



DIRECTOR'S REMARKS  
NATIONAL SCIENCE BOARD MEETING

Sethuraman Panchanathan, National Science Foundation

May 9<sup>th</sup>, 2023



# UPDATES FROM THE HILL

# White House Office of Science and Technology Policy Event

Presidential Budget Release



# CONGRESSIONAL HEARINGS

**“We can’t afford to take our continued leadership for granted. That is why I am such a strong supporter of NSF and NASA. Your agencies drive us onward through curiosity-driven inquiry and exploration, and they ensure that the foundation for the future is built in the United States.”**

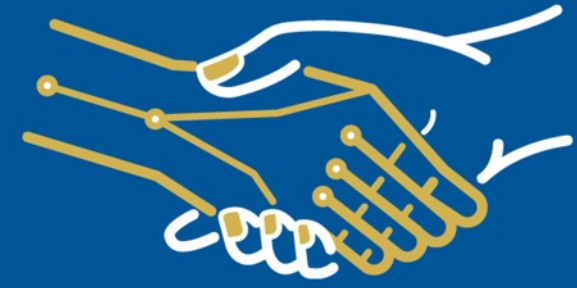
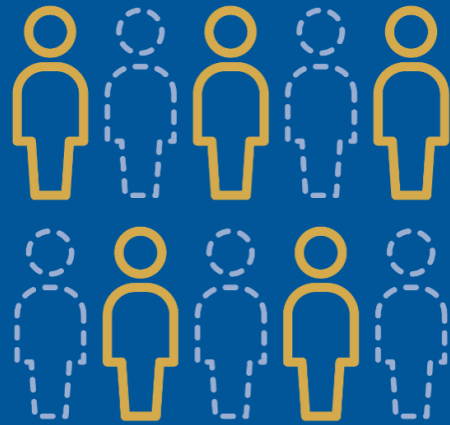
*Senator Jeanne Shaheen, Chair of the Senate Subcommittee on Commerce, Justice, Science, and Related Agencies*



**“Thanks in part to NSF's work, America has long led the world in science and technology innovation. To maintain that leadership, we need to adopt to a changing reality.”**

*Representative Frank Lucas, Chair of the House Committee on Science, Space, and Technology*





# NSF's 3 MAJOR PRIORITIES

## STRENGTHENING ESTABLISHED NSF

With **investments that expand the frontiers of knowledge and technology.**

## INSPIRING MISSING MILLIONS

Using **interventions and capacity building** that enhance and broaden participation.

## ACCELERATING TECHNOLOGY AND INNOVATION

Through innovative, **cross-cutting partnerships** and programs.





STRENGTHENING  
ESTABLISHED NSF

# AI in Every State

FY22:

**\$781.79** million to all **50** states, DC, and Puerto Rico



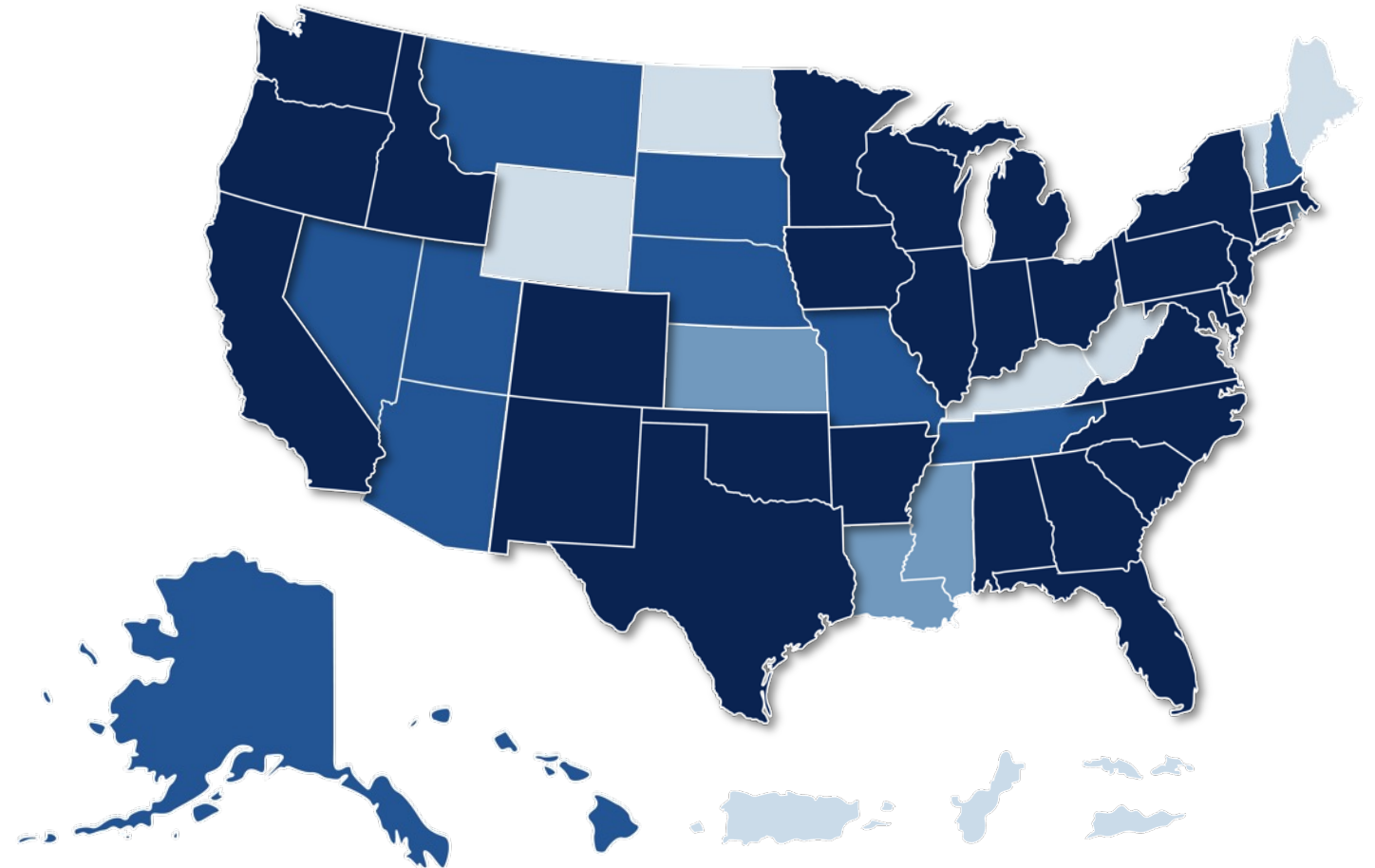
● 2020 awards    ● 2021 awards    ● 2023 awards





# STRENGTHENING ESTABLISHED NSF

- **AI Institute for Agent-based Cyber Threat Intelligence and Operation**  
*University of California, Santa Barbara*
- **AI Institute for Artificial and Natural Intelligence**  
*Columbia University*
- **AI Institute for Societal Decision-Making**  
*Carnegie Mellon University*
- **AI Institute for Trustworthy AI in Law and Society**  
*University of MD, College Park*
- **AI Institute for Inclusive Intelligent Technologies for Education**  
*University of Illinois Urbana-Champaign*
- **NSF AI Institute for Exceptional Education**  
*University at Buffalo*
- **AI Institute for Climate-Land Interactions, Mitigation, Adaptation, Tradeoffs and Economy**  
*University of Minnesota*



