

OSTP Update  
Dr. Lisa Nichols  
Federal Demonstration Partnership Meeting  
September 23, 2019

Office of Science and Technology Policy

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Photo credit: Lloyd Whitman

# OSTP Engagement with the Academic Research Enterprise

**New committee:** National Science and Technology Council (NSTC) Joint Committee on the Research Environment (J-CORE)

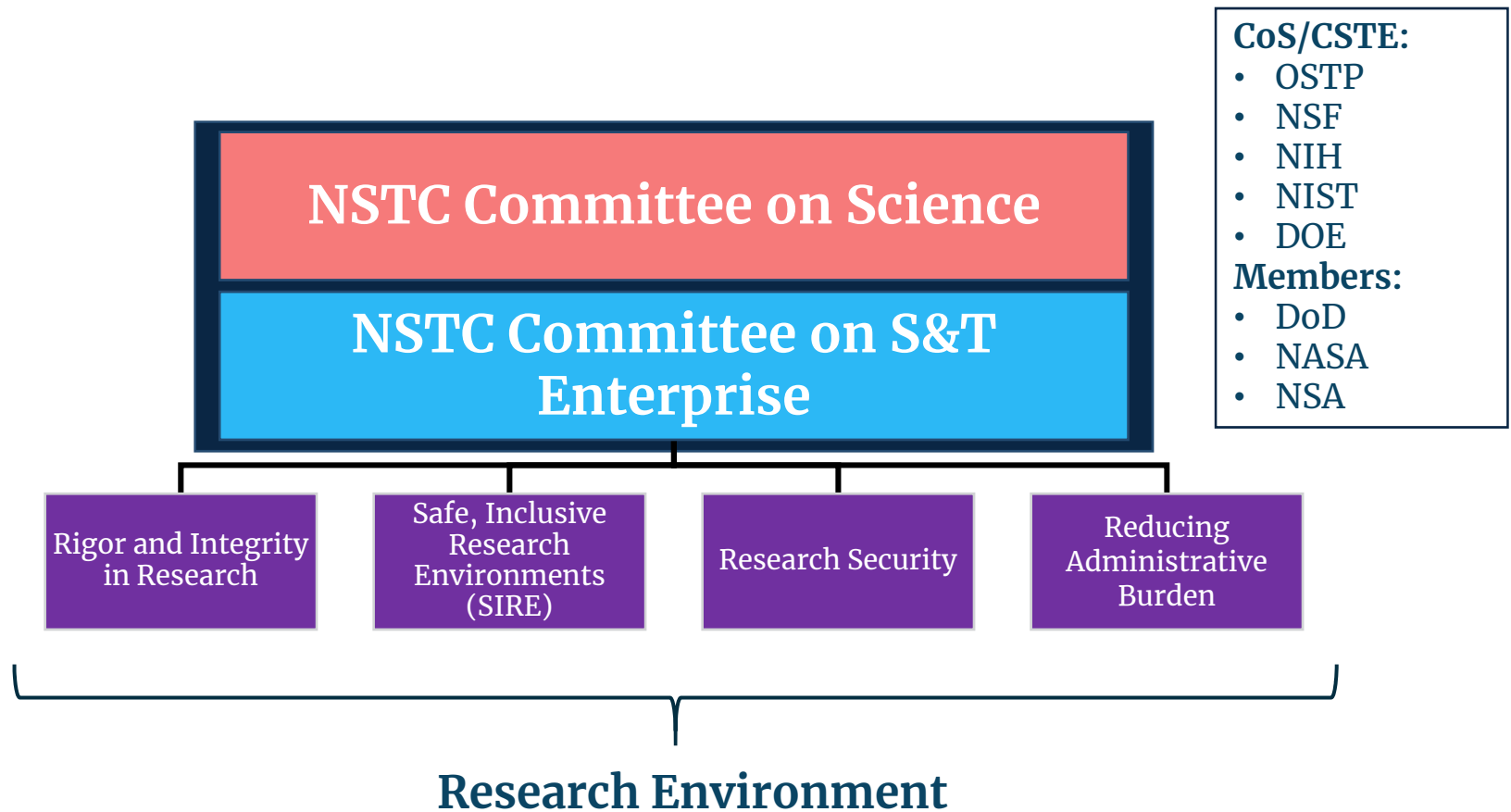
- Four subcommittees addressing issues critical to the research ecosystem
- Meetings held on May 6 and July 9, 2019

**New position:** Assistant Director for Academic Engagement

- Focal point for coordinating and addressing issues that impact the academic research ecosystem



# Joint Committee Structure





# Research Environment Definition

**Research Environment** – Professional research settings including but not limited to laboratories, field sites, institutions, classrooms, conferences and workshops, and any location (physical or virtual) where scholarly colleagues interact.

