National Science Foundation

Technology, Innovation, and Partnerships

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Erwin Gianchandani and Gracie Narcho
Senior Advisors, Office of the Director

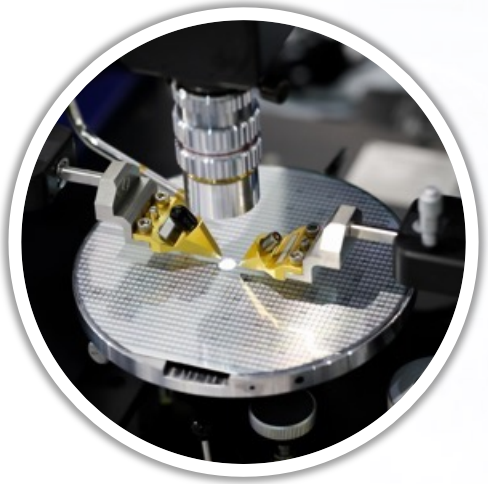
A pivotal moment for our Nation and society

Climate change

Equitable access to education, health care

Critical and resilient infrastructure

Meeting this moment with science & engineering

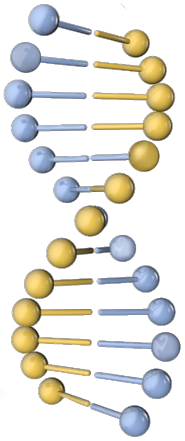


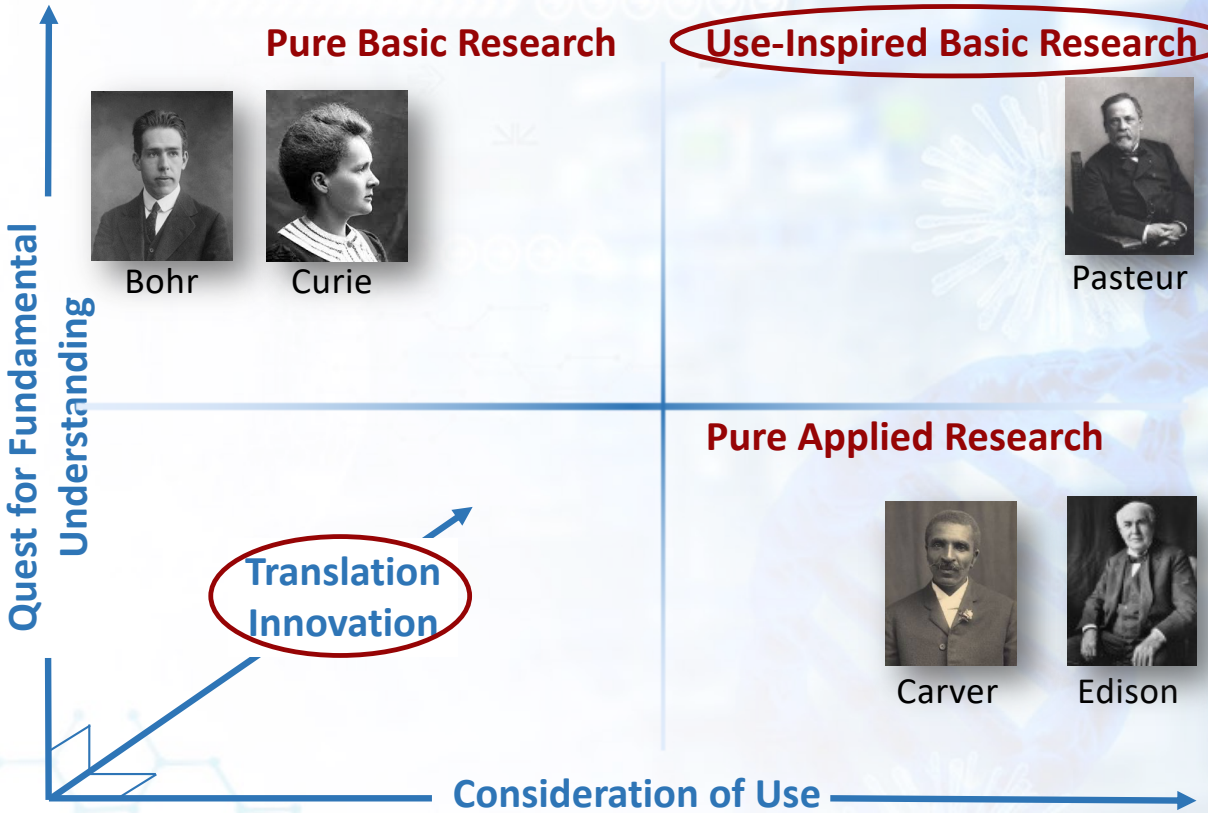
Pace of discovery accelerated by data, emerging technologies