● 2020 awards    ● 2021 awards    ● 2023 awards



# MISSING MILLIONS

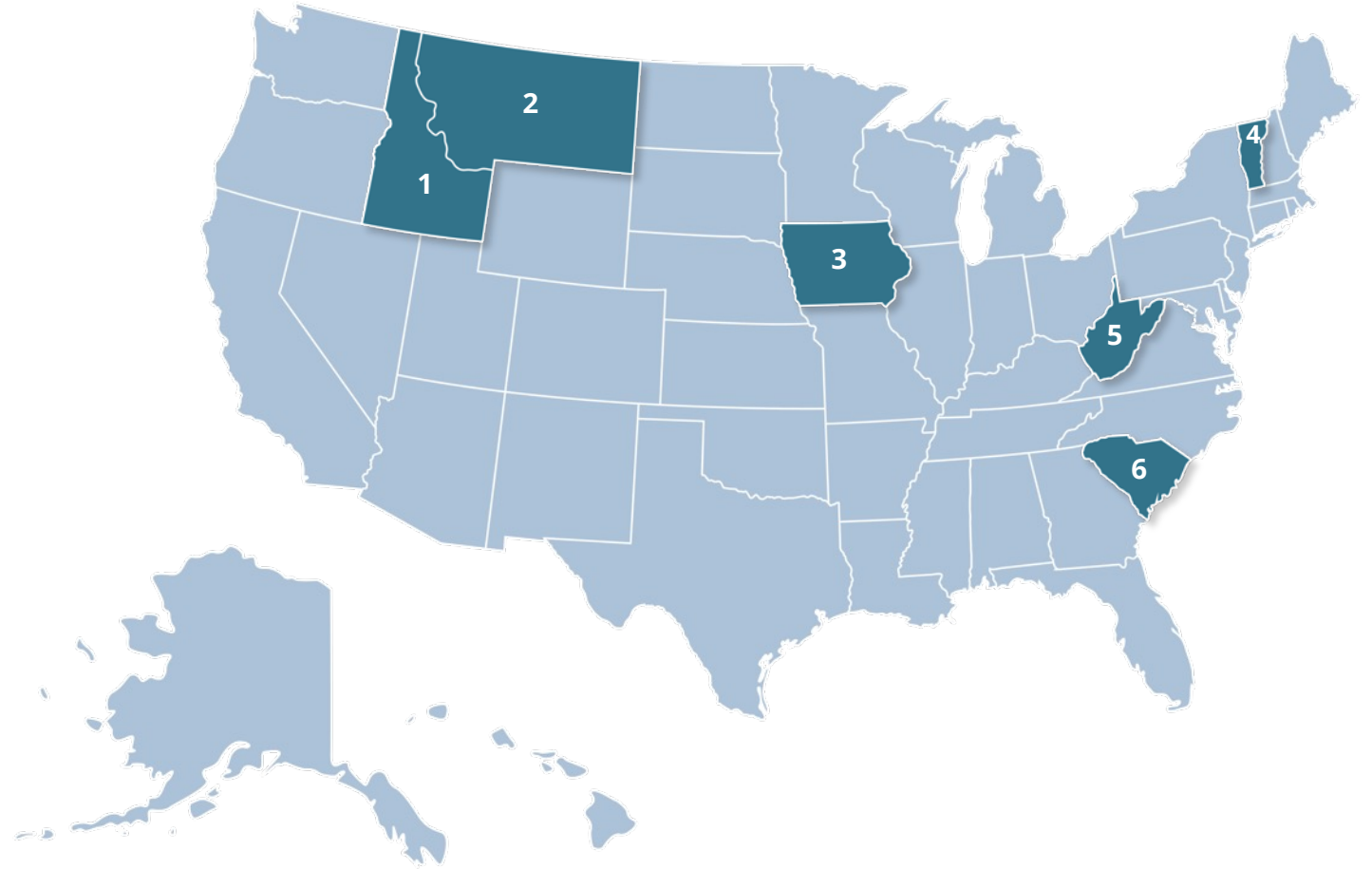


# Expanding Capacity Through EPSCoR



## EPSCoR RII Track-1

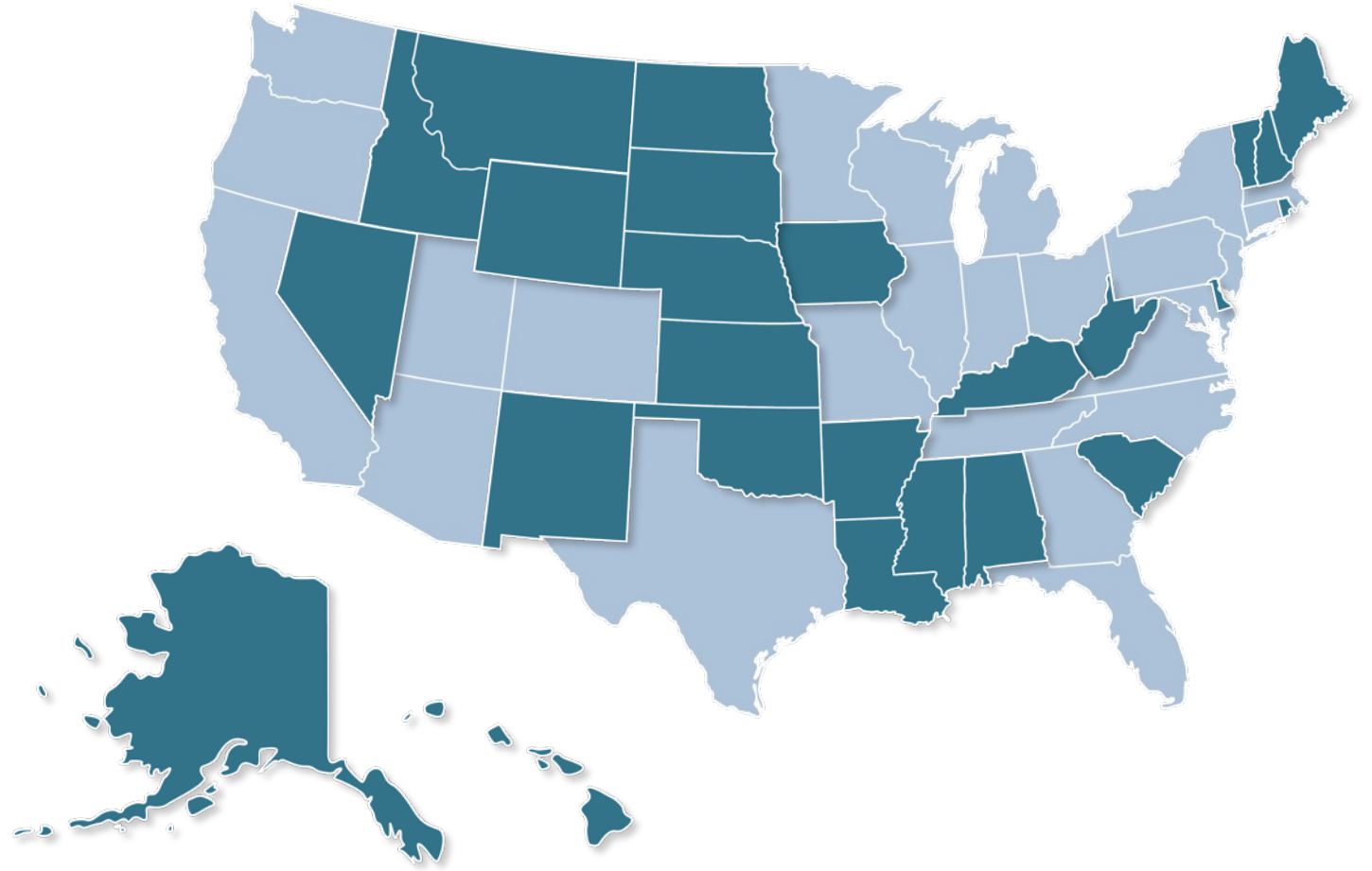
1. **Idaho** Community-engaged Resilience for Energy-Water Systems (I-CREWS)
2. Integrating **Montana's** Environmental Research with Smart Sensors (IMERSS)
3. Building Capacity across **Iowa** to Meet Human Needs from Things that Grow
4. Harnessing the Data Revolution for **Vermont**: The Science of Online Corpora, Knowledge, and Stories (SOCKS)
5. **West Virginia** Network for Functional Neuroscience and Transcriptomics (WV-NFNT)
6. ADAPT in SC: AI-enabled Devices for the Advancement of Personalized and Transformative Healthcare in **South Carolina**



