

NSF and NEHRP

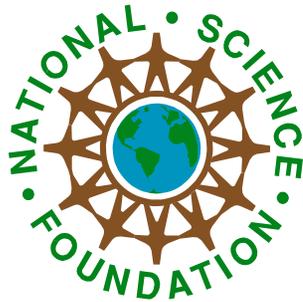
- NEHRP (National Earthquake Hazard Reduction Program) - FEMA, NIST, USGS and NSF
- NSF Investment for NEHRP-related research is typically about \$30 million annually
- NEHRP-related research is primarily funded through three NSF Directorates:
 - Geosciences Directorate (\$10 to 12 million)
 - SBE Directorate (\$1 to 3 million)
 - Engineering Directorate (about \$18 to 20 million)
 - \$6 million for EERC's
 - \$12 to 14 million for research programs
- The NEES MRE project is under NEHRP



NSF MRE Projects

- Major Research Equipment (MRE) account
 - Established by NSF in FY 1995
 - Provides funding for the acquisition and construction of major national research facilities
- MRE operations and maintenance costs provided by NSF Research & Related Activities (R&RA) account
- The Network for Earthquake Engineering Simulation (NEES) is the first MRE project for the Directorate for Engineering

Network for Earthquake Engineering Simulation



*\$82 million Major Research
Equipment (MRE) project
construction 2000-2004
operation 2005-2014*

- ▽ Change focus from physical testing to seamless integration of testing, analysis and simulation
- ▽ Revolutionize the practice of earthquake engineering research with state-of-the-art experimental equipment and information technology
- ▽ Ultimately, enable new earthquake hazard mitigation technologies: structural, geotechnical, and tsunami



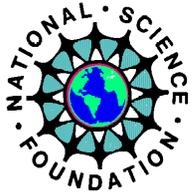
Components of NEES

<http://www.eng.nsf.gov/nees>

- **Earthquake engineering research equipment**
- **Networked collaboratory**
 - Operating subsystem
 - Computational subsystem

All equipment and the collaboratory projects completed by end of FY04

- **Operation and use from FY05 through FY14 managed by the NEES Consortium**



NEES and the Federal Budget Process: NEES Authorized FY 2000-2004

Annual Requested Appropriation *(\$ million, current inflation-adjusted dollars)*

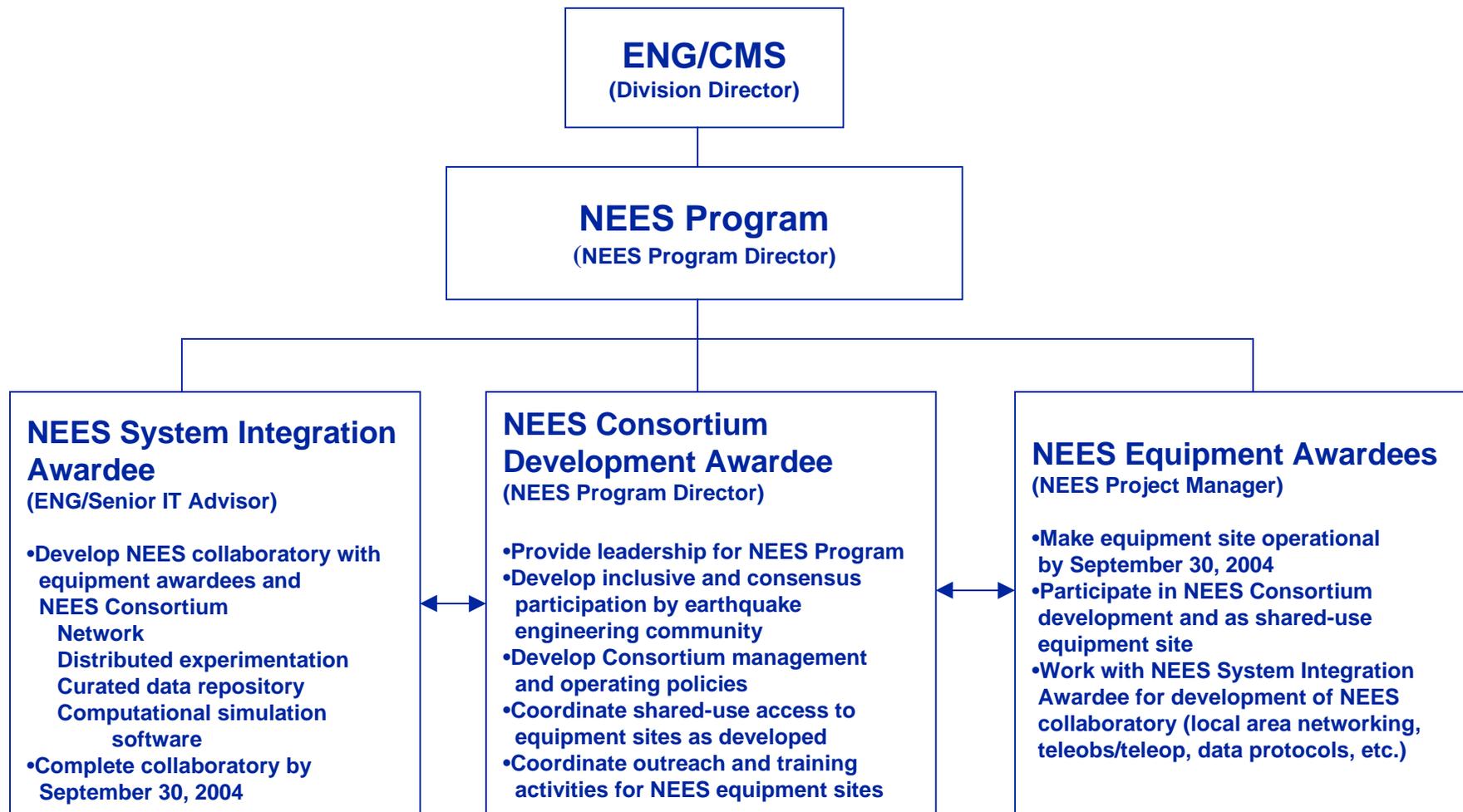
FY 00	FY 01	FY 02	FY 03	FY 04	Total
7.7	28.2	24.4	4.5	17.0	81.9



Network for Earthquake Engineering Simulation

Construction Period: 2000-2004

(<http://www.eng.nsf.gov/nees>)





Network for Earthquake Engineering Simulation

Operational Period: 2005-2014

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