Demand for societal impact

Opportunity to leverage partnerships

Meeting this moment with an intentional focus





Existing NSF research directorates and offices

A new "horizontal" to enhance use-inspired and translational research

TIP FY 2022 funding ($M)

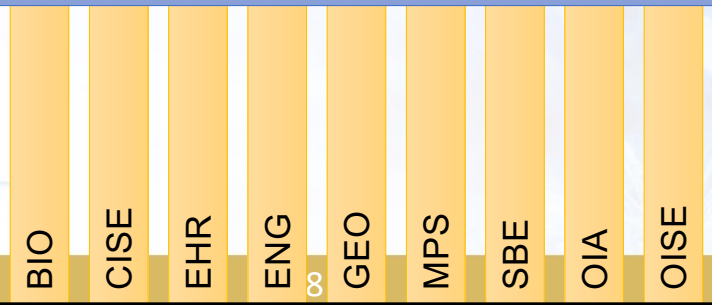
	FY 2022 Request
Innovation Ecosystems (IE)	$335.00
Partnerships Office (PO)	50.00
Technology Frontiers (TF)	150.00
Translational Impact (TI)	329.87
Total	**$864.87**

Realigned investments: $364.87M

New investments: $500M

Partnerships as a Foundation: $50M

Accelerate Partnerships



Realigned investments: $364.87M

New investments: $500M

Technology & Innovation Ecosystem: $485M

- Convergence Accelerator
- I-Corps
- Regional Innovation
- Industries of Tomorrow co-investment
- Entrepreneurial Fellows

Partnerships as a Foundation: $50M

- Accelerate Partnerships

BIO | CISE | EHR | ENG | GEO | MPS | SBE | OIA | OISE

Realigned investments: $364.87M

New investments: $500M

Technology Translation: $329.87M

- PFI
- SBIR/STTR
- Innovative Pathways

Technology & Innovation Ecosystem: $485M

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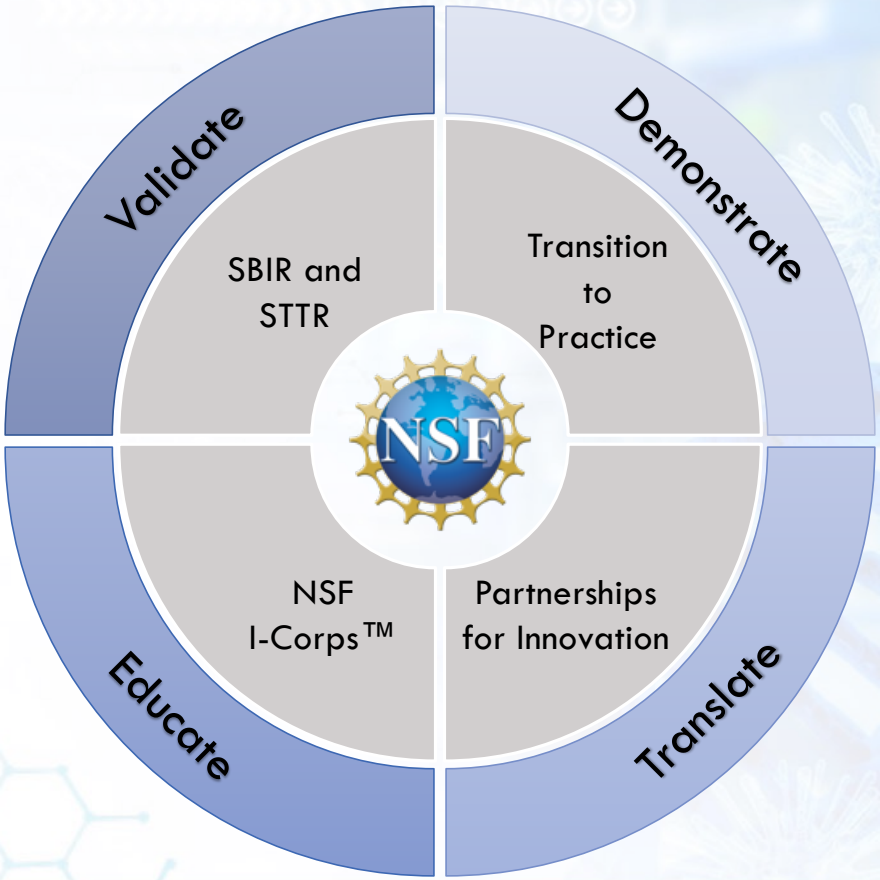
FY 2022 NSF priorities

