



Industrial Advisory Committee

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Director, Division of Translational Impacts
Directorate for Technology, Innovation and Partnerships

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VISION

A nation that leads the world in science and engineering research and innovation, to the benefit of all, without barriers to participation.

MISSION

To promote the progress of science; to advance the national health, prosperity and welfare; to secure the national defense; and for other purposes.

CORE VALUES

NSF's strength is scientific leadership. We value diversity and inclusion, demonstrate integrity and excellence in our devotion to public service, and prioritize innovation and collaboration in our support of the work of the scientific community and of each other.




Programmatic directorates and offices support the NSF Mission and Vision



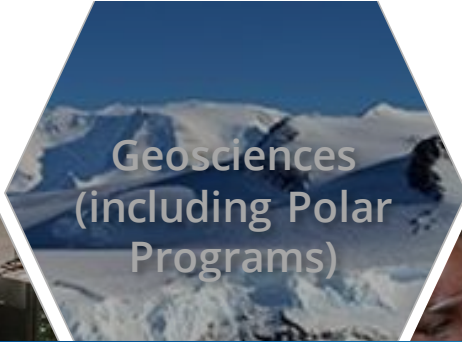
TIP: A New “Horizontal”



Engineering



Computer &
Communications



Geosciences
(including Polar
Programs)



Social, Behavioral &
Economic Sciences

DIRECTORATE FOR TECHNOLOGY, INNOVATION AND PARTNERSHIPS (TIP)



