



BioMADE: Strengthening the domestic bioindustrial manufacturing ecosystem

**ORAU /
MANUFACTURING USA
WEBINAR**

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PENNY NORQUIST**

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About BioMADE

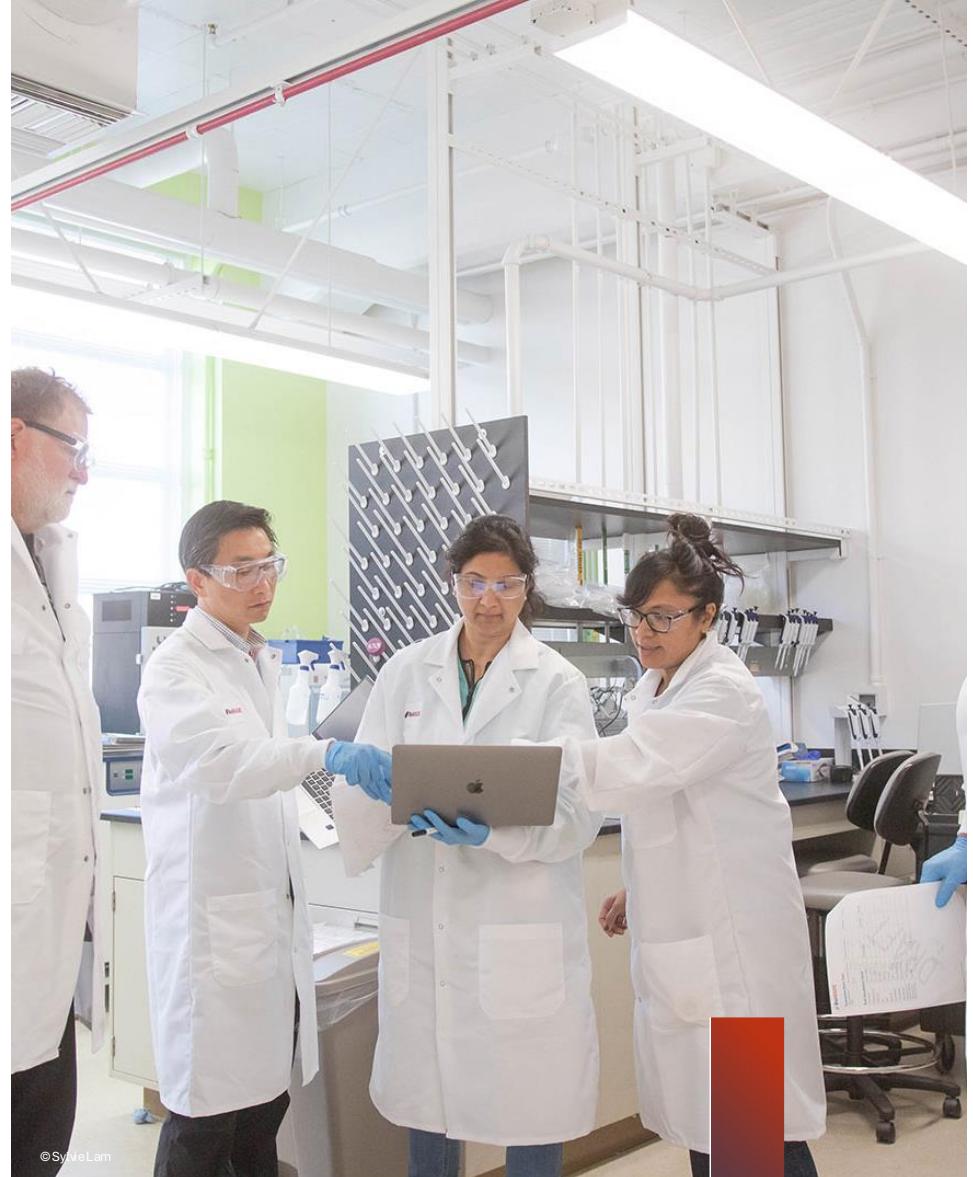
- > Non-profit, public-private partnership driving the transformative bioindustrial manufacturing movement in the U.S.
- > Bridging the gap between lab-scale research and at-scale manufacturing to propel new biotechnology products to the commercial market
- > Robust member ecosystem made up of leading companies, start-ups, universities, community colleges, and nonprofit organizations representing the best and brightest minds in bioindustrial manufacturing across the U.S.