- **Enhance Fundamental Research and Development**
  - Support research across the spectrum of science, engineering, technology, and education
- **Strengthen U.S. Leadership in Emerging Technologies**
  - Includes the establishment of a new directorate for technology, innovation, and partnerships within NSF to advance science and engineering research and innovation
- **Advance Equity in Science and Engineering**
  - Increase participation in science and engineering of individuals from racial and ethnic groups underrepresented in these fields
- **Advance Climate Science and Sustainability Research**
  - Advance use-inspired, solution-oriented research and innovation in climate and clean energy-related research
- **Continue construction of forefront infrastructure**
  - Continue construction of major NSF research facilities

Enhancing the Lab-to-Market Platform



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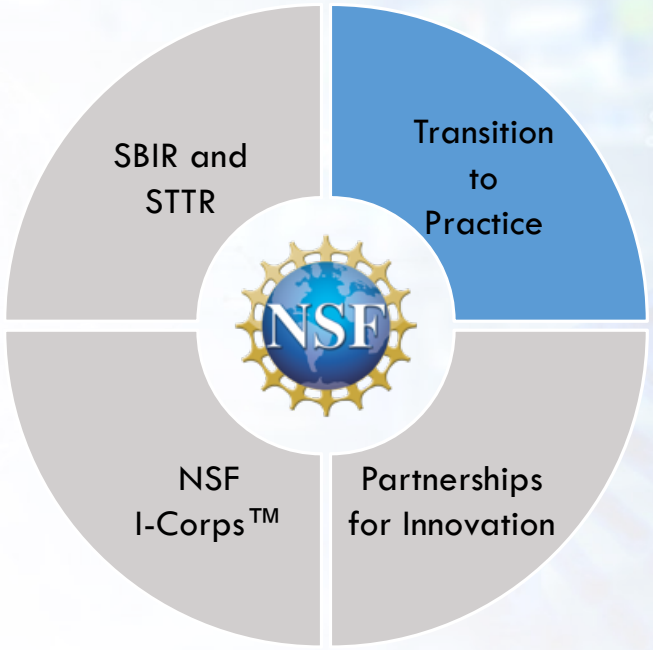


- Mature ideas or research results
- Demonstrate as usable capabilities
- For the research community or industry

$150K-$1M per project

$12M per year

Enhancing the Lab-to-Market Platform

$250K-$550K per project

$30M in FY 2022

- Create collaborations with industry
- License NSF-funded research outputs to third-party corporations or to start-up companies

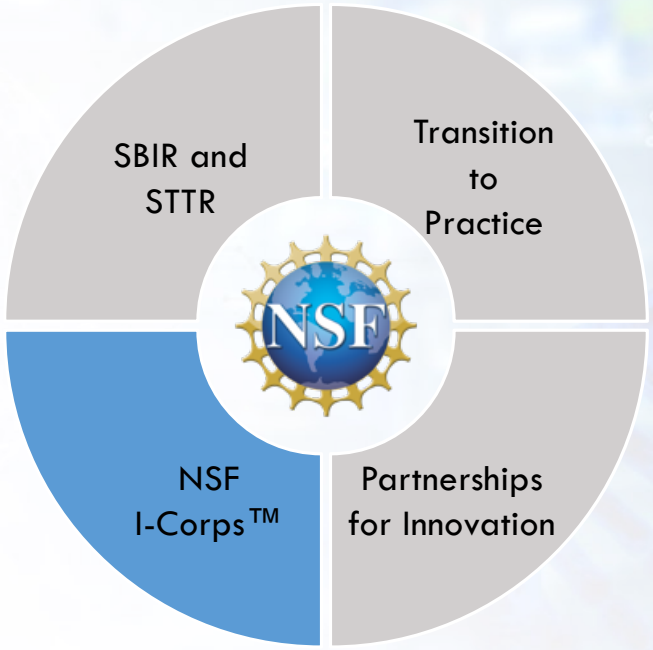
Enhancing the Lab-to-Market Platform

CORPS™ NSF Innovation Corps

- Train NSF-funded faculty, students in innovation, entrepreneurship to spur translation of research to market
- Product-Market Fit
- Nearly 800 startups created to date

