

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**

Decrease: **\$840.98 billion**



## FY 2018 Funding for Ongoing NSF-Wide Investments

(Dollars in Millions)

|  | FY 2016<br>Actual | FY 2017<br>(TBD) | FY 2018<br>Request | Change Over<br>FY 2016 Actual |         |
|--|-------------------|------------------|--------------------|-------------------------------|---------|
|  |                   |                  |                    | Amount                        | Percent |
| Cyber-Enabled Materials, Manufacturing   | \$271.52          | -                | \$222.43           | -\$49.09                      | -18.1%  |
| Inclusion across the Nation of Communities<br>of Learners of Underrepresented Discoverers in<br>Engineering and Science (NSF INCLUDES) | 13.97             | -                | 14.88              | 0.91                          | 6.5%    |
| Innovations at the Nexus of Food, Energy, and Water<br>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<br>Actual | FY 2017<br>(TBD) | FY 2018<br>Request | Change Over<br>FY 2016 Actual<br>Amount | Change Over<br>FY 2016 Actual<br>Percent |
|------|-------------------|------------------|--------------------|---|--|
| OISE | <b>\$49.07</b>    | -                | <b>\$44.02</b>     | <b>-\$5.05</b>                          | <b>-10.3%</b>                            |



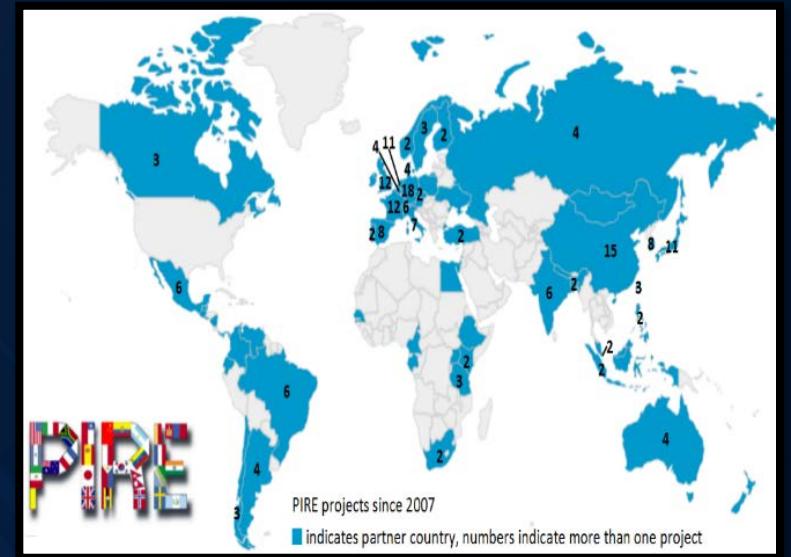
# Partnerships for International Research and Education (PIRE)

OISE flagship funding program

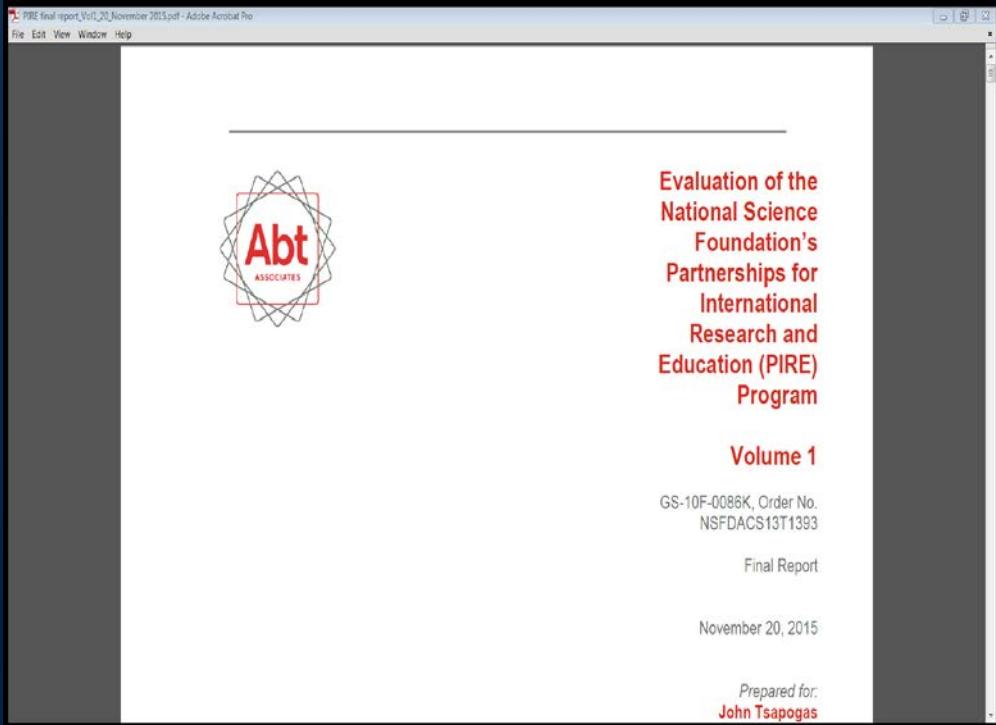
Funds the US-side of collaborative projects