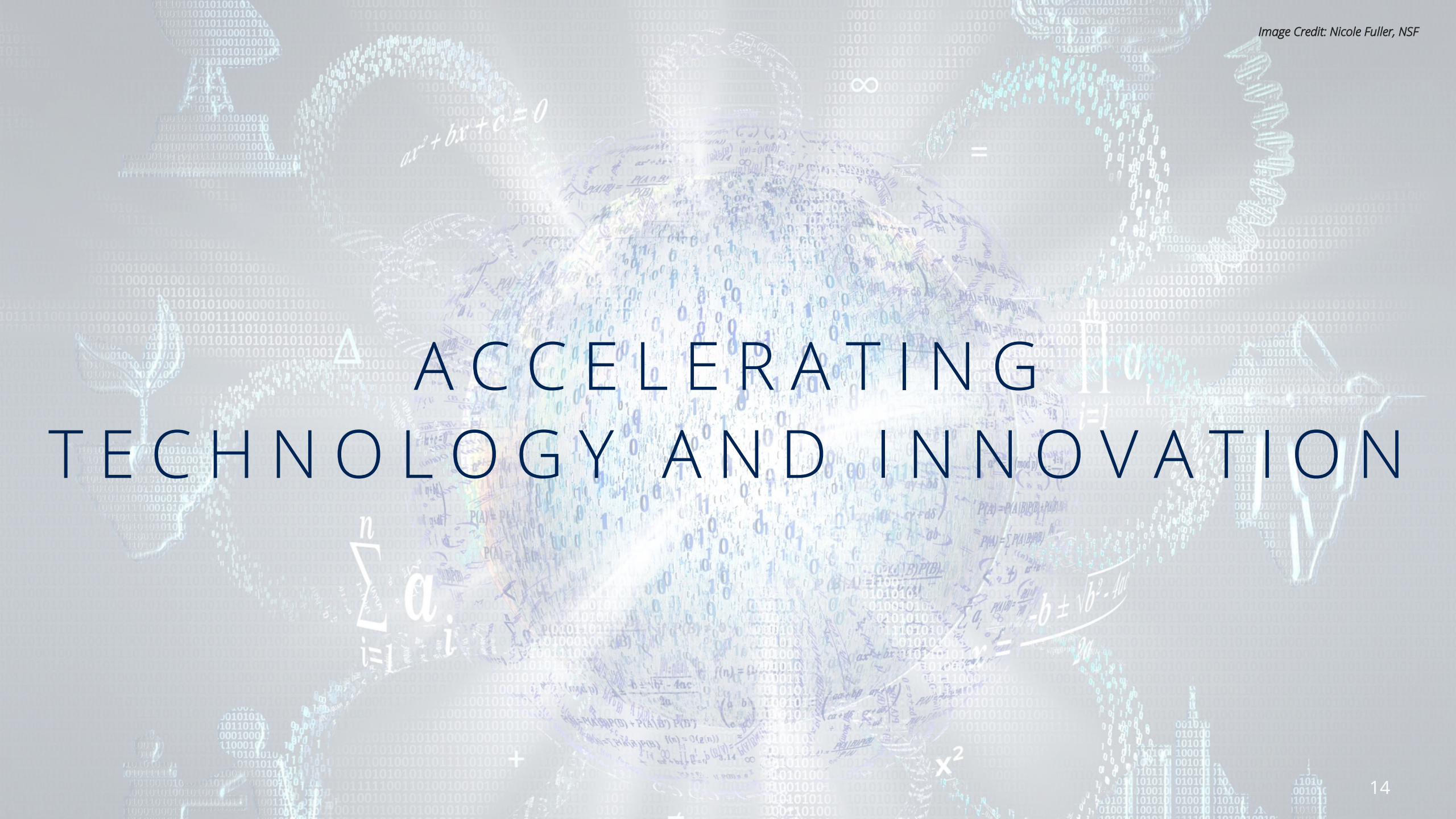
● 2023 awards



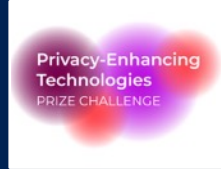
5 Years:  
**\$1.5 Billion** across  
**28** states and  
territories,  
supporting **~20,000**  
students and  
researchers



