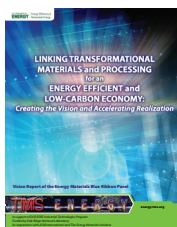


MATERIALS: FOUNDATION FOR THE CLEAN ENERGY AGE

Project Milestones

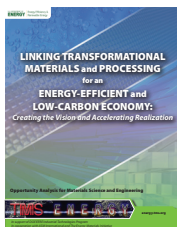
In 2010, The Minerals, Metals and Materials Society (TMS) launched the study, *Linking Transformational Materials and Processing for an Energy Efficient and Low-Carbon Economy: Creating the Vision and Accelerating Realization*, which was sponsored by the U.S. Department of Energy Advanced Manufacturing Office. Since then, 100+ experts representing societies of 75,000+ scientists and engineers have worked to develop a plan and target opportunities for materials science and engineering (MSE) to deliver significant energy, environmental, and economic impacts.



Phase I: February 2010—June 2010

Resulting Report: *Vision Report of the Energy Materials Blue Ribbon Panel*

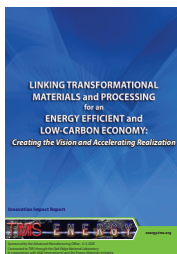
The Energy Materials Blue Ribbon Panel, convened by TMS, created a vision for the project by determining the parts of the energy sector that could be most affected by MSE breakthroughs and identifying priorities for MSE innovation.



Phase II: September 2010—January 2011

Resulting Report: *Opportunity Analysis for Materials Science and Engineering*

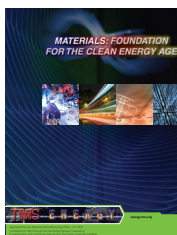
Technical working groups identified product and process innovations that, if successfully developed and deployed, would create significant economic impact, energy savings, and carbon emission reductions in the priority areas identified by the Blue Ribbon Panel.



Phase III: February 2011—December 2011

Resulting Report: *Innovation Impact Report*

Using the innovations identified in Phase II as a guide, innovation impact teams (IITs) consisting of experts from industry, academia, and government identified 54 breakthrough opportunities for materials and manufacturing innovation that can deliver significant energy, environmental, and economic impacts to the United States in 2 to 10 years.



January 2012

Materials: Foundation for the Clean Energy Age

TMS developed this booklet to summarize all of the project's findings and demonstrate how the materials and process advances identified by the project can meet the nation's energy challenges while improving productivity and profitability for manufacturers.

"Materials: Foundation for the Clean Energy Age" and the reports from phases 1-3 are all available at energy.tms.org.



energy.tms.org

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