Engineering Opportunities for EPSCoR Jurisdictions

U.S. National Science Foundation

March 27 and April 2, 2026

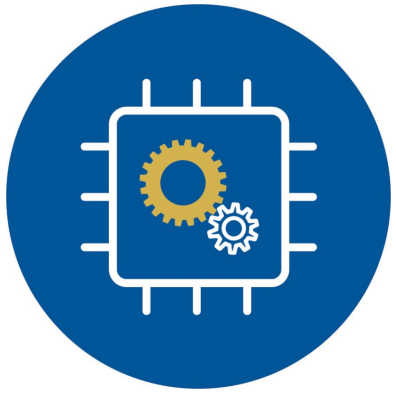
Mission

PROMOTE
the progress of science

ADVANCE
the national health, prosperity, and welfare

SECURE
the national defense

How We Meet Our Mission



Fundamental STEM Research

STEM Workforce Development

STEM Research Infrastructure

We are open for business!!!

How well do you know NSF?

EPSCoR support from NSF: FY 2025

6,664
Proposals from EPSCoR jurisdictions evaluated through competitive merit review.

1,546
New NSF awards to institutions in EPSCoR jurisdictions.

276
NSF-funded institutions in EPSCoR jurisdictions.

$1.35B
Amount obligated to EPSCoR jurisdictions.

ENG + EPSCoR

- Explore new ideas
- Collaborate with any PIs in any state
- Build capacity
- Submit CAREER proposals to ENG
- EPSCoR status identified by NSF systems

Apply to any ENG core program.

Proposals are accepted anytime.

No institutional limits.

NSF Merit Review Criteria

Intellectual Merit

- The potential for the proposed project to advance knowledge and understanding within its own field or across different fields.

Broader Impacts

- The potential for the proposed project to benefit society and contribute to the achievement of specific, desired societal outcomes.

Examples of Broader Impacts