Mathematical &
Physical Sciences



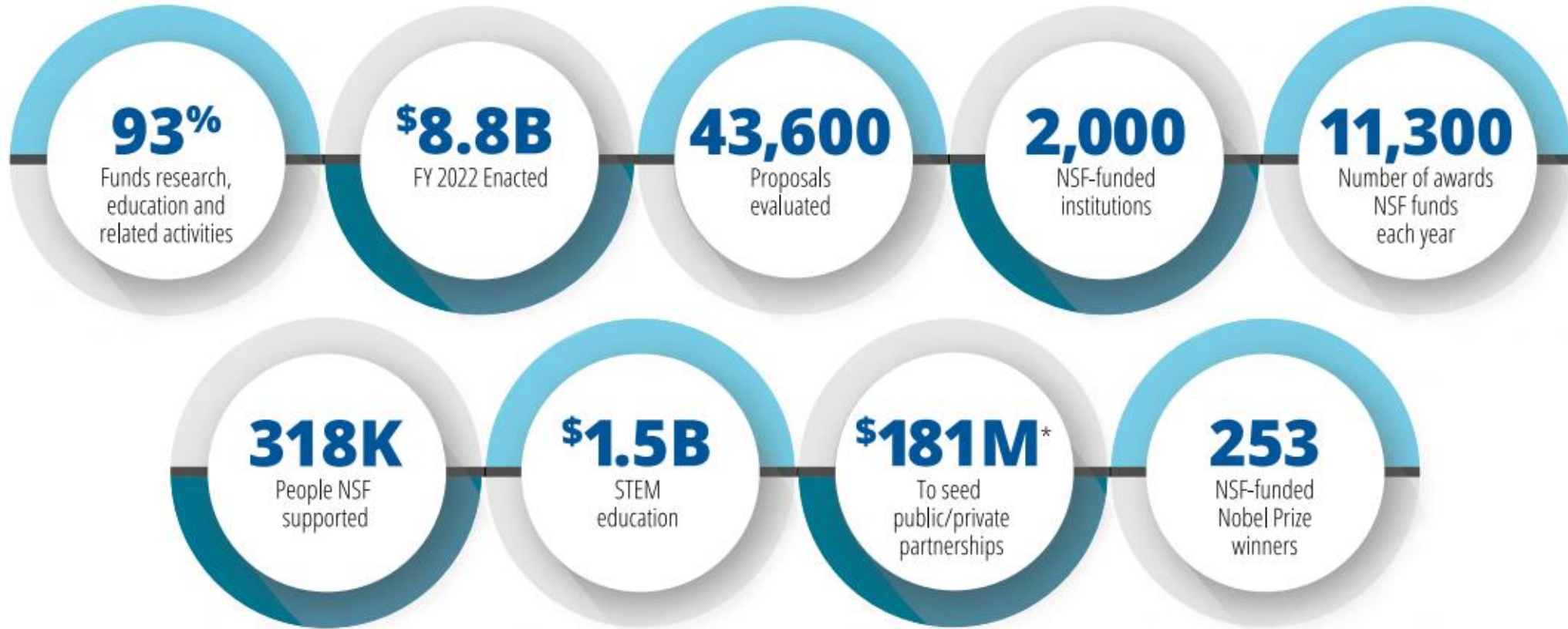
Integrative
Activities



International
Science &
Engineering



NSF by the Numbers



Data represents FY 2021 Actuals unless otherwise indicated.

**Corresponds to NSF investments initiated in FY 2021 and spanning multiple years.*



NSF approach to CHIPS

- **Leverage existing programs** to allow moving forward immediately
- **Expand fellowships and scholarships for diverse talent** in semiconductor design and manufacturing, starting with **community colleges and Minority-Serving Institutions (MSIs)**
- **Grow Research** in the future of semiconductors and microelectronics, **advancing the work of** a large cadre of **graduate students**
- Double down on our **public and private partnerships** to advance semiconductor research and workforce development



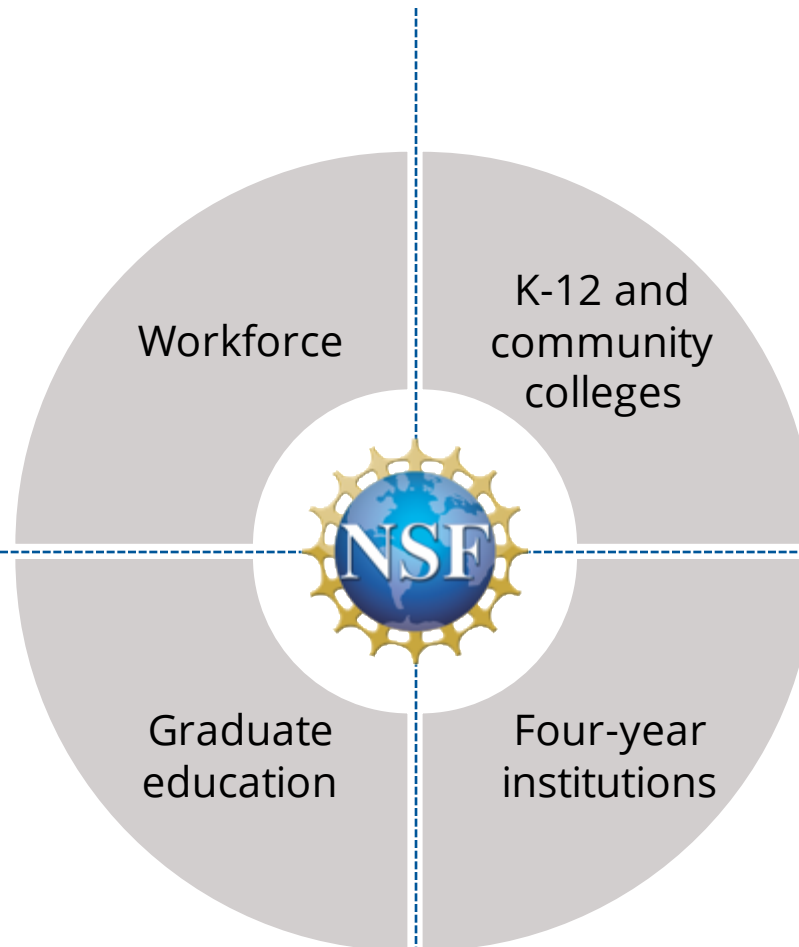
NSF supports all levels of education and workforce

Experiential Learning in Emerging and Novel Technologies (ExLENT)

