

National Science Foundation

International Engagement

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Why International Research Collaborations?

Advance the **FRONTIERS** of Science and Engineering

- **ACCESS** expertise, facilities, data and research environments
- **LEVERAGE** limited resources
- **EXCHANGE** insights and techniques
- **ADDRESS** national, transnational and global challenges

Prepare a **GLOBALLY-** **ENGAGED U.S. S&E** workforce

- **NURTURE** capable young researchers with strong networks overseas
- **DEVELOP** a global perspective
- **FACILITATE** mobility and brain circulation

NSF funds the U.S. side of international collaborations.



Criteria for International Engagement

Accelerate scientific advances

Leverage NSF investments, resources

Advance workforce development goals



FY18 Budget Request

Total: \$6.65 billion

Decrease: \$840.98 billion

-11.2% from FY16 Actuals

-11.2% from FY16 Actuals



FY 2018 Funding for Ongoing NSF-Wide Investments

(Dollars in Millions)

	FY 2016 Actual	FY 2017 (TBD)	FY 2018 Request	Change Over FY 2016 Actual	
				Amount	Percent
Cyber-Enabled Materials, Manufacturing	\$271.52	-	\$222.43	-\$49.09	-18.1%
Inclusion across the Nation of Communities of Learners of Underrepresented Discoverers in Engineering and Science (NSF INCLUDES)	13.97	-	14.88	0.91	6.5%
Innovations at the Nexus of Food, Energy, and Water Systems (INFEWS)	80.10	-	24.40	-55.70	-69.5%
NSF Innovation Corps (I-Corps™)	29.74	-	26.15	-3.59	-12.1%
Risk and Resilience	42.94	-	31.15	-11.79	-27.4%
Secure and Trustworthy Cyberspace (SaTC)	129.78	-	113.75	-16.03	-12.3%
Understanding the Brain (UtB)	172.75	-	134.46	-38.29	-22.2%



\$44,020,000
-5,050,000 / -10.3%

OISE Funding

(Dollars in Millions)

	FY 2016 Actual	FY 2017 (TBD)	FY 2018 Request	Change Over FY 2016 Actual	
				Amount	Percent
OISE	\$49.07	-	\$44.02	-\$5.05	-10.3%



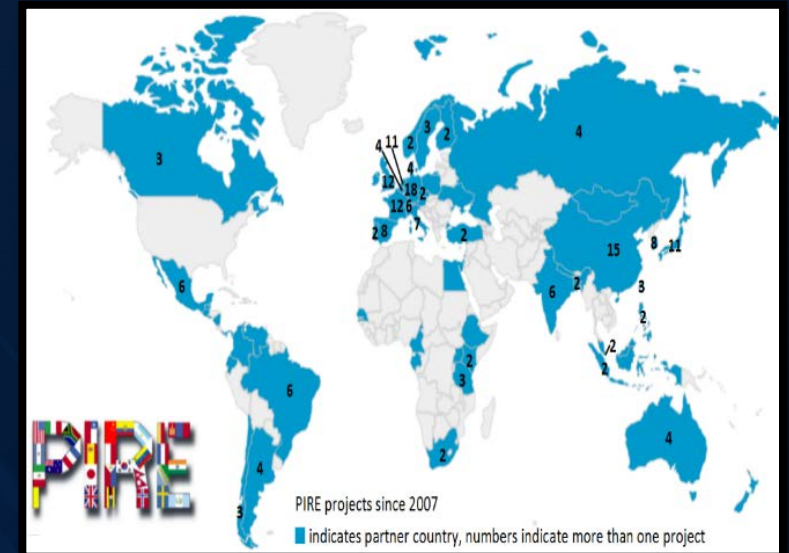
Partnerships for International Research and Education (PIRE)

OISE flagship funding program

- Cutting edge research in partnership with researchers outside the U.S.
- Leverages synergies between U.S. and international researchers
- Extensive research and training opportunities for student

Funds the US-side of collaborative projects

- 5 year awards, \$4 million average
- 40 active awards across all NSF science & engineering
- Very low success rates (3-5% of preliminary proposals funded)



