

DOE's Better Plants program helps a diverse group of manufacturers leverage opportunities for innovation, training, and new technology. This includes AMO R&D Consortia, which are collaborative efforts that leverage common assets to the benefit of all stakeholders in targeted technical areas of manufacturing, overcoming the significant manufacturing challenges that are impractical for any single entity to bear alone. DOE has funded five institutes as a part of Manufacturing USA, a government-wide initiative focused on coordinating public and private investment in emerging advanced manufacturing technologies. Manufacturing USA brings together industry, academia, and government partners to leverage existing resources, collaborate, and co-invest to advance manufacturing innovation and accelerate commercialization. Better Plants partners can directly benefit from these institutes by joining them as official members.



The [Clean Energy Smart Manufacturing Innovation Institute \(CESMII\)](#) encourages smart manufacturing technology adoption to increase productivity, energy efficiency, and U.S. manufacturing job growth.

## CESMII

Smart manufacturing provides clear insight into the entire manufacturing process for everyone, from top management to engineers on the factory floor. This allows for real time decisions regarding energy usage and production efficiency. Smart Manufacturing (SM) is the business, technology, infrastructure, and workforce practice of optimizing manufacturing through the use of engineered systems that integrate operational and information technologies (OT/IT). SM enables the right information and technology to be available at the right time and form to the right people, powering smart decision-making within factories and across entire value chains. In partnership with the U.S. Department of Energy, CESMII focuses on improving the precision, performance, and efficiency of U.S. advanced manufacturing. CESMII provides a broad impact for its members through:

- Developing advanced sensors, controls, platforms, and models;
- Improving access to and use of data;
- Optimizing existing assets through energy efficiency;
- Reducing the amount of time and resources to reach the organization's objectives.

### **Better Plants Partner in Action: General Mills**

General Mills, an American manufacturer and Better Plants partner, is leveraging the benefits of smart manufacturing. General Mills was able to successfully track its supply chain by integrating smart meter instruments across its manufacturing facilities. The smart meters allow General Mills to understand the impact of system changes using real-time energy consumption data. A smart manufacturing software platform was established to track and verify the quality of its products while identifying opportunities for energy efficiency improvement and safety across its connected enterprise.

To learn more about how to access numerous manufacturing institutes in the Manufacturing USA network:

**Email:**

[Betterplants@ee.doe.gov](mailto:Betterplants@ee.doe.gov) or

Contact your Technical Account Manager

**Visit:**

[CESMII's Website](#)

[DOE's Advanced Manufacturing Office](#)