STEM education

- Improving education and educator development in STEM.

STEM workforce

- Developing a globally competitive STEM workforce.

Public engagement

- Increasing public scientific literacy and public engagement with STEM.

Infrastructure

- Enhancing infrastructure for research and education.

Partnerships

- Building partnerships between academia, industry and others.

Economic competitiveness

- Increasing the economic competitiveness of the U.S.

National security

- Improving national security.

Societal well-being

- Improving the well-being of people.

Developing priorities

Executive and Legislative Branches

NSF and National Science Board

Research Community

OMB and OSTP R&D Priorities for FY 2027

- Ensure unrivaled American leadership in critical and emerging technologies
  - AI, Quantum, Computing, Communications, Manufacturing, Semiconductors and Microelectronics
- Unleash American energy dominance and explore new frontiers
- Strengthen American security
- Strengthen and safeguard American health and biotechnology
- Assure America's continued space dominance

Critical and Emerging Technologies

Advanced Manufacturing

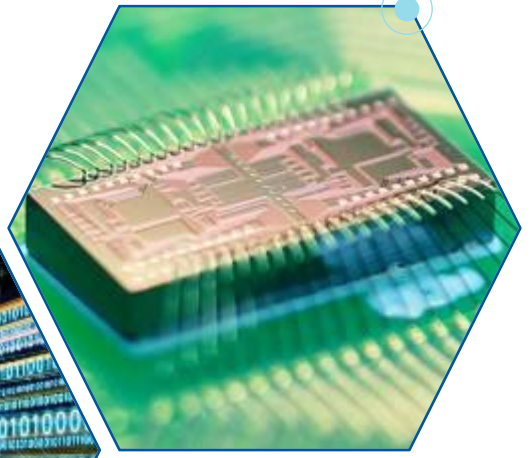
Advanced Wireless

Artificial Intelligence

Biotechnology

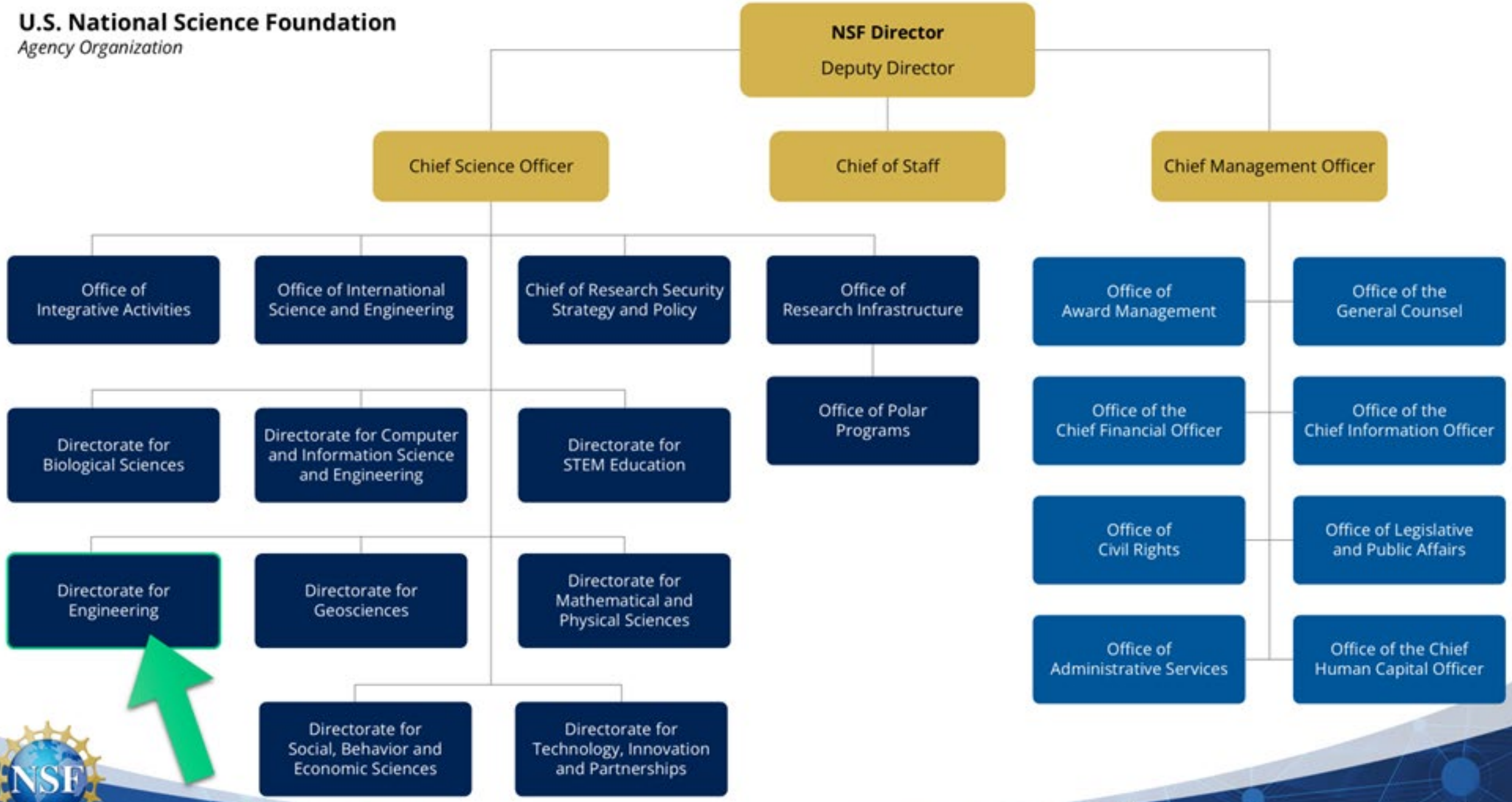
Quantum Information Science and Engineering