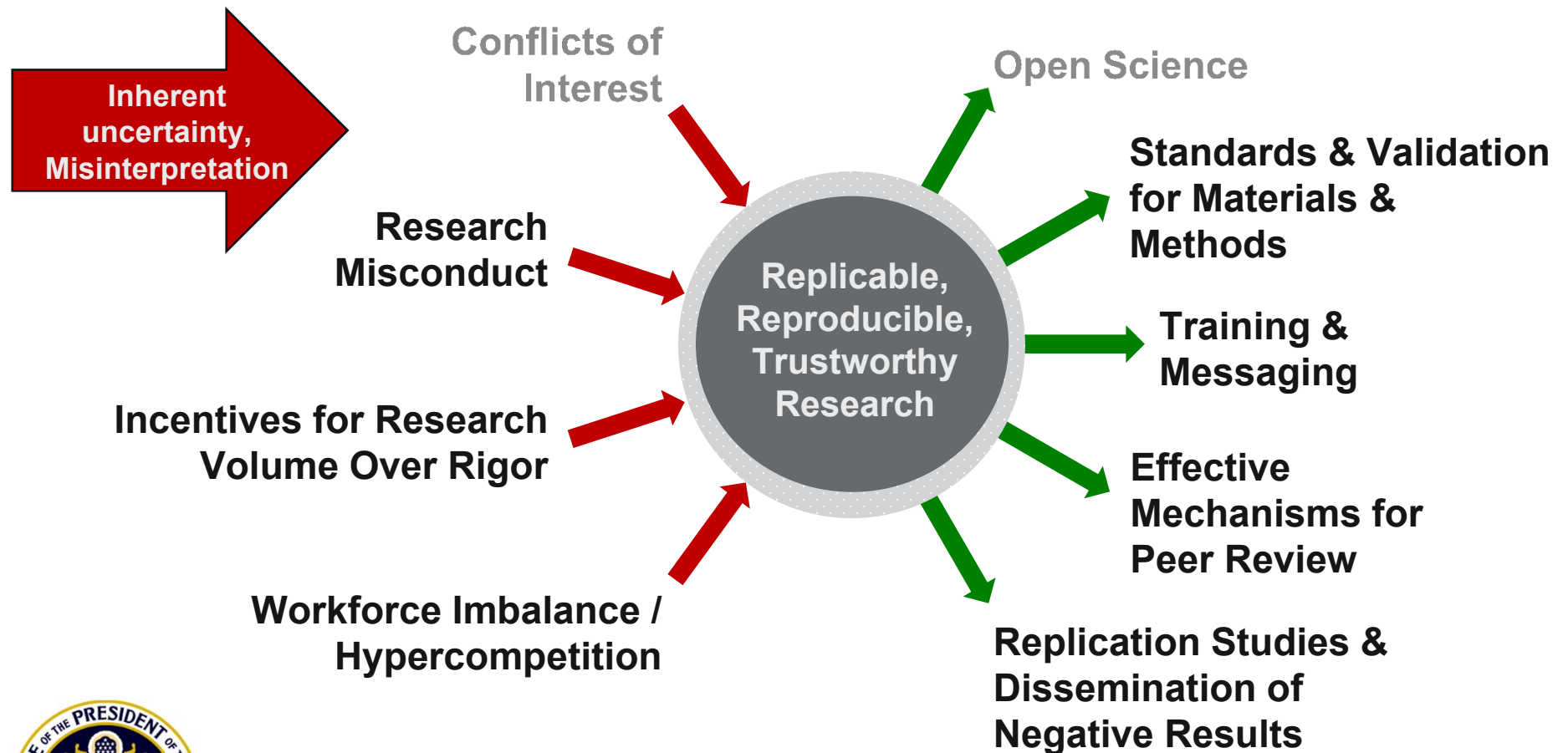


# RIGOR AND INTEGRITY IN RESEARCH

**Members:** DHS, DOD, DOE, DOT, FDA, NASA,  
NIH, NSA, NSF, NIST, SI, State, USDA, USGS



# RIGOR AND INTEGRITY SCOPE



# RIGOR AND INTEGRITY SUBCOMMITTEE

Establish cross-agency principles and priorities

- Assess current and planned agency efforts, reports and recommendations and stakeholder feedback.
  - What are the factors that facilitate research rigor and what actions can be taken to promote positive behaviors?

Principles and priorities that institutions could consider to enhance research quality, reproducibility and replicability

- Develop through a collaborative process

Identification and implementation of mechanisms to incentivize reporting of negative research findings



# SAFE AND INCLUSIVE RESEARCH ENVIRONMENTS

## Members:

DHS, DOC, DOD, DOE, DOI, DOT, HHS,  
NASA, NSA, NSF, OMB, SI, State, USDA





# SUBCOMMITTEE ON SAFE, INCLUSIVE RESEARCH ENVIRONMENTS (SIRE)

## Current State:

- Lack of holistic initiatives to address harassment of ***all*** forms for funding agencies
- **National Academies'** 2018 report *Sexual Harassment of Women*, discusses persistence of harassment and difficulty retaining victims in academia
- 20% - 50% of female students & more than 50% of female faculty & staff experienced sexually harassing behavior in academia

## Areas to Examine:

- Convene agencies to share best practices, challenges, case studies, and lessons learned
