National Science and Technology Council (NSTC)  
Subcommittee on Advanced Manufacturing (SAM)  

https://www.whitehouse.gov/ostp/nstc/ 

September 9, 2021
About the NSTC

• The NSTC was established by Executive Order on November 23, 1993
• A Cabinet-level council of advisers to the President on Science and Technology
• The President chairs the NSTC. Membership consists of the Vice President, Cabinet Secretaries, Agency Heads with significant science and technology responsibilities, and other White House officials
• The Office of Science and Technology Policy serves as the secretariat for the NSTC
• Long-standing bodies of the NSTC oversee Federal science and technology (S&T) policy and interagency S&T activities of high national priority and ongoing interest
NSTC SAM Overview

**Origin:** Congressional mandate for SAM in 2012 bipartisan COMPETES Act

**Functions:** Interagency planning, coordination, and information sharing on advanced manufacturing federal policy and programs. Assigned principal responsibility for development and execution of **National Strategic Plan for Advanced Manufacturing**

**Priorities:**
- Review and **Coordinate** Federal Government’s Advanced Manufacturing R&D
- Update and Publish **Strategic Plan**

**Co-chairs:** Kartik Sheth (EOP/OSTP), Rob Gold (DoD/OSD), Mike Molnar (DOC/NIST)

**Membership:** DOC, DoD, DOE, DOEd, DOL, EOP, EPA, HHS, NASA, NSF, SBA, State, USDA

**Key Objectives**
- New Adv. Mfg. Technologies & Program Coordination,
- Education & Workforce Development,
- Mfg Ecosystem & Supply Chain
Advanced Manufacturing National Strategic Plan
First congressionally required quadrennial strategic plan – 2018-2022

Vision: American leadership in advanced manufacturing across industrial sectors to ensure national security and economic prosperity

Goals:

1. Develop and transition new manufacturing technologies – **5 Objectives** with **15 priorities**

2. Educate, train, and connect the manufacturing workforce – **4 Objectives** with **9 priorities**

3. Expand the capabilities of the domestic manufacturing supply chain – **4 Objectives** with **11 priorities**
## Agency Participation in Strategic Plan Objectives

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<thead>
<tr>
<th>Goals</th>
<th>Objectives</th>
<th>DoD</th>
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<td><strong>Develop and Transition New Manufacturing Technologies</strong></td>
<td>Capture the Future of Intelligent Manufacturing Systems</td>
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<td>Develop World-Leading Materials and Processing Technologies</td>
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<td>Assure Access to Medical Products through Domestic Manufacturing</td>
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<td>Maintain Leadership in Electronics Design and Fabrication</td>
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<td>Strengthen Opportunities for Food and Agricultural Manufacturing</td>
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<td><strong>Educate, Train, and Connect the Manufacturing Workforce</strong></td>
<td>Attract and Grow Tomorrow’s Manufacturing Workforce</td>
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<td>Update and Expand Career and Technical Education Pathways</td>
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<td>Promote Apprenticeship and Access to Industry-Recognized Credentials</td>
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<td>Match Skilled Workers with the Industries that Need Them</td>
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<td><strong>Expand the Capabilities of the Domestic Manufacturing Supply Chain</strong></td>
<td>Increase the Role of Small and Medium-Sized Manufacturers in Advanced Manufacturing</td>
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<td>Encourage Ecosystems for Manufacturing Innovation</td>
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<td>Strengthen the Defense Manufacturing Base</td>
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<td>Strengthen Advanced Manufacturing for Rural Communities</td>
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1. Which emerging science and technology areas will be key to the next generation of advanced manufacturing? What should be the near-term and long-term technology development research and development (R&D) priorities for advanced manufacturing, the anticipated timeframe for achieving the objectives, and the metrics in assessing progress toward the objectives?
2. What are examples of technological, market, or business challenges that may best be addressed by public-private partnerships, and are likely to attract both participation and primary funding from industry?
Questions for Public Input: 2022-2026 Strategic Plan

3. How can federal agencies and federally funded R&D centers supporting advanced manufacturing R&D facilitate the transfer of research results, intellectual property, and technology into commercialization and manufacturing for the benefit of society to ensure sustainability, national security, and economic security?
Questions for Public Input: 2022-2026 Strategic Plan

4. How would you assess the state of the domestic advanced manufacturing workforce in the U.S? How can federal agencies and federally funded R&D centers develop, align, and strengthen all levels of advanced manufacturing education, training, and certification programs to ensure a high-quality, equitable, diverse, and inclusive workforce that meets the needs of the sector and drives new advanced manufacturing jobs into the future?
5. How can the federal government assist in the development of regional public-private partnerships to achieve greater distribution of advanced manufacturing clusters or technology hubs, particularly in underserved regions of the country?
Questions for Public Input: 2022-2026 Strategic Plan

6. How do you assess the adequacy of the domestic advanced manufacturing supply chain and industrial base? How can federal agencies assist small and medium sized manufacturing companies to adopt advanced technologies and to develop a robust and resilient manufacturing supply chain to ensure the future products are made in all of America by all of America’s workforce? What are some infrastructure barriers and challenges in promoting manufacturing in all regions of the country?
Questions for Public Input: 2022-2026 Strategic Plan

7. The current Strategy for American Leadership in Advanced Manufacturing has three top-level goals, each with objectives and priorities:

   1) Develop and transition new manufacturing technologies;
   2) Educate, train, and connect the manufacturing workforce; and
   3) Expand the capabilities of the domestic manufacturing supply chains.

Are these goals still appropriate for the next 4-5 years? Are there additional top-level goals to consider?
Questions for Public Input: 2022-2026 Strategic Plan

8. Is there any additional information related to advanced manufacturing in the United States, not requested above, that you believe OSTP should consider?