Semiconductors and Microelectronics



U.S. National Science Foundation

Agency Organization



NSF ENG Divisions

- Chemical, Biological, Environmental and Transport Systems
- Civil, Mechanical and Manufacturing Innovation
- Electrical, Communications and Cyber Systems
- Engineering Education and Centers

NSF ENG **Sections**

- Chemical, Biological, Environmental and Transport Systems
- Civil, Mechanical and Manufacturing Innovation
- Electrical, Communications and Computing Systems
- Engineering Education and Centers

NSF Directorate for Engineering

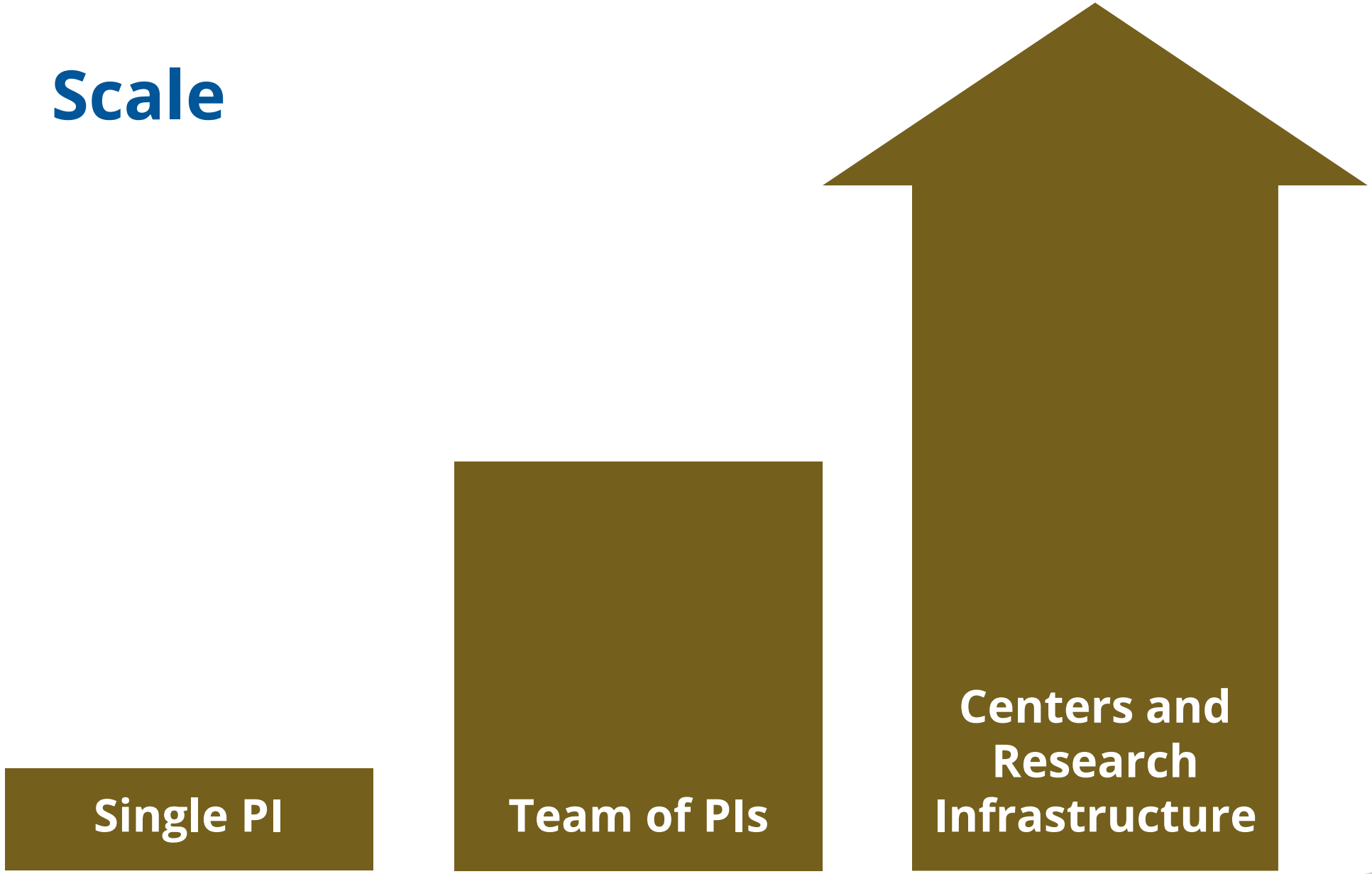
Directorate Head
Don Millard

Deputy Directorate Heads
Alexis Lewis
William Olbricht

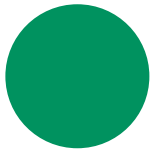
Emerging Frontiers and Multidisciplinary Activities (EFMA)	Chemical, Bioengineering, Environmental, and Transport Systems (CBET)	Civil, Mechanical, and Manufacturing Innovation (CMMI)	Electrical, Communications, and Computing Systems (ECCS)	Engineering Education and Centers (EEC)
Sohi Rastegar	William Olbricht Carole Read	Alexis Lewis Siddiq Qidwai	Anthony Maciejewski Richard Nash	Eric Miller Kemi Ladeji-Osias

https://www.nsf.gov/eng/

Scale

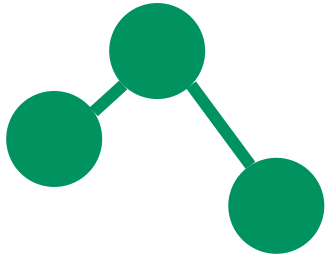


Breadth



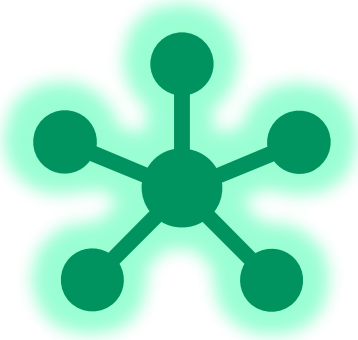
Disciplinary

- Some “core” programs



Inter- or Multi-disciplinary

- Some “core” programs
- Some cross-NSF solicitations
- Emerging Frontiers of Research and Innovation



Convergent

- NSF Trailblazer
- Engineering Research Centers

Career Stage

Under-graduate students

- REU sites and supplements

Graduate students

- NSF Graduate Research Fellowships
- NSF INTERN

Early-career faculty

- Engineering Research Initiation
- Faculty Early Career Development Program (CAREER)