- *Invests in practical experiences*, incl. for the current workforce looking to reskill in emerging technologies
- Anticipated to touch 1,000 students beginning this year

Non-Academic Research Internships for Graduate Students (INTERN)

- *Invests in internships* for NSF-funded graduate students



Advanced Technological Education (ATE)

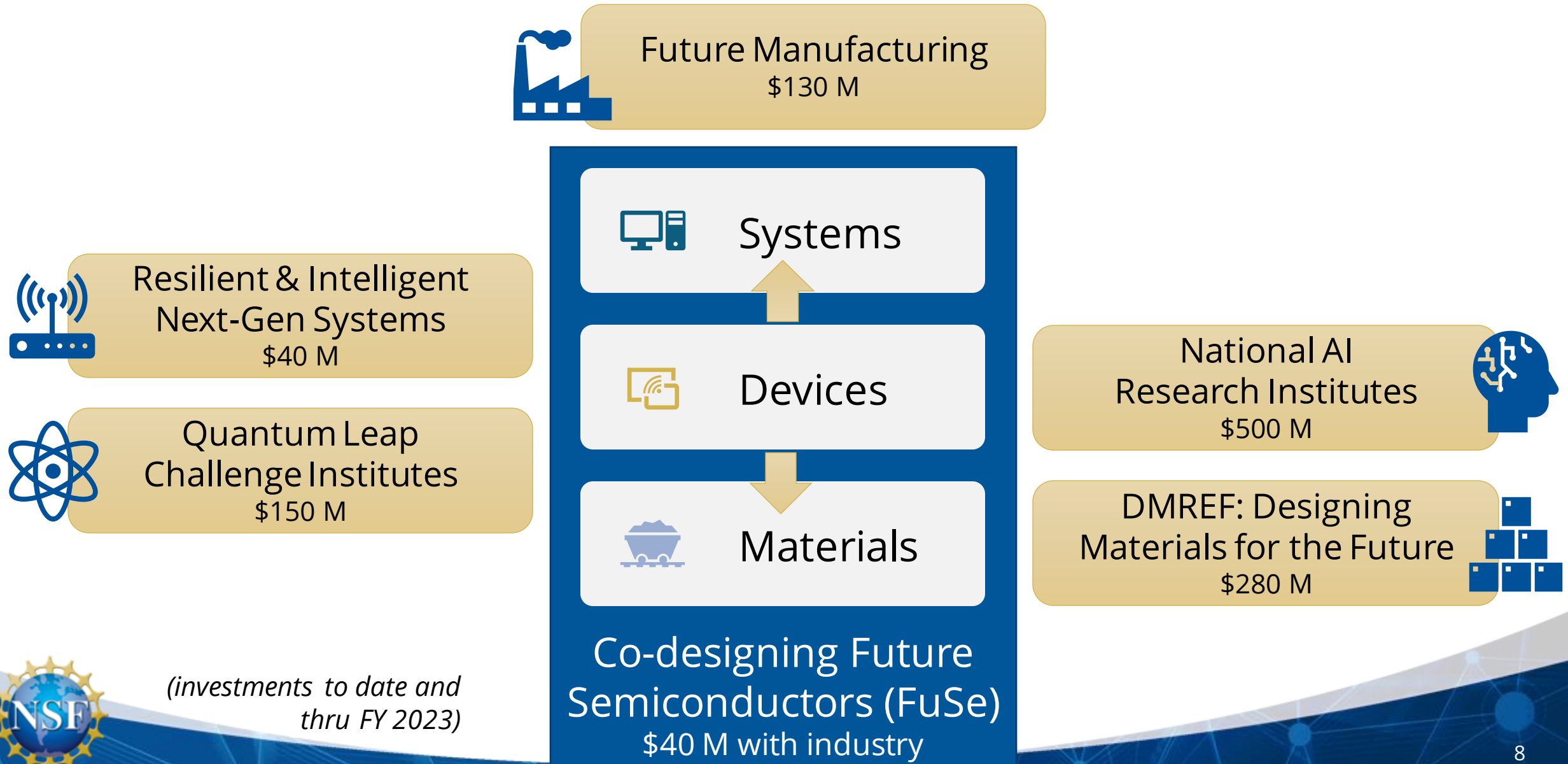
- *Invests in advanced technician training*
- Touches ~39,500 students, 8,700 teachers annually