- Work with academia and other external stakeholders to understand policy impacts



# SIRE: SUBCOMMITTEE SCOPE

**This Subcommittee aims to promote safer and more inclusive research environments for:**

- (1) Federally-funded research and Federally funded researchers in **Federal facilities** – including government-owned government-operated facilities (GOGOs), and government-owned contractor-operated facilities (GOCOs) including Federally funded research and development centers (FFRDCs)
- (2) Federally funded research and Federally funded researchers in U.S.-based and International (a) **Academia** (b) **Non-Profits** and (c) **Industry**

**Through engagement with stakeholders, the Subcommittee expects its activities to indirectly promote safer and more inclusive research environments for:**

- (3) **Non-Federally funded** research and non-Federally funded researchers in U.S.-based and International (a) Academia (b) Non-Profits and (c) Industry

# SUBCOMMITTEE ON RESEARCH SECURITY

## Members:

DHS, DOC-NIST, DOC-PTO, DOD, DOE, DOI,  
DOJ, DOT, HHS-NIH, HHS-FDA, NASA, NSA,  
NSC, NSF, ODNI, OMB, State, USDA



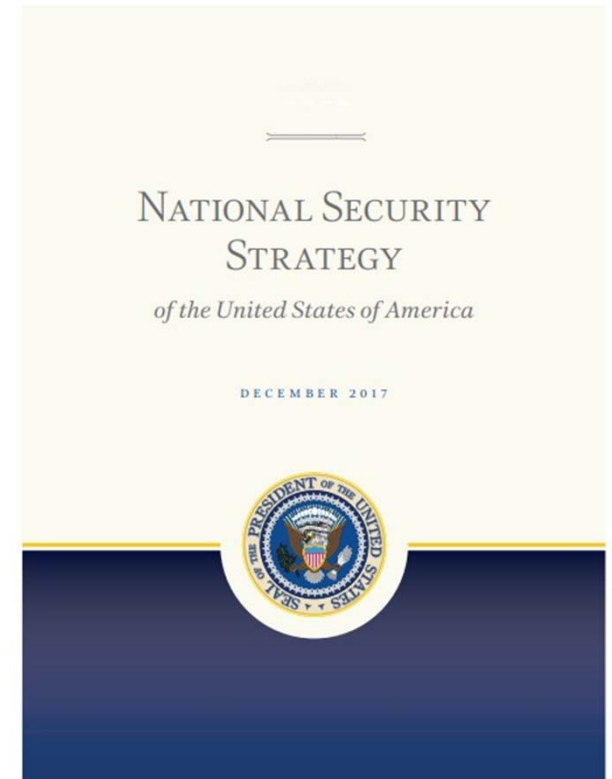
# SUBCOMMITTEE ON RESEARCH SECURITY

## Current State

- Growing concern over foreign exploitation of the U.S. open innovation system
- Agency and institution-specific approaches to managing risk