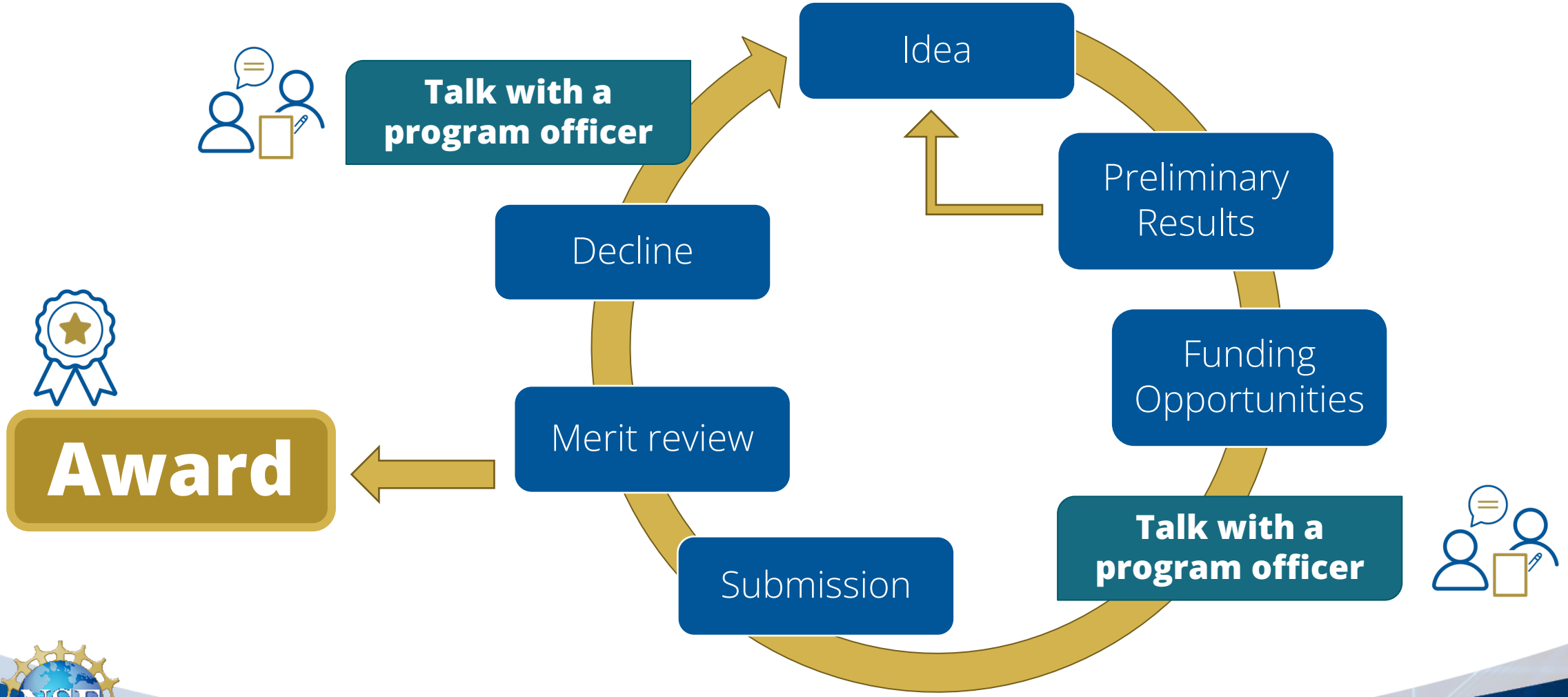
Established faculty

- NSF TRAILBLAZER

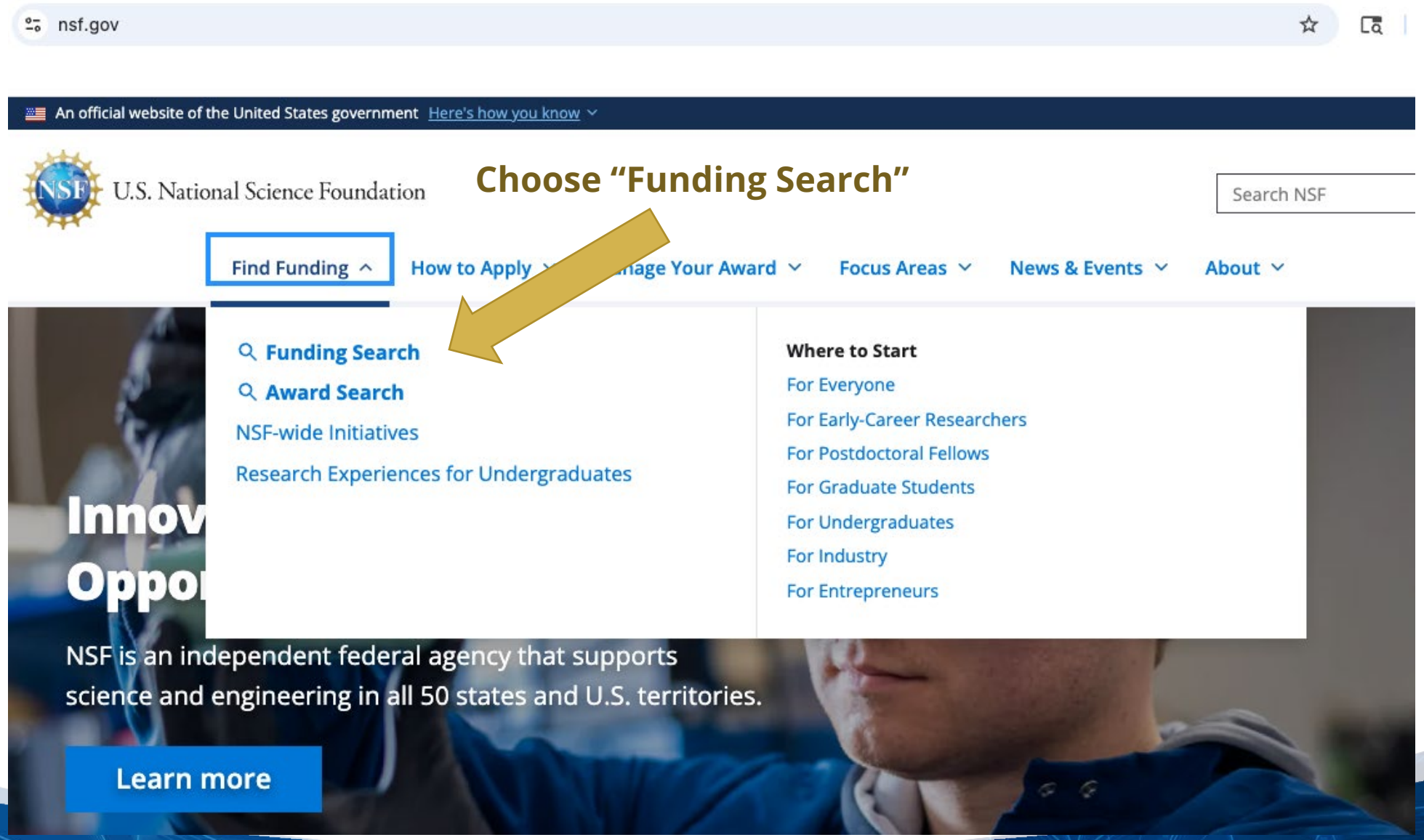
Innovation Cycle

- EArly-concept Grants for Exploratory Research (EAGER)
- ENG "core" programs
- Grant Opportunities for Academic Liaison with Industry (GOALI)
- Engineering Research Centers / Industry-University Cooperative Research Centers

