



Enabling Earthquake Engineering Research of Unprecedented Magnitude

Using Multiple NEES Facilities: The Zipper Project

Why do this experiment?



Collapse of braced frame during 1995 Kobe earthquake.

Pseudo Dynamic Element Test



U of Colorado
P.B. Shing, Co-Investigator

Hybrid

Pseudo Dynamic Subassembly Test



UC-Berkeley
B. Stojadinovic and J. Moehle, Co-Investigators

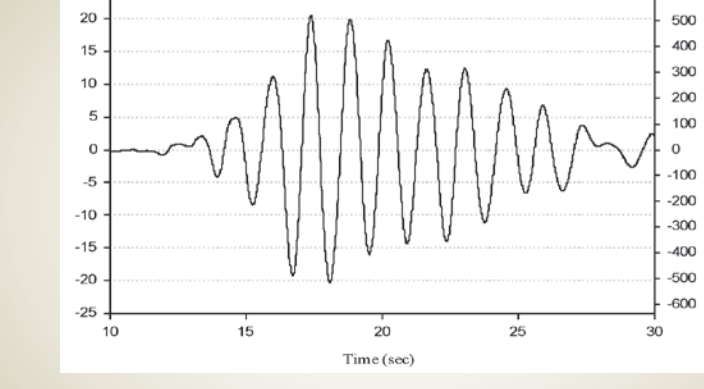
Simultaneous Testing
Substructuring

Shake Table



U@Buffalo
A.M. Reinhorn, Co-Investigator

Nonlinear Analysis



Florida State
M.M. Abdullah, Co-Investigator

Quasi-Static



Georgia Tech