- 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

- 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



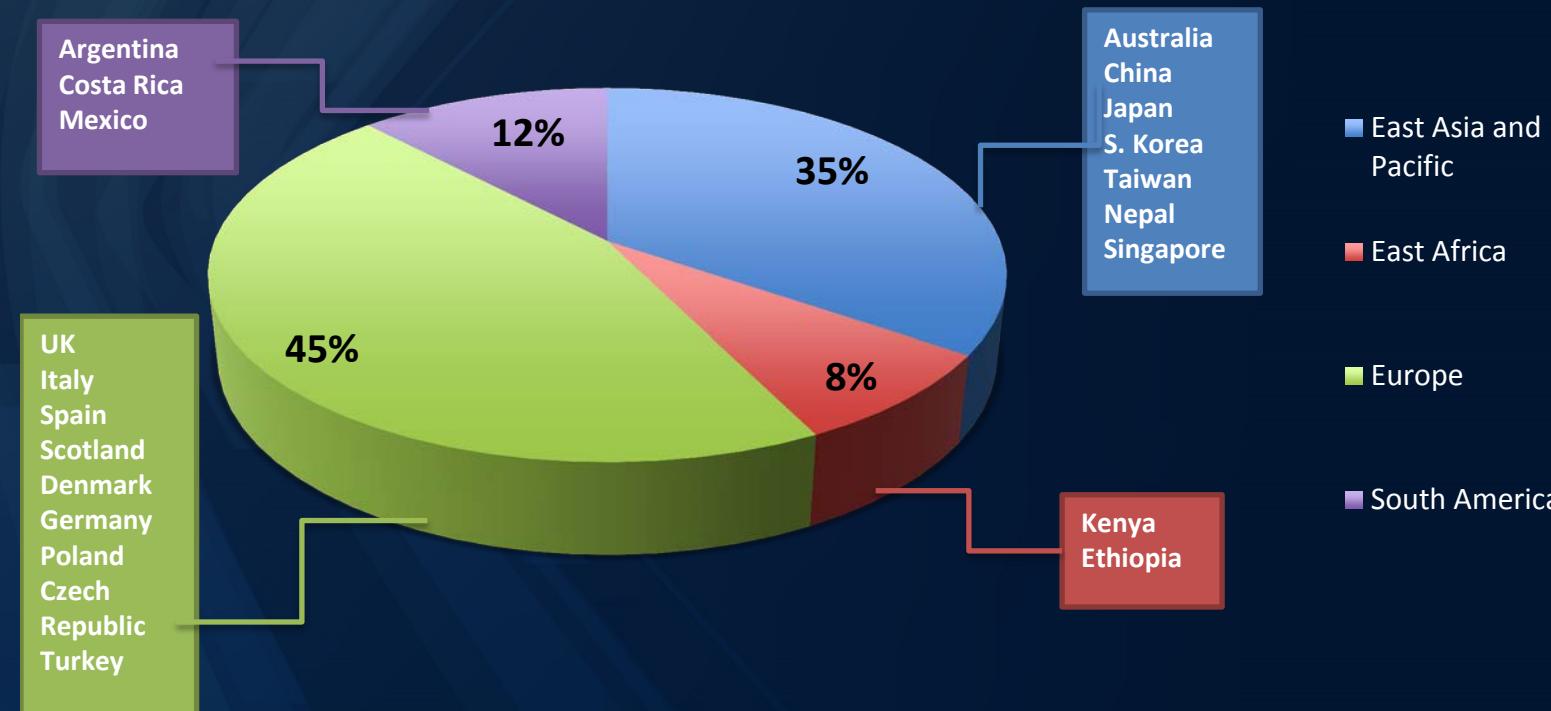
- PIRE awards foster meaningful international collaborations that last beyond award conclusion
- PIRE project publications have higher impact than control group publications
- PIRE increases postdoc and grad student research productivity and the impact of postdoc publications.
- PIRE awardee universities 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*