External Evaluation of PIRE Program



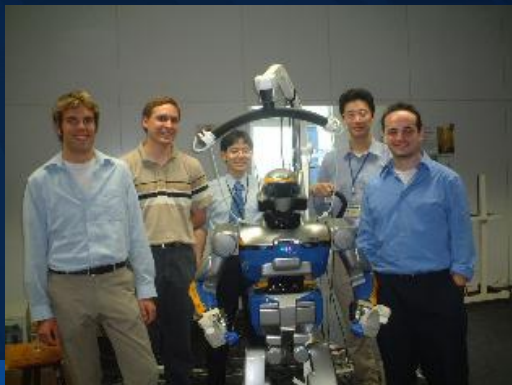
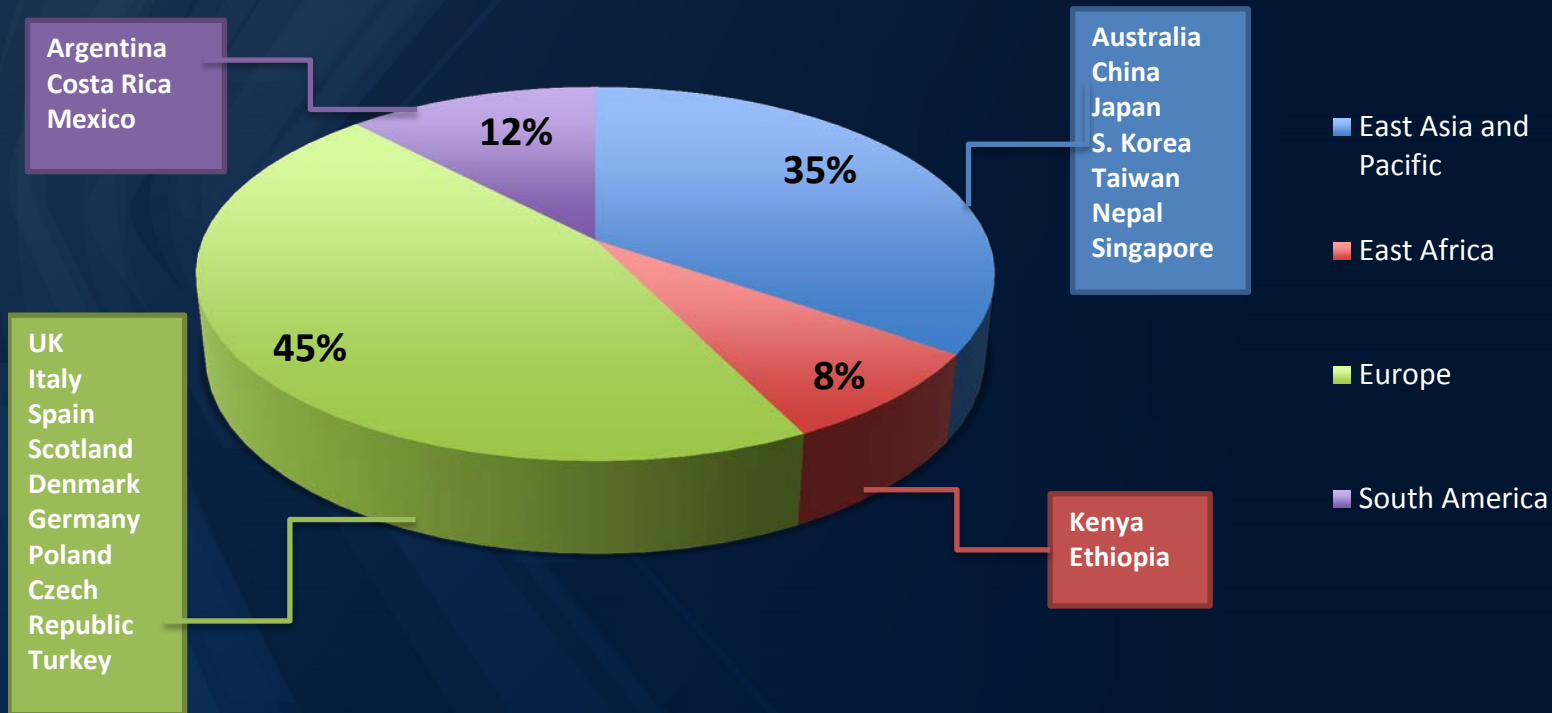
- PIRE awards foster meaningful international collaborations that last beyond award conclusion
- PIRE project publications have higher impact than control group publications
- PIRE increases postdoc and grad student research productivity and the impact of postdoc publications.
- PIRE awardee universities value the program's contributions to their institutional mission
- PIRE demonstrates to faculty the value of student international engagement



International Research Experience for Students (IRES)

- Develop a more globally engaged S&E workforce
- Supports small group of students for focused research experience overseas
- Graduate and/or undergraduate students
- \$250,000 maximum budget for up to three years
- 26 unique awards funded in FY16

FY16 IRES Competition Outcomes



Partnerships for Enhanced Engagement in Research (PEER)

