Meeting of the Office of Science Advisory Committee

The Honorable Darío Gil, Ph.D.
Under Secretary for Science

March 27, 2026

The awakening of American science and technology

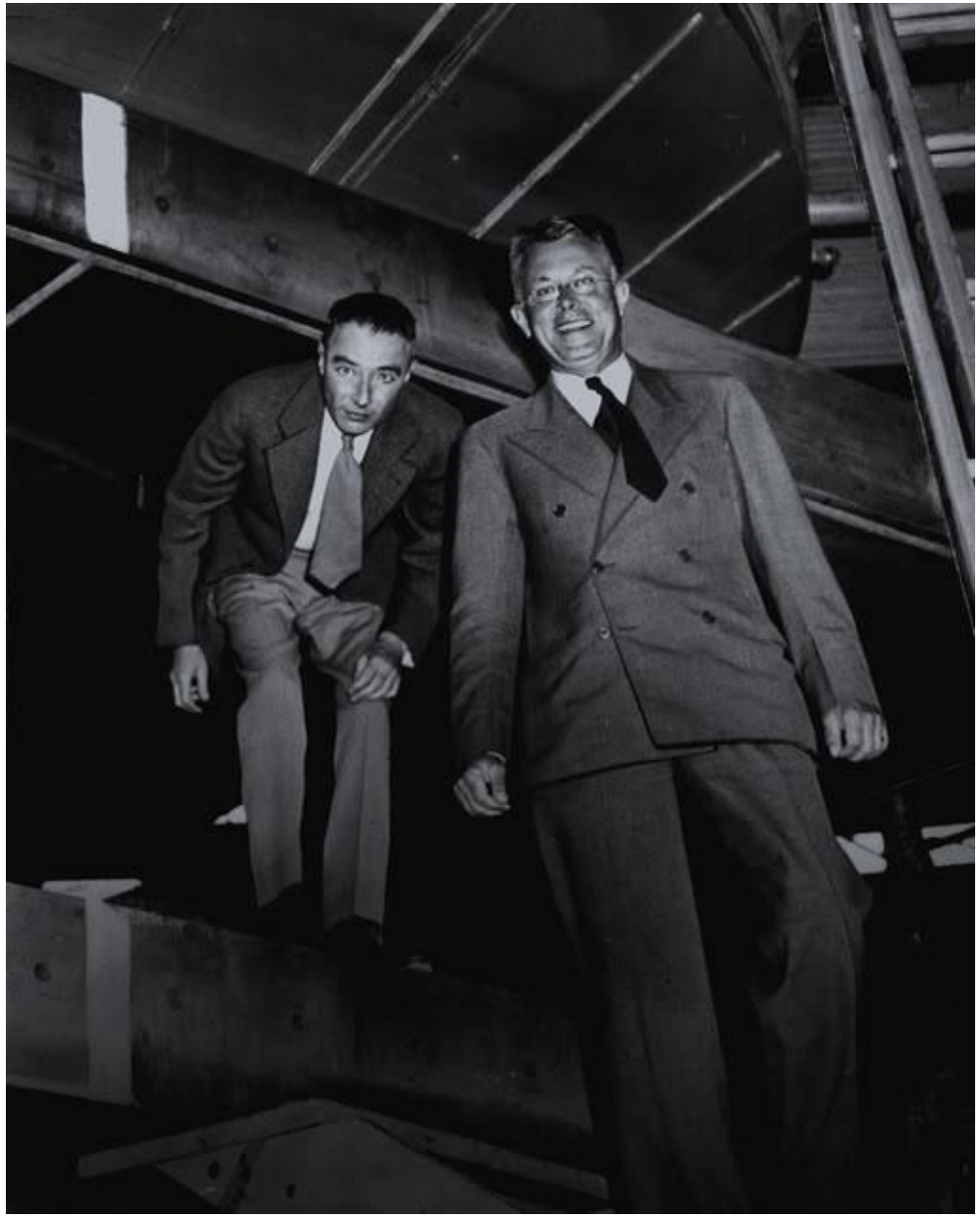
July 1945

"The pioneer spirit is still vigorous within this nation. Science offers a largely unexplored hinterland for the pioneer who has the tools for his task. The rewards of such exploration both for the Nation and the individual are great. Scientific progress is one essential key to our security as a nation, to our better health, to more jobs, to a higher standard of living, and to our cultural progress."

