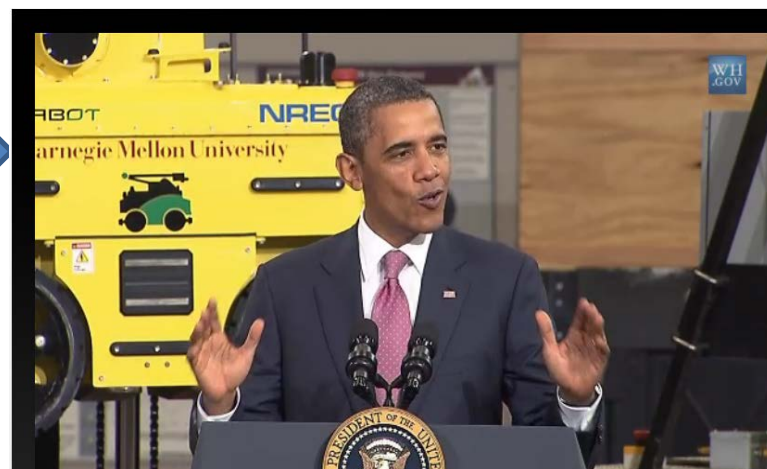
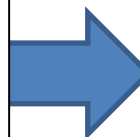
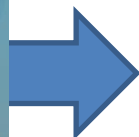
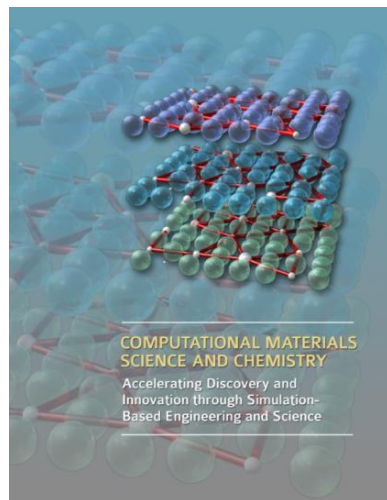


Materials by Design – Materials Genome Initiative – American Manufacturing

Joint BES-ASCR
Workshop, July 2010

National Science and Technology Council,
Office of Science and Technology Policy

A Renaissance in American Manufacturing,
President Obama Speech on June 24, 2011



"We are at the threshold of a new era where predictive modeling will transform our ability to design new materials and chemical processes, thereby enabling rational discovery strategies for systems that were not tractable a few years ago."

The Materials Genome Initiative will create a new era of materials innovation that will serve as a foundation for strengthening domestic industries ...and offers a unique opportunity for the United States to discover, develop, manufacture, and deploy advanced materials at least twice as fast as possible today, at a fraction of the cost.

*President Obama kicks off the **Advanced Manufacturing Partnership** (AMP), a national collaboration between the government, industries, and universities to invest in cutting-edge technologies, create new jobs and bring about a renaissance in American manufacturing. As part of his new AMP, the President is announcing an ambitious plan, the **Materials Genome Initiative**, to double the speed with which we discover, develop, and manufacture new materials.*



U.S. DEPARTMENT OF
ENERGY

Office of
Science

Computational Science in TCMP

- **TMS**

- Theory Modeling and Simulation
- Joint with ASCR
- ASCR portion will go to SciDAC

- **Materials Genome**

- Interagency
- Computational Materials and Chemistry by Design
- \$40 Million in President's Budget
- Envision teams Focused on Scientific Knowledge Gaps
- New theoretical models
- New software tools
- Reusable and broadly disseminated software