# ACCELERATING TECHNOLOGY AND INNOVATION



# Ramping Up TIP



**JAN 21:** NSF + Intel announce \$100M semi. workforce partnership

**MAR 16:** TIP is established

**JUL 20:** NSF, NIST, OSTP, UK announce privacy prize challenges

**JUL 28:** NSF Engines Concept Outlines published

**OCT 19:** NSF launches ExLent program

**OCT 27:** NSF + Micron announces \$10M semi. workforce partnership

**NOV 10:** NSF announces winners in first phase of NSF, NIST, OSTP, UK privacy prize challenges

**JAN 26:** NSF announces cross-sector partnership with Ericsson, Intel, IBM, and Samsung as part of its FuSe initiative

**JAN 10:** NSF, NobleReach Emerge announce biotechnology investment

**FEB 15:** Pathways to enable Open-Source Ecosystems launches

**MAY 3:** NSF Engines program launches

**SEP 7:** NSF, DOD partner to advanced 5G security

**SEP 8:** NSF awards five new I-Corps Hubs™

**SEP 19:** New Fellows Program launches

**DEC 8:** NSF launches EPIIC

**DEC 9:** NSF invests \$12M on solutions for persons with disabilities

**DEC 12:** NSF announces Builder Platform for NSF Engines

**DEC 13:** NSF invests \$11M to address food/nutrition insecurity

**DEC 19:** NSF invests \$12M in Circular Economy

**FEB 8:** NSF launches ART



# Enabling Partnerships to Increase Innovation Capacity (EPIIC)

**\$20 million investment**

**Supports** minority-serving, two-year, undergraduate, and emerging research institutions

Builds inclusive regional ecosystems through **training and networking support**



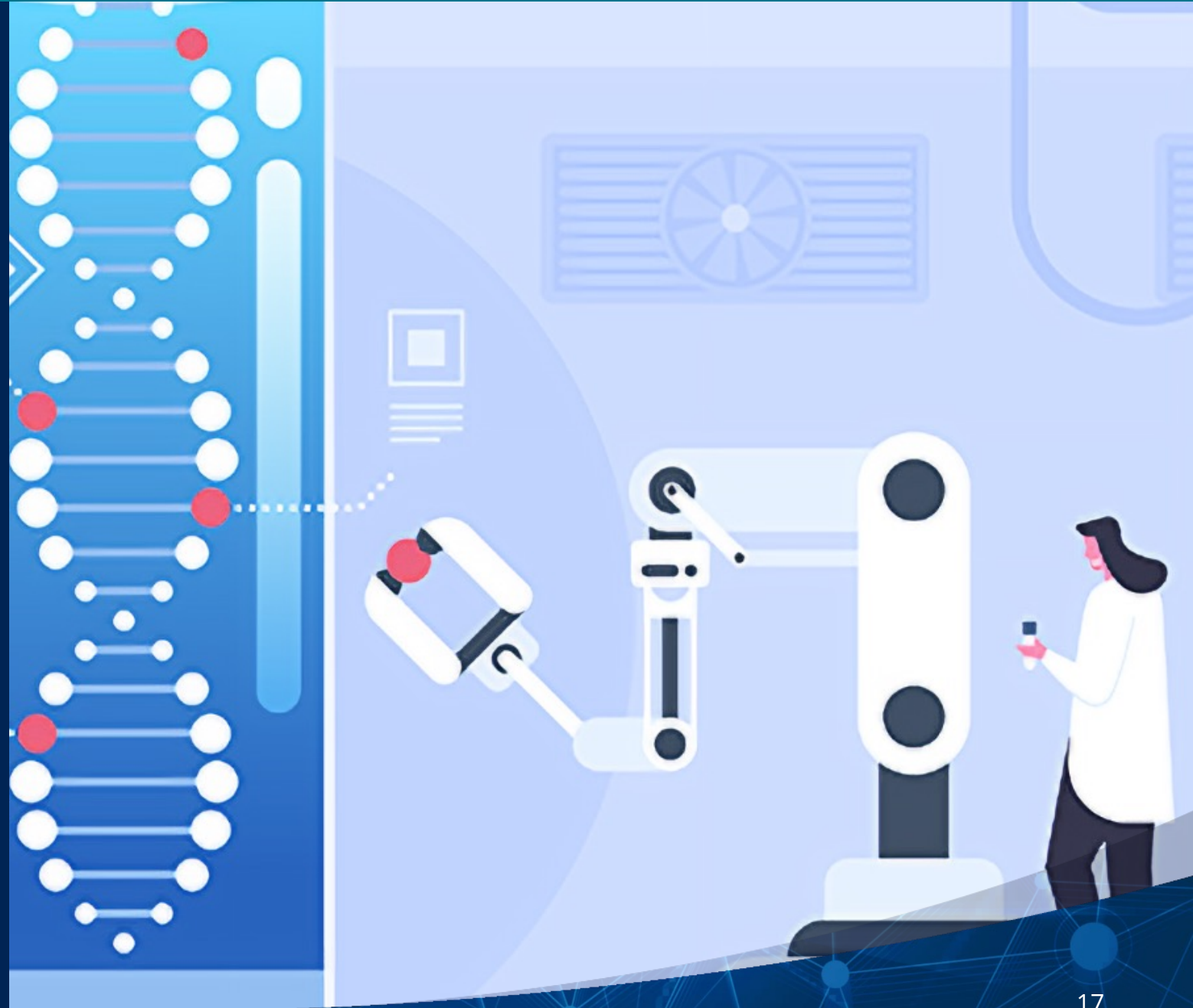


# NobleReach Emerge Partnership

**\$5 million** partnership

**Accelerate the translation of research into biotechnologies** with commercial and social impact

NobleReach Emerge team works with select NSF researchers to **prepare their research for market.**



# Future of Semiconductors Initiative (FuSe)

**\$50 million** partnership

Brings together **NSF, Ericsson, IBM, Intel, and Samsung**

**Supports transdisciplinary, co-design approaches** to create the next generation of semiconductor technologies



## Accelerating Research Translation (ART)

**\$60 million** investment

**Builds capacity and infrastructure** to strengthen and scale translation

**\$6 million over 4 years** to academic institutions with strong basic science and engineering research foundations



# Regional Innovation Engines

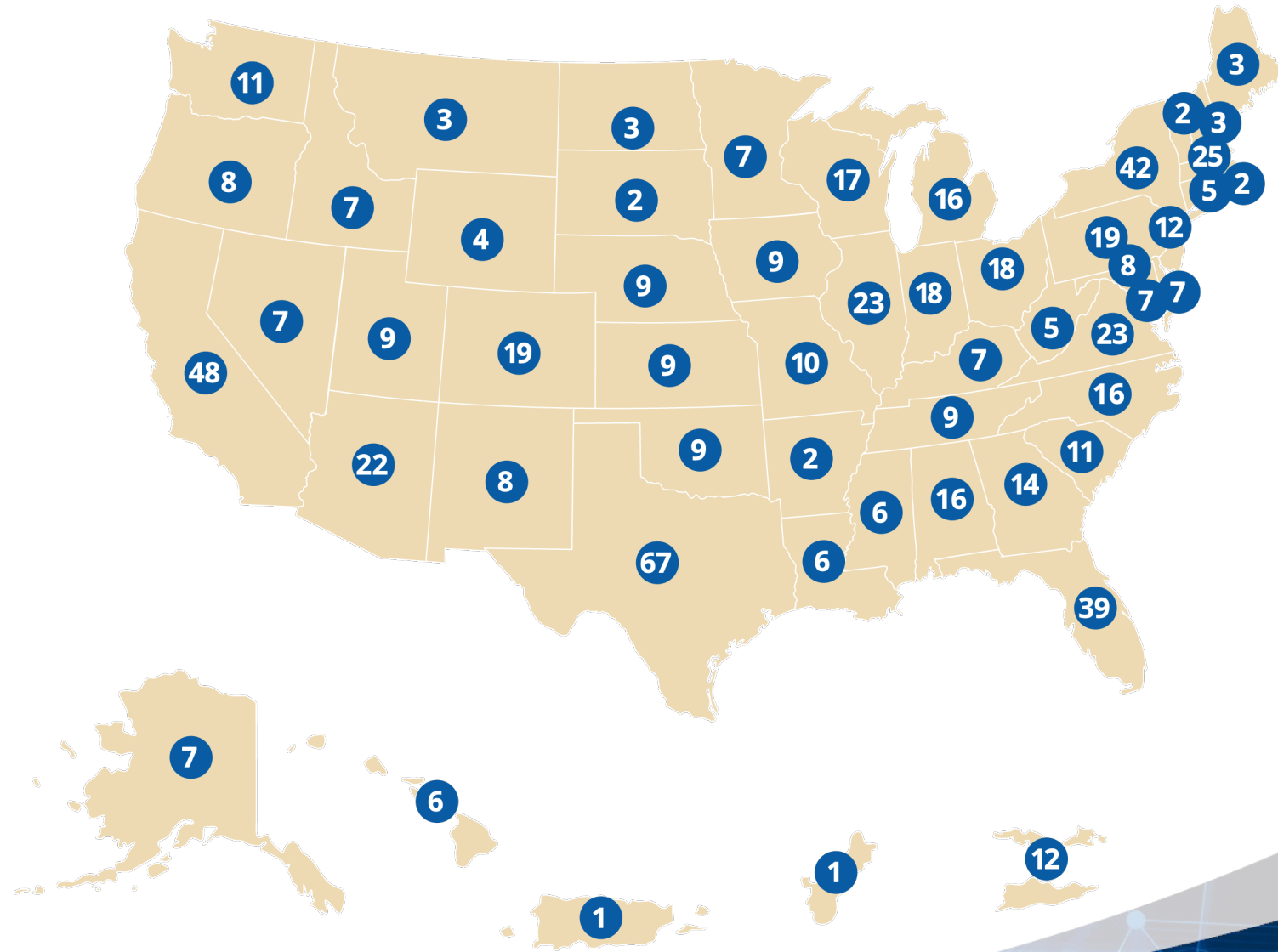
Bringing together academia, industry, government, and communities to create **crucibles of innovation**