Vannevar Bush
Director, Office of Scientific Research and Development

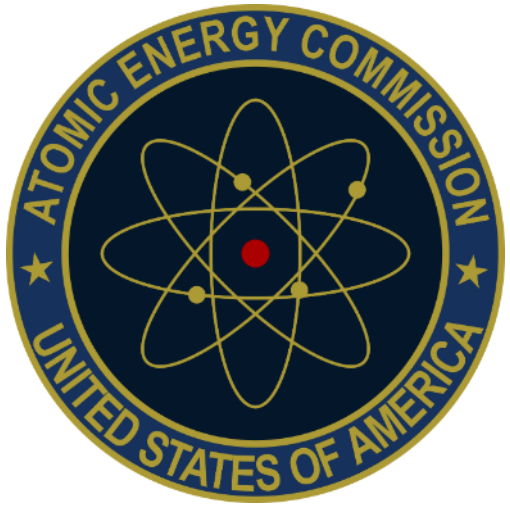
President Truman signs the Atomic Energy Act of 1946

J. Robert Oppenheimer
with Ernesto Lawrence
at the 184-inch cyclotron,
Berkeley, California 1946



Cyclotron,
Berkeley, California 1946

1946 → Today



Atomic Energy Commission
1946

Energy Research & Development
1975

Department of Energy
1977

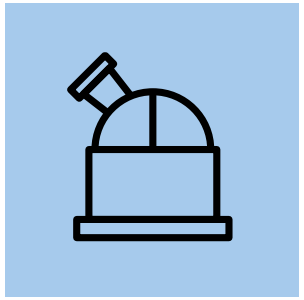
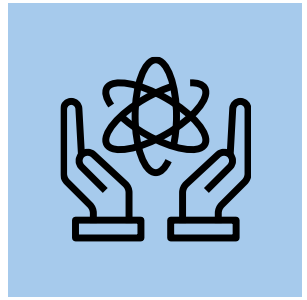
We do foundational research that drives U.S. science and technology across industries

U.S. Department of Energy
Office of Science

Our mission →

Deliver scientific discoveries and major scientific tools to transform our understanding of nature and advance the energy, economic, and national security of the United States.

U.S. Department of Energy
Office of Science

Mission areas →	Foundational research	Research infrastructure	National Laboratory stewardship
			