R. Leon and R. DesRoches, Co-Investigators

Experimental Infrastructure

Providing facilities for collaborative and independent research



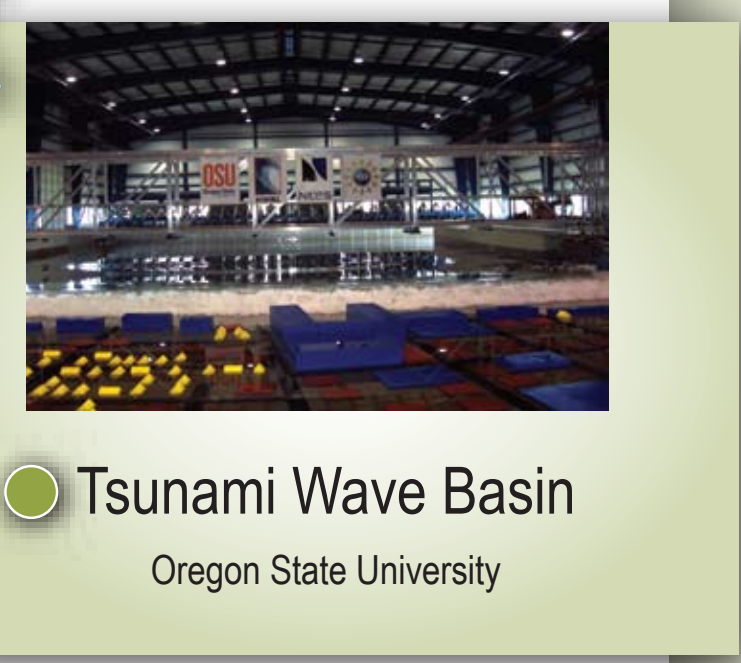
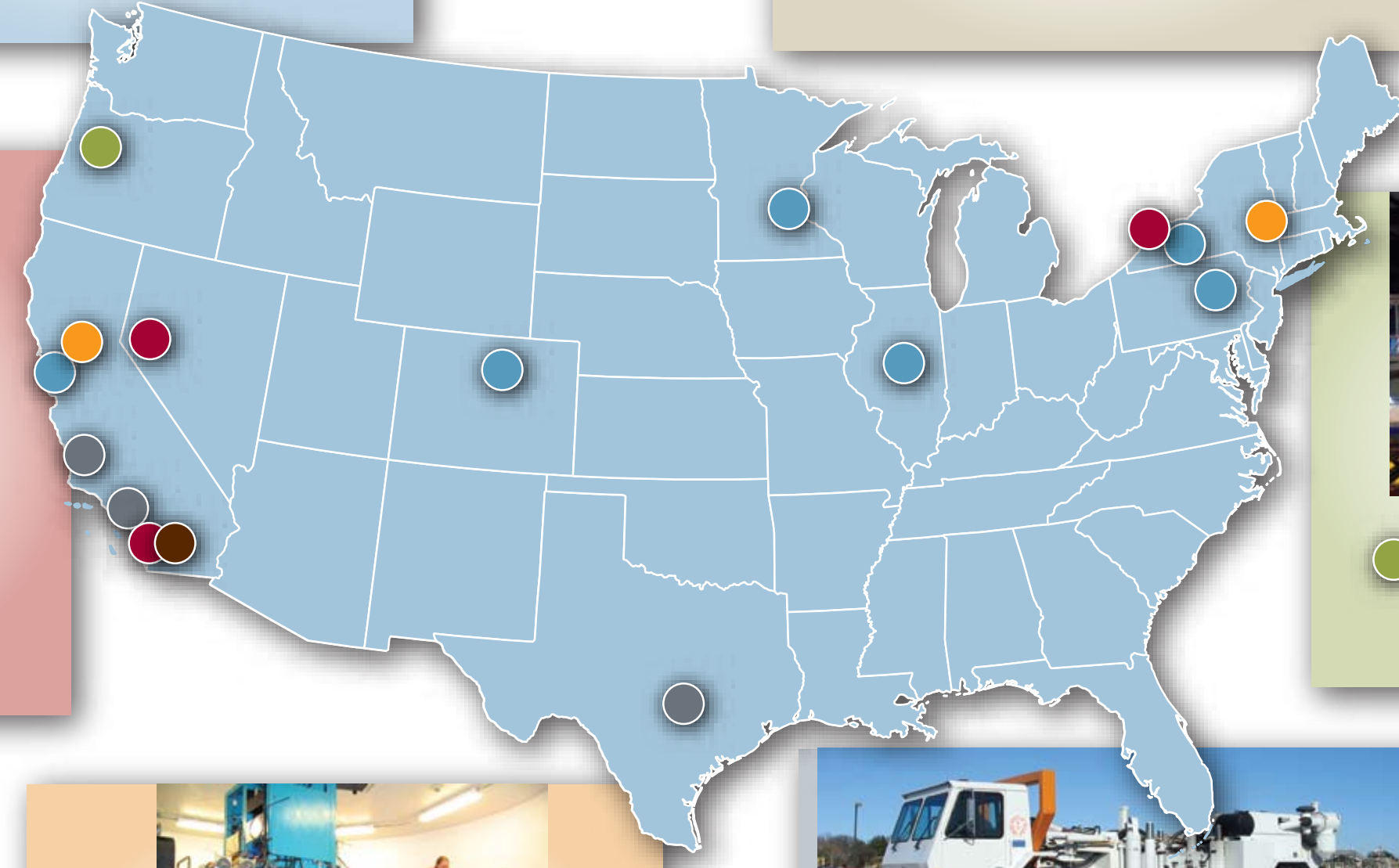
Large-Scale Structural Labs
Cornell University
Lehigh University
University at Buffalo, SUNY
University of California, Berkeley
University of Colorado at Boulder
University of Illinois at Urbana-Champaign
University of Minnesota



Cyberinfrastructure
San Diego Supercomputing Center



Shake Tables
University at Buffalo, SUNY
University of California, San Diego
University of Nevada, Reno