Member of the
Manufacturing USA Network



Manufacturing Innovation
Institute catalyzed by the
U.S. Department of Defense in 2020



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BioMADE's Role in the Industry



Before

DISPARATE
GOVERNMENT AND
INDUSTRY WORK

LACK OF PILOT
FACILITIES

WORKFORCE
CHALLENGES



BioMADE Launches

INCREASED
RESEARCH FUNDING
ROADMAPS AND
BLUEPRINTS TO
GUIDE THE INDUSTRY

GOVERNMENT AND
INDUSTRY WORKING
IN CONJUNCTION

GROWING THE
WORKFORCE



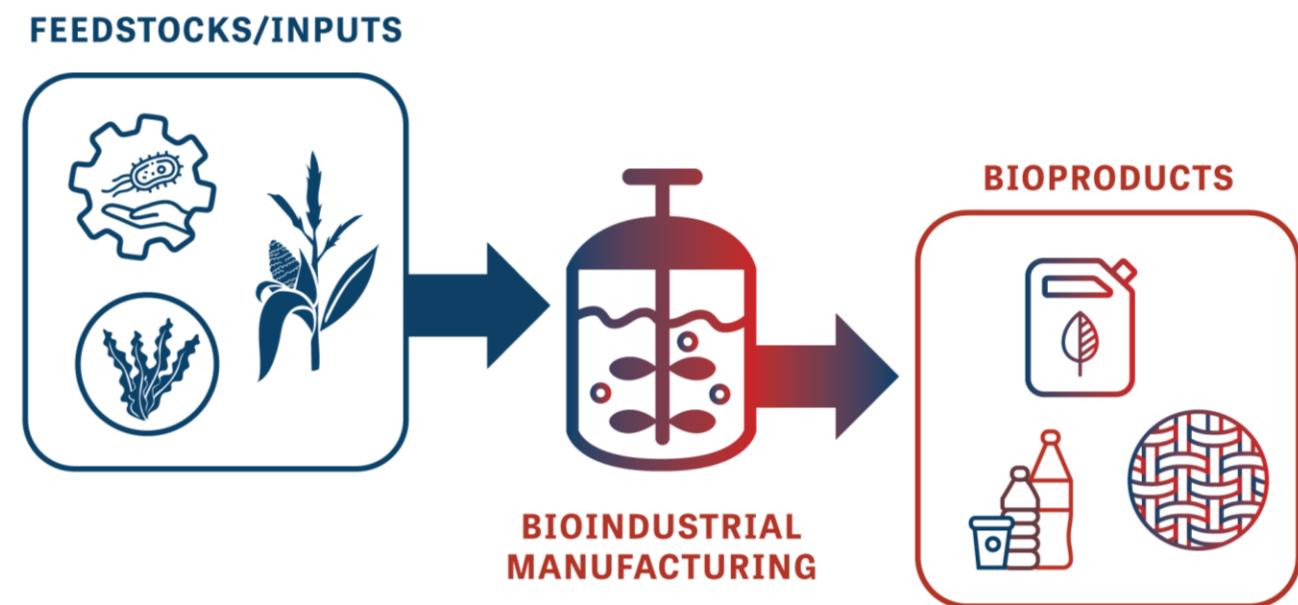
Vision for the Future

NETWORK OF
PILOT FACILITIES
WELL-ESTABLISHED
WORKFORCE
PIPELINE

THE U.S. AS A GLOBAL
LEADER IN BIOINDUSTRIAL
MANUFACTURING

Bioindustrial Manufacturing

Bioindustrial manufacturing uses biology to convert agricultural feedstocks and waste streams to high-value chemicals, materials, textiles, fuels, bioplastics, and other products





Applications

Carbon-negative chemicals used for water treatments, concrete, fertilizers, detergents, and more

Plant-based nylon for clothing and shoes

Bioplastics and durable fibers without microplastics

Chemicals used to make compostable tote bags, coffee capsules, and food packaging