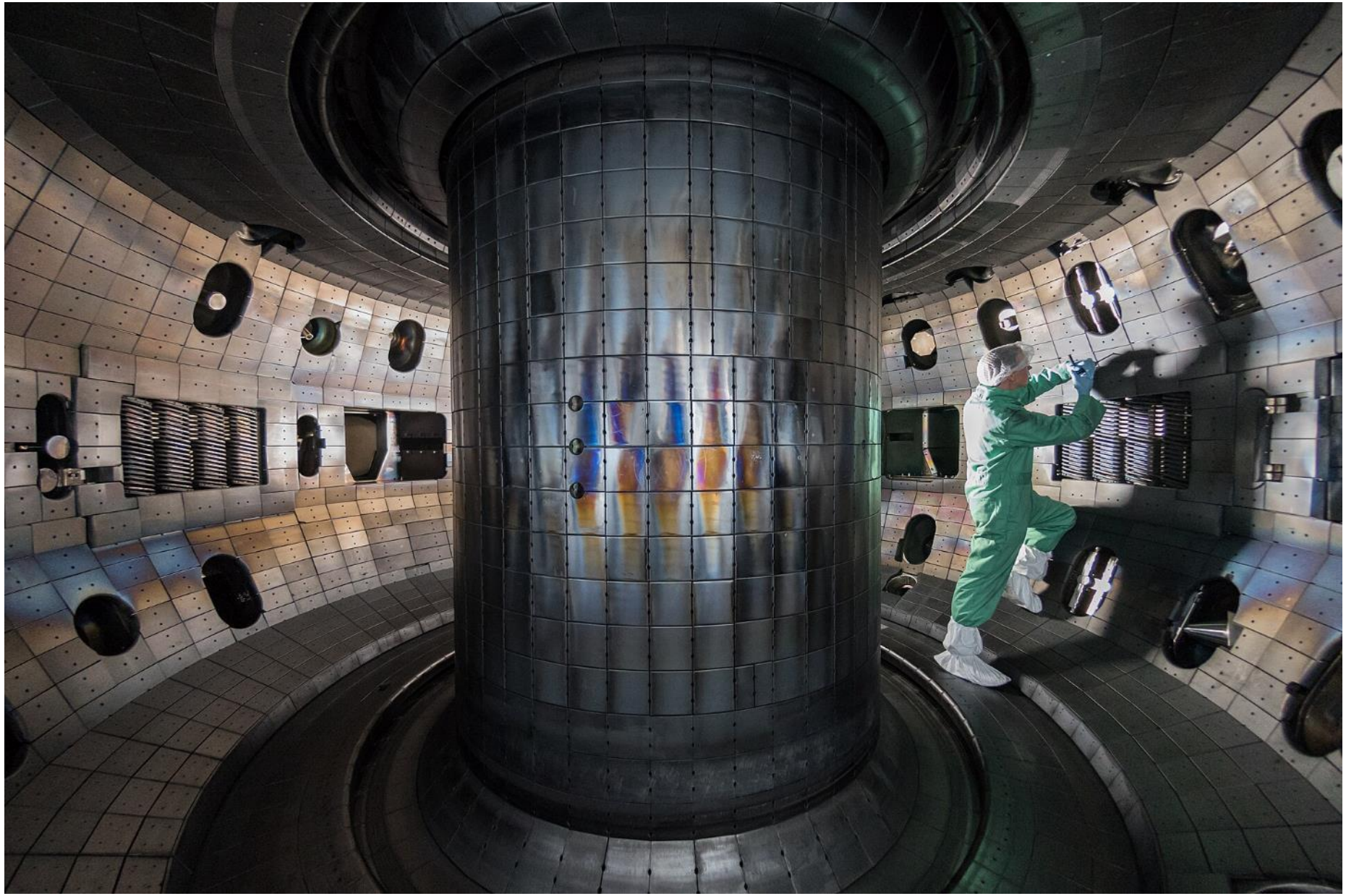
U.S. Department of Energy
Office of Science

Research portfolio

- → Advanced Scientific Computing Research
- → Basic Energy Sciences
- → Biological and Environmental Research
- → Fusion Energy Sciences
- → High Energy Physics
- → Nuclear Physics
- → Isotope R&D and Production

LSST Camera,
NSF-DOE
Vera C. Rubin Observatory

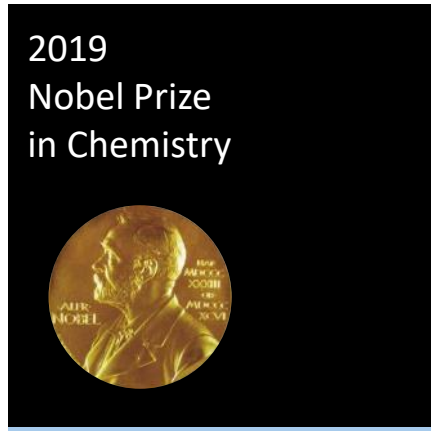
DIII-D National Fusion Facility,
General Atomics



