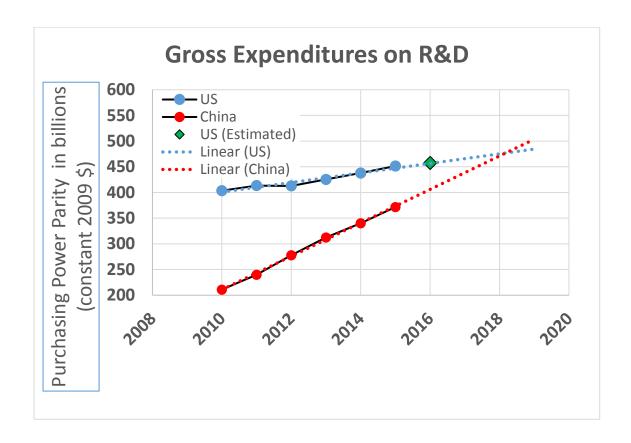
# NATIONAL SCIENCE BOARD STATEMENT ON GLOBAL RESEARCH AND DEVELOPMENT (R&D) INVESTMENTS

If current trends continue, the National Science Board expects China to pass the United States in R&D investments by the end of this year.



- → Data from: Science and Engineering Indicators 2018
  - ◆ US 2016 Estimate from NSF, NCSES National Patterns of R&D Resources, 2017

#### Maria T. Zuber, Chair

Vice President for Research and E.A. Griswold Professor of Geophysics, Massachusetts Institute of Technology, Cambridge

#### Diane L. Souvaine, Vice Chair

Senior Advisor to the Provost and Professor of Computer Science and Mathematics Tufts University, Medford, Massachusetts

#### John L. Anderson

Professor of Chemical Engineering, Illinois Institute of Technology, Chicago

#### Deborah L. Ball

William H. William H. Payne Collegiate Professor of Education and Arthur F. Thurnau Professor, University of Michigan, Ann Arbor

#### Roger N. Beachy

Professor Emeritus of Biology Washington University, St. Louis, Missouri

#### **Arthur Bienenstock**

Professor Emeritus of Photon Science, Stanford University, California

# Vinton G. Cerf

Vice President and Chief Internet Evangelist, Google

# Vicki L. Chandler

Dean of Natural Sciences Minerva Schools at KGI, San Francisco, California

#### James S. Jackson

Daniel Katz Distinguished University Professor of Psychology, Professor of Afroamerican and African Studies, and Director and Research Professor, Institute fo Social Research, University of Michigan, Ann Arbor

# W. Carl Lineberger

E.U. Condon Distinguished Professor of Chemistry and Fellow of JILA, University of Colorado, Boulder

## Stephen L. Mayo

Bren Professor of Biology and Chemistry and William K. Bowes Jr. Leadership Chair in the Division of Biology and Biological Engineering, California Institute of Technology, Pasadena

### Victor R. McCrary

Vice President for Research and Economic Development Morgan State University, Baltimore, Maryland

### **Emilio F. Moran**

John A. Hannah Distinguished Professor, Michigan State University, East Lansing

#### **Ellen Ochoa**

Director, Lyndon B. Johnson Space Center, Houston, Texas

#### **Sethuraman Panchanathan**

Executive Vice President and Chief Research and Innovation

#### Ruth A. David

President and Chief Executive Officer, Analytic Services, Inc. (Retired)

#### W. Kent Fuchs

President, University of Florida, Gainesville

# **Inez Fung**

Professor of Atmospheric Science, Julia M. Phillips University of California, Berkeley

#### Robert M. Groves

Provost and Executive Vice President; Gerard J. Campbell, S.J. Professor in the Math and Statistics Department and Professor in the Sociology Department, Georgetown University, District of Columbia

#### G. Peter Lepage

Goldwin Smith Professor of Physics, Cornell University, Ithaca, **New York** 

Officer of Knowledge **Enterprise Development and** Director of the Center for Cognitive Ubiquitous Computing, Arizona State University, Tempe

# G.P. "Bud" Peterson,

President, Georgia Institute of Technology, Atlanta

Executive *Emeritus* Sandia National Laboratories

### Geraldine L. Richmond,

Presidential Chair in Science and Professor of Chemistry, University of Oregon, Eugene

#### Anneila I. Sargent

Ira S. Bowen Professor of Astronomy, California Institute of Technology, Pasadena

#### About NSB

The National Science Board and the National Science Foundation's Director jointly head NSF. NSB identifies issues critical to NSF's future and establishes the Foundation's policies. The NSB also provides the President and Congress with Science and Engineering Indicators, a biennial report on U.S. progress in science and technology. Members are appointed by the President for six-year terms and selected for their eminence in research, education and records of distinguished service.