



2018 NSF CYBER-PHYSICAL SYSTEMS PRINCIPAL INVESTIGATORS' MEETING



November 15-16, 2018 | Alexandria, Virginia



Jim Kurose, Assistant Director, Computer and Information Science and Engineering
Linda Blevins, Deputy Assistant Director, Engineering

NSF “Big Research Ideas”



“ ... bold questions that will drive NSF's long-term research agenda -- questions that will ensure future generations continue to reap the benefits of fundamental S&E research. ” *F. Córdova, NSF Director*

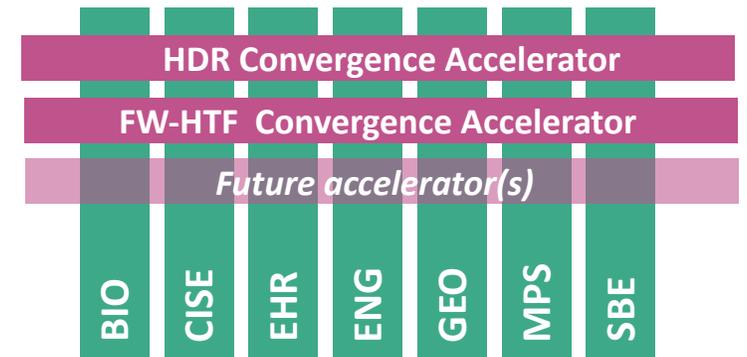


- new in FY19, with foundation set in FY 17, 18
- convergence research
- \$30M/year per Idea, 5-year planning cycle, centrally and collaboratively managed
- process research ideas: NSF INCLUDES, midscale research infrastructure, NSF 2026, growing convergence research