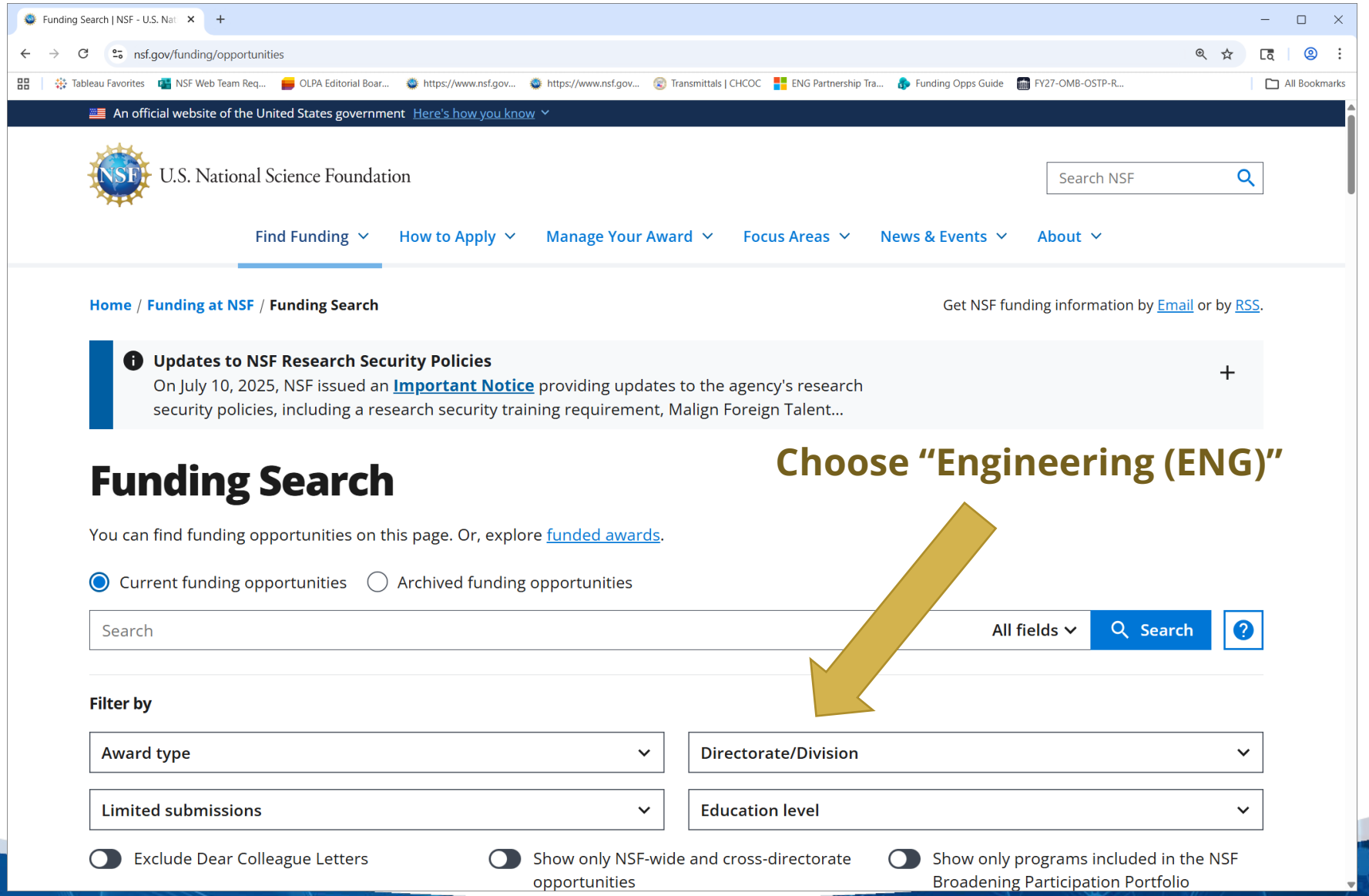
Proposal Submission Process: PI Perspective



NSF Funding Search



NSF Funding Search (cont.)



Submitting Proposals

- Most ENG programs accept proposals at any time
- Use NSF funding search and look for Program Guidelines on the program page
- Instructions for preparing proposals are found in the NSF Proposal & Award Policies & Procedures Guide (PAPPG)

Program Guidance and Merit Review

NSF Proposal & Award Policies & Procedures Guide (PAPPG)

- Always use the latest version
- Recent PAPPG addenda
  - Data management plans/share data
  - Post research papers right away
  - Equipment thresholds increased ($5,000 to $10,000)
- www.nsf.gov/policies/pappg

NSF Merit Review Reform for efficiency, consistency, transparency

- Merit review criteria are unchanged
- Minimum of two reviewers for proposals, may include an internal reviewer
- Shorter panel summaries to focus on factors that impacted the final rating

NSF Faculty Early Career Development Program (CAREER)

CAREER-supported faculty have the potential to:

- serve as academic role models in research and education
- lead advances in the mission of their department or organization

CAREER activities build a foundation for a lifetime of leadership

5-year ENG CAREER award for $500K or more

NSF 22-586 CAREER deadline **July 22, 2026**

NSF EArly-concept Grants for Exploratory Research (EAGER)

EAGER is a type of proposal used to support exploratory work in its early stages on untested, but potentially transformative, research ideas or approaches.

- May involve radically different approaches, apply new expertise, or engage novel disciplinary or interdisciplinary perspectives
- Requires a Concept Outline
- Up to 2 years and **$400K**
- *See NSF PAPPG, Part 1, Chapter 2, F. Other Types of Proposals*

Planning Proposals

- Support initial conceptualization, planning and collaboration activities that aim to formulate new and sound plans for large-scale projects in emerging research areas for future submission to an NSF program.
- Must submit a Concept Outline prior to submission
- Up to 2 years and **$200K**
- *See NSF PAPPG, Part 1, Chapter 2, F. Other Types of Proposals*

Collaborative Proposals

- **A collaborative proposal is one in which investigators from two or more organizations wish to collaborate on a unified research project.**
- Opportunities to collaborate with any PIs in any state
- Collaborative proposals may be submitted in one of two ways:
  - as a single proposal, in which a single award is being requested (with subawards administered by the lead organization), or
  - by simultaneous submission of proposals from different organizations, with each organization requesting a separate award.
- *See NSF PAPPG, Part I, Chapter 2, E. Special Processing Instructions, 3. Collaborative Proposals*

Conference Proposals (includes Workshops)

- Bring experts together to discuss recent research or education findings
  - If equivalent results cannot be obtained by attendance at regular meetings of professional societies
- Expose other researchers or students to new research and education techniques
- Submit at least a year in advance of the scheduled date
- *See NSF PAPPG, Part 1, Chapter 2, F. Other Types of Proposals*

