



National Science Foundation
WHERE DISCOVERIES BEGIN



Media Advisory 15-015

Rebooting the IT Revolution report now available

Tech, academic and government leaders at NSF-funded workshop identify paths to next transformative technologies



Basic research spurs major advances in the science and technology of information infrastructure.

[Credit and Larger Version \(/news/news_images.jsp?cntn_id=136126&org=NSF\)](/news/news_images.jsp?cntn_id=136126&org=NSF)

September 1, 2015

This material is available primarily for archival purposes. Telephone numbers or other contact information may be out of date; please see current contact information at [media contacts \(/staff/sub_div.jsp?org=olpa&orgId=85\)](/staff/sub_div.jsp?org=olpa&orgId=85).

A report released today identifies fundamental research needs for advancing the burgeoning Internet of Things and catalyzing cutting-edge innovations that will support future U.S. technology leadership and economic competitiveness.

What: The [report <http://www.nsf.gov/cgi-bin/good-bye?https://www.src.org/newsroom/rebooting-the-it-revolution.pdf>](http://www.nsf.gov/cgi-bin/good-bye?https://www.src.org/newsroom/rebooting-the-it-revolution.pdf) is based on a March 2015 workshop supported by the [National Science Foundation <http://www.nsf.gov>](http://www.nsf.gov) (NSF) and sponsored by the [Semiconductor Industry Association <http://www.semiconductors.org/>](http://www.semiconductors.org/) and [Semiconductor Research Corporation <http://www.nsf.gov/cgi-bin/good-bye?https://www.src.org/>](http://www.nsf.gov/cgi-bin/good-bye?https://www.src.org/) : Rebooting the IT Revolution.

The report details research needed to spur major advances in the science and technology of information infrastructure and to unleash broad opportunities for innovation.

Many of these areas align with federal research initiatives, including the [National Strategic Computing Initiative](https://www.whitehouse.gov/blog/2015/07/29/advancing-us-leadership-high-performance-computing) <<https://www.whitehouse.gov/blog/2015/07/29/advancing-us-leadership-high-performance-computing>>, [The BRAIN Initiative](http://www.nsf.gov/brain) <<http://www.nsf.gov/brain>> and the [National Nanotechnology Initiative Grand Challenges](https://www.whitehouse.gov/blog/2015/06/17/call-nanotechnology-inspired-grand-challenges) <<https://www.whitehouse.gov/blog/2015/06/17/call-nanotechnology-inspired-grand-challenges>>.

Who: Mihail C. Roco, NSF senior advisor for science and engineering and founding chair of the [National Science and Technology Council's subcommittee on Nanoscale Science, Engineering and Technology](http://www.nano.gov/nset) <<http://www.nano.gov/nset>>, is available to talk with members of the press about the report.

When: Sept. 1, 2015, from 11 a.m. to 12:30 p.m. EST, or by request at 703-292-8301.

Background: NSF has long supported cross-disciplinary, fundamental research in information technology, advanced materials, nanoscale science, and many other key engineering research areas, including the societal implications of science and technology, helping to spawn global growth in information technology research and innovation and to [spark](https://www.nitrd.gov) <<https://www.nitrd.gov>> a digital revolution.

Increasing societal expectations to access information anywhere, anytime and deepening infusion of information technology in the physical world demand the development of a robust information technology infrastructure that connects the physical and virtual worlds.

To determine ways to meet this demand, to fully realize Internet of Things breakthroughs, and to sustain America's technology leadership, workshop participants discussed needs for fundamental research for energy-efficient sensing and computing, data storage, real-time communication ecosystem, multi-level and scalable security, a new fabrication paradigm and insight computing.

-NSF-

Media Contacts

Sarah Bates, NSF, (703) 292-7738, sabates@nsf.gov (<mailto:sabates@nsf.gov>)

Related Websites

Workshop report: Rebooting the IT revolution: <https://www.src.org/newsroom/rebooting-the-it-revolution.pdf> ([/cgi-bin/good-bye?https://www.src.org/newsroom/rebooting-the-it-revolution.pdf](https://www.src.org/newsroom/rebooting-the-it-revolution.pdf))

Semiconductor Research Corporation news release: <https://www.src.org/newsroom/press-release/2015/753/> ([/cgi-bin/good-bye?https://www.src.org/newsroom/press-release/2015/753/](https://www.src.org/newsroom/press-release/2015/753/))

Semiconductor Industry Association: <http://www.semiconductors.org/> ([/cgi-bin/good-bye?](http://www.semiconductors.org/)
<http://www.semiconductors.org/>)

The National Science Foundation (NSF) is an independent federal agency that supports fundamental research and education across all fields of science and engineering. In fiscal year (FY) 2018, its budget is \$7.8 billion. NSF funds reach all 50 states through grants to nearly 2,000 colleges, universities and other institutions. Each year, NSF receives more than 50,000 competitive proposals for funding and makes about 12,000 new funding awards.

 [Get News Updates by Email](http://service.govdelivery.com/service/subscribe.html?code=USNSF_51) <http://service.govdelivery.com/service/subscribe.html?code=USNSF_51>

Useful NSF Web Sites:

NSF Home Page: <https://www.nsf.gov> <<https://www.nsf.gov>>

NSF News: <https://www.nsf.gov/news/> ([/news/](https://www.nsf.gov/news/))

For the News Media: [https://www.nsf.gov/news/newsroom.jsp \(/news/newsroom.jsp\)](https://www.nsf.gov/news/newsroom.jsp (/news/newsroom.jsp))

Science and Engineering Statistics: [https://www.nsf.gov/statistics/ \(/statistics/\)](https://www.nsf.gov/statistics/ (/statistics/))

Awards Searches: [https://www.nsf.gov/awardsearch/ \(/awardsearch/\)](https://www.nsf.gov/awardsearch/ (/awardsearch/))

National Science Foundation, 2415 Eisenhower Avenue, Alexandria, Virginia 22314, USA Tel: (703) 292-5111, FIRS:
(800) 877-8339 | TDD: (800) 281-8749