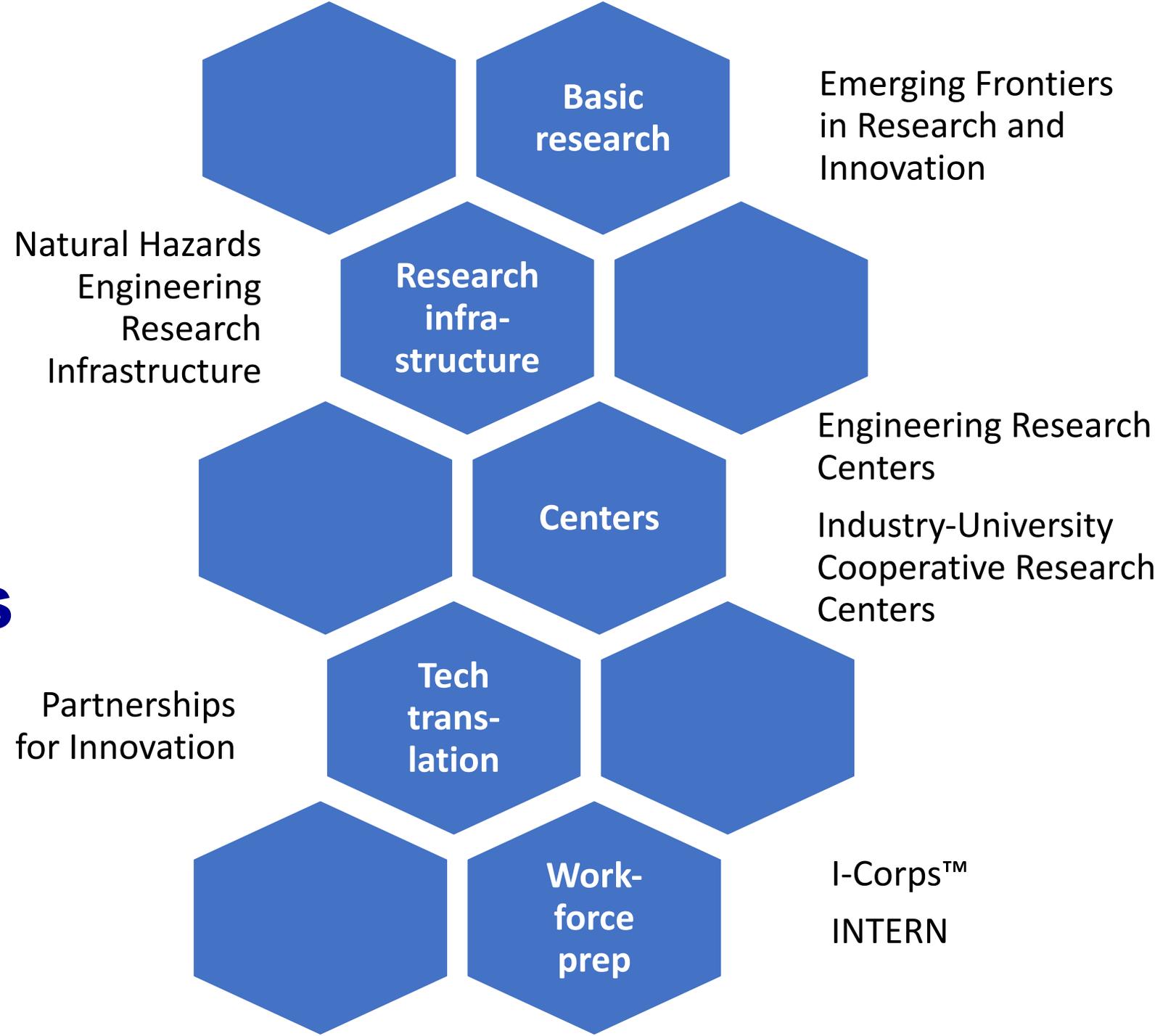
Convergence Accelerators

Accelerating Discovery through Convergence Research

- time-limited entities: accelerating impactful convergence research in areas of national importance
- separate from directorates in leadership, budget, and programmatic (but relying on, and building on foundational disciplinary research)
- emphasis on translational research, partnerships
- projects with clear goals, milestones, directed deliverables (e.g., 6-months)
- more intentional, more directed management
- mission-driven evaluation

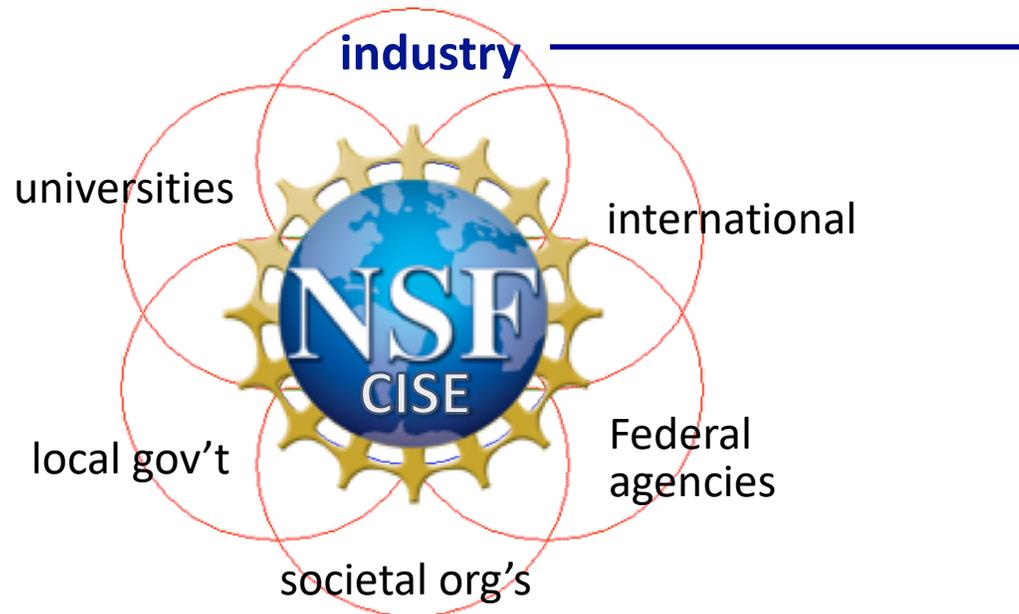


ENG builds and catalyzes partnerships

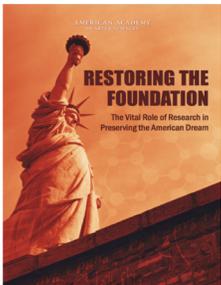


CISE Partnerships: Many dimensions

Partnerships build capacity, leverage resources, increase the speed of translation from discovery to innovation



- **Joint NSF/industry research solicitations:** Intel (5), SRC (8), VMware (2), PAI(1)
- **Research infrastructure:** PAWR: Platforms for Advanced Wireless Research, cloud credit for BIGDATA, (AWS, Google, Microsoft, IBM)
- **Individual project-based:** I/UCRC, Intrans, GOALI

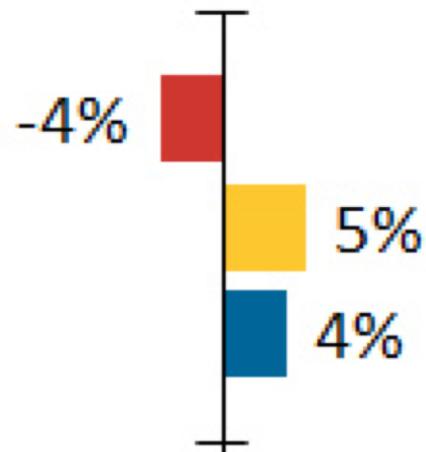


Prescription 3: Establishing a More Robust National Government-University-Industry Research Partnership

2019 Budget Process: underway

FY19 Spending Proposals: National Science Foundation

% change from FY18 enacted
\$ in () are the FY18 amounts



■ Trump Request* ■ House Bill ■ Senate Bill

- NSF currently operating under a Continuing Resolution (CR) until Dec. 7, 2018
 - NASA, NOAA, NIST also on CR
 - DOD, DOE, NIH have FY19 budgets

Source: <https://www.aip.org/fyi/>

THANKS!

- to our CISE and ENG CPS teams
- to our AAAS Fellows
- to our agency partners
- to the Program Committee
- to the CPS VO