**Over 700 concept outlines** spanning all 50 states and four U.S. territories

**Type-1 Awards** announced this week

**40 Awards across 40 states** and territories

**Over \$40 million** investment



# CONGRESSIONAL ENGAGEMENTS



U.S. Sen. Maria Cantwell

*Seattle and Spokane, Washington*

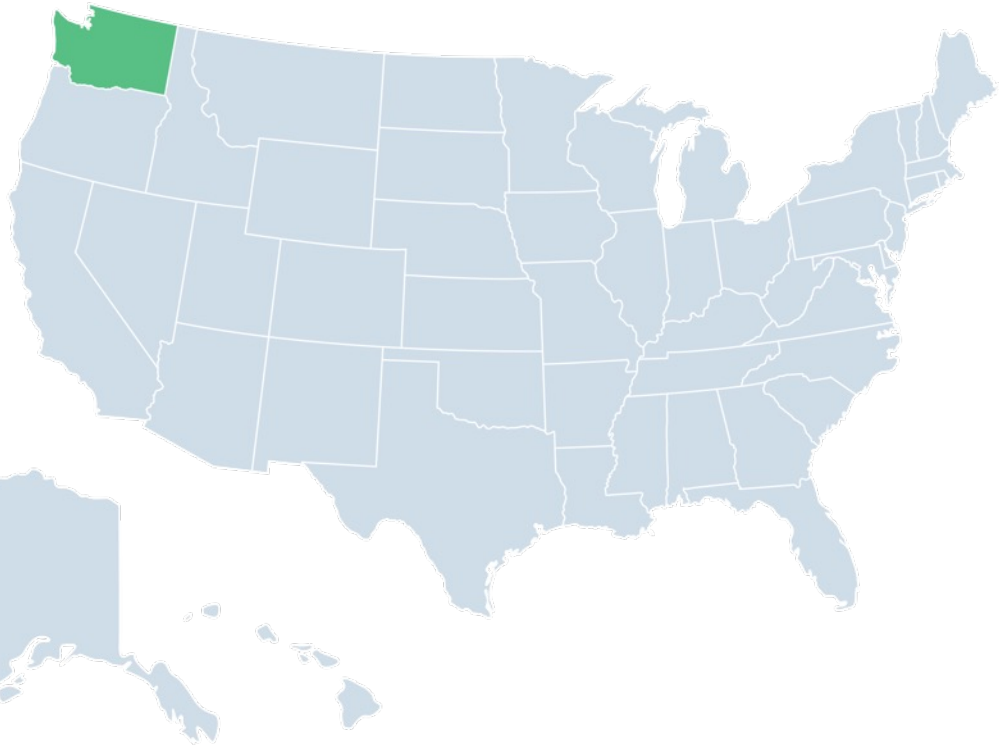


Image credit: Chris Hillesheim/NSF

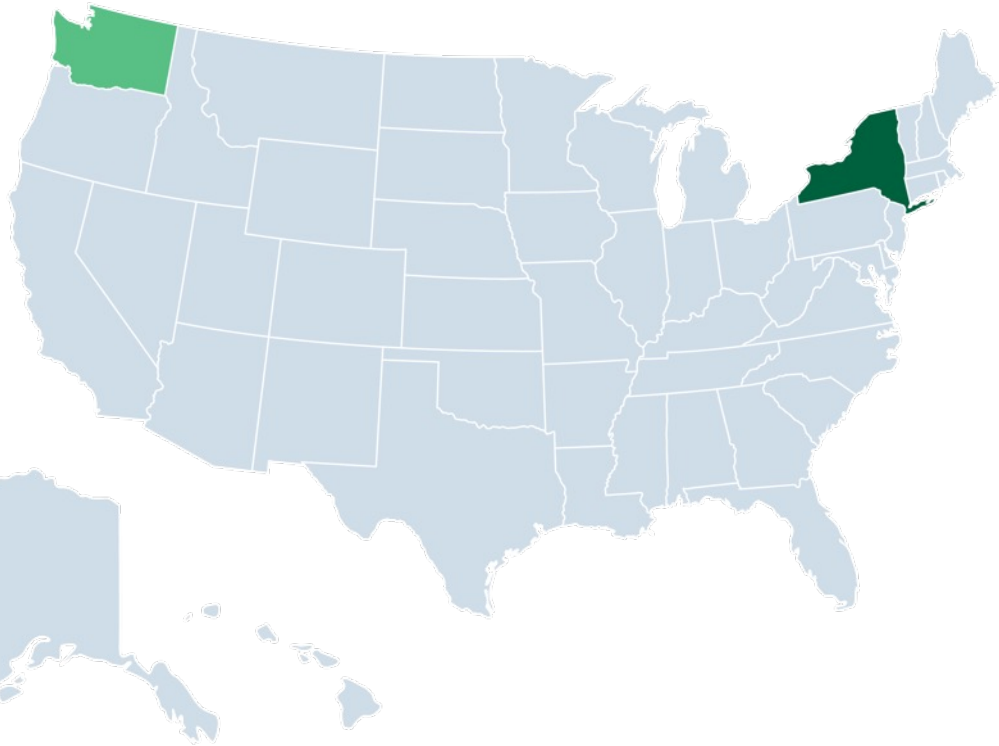


Image credit: Chris Hillesheim/NSF



U.S. Sen. Chuck Schumer

*Syracuse, New York*



*Image Credit: Amanda Greenwell/NSF*



*Image Credit: Skip Dickstein*





