

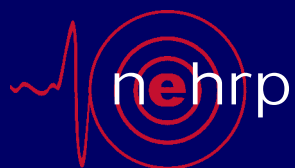


**National Science Foundation
Future Directions
National Earthquake Hazards Reduction Program**

Presentation
to the
NEHRP Advisory Committee on Earthquake Hazard Reduction
October 24, 2007

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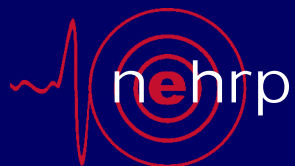


national **earthquake** hazards reduction program



Recent Changes

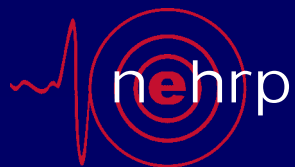
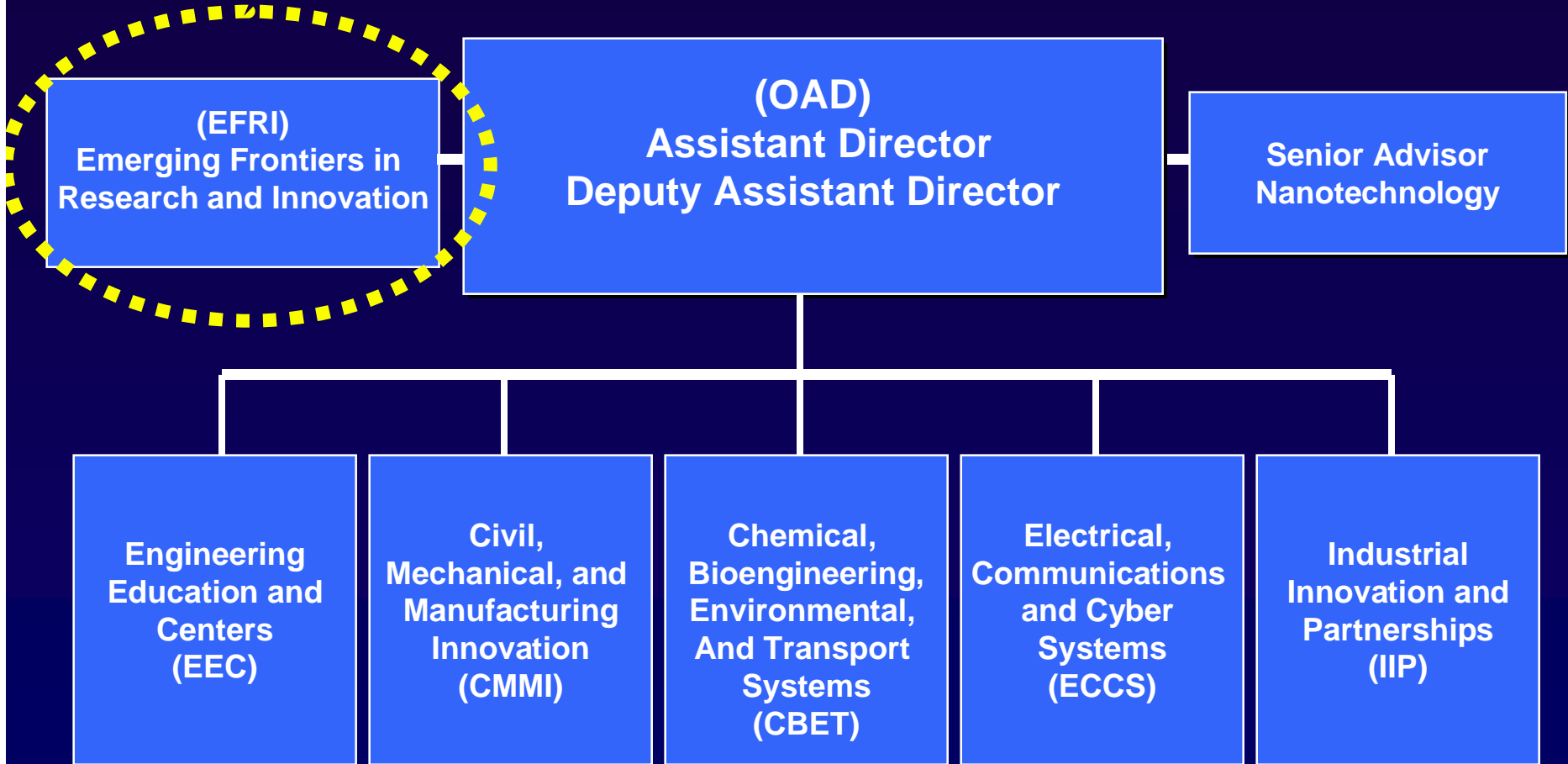
- Directorate for Engineering
 - Earthquake Engineering Research Centers Program
 - Completed ten-year funding at end of FY 2007
 - Future Centers Opportunities
 - Engineering Research Centers Program
 - http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5502&org=EEC
 - New Programs
 - EFRI NSF 07-579 Program Solicitation
 - <http://www.nsf.gov/div/index.jsp?div=EFRI>
 - FY 2008: Resilient and Sustainable Infrastructures topic
 - Broadening Participation Research Initiation Grants in Engineering
 - http://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf07589
 - Focus is on groups underrepresented in engineering
- Directorate for Geosciences
 - Southern California Earthquake Center renewed in 2007 for Phase III