Scholarships for STEM (S-STEM)

- *Invests in low-income students*
- Has touched >100,000 students in nearly every state, plus PR and USVI, since 2006



NSF supports an interconnected research portfolio



NSF supports translation to commercialization (SBIR/STTR)

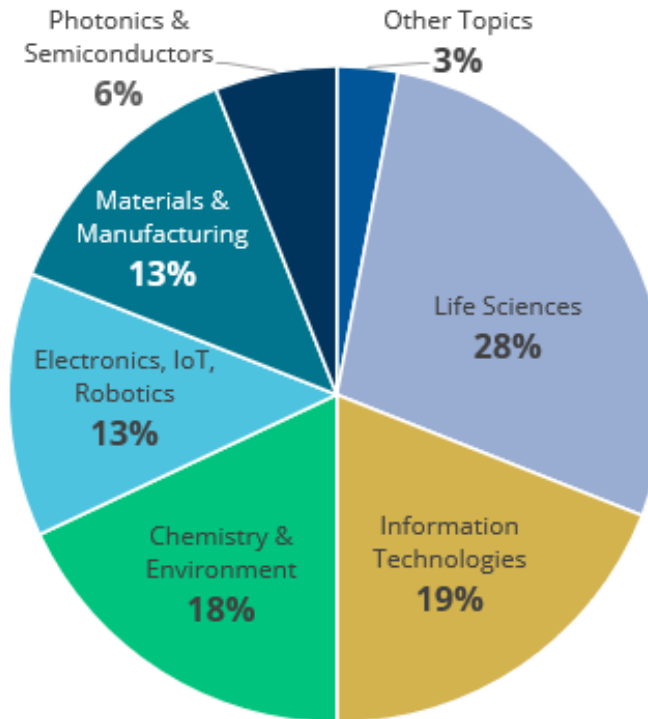
- Up to **\$2M** in R&D funding for **startups** to develop transformative, deep tech, high-impact technologies
- Transforms scientific discovery into products and services with commercial and societal benefit

Funding Obligated*
\$221M

Phase I 6-24 months
Up to **\$275,000**

Phase II 2 years
Up to **\$1M**

Phase IIB
Up to **\$500,000**



Recent Phase I Awardee Stats & Outputs

95%	81%	59%
10 or fewer employees	Founded in past five years	First-time SBIR/STTR winners

Outputs*

\$14 billion

in follow-on institutional (equity) financing

200 successful exits
(acquisitions, mergers, IPOs)



* Funding amount reflects total dollars obligated on SBIR/STTR awards and supplements made through 2020. This amount excludes 1) the SBIR/STTR admin fund, 2) any award that was made for purposes other than funding small businesses, and 3) awards and supplements that have been cancelled

NSF is rapidly expanding partnerships



Jan. 21:
NSF + Intel
announce
semiconductor
workforce
partnership



May 3:
NSF Engines
program
launches

**Privacy-Enhancing
Technologies
PRIZE CHALLENGES**

July 20:
NSF, NIST, OSTP,
UK announce
privacy prize
challenges



Sept. 7:
NSF, DOD partner
to advance 5G
security

Activate

Sept. 19:
NSF announces
Entrepreneurial
Fellowships



Oct. 28: NSF,
Micron partner on
semiconductor
education

Feb. 15:
Pathways to
enable Open-
Source
Ecosystems
launches



July 20:
NSF, NIST,
OSTP, UK
announce
privacy prize
challenges



July 28:
NSF Engines
Concept Outlines
published



Sept. 8:
NSF awards five I-
Corps Hubs for a
total of 10



Oct. 19: NSF
creates, ExLENT, a
new workforce
development
program



Questions and Contact Information

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