>250 Teams per year

$40M in FY 2022



Enhancing the Lab-to-Market Platform

America's SEED FUND
SBIR.STTR

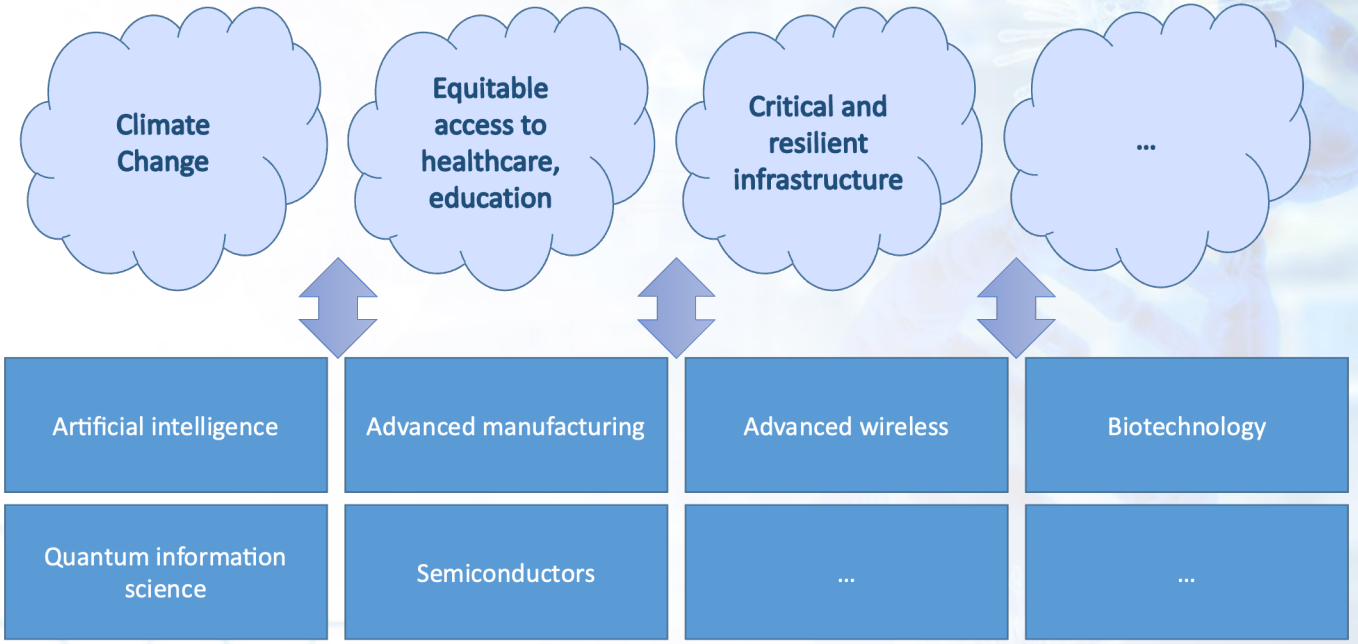
- R&D funding to develop transformative, deep tech, high-impact technologies
- Transforms scientific discovery into products and services with commercial and societal benefit

$250K Phase I, $1M Phase II, $500K Phase IIB

$274.64M in FY 2022

Regional Innovation Accelerators

- Cultivate new innovation ecosystems at the scale of individual communities and/or regions throughout the U.S.
- Address major scientific and technological goals while ensuring broad societal benefits
- Balance technical and geographic innovation; incentivize partnerships; serve as hubs for NSF's broader portfolio



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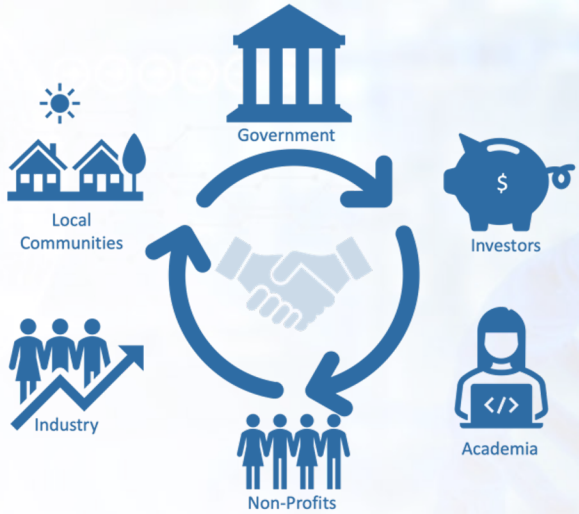
foundational science drivers