Growable cement and alternative natural rubber to make tires

PFAS alternatives and bio-based fire-resistant composite materials

Proteins, probiotics, fragrances, and skincare products

Wicking finishes for outdoor clothing derived from microalgae

Healthier cooking oils and sweeteners



Program Areas



Technology & Innovation

Funding innovative research and reducing barriers to scale-up and commercialization



Education & Workforce Development

Creating the workforce of the future by partnering with K-12 schools, community colleges, universities, and more



Safety and Security

Ensuring the bioindustrial manufacturing industry grows in a safe and secure manner



92

Projects

13

Project Calls and
Funding Opportunities



Projects Valued At

\$208M



BioMADE Invests in Advancing Technologies at Scale

With bioindustrial manufacturing, we can fundamentally reenvision how to produce goods in America, unlocking a new future where everyday plastics, chemicals, materials, food, clothing, and more are safely manufactured in the U.S. using biology.



Improving product yields and reducing waste streams



Enabling efficient production through continuous fermentation and in situ product removal



Saving costs by modeling, new sensors, and more



Producing new materials at scale



Defense Applications

**SUPERBREWED
FOOD**



BIO MASON



CAMB IUM™



KULTEVAT
natural grown quality





THE SOLUTION

BioMADE is Establishing a Network of Pilot-Scale Infrastructure

BioMADE is building a national network of critically needed pilot-scale biomanufacturing innovation facilities that will transform American manufacturing for the 21st century.

- > BioMADE's network of facilities will allow companies to transition their products from the laboratory to commercial production right here in America.
- > These facilities will enable organizations to test and validate biomanufacturing processes at a larger scale and for longer durations of time; a critical step in taking an idea from the lab to commercialization.
- > Potential customers of the BioMADE Pilot Plant Network are large and small industrial companies, research institutions, and government entities.



BioMADE's Pilot Plant Network: Phase I



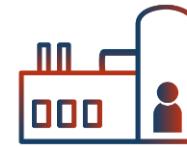
California

- 4,000-liter fermenters
- Focus on chemicals and materials, with food-grade capabilities
- Open to customers in 2027



Iowa

- 5,000 and 10,000-liter fermenters
- Focus on agricultural bioproducts, chemicals and materials, with food-grade capabilities
- Open to customers in 2028