NSF Directorate for Engineering

EFRI - Annual Solicitation w/Two New Topics Each Year



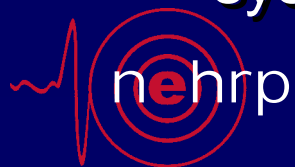
national **earthquake** hazards reduction program



FY 2008 NSF 07-579 EFRI Program Solicitation Topic Resilient and Sustainable Infrastructures (RESIN)

Research to design, renew, expand, monitor, and control critical interdependent infrastructures to be both resilient and sustainable.

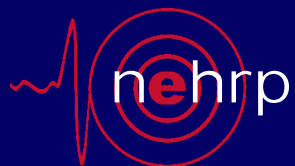
- Infrastructures: Such as energy, water, wastewater, communications, transportation, public health networks, etc.
- Interdependencies: Such as physical, natural resource, cyber, information, geographic, human, and social connections.
- Resiliency: Ability to recover from **shorter term** events.
- Sustainability: **Long-term** reliability through renewable energy and materials and reduced impact on natural systems.





Future Directions for NEES

- FY 2000 – FY 2004: Construction
- FY 2005 – FY 2014: Operations and Research
 - Continue annual NEESR solicitations
 - Include focus on NEHRP-related, as well as discovery, research
 - Workshops funded w/NEHRP agencies
 - September 2007 Existing Buildings Workshop
 - Work with NIST
 - To utilize NEES facilities
 - For technology transfer of NEES research
 - Work with USGS' Advanced National Seismic System
 - Continue development of strategic international partnerships
 - Joint Memorandum of Cooperation between NSF and Japanese MEXT
 - World Forum on Collaborative Research in Earthquake Engineering
 - 2006 San Francisco
 - 2007 Ispra, Italy
 - 2008 China (planned)





Ongoing/New NSF Directions Some Key Opportunities for Earthquake Community

- NSF-wide, e.g.,
 - Cyber-enabled Discovery and Innovation (CDI)
http://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf07603
 - From Data to Knowledge
 - Understanding Complexity in Natural, Built, and Social Systems
 - Building Virtual Organizations
 - Communicating Research to Public Audiences (ongoing)
http://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf03509
 - Human and Social Dynamics Priority Area
http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=11678&from=fund
- Office of Cyberinfrastructure, e.g.,
 - Community-based Data Interoperability Networks (INTEROP)
<http://www.nsf.gov/pubs/2007/nsf07565/nsf07565.htm>
 - Sustainable Digital Data Preservation and Access Network Partners (DataNet)
http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=503141&org=OCI&from=home
 - Cyberinfrastructure Training, Education, Advancement, and Mentoring for Our 21st Century Workforce (CI-TEAM)
http://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf07564