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**U.S. GLOBAL DEVELOPMENT LAB** Powered by USAID

The United States Agency for International Development (USAID) has joined with several U.S. Government (USG) supported agencies to support Partnerships for Enhanced Engagement in Research (PEER). Administered by the U.S. National Academy of Sciences (NAS), PEER is a competitive grants program that invites scientists in developing countries, partnered with USG-supported collaborators, to apply for funds to support research and capacity-building activities on topics with strong potential development impacts. This innovative program is designed to leverage the investments other USG-supported agencies have made in scientific research and training while supporting the initiatives of developing country scientists. [Learn more....](#)

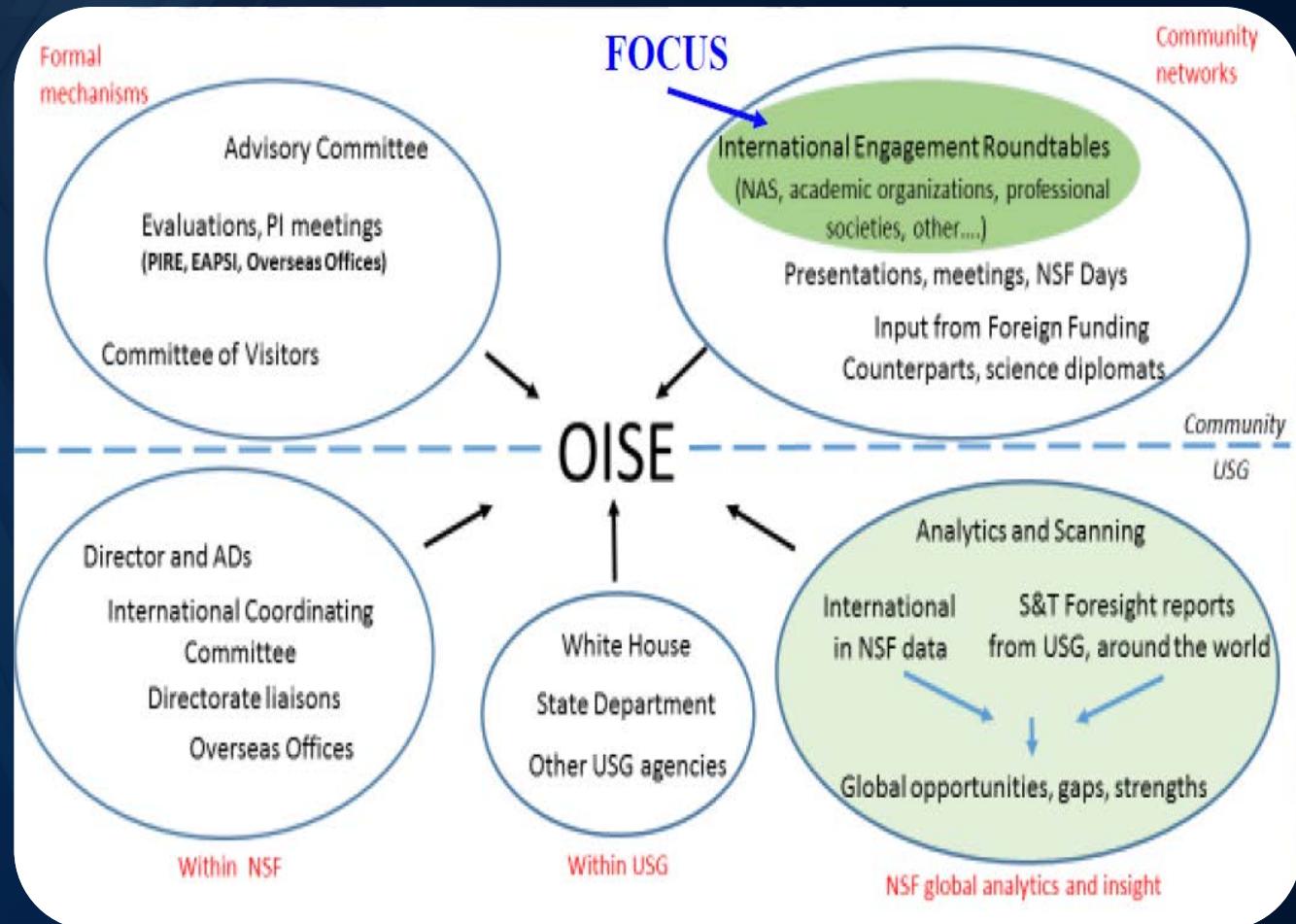
[Subscribe](#) to receive news from PEER

