

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 [Reducing EMBodied-energy and Decreasing Emissions \(REMADE\) Institute](#) is focused on better understanding and optimizing material reuse, recycling, and remanufacturing in industrial processing.

## REMADE

The mission of the REMADE Institute is to enable the early stage applied research and development of key industrial platform technologies that could dramatically reduce the embodied energy and carbon emissions associated with industrial-scale materials production and processing. By focusing our efforts on addressing knowledge gaps that will eliminate and/or mitigate the technical and economic barriers that prevent greater material recycling, recovery, remanufacturing and reuse, the REMADE Institute seeks to motivate the subsequent industry investments required to advance technology development that will support the U.S. manufacturing eco-system. In partnership with DOE, REMADE focuses on the following technology areas:

- System analysis of data collection, standardization, metrics and tools for understanding material flow;
- Design tools for material utilization/reutilization, and design for disassembly;
- Efficient use of materials, near net shaping, and use of secondary feedstock without loss of quality;
- Efficient and cost effective technologies for cleaning, component restoration, condition assessment, and reverse logistics;
- Rapid gathering, identification, sorting, separation, and contaminant removal reprocessing and disposal.

### Better Plants Partner in Action: Celanese

A number Better Plants partners have begun [to join REMADE](#) in an effort to breaking down barriers to material reuse, recycling, and remanufacturing. Celanese, a Fortune 500 global technology and specialty materials company from Texas, joined REMADE as a proposal partner. By pushing to remove these barriers, partners help unlock technology and systems that can help them achieve their own Better Plants goals. Participating members can take part in institute projects, partners have access to funds for R&D projects, cost sharing programs, and IP licensing options for completed projects.

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:**

[REMADE's Website](#)

[DOE's Advanced Manufacturing Office](#)