U.S. Sen. Eric Schmitt

*Columbia, Missouri*

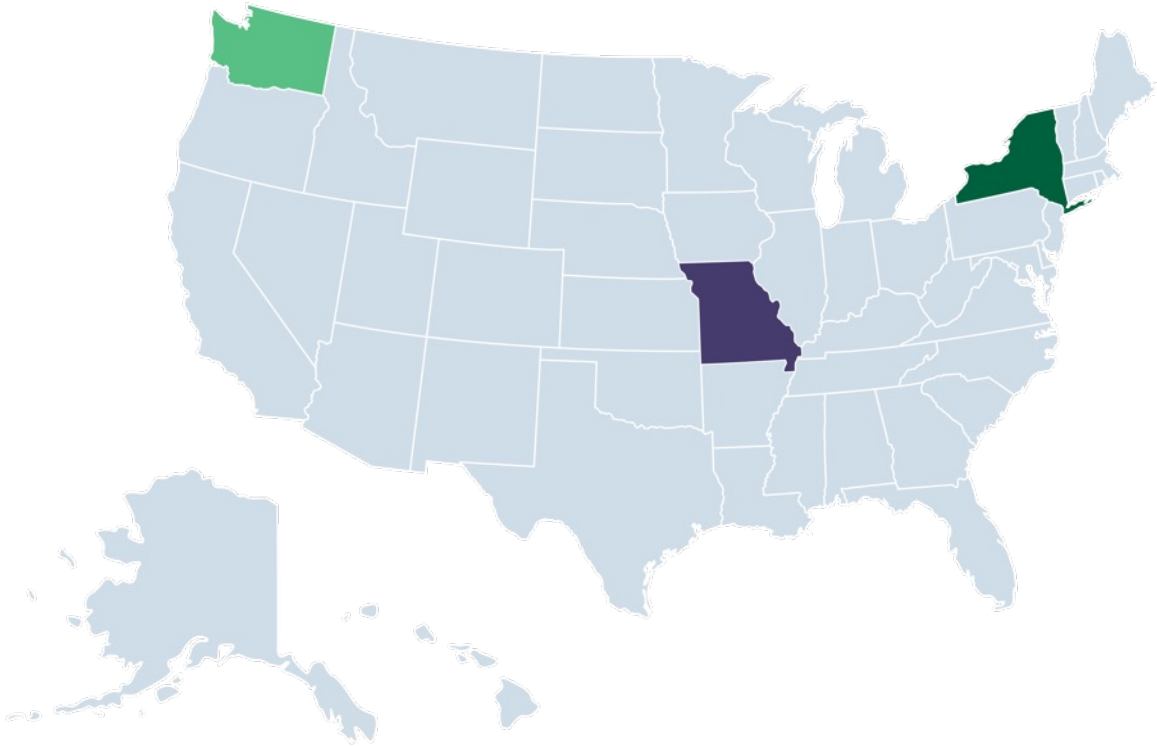


Image Credit: Abbie Nell Lankitus/University of Missouri



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U.S. Sen. Jack Reed

*Kingston, Rhode Island*

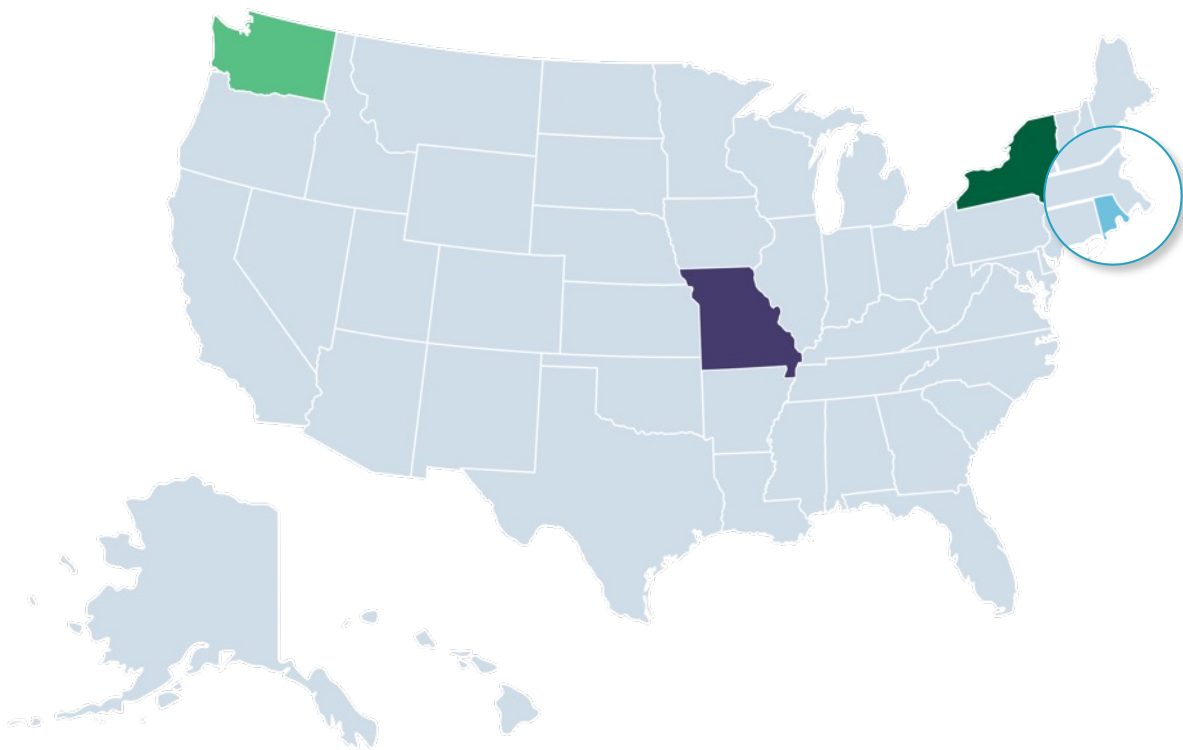


Image Credit: Office of U.S. Senator Jack Reed

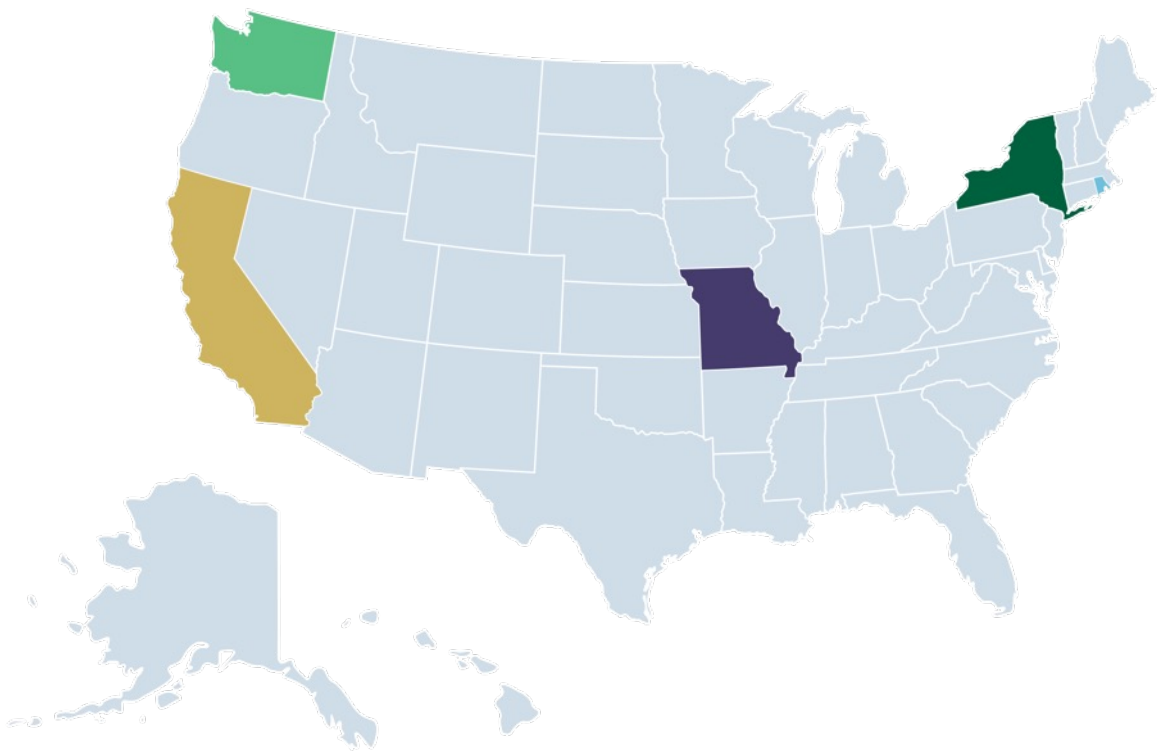


Image Credit: Office of U.S. Senator Jack Reed



U.S. Rep. Ro Khanna

*Silicon Valley, California*



# NSF on the Road

24 States in 19 Months

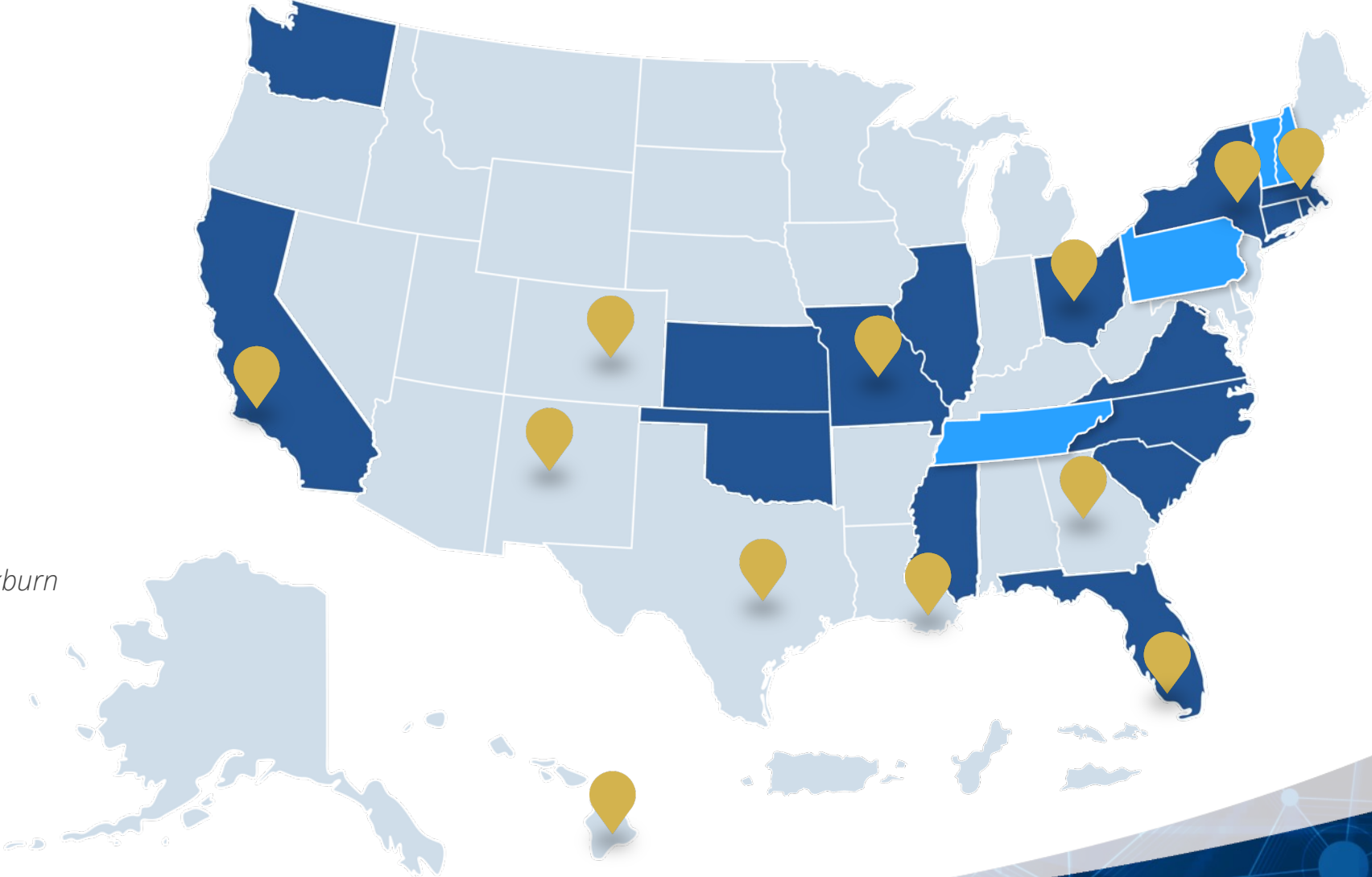