## Areas to Examine

- Coordinated approach and adoption of best practices for risk mitigation
- Consistent and coordinated messaging
- Longer-term strategy for balancing engagement and risk without stifling innovation







EXECUTIVE OFFICE OF THE PRESIDENT  
OFFICE OF SCIENCE AND TECHNOLOGY POLICY  
WASHINGTON, D.C. 20502

September 16, 2019

Letter to the United States Research Community

Dear Colleagues,

As a fellow researcher and former university vice president for research, I know firsthand that the open and internationally collaborative nature of the United States research enterprise has been critical to our success in research, and that this success has underpinned our Nation's prosperity and security. Indeed, the values we cherish as Americans are the ethos of research itself; namely, the freedom to explore new frontiers, the commitment to openness and transparency through the sharing of methods and results, the ability to debate difficult issues thoughtfully and with civility, and the passion to work with and improve the lives of others. By adhering to these values and operating with due regard to principles of integrity – including reciprocity, openness, and transparency – your work has made America the world leader in science and technology. The Nation is indebted to you.

Yet we must not take our research enterprise or its global leadership position for granted. Over the past several years, some nations have exhibited increasingly sophisticated efforts to exploit, influence, and undermine our research activities and environments. As researchers, we must acknowledge the changing geopolitical and international scientific landscape: United States policies and practices must evolve thoughtfully and appropriately to meet current and future challenges. The success of our research enterprise is dependent on *everyone* upholding the principles of research.

Some of those recent efforts to exploit America's research enterprise have come through foreign government-sponsored talent recruitment programs. Historically, researchers at United States institutions could in many cases participate in a talent program and simultaneously receive both foreign and United States government support. Under some circumstances, this may still be acceptable. However, it has become clear that features of some talent programs are unacceptable and inconsistent with our research values and research principles. Breaches of research ethics, both within talent programs and more generally, include the failure to disclose required information such as foreign funding, unapproved parallel foreign laboratories (so-called shadow labs), affiliations and appointments, and conflicting financial interests. Other inappropriate behaviors include conducting undisclosed research for foreign governments or companies on United States agency time or with United States agency funding, diversion of intellectual property or other legal rights, and breaches of contract and confidentiality in or surreptitious gaming of the peer-review process.

Ultimately, these inappropriate behaviors, whether or not they arise through participation in a foreign talent program, interfere with the allocation of Federal funding in a fair manner based on merit. As a result, these breaches of research security and integrity position others to reap the benefits of your hard work without bearing the associated risks or making the investments borne by American taxpayers and other funders. These activities ultimately undermine the integrity of the research enterprise and, thus, our economic and national security.

As Director of **The White House Office of Science and Technology Policy (OSTP)**, I see a significant opportunity for the Federal Government, research institutions, private companies, non-profit organizations, and law enforcement to come together to ensure the integrity and security of the American research enterprise in light of increasing threats. Striking the right balance between openness and security, using a risk-based framework, is especially important.


OSTP plays a unique role in this multi-sector activity by virtue of its formal authority to convene all research funding agencies on matters of policy through the **National Science and Technology Council (NSTC)**. Both OSTP and NSTC engage other elements of the research enterprise as well, and I write here to apprise you of the structure and progress of OSTP and NSTC activities.

Specifically, on May 6 of this year, NSTC, which I chair on behalf of President Donald J. Trump, formally established the Joint Committee on the Research Environment (JCORE). This top-priority committee contains four sub-committees: research security (the main topic of this letter), safe and inclusive research environments, research rigor and integrity, and coordinating administrative requirements for research. Each sub-committee consists of approximately two dozen top leaders across numerous Federal science, foreign affairs, and security agencies. These sub-committees collaborate on interrelated issues and are making exceptional progress. Additionally, JCORE is working closely with the Congress, the National Academies of Science, Engineering, and Medicine, private companies, non-profit organizations, and professional associations and societies to inform the work of its four sub-committees.

