### **BioMADE Projects**

- › 65 projects
- 63 members engaged in projects
- Project work in 19 states
- Over \$150M in funded work



# What Can Bioindustrial Manufacturing Create?

### **Applications**

- Carbon-negative chemicals that can be used for water treatment, concrete, fertilizers, and detergents
- PFAS alternatives and bio-based fireresistant composite materials
- Bioplastics and durable fibers
- Chemicals used to make compostable tote bags, coffee capsules, and food packaging
- Growable cement and alternative natural rubber to make tires
- Proteins, probiotics, fragrances, and skincare products





# Manufactured with Biology to Meet Defense Needs

### **Rubber Sourced** from Dandelions



Farmed Materials



### **Fire-Resistant Coatings for Aircraft**



Top Side of Panel: The battery fire burned/melted a roughly circular 2-inch hole



Bottom Side of Panel: The lower surface did not melt/burn



Cambium



#### Split-section of panel cut in half through center

## Advanced Warfighter – Nutrition

#### Protein



Oil

Superbrewed



Food





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# **Get Involved with BioMADE**



BioMADE builds connections to bridge the bioindustiral manufacturing community and defense industrial base

Visit us in the Expo to learn more about how BioMADE can bridge the gap

Visit <u>biomade.org</u> for more information and to sign up for our newsletter

Questions: hello@biomade.org



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