- Congressional Visits
- 📍 Non-Congressional Visits
- Upcoming Visits:

May:  
**New Hampshire**, with Sen. Shaheen

**Vermont**, UVM Commencement Address

June:  
**Tennessee**, with Sens. Hagerty and Blackburn

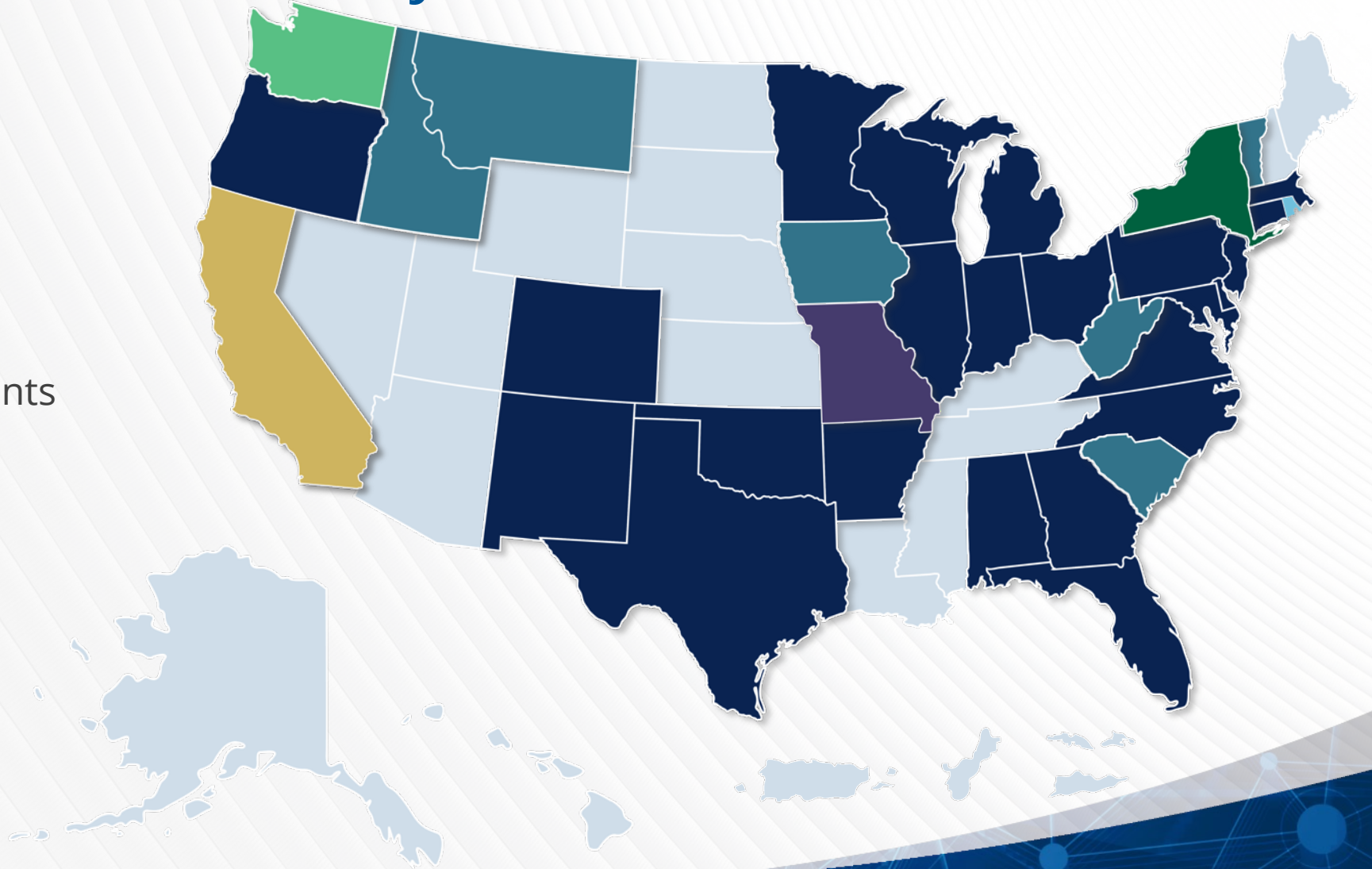
July:  
**Pennsylvania**, with Rep. Cartwright



# NSF Everywhere, Opportunities & Innovation Anywhere

Since April 4, 2023:

- **2023 A.I Institutes**
- **2023 EPSCoR RII Awards**
- Congressional Engagements
  - **Washington**
  - **New York**
  - **Missouri**
  - **Rhode Island**
  - **California**