With regard to research security, JCORE is organizing its work along the following four lines of effort:

- **Coordinating outreach and engagement** with Federal agencies, academic research institutions, companies, non-governmental organizations, researchers, and students. In order to help relay the nature and scope of the challenges America faces, JCORE is assembling an array of examples in which our research enterprise was exploited or compromised.
- **Establishing and coordinating disclosure requirements** for participation in the federally-funded research enterprise. Disclosure is a central tenet of research integrity and a key mechanism for ensuring compliance with applicable policies and laws.
- **Developing best practices for academic research institutions**, in collaboration with academia, professional societies, and other organizations.
- **Developing methods for identification, assessment, and management of risk** in the research enterprise.

During the next few months, OSTP will be holding meetings at academic institutions across the Nation to converse with researchers and students on matters of research security and other topics within JCORE. I hope you will join in these discussions. Working together, we will ensure that our research environments are safe and inclusive; operate with maximum integrity; protect our research assets in a manner balanced with the openness and international collaboration that have been so critical to our success; and do not encumber researchers, agencies, or institutions with unnecessary administrative work. In doing so, we will ensure America continues to lead the world in science and technology. I look forward to working with you on these important issues!

Sincerely,  
  
Kelvin K. Droegemeier  
Director

# Coordinating Administrative Requirements for Research

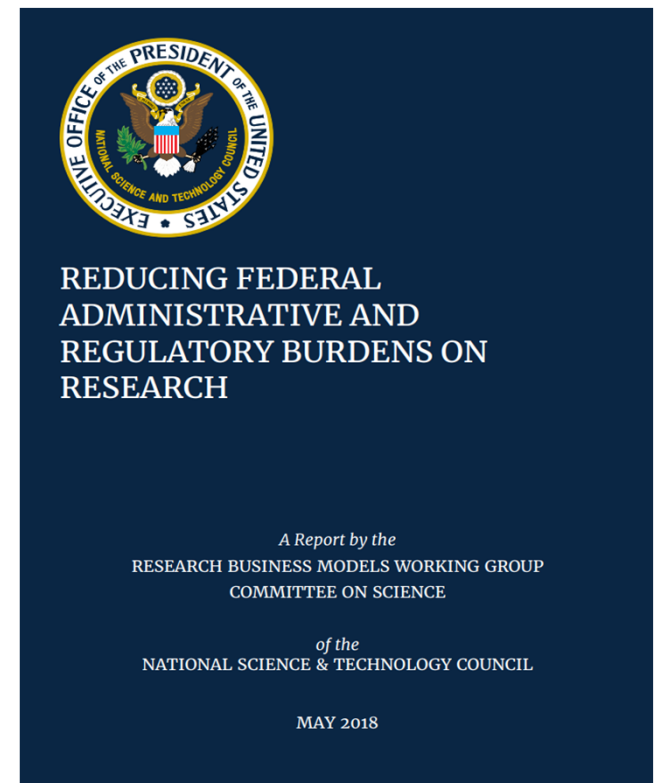
## Members:

DHS, NIST, NOAA, DOD, DOE, DoED, DOT, EPA,  
NIH, NASA, NSA, NSF, OMB, USDA, and FDA



# Reducing Administrative workload

- Section 201 of the 2017 American Innovation and Competitiveness Act (AICA) directed OMB, in coordination with OSTP, to establish an interagency working group to reduce administrative burdens on federally funded researchers
- RBM reconvened to execute the Working Group responsibilities. Report submitted to Congress in May 2018



# Reducing Administrative Workload: Current Efforts

## Financial Conflict of Interest

### American Innovation and Competitiveness Act of 2017:

“Post-award administrative costs have increased as Federal research agencies have continued to impose agency-unique...requirements”

### 21<sup>st</sup> Century Cures Act – Section 2034 – Reducing Administrative Burden for Researchers:

“...review by research funding agencies of all regulations and policies related to the disclosure of financial conflicts of interest, including the minimum threshold for reporting financial conflicts of interest;”

“make revisions, as appropriate, to harmonize existing policies and reduce administrative burden...”