- USAID provides funding to developing country partners of US researchers; managed by National Academies
- Supports research that generates development impacts
- Must include a U.S. partner with an ACTIVE award from a USG research partner, such as NSF, NIH, USGS, USDA, and NASA
- Numerous topical areas of focus; annual solicitation

A research grants program that provides support for scientists and engineers in developing countries



A screenshot of the PEER website homepage. The header features the text "The National Academies of SCIENCES · ENGINEERING · MEDICINE" and "PARTNERSHIPS FOR ENHANCED ENGAGEMENT IN RESEARCH (PEER) DEVELOPMENT, SECURITY, AND COOPERATION Policy and Global Affairs". Below the header is a navigation menu with links for HOME, ABOUT US, FOR APPLICANTS, FOR GRANT RECIPIENTS, FUNDED PROJECTS, and EMAIL UPDATES. The main content area includes a photograph of researchers in a field, the "U.S. GLOBAL DEVELOPMENT LAB" logo (Powered by USAID), and a "Subscribe" button. A paragraph of text describes the program's mission and provides a link to learn more.

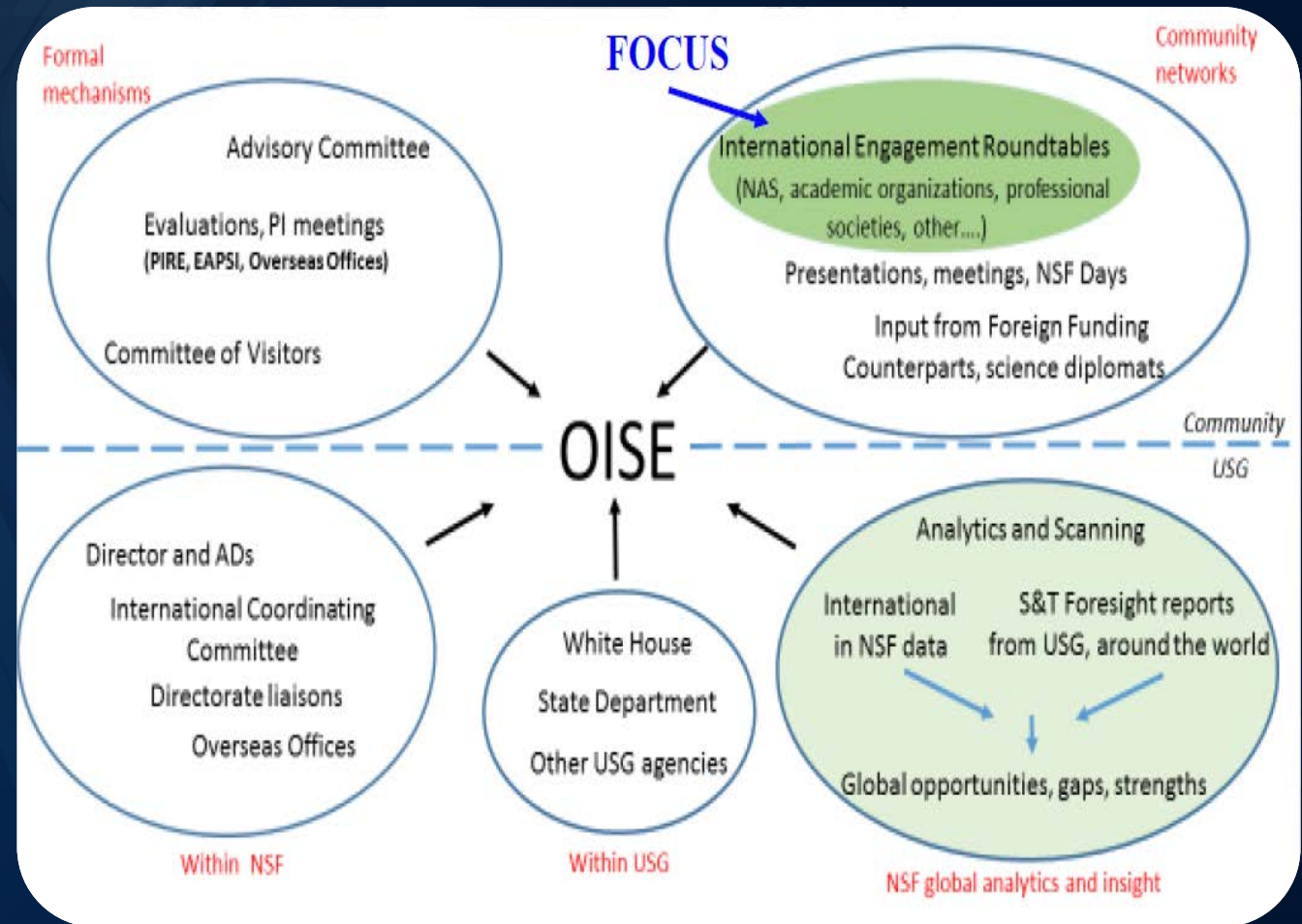


Community Engagement Roundtable Series

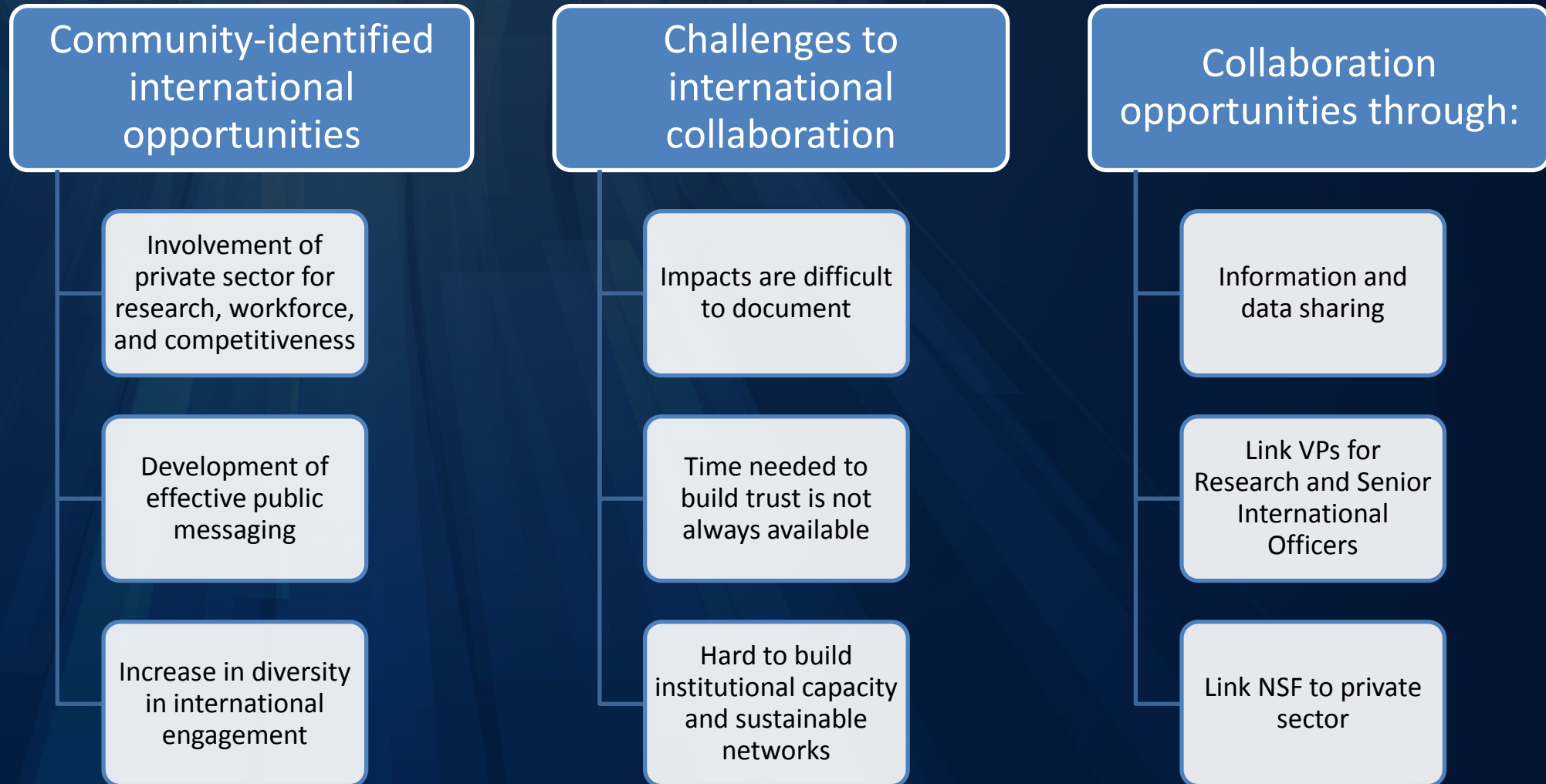
Gather community perspectives

Discuss challenges and opportunities

Discover more effective methods to foster international collaboration



Roundtable #1: Academic organizations



Roundtable #2: Scientific professional societies