Supplemental Proposals

Education and Training

- REU/RET
- NSF INTERN

Use-inspired and Translational Research

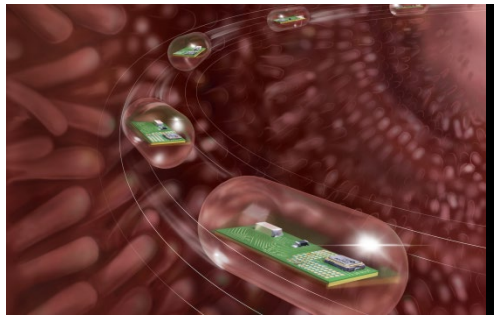
- GOALI
- Access to facilities for fabrication and manufacturing
  (e.g., Mcity)

International Collaboration

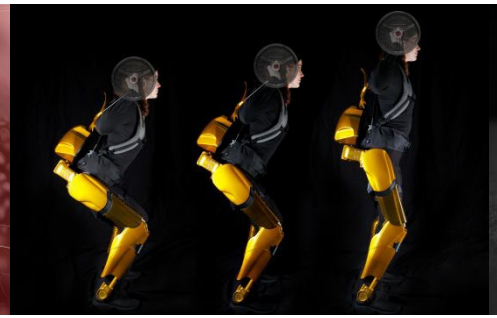
- European Union, Ireland, South Korea, Ukraine and others

Investing in the Ideas at the Engineering Frontiers

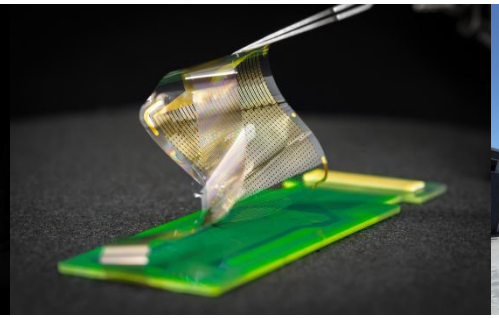
What ENG Supports



Chemical engineering



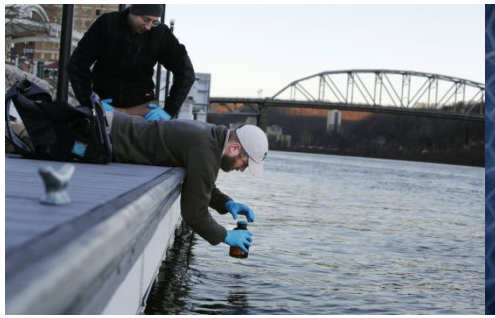
Mechanical engineering



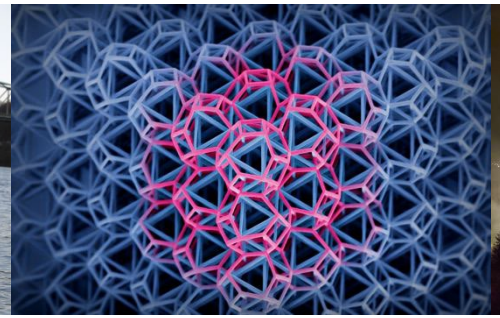
Electrical engineering

Civil engineering

Bioengineering



Environmental engineering and sustainability



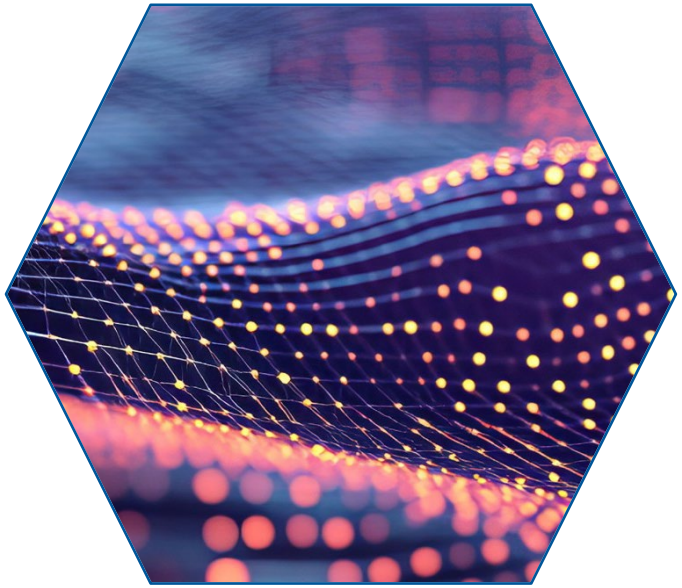
Advanced manufacturing (materials processing)

Operations and design

Education and training

NSF Electrical, Communications and Computing Systems (ECCS)

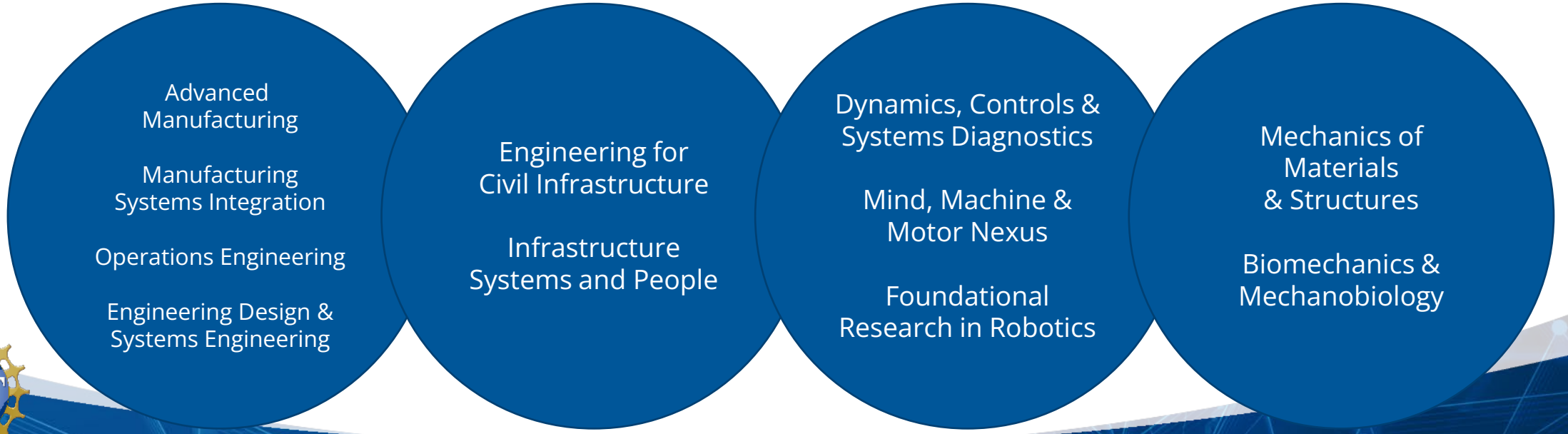
- Circuits and systems for communications and sensing
- Electronic, photonic, magnetic and quantum devices
- Energy, power, control and learning