- Assess variations across federal agencies
- Assess the 2011 revisions to the PHS FCOI regulations





# Reducing Administrative Workload: Current Efforts

## Grant Application Process

- Preliminary proposals;
- Increased use of “Just in Time”;
- Simplified initial budget proposals;
- Centralized researcher profile database, ORCID data exchange, unique identifiers
- Review of pilot efforts
  - Assessing opportunities to streamline and coordinate agency application requirements
  - Use of SciENcv and ORCID to pre-populate forms
  - Coordinating agency guidance and disclosure requirements associated with research security





EXECUTIVE OFFICE OF THE PRESIDENT  
WASHINGTON, D.C.



August 30, 2019

M-19-25

MEMORANDUM FOR THE HEADS OF EXECUTIVE DEPARTMENTS AND AGENCIES

FROM: RUSSELL T. VOGHT   
ACTING DIRECTOR, OFFICE OF MANAGEMENT AND BUDGET

DR. KELVIN K. DROEGEMEIER   
DIRECTOR, OFFICE OF SCIENCE AND TECHNOLOGY POLICY

SUBJECT: Fiscal Year 2021 Administration Research and Development Budget Priorities

*"We stand at the birth of a new millennium, ready to unlock the mysteries of space, to free the Earth from the miseries of disease, and to harness the energies, industries, and technologies of tomorrow."*

President Donald J. Trump, 2017 Inaugural Address

America's rise as the global leader in science and technology (S&T) began shortly after World War II, during which the Federal Government began investing significantly in basic and applied research, infrastructure, and education across many disciplines. From then until now—during America's First Bold Era in S&T—these Federal investments helped create a massive, multisector American S&T enterprise consisting of Federal agencies, world-leading colleges and universities, private industry, non-profit organizations, and Federal and National Laboratories.

The resulting extraordinary discoveries and innovations laid the foundation for today's Second Bold Era in S&T—one characterized by unprecedented knowledge, access to data and computing resources, ubiquitous and instant communication, and technologies that allow us to peer into the inner workings of atomic particles as well as the vastness of the universe. Unfortunately, this Second Bold Era also features new and extraordinary threats which must be confronted thoughtfully and effectively.

The Trump Administration is firmly committed to continuing American S&T leadership in the Second Bold Era. Success will depend, in large part, on our ability to leverage—in entirely new and creative partnership and collaborative frameworks—the multisector S&T enterprise that emerged during the First Bold Era. It will depend upon striking a balance between the openness of our research ecosystem and the protection of our ideas and research outcomes. It will depend upon ensuring that our research environments are diverse, safe, inclusive, and accommodating as well as free from unnecessary administrative burdens. Success will depend upon ensuring that research is conducted with integrity and respect, which are foundational not only to the research process, but to the trust placed in the research enterprise by American taxpayers and reflective of America's values.

# OSTP and OMB set R&D Priorities

# R&D PRIORITY AREAS

- **American Security**: Advanced military capabilities, critical infrastructure resilience, semiconductors, and critical minerals.
- **Industries of the Future**: Artificial intelligence (AI), quantum information science, 5G connectivity, and advanced manufacturing.
- **Energy and Environmental Leadership**: American energy resources, ocean science and technology, and earth system predictability.
- **Health and Bioeconomic Innovation**: Biomedicine, bioeconomy, and Veteran health and wellness.
- **American Space Exploration and Commercialization**: In-space resource utilization, manufacturing and assembly, fuel storage and management, and advanced space-related power and propulsion capabilities.



# CROSS-CUTTING PRIORITY AREAS

- Build and leverage a diverse, highly skilled American **workforce**
- Create and support **research environments** that reflect American values
- Support transformative research of **high intellectual risk** and potentially high reward
- Leverage the power of **data**
- Build, strengthen, and expand strategic multisector **partnerships**





# Other OSTP Activities

- Comprehensive R&D Assessment and Long-Term Planning
- Multi-Sector Partnerships



# Office of Science and Technology Policy

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