MFORESIGHT: Alliance for Manufacturing Foresight

The Nation’s Advanced Manufacturing Advisory Consortium

A federally-sponsored consortium of national thought leaders from industry and academia focused on the future of American manufacturing.

www.mforesight.org

Sridhar Kota – Executive Director
Accelerating Technology & Manufacturing Innovation

Ideas worth scaling

- Metamaterials Manufacturing
- Regenerative Medicine
- Manufacturing High Entropy Alloys
- Manufacturing 101
- Manufacturing Prosperity
- Education and Skills Building
- Next Generation Supply Chains
- Cybersecurity for Manufacturers

Challenges worth addressing

Basic Research  Translational R&D  Applied R&D  Full Volume Manufacturing
Stakeholder Engagement and Community Building

4 Phases

- Discover
- Prioritize
- Develop
- Disseminate

MForesight Leadership Council

Industry

Nonprofits

Academia
Emerging Technologies & Manufacturing Challenges

Scouting and Surveys

Professional Societies  Tech Transfer
Trade Associations  Universities
Federal Agencies  Industry
Federal Programs  Shows/Events

“Gamechanger” Events Partners

Publish Community Highlights

Marketing and Outreach

Seeking innovations and disruptive technologies. MForesight.org

SUBMIT YOUR GAMECHANGER
Actionable Recommendations

1. R&D Priorities
2. Implementation challenges
3. Related policies

- Deep Dive Workshops:
  - 50% Industry, 25% Academia, 25% Government
  - Community-led Steering Committee
- Industry interviews
- Roundtables
- Internal Research
Discover/Develop

Grand Challenges in U.S. Manufacturing

Challenges

- Rebuilding America’s industrial common
- Creating wealth from national R&D investments
- Ensuring financing for “hardware” start-ups and scale-ups

Round Tables and Partners

Boston, MA
Washington D.C.
Austin, TX,
San Jose, CA
Raleigh, NC
Indianapolis, IN
Detroit, MI
Capitol Hill Briefings

M Foresight celebrated the release of the report *Cybersecurity for Manufacturers: Securing the Digitized and Connected Factory* by giving a briefing in Washington, DC on Friday, September 22.
Informing National Action

Disseminate

**Reports and Briefings**

**Op-eds**

“America is outsourcing innovation and we need to bring it back” – The Hill

“Why America needs a manufacturing strategy” – Guest Opinion - AAM

**Dissemination Partners**

**Digital**

MForesee.org

MFORESIGHT ON MEDIUM
ENGAGING THE U.S. MANUFACTURING COMMUNITY TO DISCOVER, PRIORITIZE, DEVELOP, AND DISSEMINATE EMERGING TECHNOLOGIES AND MANUFACTURING NEEDS ALIGNED WITH NATIONAL PRIORITIES.

MANUFACTURING IDEAS TO WATCH

- Chemical Vapor Deposition of Waterproof Coatings on Natural Fibers
- Mind-Reading Quality Control
- Self-Healing Polymers Moving Forward
- Titanium and Carbon Fiber Ultrasonic Bonding
- Towards Low-Cost Diamond Electronics
- Real-Time Drill Bit Health Monitoring
- "Writing" Graphene on Organic Materials
- Six-Axis Additive-Subtractive Manufacturing
- Turning Food Processing Waste into Useful Biogas
- Fast, Low Cost, High Density Metal 3D Printing Using Joule Heating
- Chip-Pulling for Reduced Cutting Energy and Tool Force
- Improving Stereolithography Separation Using Vibrations
- Scalable Three-Dimensional Nanostucture Fabrication
- Intellectual Property Theft Using Acoustics of Additive Manufacturing
- Wireless Force Sensors Improve Robotic Milling Accuracy
- Thermochromic Polymers for Early Detection of Thermal Damage in Composites