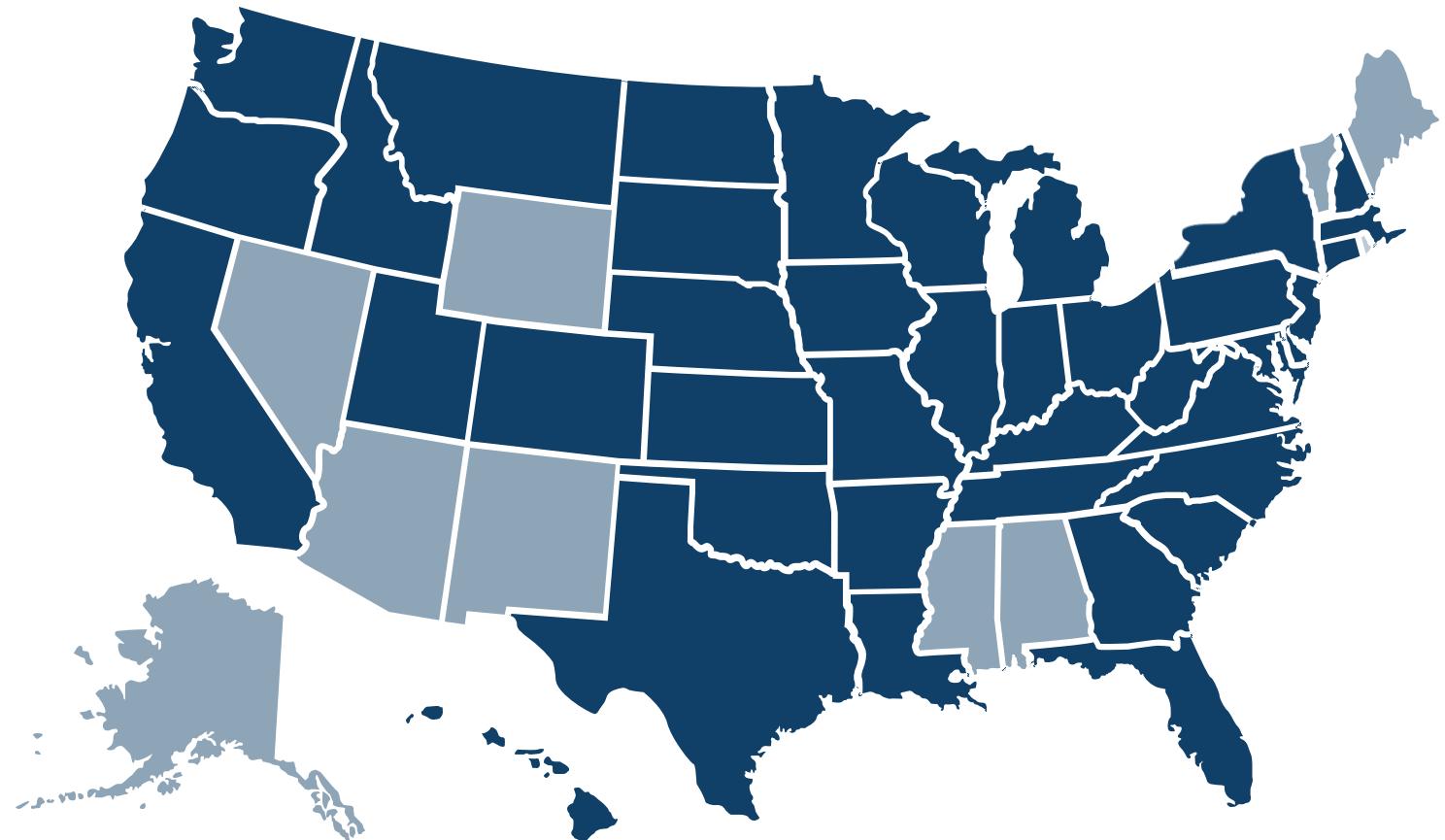
Minnesota

- 25,000-liter fermenters
- Focus on chemicals and materials, but flexibility for other product categories
- Open to customers in 2028



Nearly
5 years
since our founding

40 | **311**
STATES MEMBERS



MEMBERS

180 Industry and Venture Capital | **46** University & FFRDC
39 Community & Technical College | **46** Non-Profit

INDUSTRY



ACADEMIA & NATIONAL LABS



COMMUNITY & TECHNICAL COLLEGES



NONPROFITS & K12 SCHOOLS





Membership Benefits

Project Funding

- > Apply for funding through BioMADE Project Calls
- > Be eligible for government agency driven project opportunities

Networking & Resources

- > Learn from and present to government leaders on specific topics through DoD Application Workshops
- > Extend the reach of your announcements through BioMADE's newsletter, social media, and media opportunities
- > Receive BioMADE roadmaps that guide the future of the industry
- > Network with U.S. government leaders
- > Participate on committees and subcommittees that shape BioMADE's priorities and activities
- > Access the Member Portal with networking, resources, and more

Events

- > Attend the annual Member Meeting, with opportunities to present to and meet privately with hundreds of industry and government leaders
- > Connect with other members at informal happy hours around the country
- > Increase the visibility of your company, products, and services through BioMADE's booth at external conferences
- > Receive discount codes for conferences and courses throughout the year
- > Participate in webinars to meet new partners



Join us!

The [**BioMADE Member Meeting**](#) is the best opportunity of the year to connect with hundreds of leaders passionate about building the future of bioindustrial manufacturing across the nation.