# IMAGINE SOLUTIONS



Image Credit: NSF



Image Credit: Charlotte Geary/NSF



Image Credit: Brian Stone/NSF

## External Engagements



Image Credit: Anne Emig/NSF

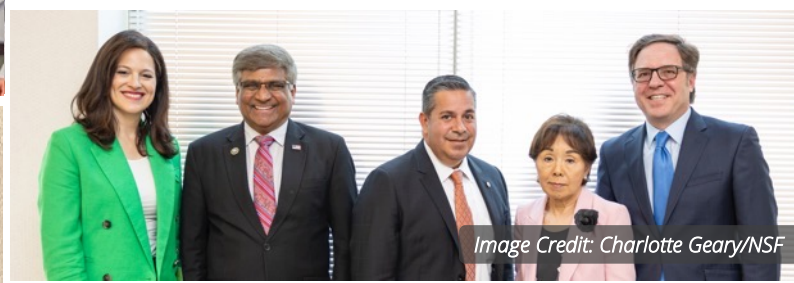


Image Credit: Charlotte Geary/NSF



Image Credit: Lily Le/NSF



Image Credit: Giovanni Rodriguez/NSF



Image Credit: Brian Stone/NSF



Image Credit: Brian Stone/NSF



Image Credit: Brian Stone/NSF



Image Credit: Kendra Sharp/NSF



Image Credit: Charlotte Geary/NSF



Image Credit: Brian Stone/NSF



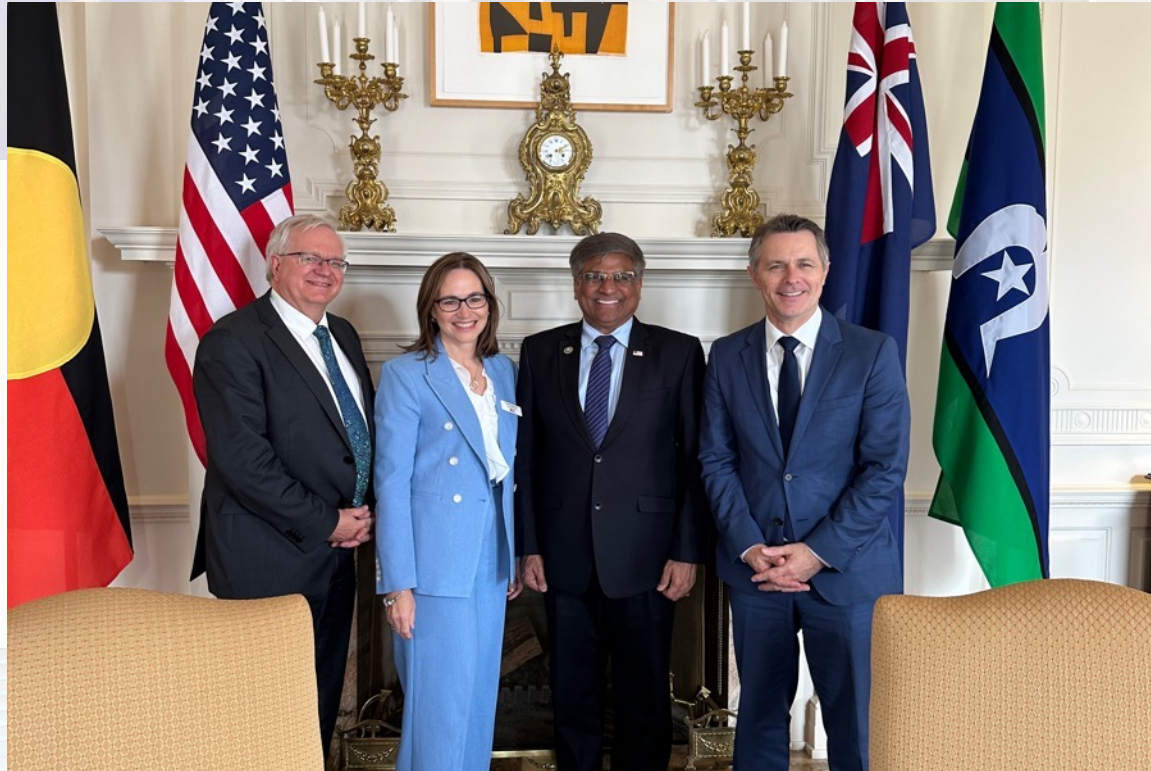
Image Credit: Lily Le/NSF



IMAGINE  
SOLUTIONS

Image Credit: Brian Stone/NSF

# External Engagements



**Universities of Australia and the Group of Eight**  
February 2023



# IMAGINE SOLUTIONS

Image Credit: Anne Emig/NSF

## External Engagements



**AAAS Annual Meeting**

March 2023



# IMAGINE SOLUTIONS

Image Credit: NSF

## External Engagements

# IMAGINE SOLUTIONS



**Imagine Solutions Conference**

March 2023





*Partnership for Public Service recognizes...*

# NSF 2<sup>ND</sup> BEST MID-SIZE AGENCY TO WORK AT IN THE FEDERAL GOVERNMENT



2023  
WATERMAN AWARDS



# 2023 Waterman Award Recipients



**Natalie S. King**

Associate Professor  
K-12 Science Education  
*Georgia State University*



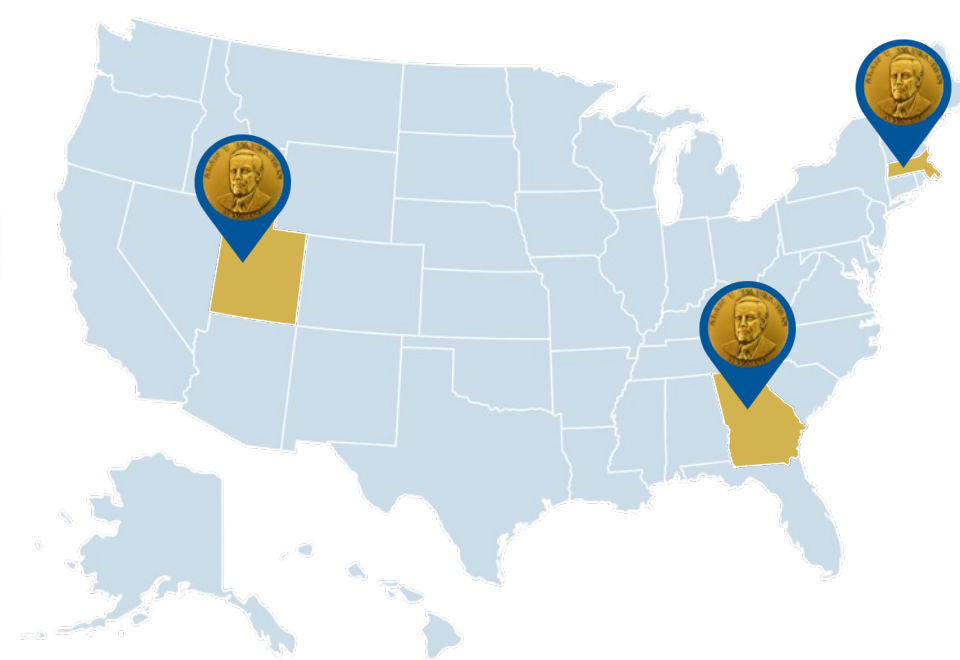
**William Anderegg**

Associate Professor  
Biological Sciences  
*University of Utah*



**Asegun Henry**

Professor  
Mechanical Engineering  
*Massachusetts Institute of Technology*



# Senior Executive Introductions

**Angel Williams**

**Dr. Bernice Smith**

**Charlean Thompson**

**Quadira Dantro**





*In Memory of*

## **Kellina Craig-Henderson**

*April 21, 2023*

The National Science Foundation mourns the death of Kellina Craig-Henderson, assistant director for Social, Behavioral, and Economic Sciences (SBE).

Dr. Craig-Henderson began her role in June of 2022 and was a longtime and valued NSF leader.





