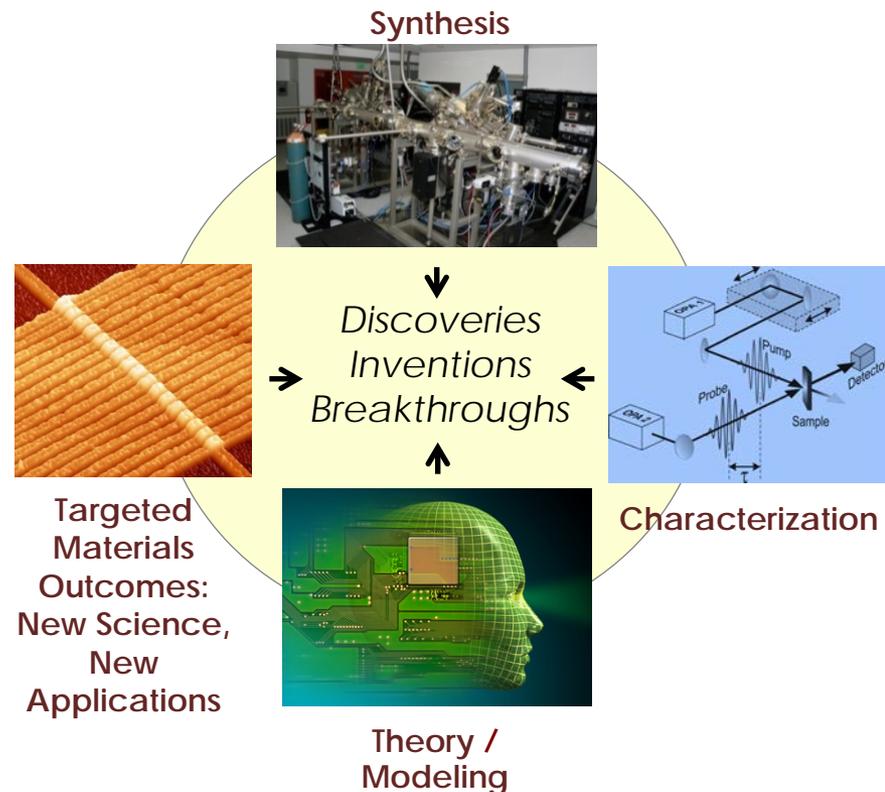


Cornell High Energy Synchrotron Source (CHESS)

Thomas Rieker, Division of Materials Research

Topics

- **2014 Report - MPSAC Subcommittee on Materials Instrumentation with respect to CHESS**
- **First annual update on CHESS**



Closing the Loop

**Materials Innovation
Platforms Solicitation,
NSF 15-522**

MPSAC Subcommittee Report – CHESS

CHESS has not articulated a unique science case

In talking to the committee, CHESS pitched an upgrade

- The subcommittee was unconvinced

http://www.nsf.gov/mps/advisory/mpsac_other_reports/materials_instrumentation-final_from_subcommittee.pdf



A. Function as a National User Facility

Management Review of CHESS – Feb 2014

- Called for an irrefutable case of unique scientific value
- NSLS-II: First Light October 23, 2014
- 26 PIs migrated from NSLS to CHESS in 2014

B. Demonstrate National Need

CHESS proposal system now mirrors that of the Advanced Photon Source (APS)

- Comparable oversubscription rate to the APS

CHESS starting to broaden the user base

- 36% of PIs new to CHESS
- About 1/3 of competitively awarded beamtime continues to go to Cornell and CHESS PIs





C. Demonstrate Unique Science

- Engineering Beamline: Simultaneously map crystal and grain structures
- Kolsky Bar: sub μ -second mapping of shock deformation
- Integrated Simulation Training for μ -mechanics at CHESS (INSIT μ)



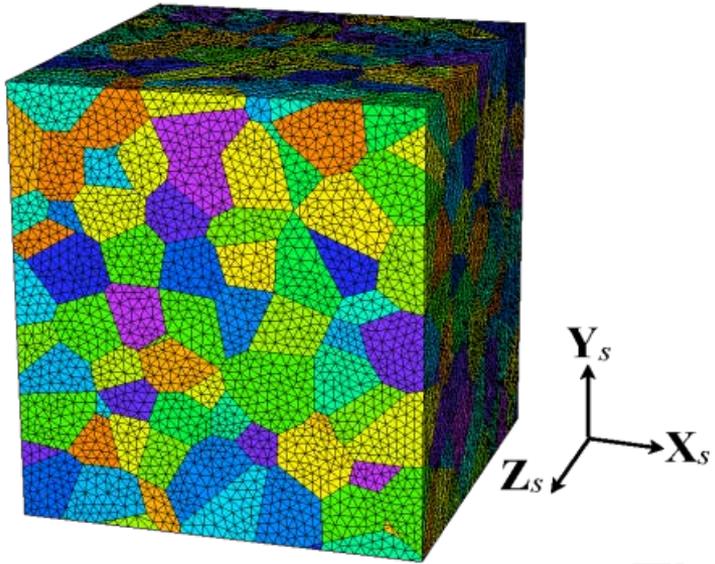
Summary

CHES is taking NSF's requirements seriously

- proposal review process has changed
- engaging their external advisory committee and users
- focusing on the uniqueness and national impact

The challenge remains for CHES to progress toward

- A. Function as a National User Facility
- B. Demonstrate National Need
- C. Demonstrate Unique Science



Thank You