Attendees will:

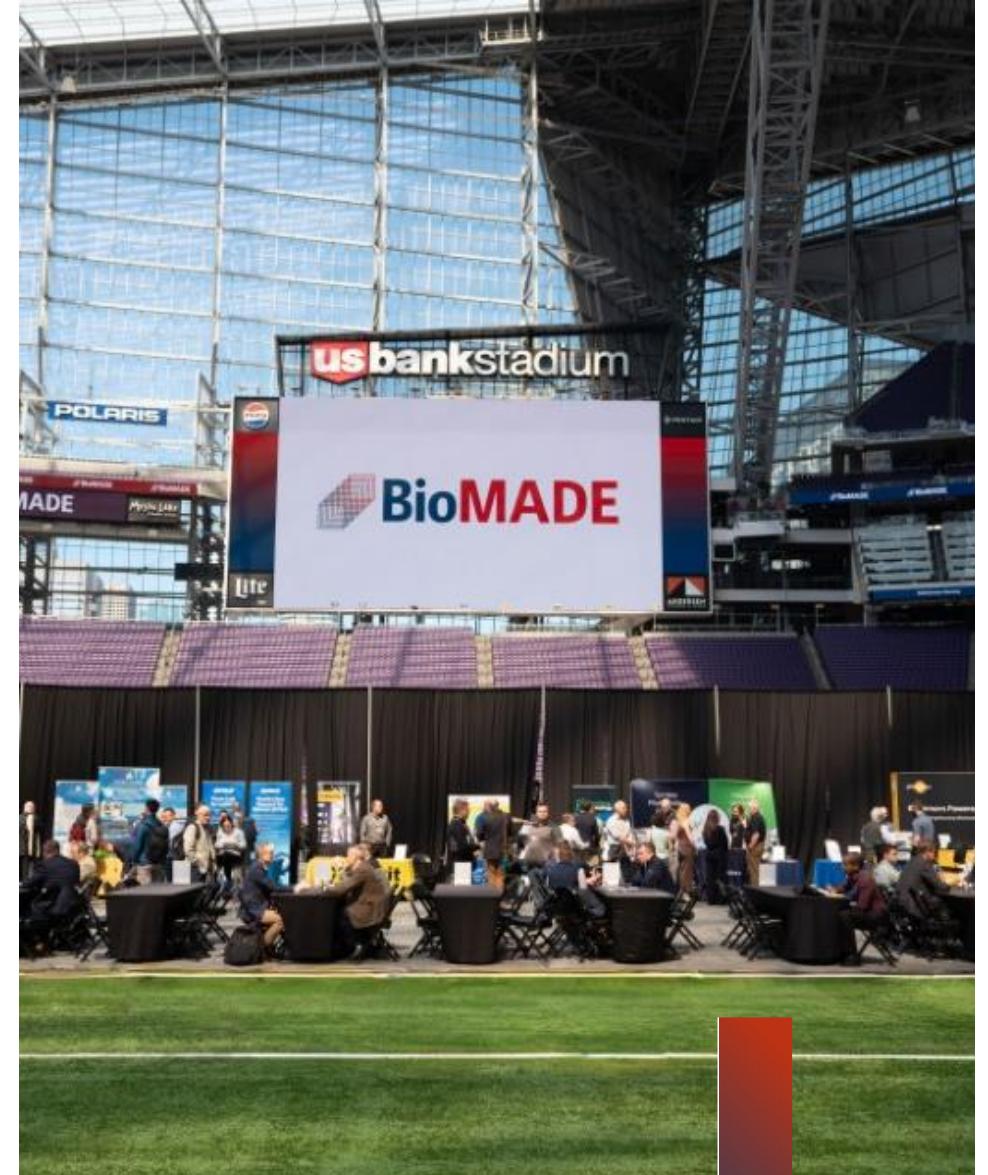
- Gain insight into new products and technologies
- Hear from industry experts
- Network with old and new colleagues
- Enjoy a lively happy hour
- Leave energized to drive the industry forward

When

Tuesday, April 28 – Wednesday, April 29, 2026

Where

Minneapolis, MN





Become a Member

Join a diverse team of 300+ industry, academic, non-profit, and U.S. government leaders dedicated to bioindustrial manufacturing innovation

- > Visit biomade.org/membership to fill out the application
- > Contact membership@biomade.org with any questions

Get your seat at the table!



Broaden Your Reach



Expand Your Influence



Grow Your Network



Contact Us

Building a sustainable, domestic end-to-end bioindustrial manufacturing ecosystem

MEMBERSHIP QUESTIONS

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PROGRAMS QUESTIONS

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VISIT

 biomade.org