Tsunami Wave Basin
Oregon State University



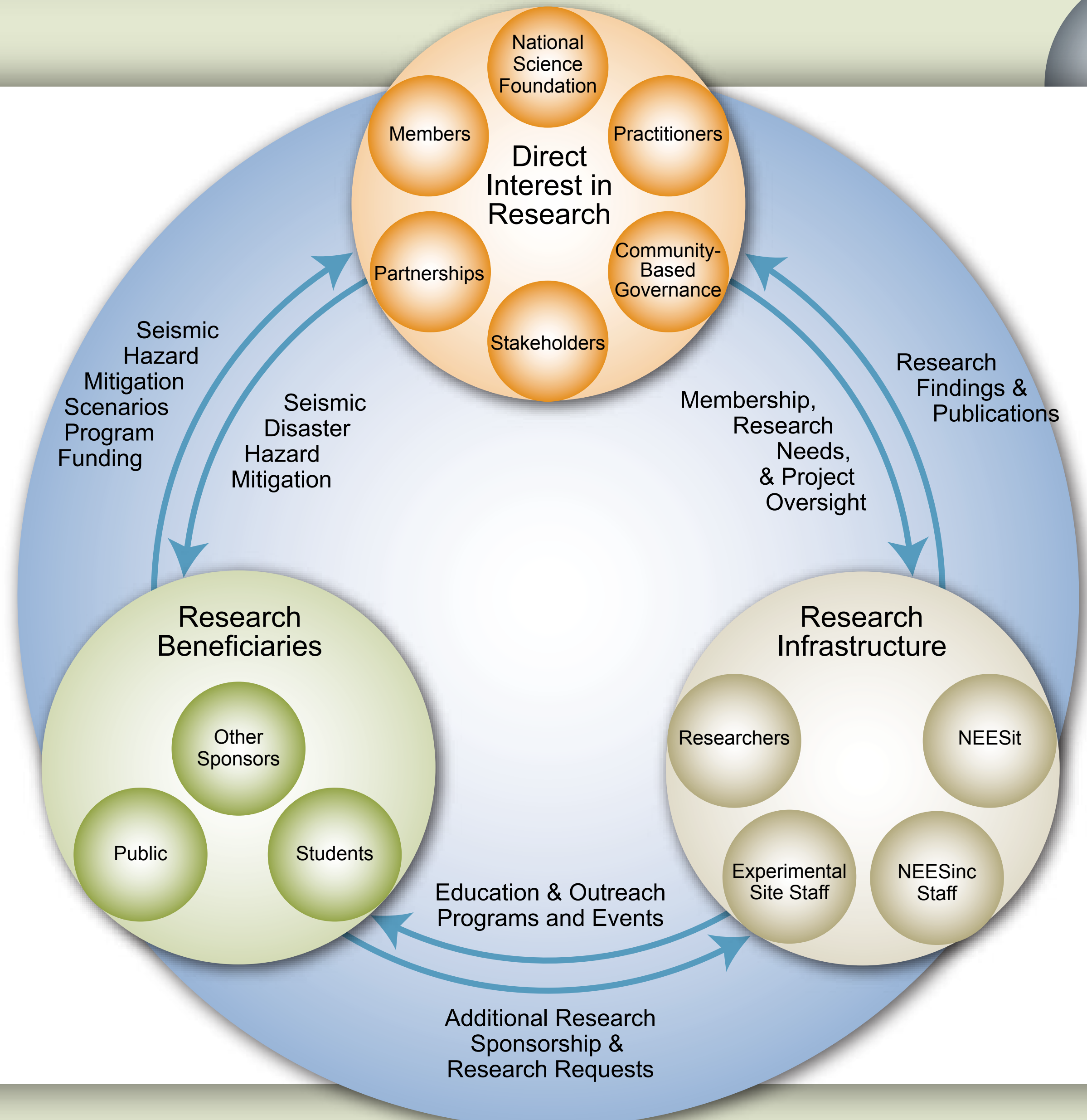
Geotechnical Centrifuges
Rensselaer Polytechnic Institute
University of California, Davis



Monitoring Sites and Mobile Testing
University of California, Los Angeles
University of California, Santa Barbara
University of Texas at Austin