societal impacts, economic growth, new jobs

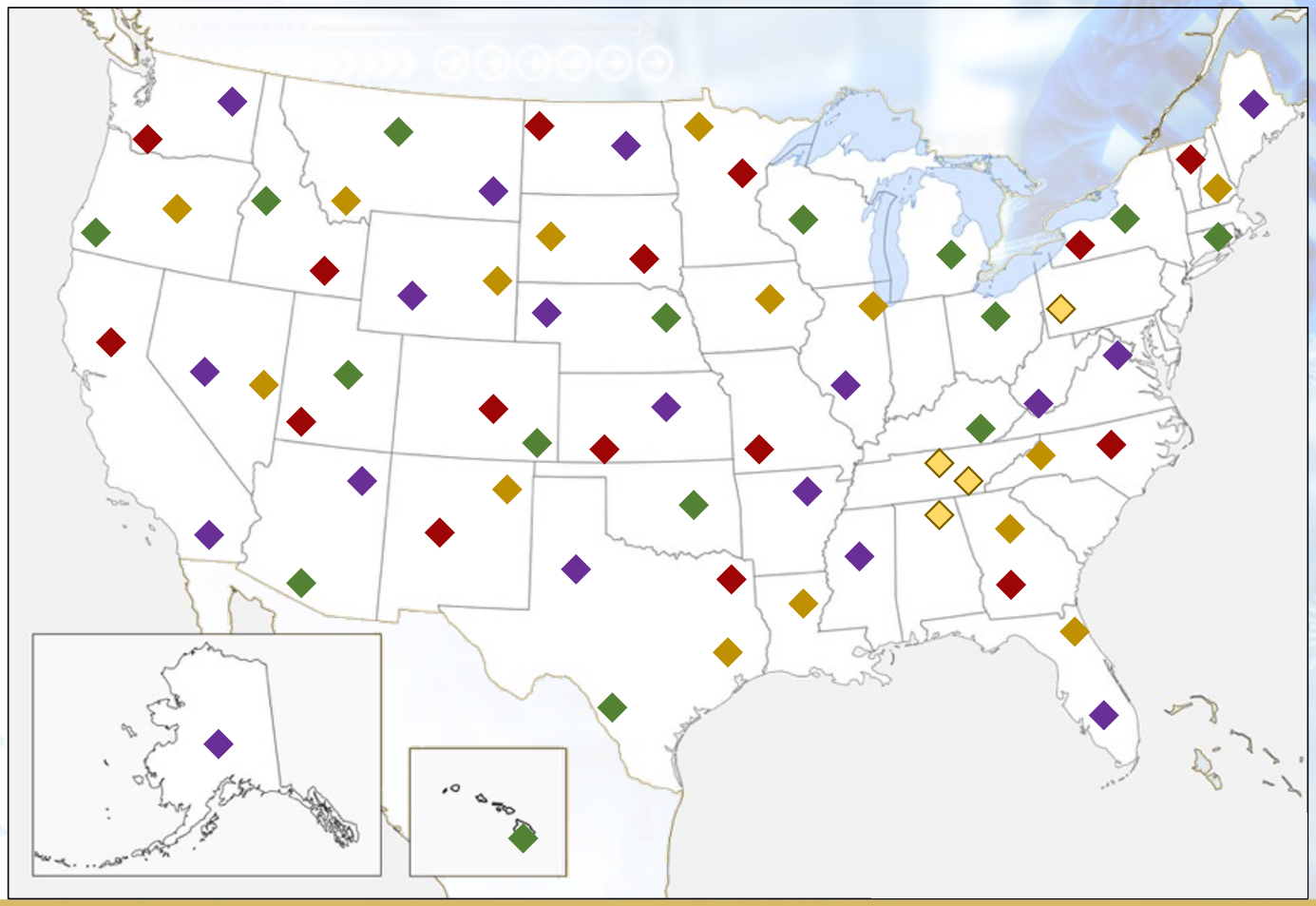
- Iterative co-design / co-creation
- Earlier engagement of broadest set of stakeholders to motivate / shape research
- Intentional co-funding (e.g., cost-share) and access to range of resources

Regional Innovation Accelerators

- Point examples of local/regional innovation ecosystems today

Regional Innovation Accelerators

- Point examples of local/regional innovation ecosystems today
- Creating opportunities for every community, state



NSF Entrepreneurial Fellows

- Pathways for Ph.D.-trained scientists and engineers
- Forging connections between academic research and government, industry, and investors
- Training to become leaders capable of maturing promising ideas and technologies from lab to market

TIP summarized

- Use-inspired, challenge-driven, convergent research
- Innovation and technology translation
- Leveraging the virtuous cycle of foundational and use-inspired research
- Long-term, large-scale
- Public-private partnerships
- Education, workforce, diversity

Questions?