# Community Engagement Roundtable Series

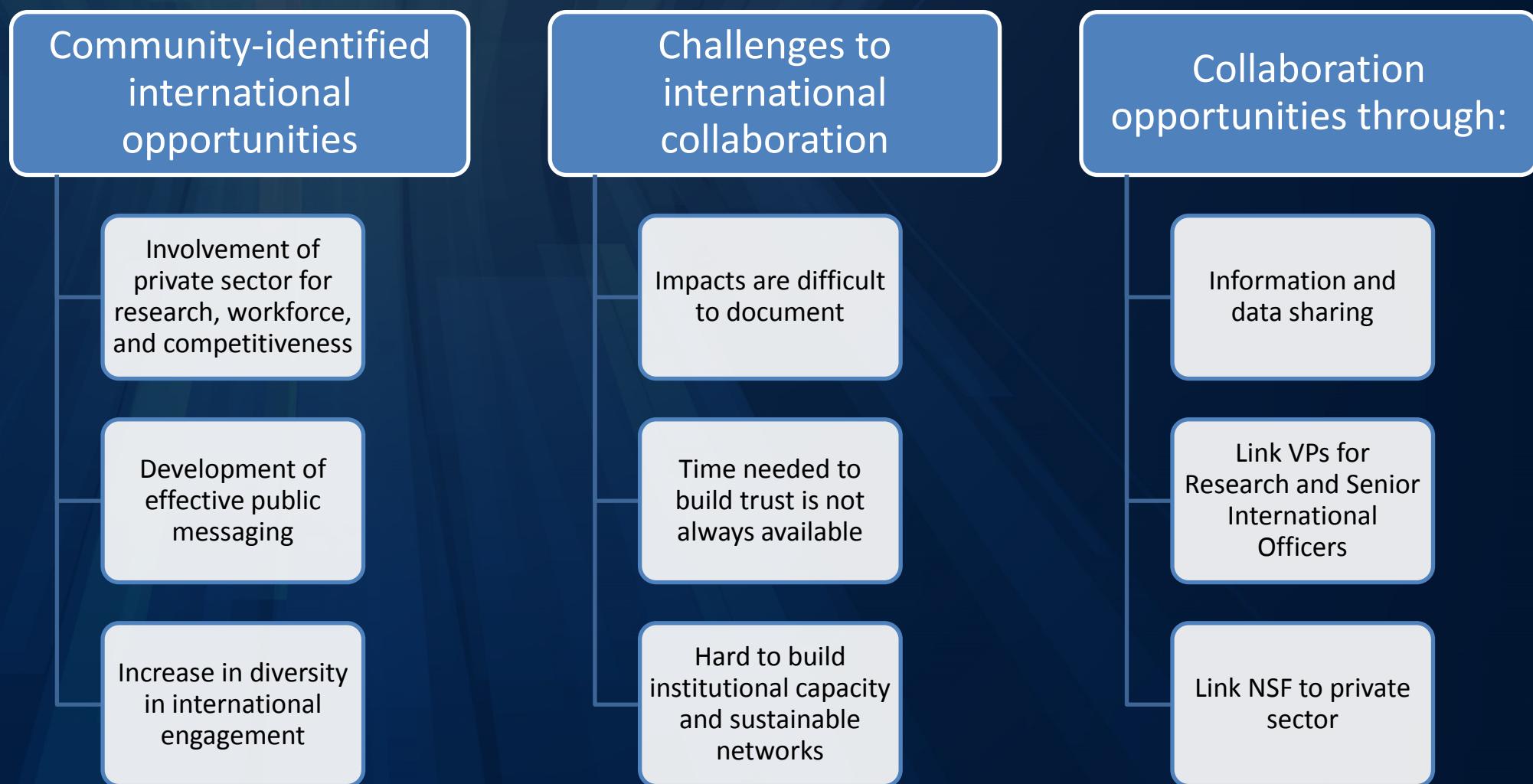
Gather community perspectives

Discuss challenges and opportunities

Discover more effective methods to foster international collaboration



# *Roundtable #1: Academic organizations*



# *Roundtable #2: Scientific professional societies*