Community Interaction

Connecting research to practicing engineers and the public

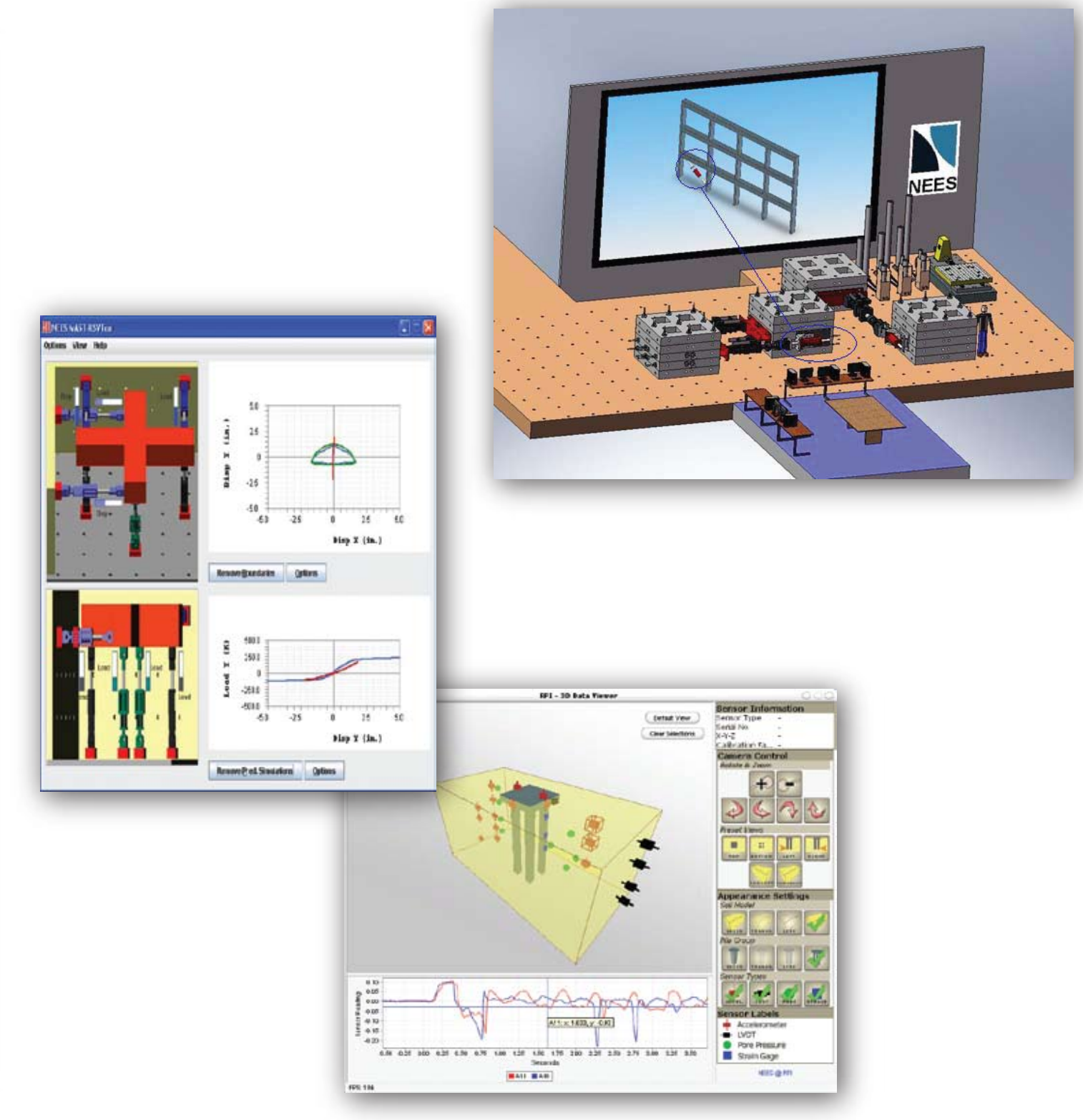


Cyberinfrastructure

Offering a unifying information technology infrastructure

NEES compounds the impact of its work through an advanced, secure cyberinfrastructure, including:

- NEEScentral—an openly-shared repository of experimental and simulation data
- Telepresence applications—enabling live remote participation in experiments
- Simulation/Hybrid Simulation—providing high-fidelity computational modeling
- Visualization applications—graphically representing multiple channels of sensor data



Education, Outreach, & Training

Generating accessible research and education tools



NEESinc coordinates and implements geographically distributed education, outreach, and training (EOT) activities, including:

- Researcher Training Workshops
- Research-to-Practice & Invited Lecture Webinars
- NEES Research Experience for Undergraduates Program
- NEES Annual Meeting
- Experimental Site based activities

