Manufacturing is a cornerstone of the U.S. economy and it is imperative that U.S. manufacturing remains competitive and capitalize on areas for growth and innovation. Breakthroughs in new materials technologies are a critical component of the technological advances needed to bolster next generation manufacturing in the United States. Materials technologies are involved at every step within the manufacturing process chain from novel feedstocks to shaping technologies, to advanced sensors, and ultimately, to high performing products.

Driven by insights from the U.S. advanced manufacturing community, this briefing will explore some of the most promising materials innovations that could enable the next wave of manufacturing technologies as highlighted in the recent report, *Harnessing Materials Innovations to Support Next Generation Manufacturing Technologies*. The briefing will highlight two promising technologies, *Metamaterials* and *High Entropy Alloys*, and explore pathways to support industrial competitiveness based on the collective voice of manufacturers, government agencies, and leading research institutions. Speakers include:

- **Sridhar Kota**, Executive Director, *MForesight*
- **Ed Herderick**, Director of Additive, Center for Design and Manufacturing Excellence, *The Ohio State University*
- **Chris Spadaccini**, Director of the Center for Engineered Materials and Manufacturing, *Lawrence Livermore National Laboratory*
- **Dan Miracle**, Chief Scientist (Acting), Air Force Office of Scientific Research, *Air Force Research Laboratory*