National Quantum and Nanotechnology Infrastructure
(NSF 26-505) competition underway

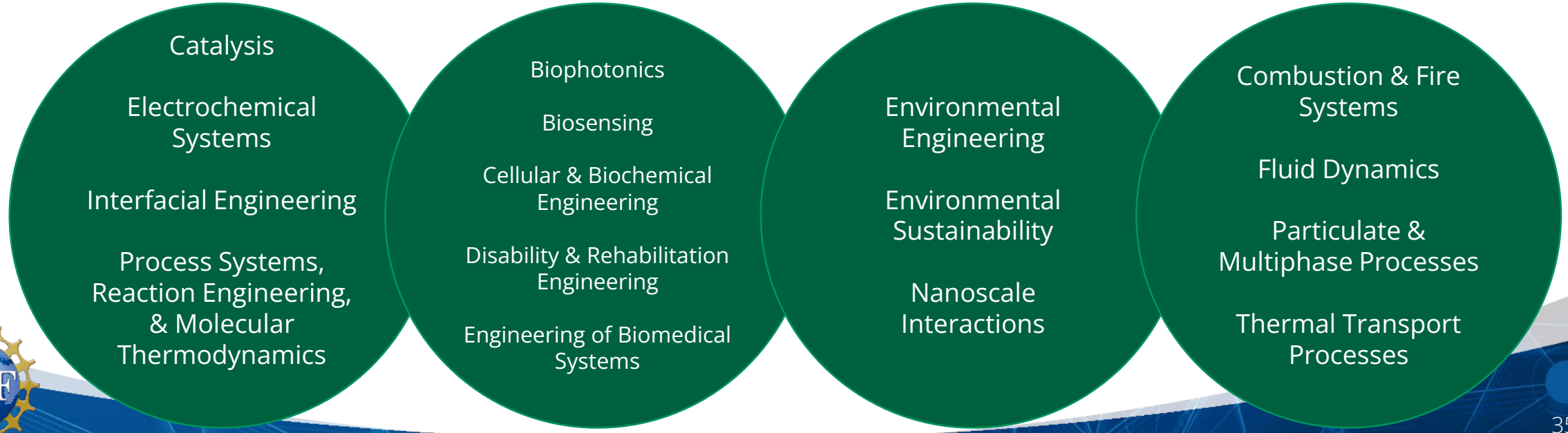
NSF Civil, Mechanical and Manufacturing Innovation (CMMI)

- Advanced manufacturing, design, and operations
- Engineering for the built environment
- Intelligent and interactive dynamic systems
- Mechanics of advanced materials systems



NSF Chemical, Bioengineering, Environmental and Transport Systems (CBET)

- Chemical process systems
- Engineering biological and biomedical systems
- Engineering environmental resiliency
- Transport phenomena



NSF Engineering Education and Centers (EEC)

We invest in the creation of 21st century **engineers**, developing new technologies, and providing research opportunities for students and teachers.

Engineering Education

- Fundamental research in the formation of engineers (RFE, RIEF)
- Translation of fundamental research into practice (RED)

Engineering Workforce Development

- Builds human capital through research experiences - undergraduates (REU), teachers (RET), veterans (REV)
- Teach Engineering, E4USA

Engineering Research Centers (ERC)

- Discover and launch ubiquitous future technologies
- Prepare next generation innovation leaders
- Basic research of shared interest to academia and industry

For more info about EEC, visit:
https://www.nsf.gov/eng/eec

NSF Engineering Research Centers

The ERC program supports broad, multidisciplinary high-impact and high-risk/high-payoff engineering research

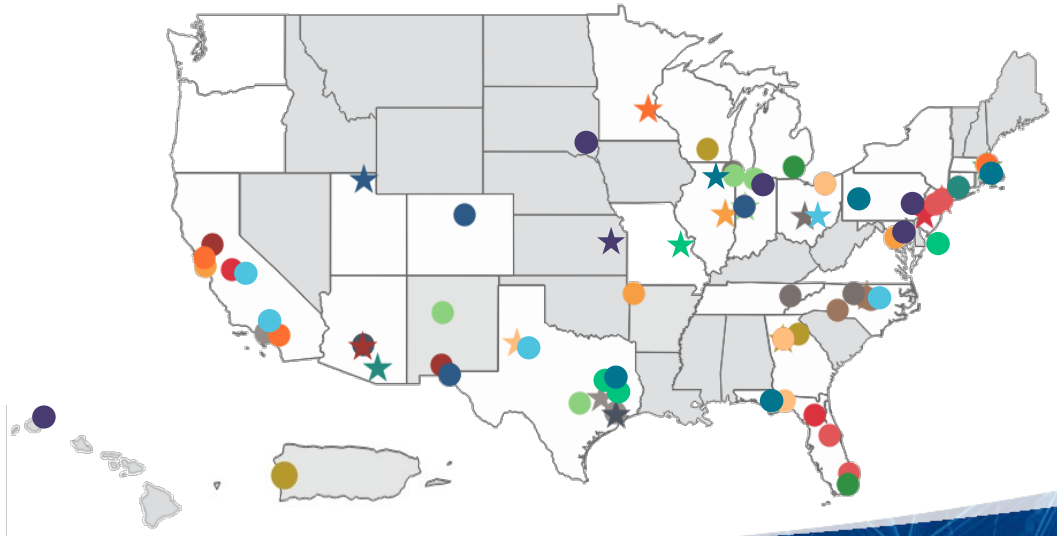
Gen-4 ERCs integrate convergent research, engineering workforce development, and value creation and innovation for societal impact

- NSF 24-576 underway

16 ERCs in FY 2026

In FY 2024, ERCs engaged

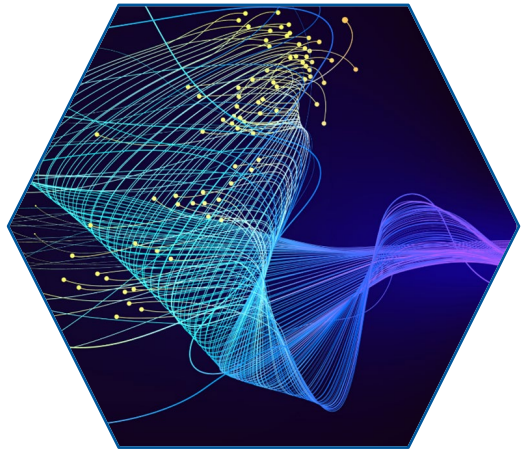
- 61 unique institutions
- >241 industrial participants
- 30 jurisdictions, including DC and PR, with 7 EPSCoR jurisdictions



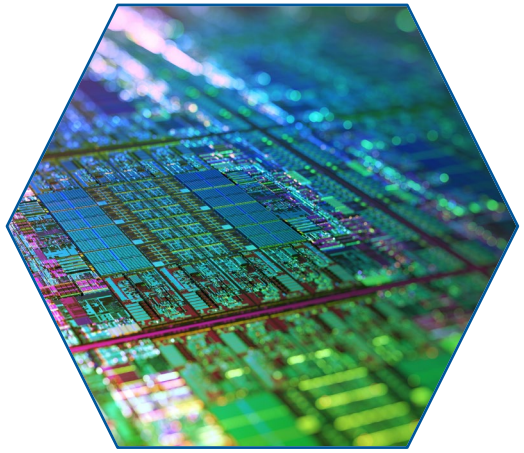
1985 through 2025	
83	ERCs
250	Spinoffs
1,410	Licenses
2,740	Invention disclosures
970	Patents
190	Textbooks
15,260	Students

NSF Office of Engineering Frontiers and Multidisciplinary Activities (EFMA)

- Important emerging areas of engineering research and education
- Bold, innovative engineering projects that address national needs or grand challenges



NSF Trailblazer Engineering Impact Award
(NSF 26-502) competition underway



Emerging Frontiers in Research and Innovation
stay tuned!

NSF EPSCoR Opportunities

E-CORE (NSF 25-523): up to $10M over 4 years (opportunity for renewal)

- Builds capacity in one or more targeted research infrastructure cores within an EPSCoR-eligible jurisdiction's research ecosystem

E-RISE (NSF 25-522): up to $8M over 4 years (opportunity for renewal)

- Develops sustainable networks of diverse research teams to collaborate on critical jurisdictional research priorities

EPSCoR Workshops (NSF 24-540): up to $200K

- Addresses a multijurisdictional need

Focused EPSCoR Collaborations (NSF 24-573, NSF 24-091): up to $6M over 4 years

- Interjurisdictional collaborations on a theme chosen by NSF EPSCoR

EPSCoR Research Fellows (NSF 24-528): up to $300K over 2 years

- Fellowships for assistant/associate professors or research faculty for extended research at private, governmental, or academic institutions in the U.S.

Volunteer to Review NSF ENG Proposals

NSF ENG reviewer recruitment form

- Learn about leading-edge work
- Understand NSF merit review
- Network with other experts
- Serve the STEM community

https://nsfevaluation.gov1.qualtrics.com/jfe/form/SV_1HsLEUn9ktzrLue?Q_CHL=qr

Some Opportunities to talk with NSF ENG

ASEE Engineering Deans Institute
April 19, New Orleans

- To share priorities and opportunities of NSF Engineering

ASEE Annual Conference
June 21–24, Charlotte

- To share priorities and opportunities of NSF Engineering

NSF EPSCoR Annual Summit
May 19-22, New Orleans

- To share research and leading practices from EPSCoR jurisdictions

NSF ENG EPSCoR Midwest Summit
June 8–9, Kansas City

- To increase research engagement with NSF Engineering
- To provide time for consultation with NSF ENG program directors

Opportunities to Engage

- Workshops, information sessions, **ERVA**
- NSF website – funding opportunities
- Requests for Information (RFIs)
- Contact PDs directly (proposal review, idea one-pagers)
- Connect with us! www.nsf.gov/eng/connect

Subscribe to NSF ENG email updates

ENG + EPSCoR – recap

- Explore new ideas
- Collaborate with any PIs in any state
  - EPSCoR PI as lead PI
  - Collaborative proposals to multiple institutions
- Build capacity
- Submit CAREER proposals to ENG
- EPSCoR status identified by NSF systems

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Questions?

Thanks!