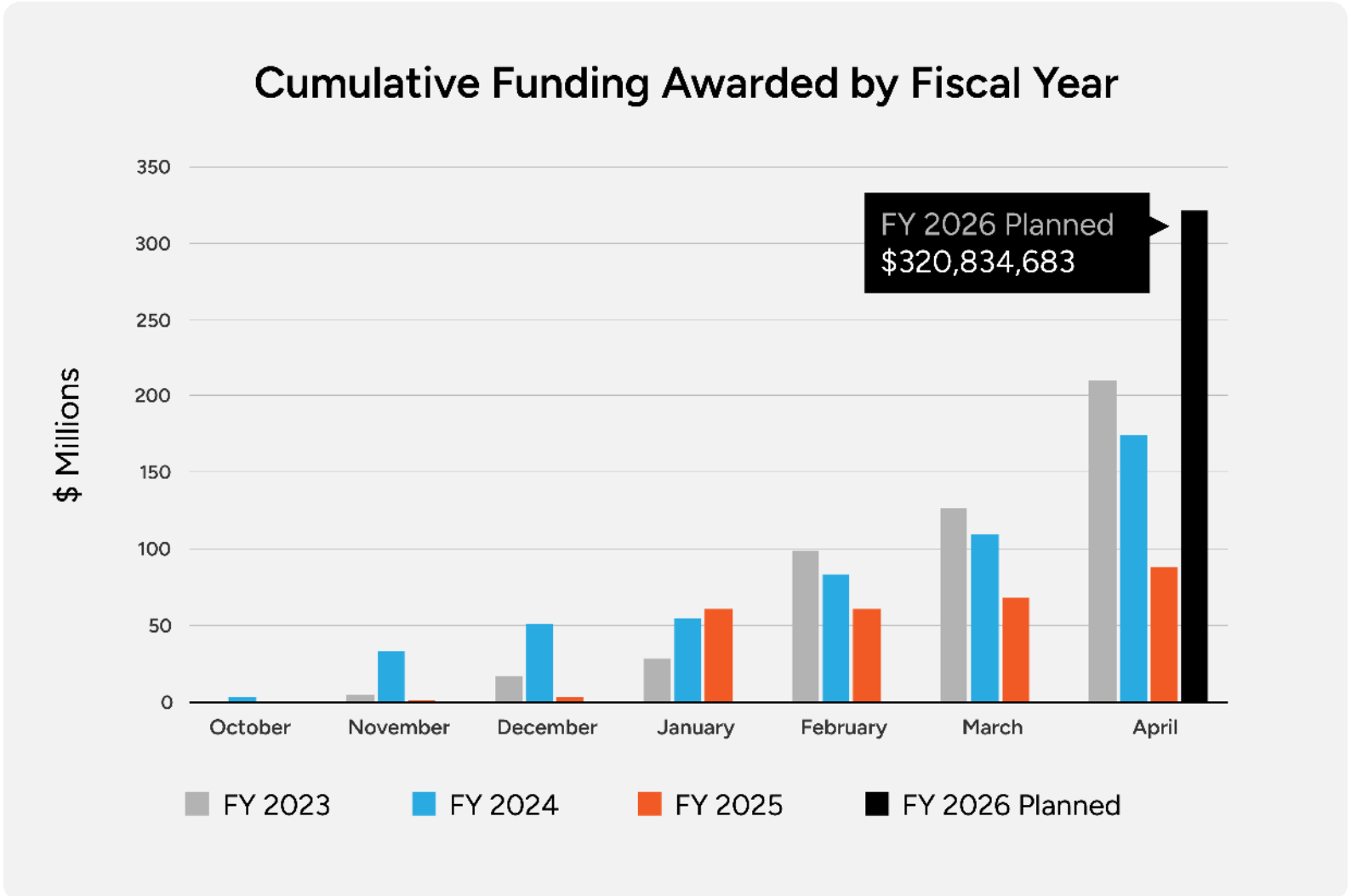
Basic Energy Sciences → Lithium-ion Batteries

Understanding and controlling materials and chemical processes across scales to drive transformative advances in energy technologies:

Accelerating battery materials discovery with HPC and AI	Revealing the behavior of operating batteries with neutrons	Understanding material degradation with electron microscopy	Characterizing interfaces with synchrotron X-ray techniques	→

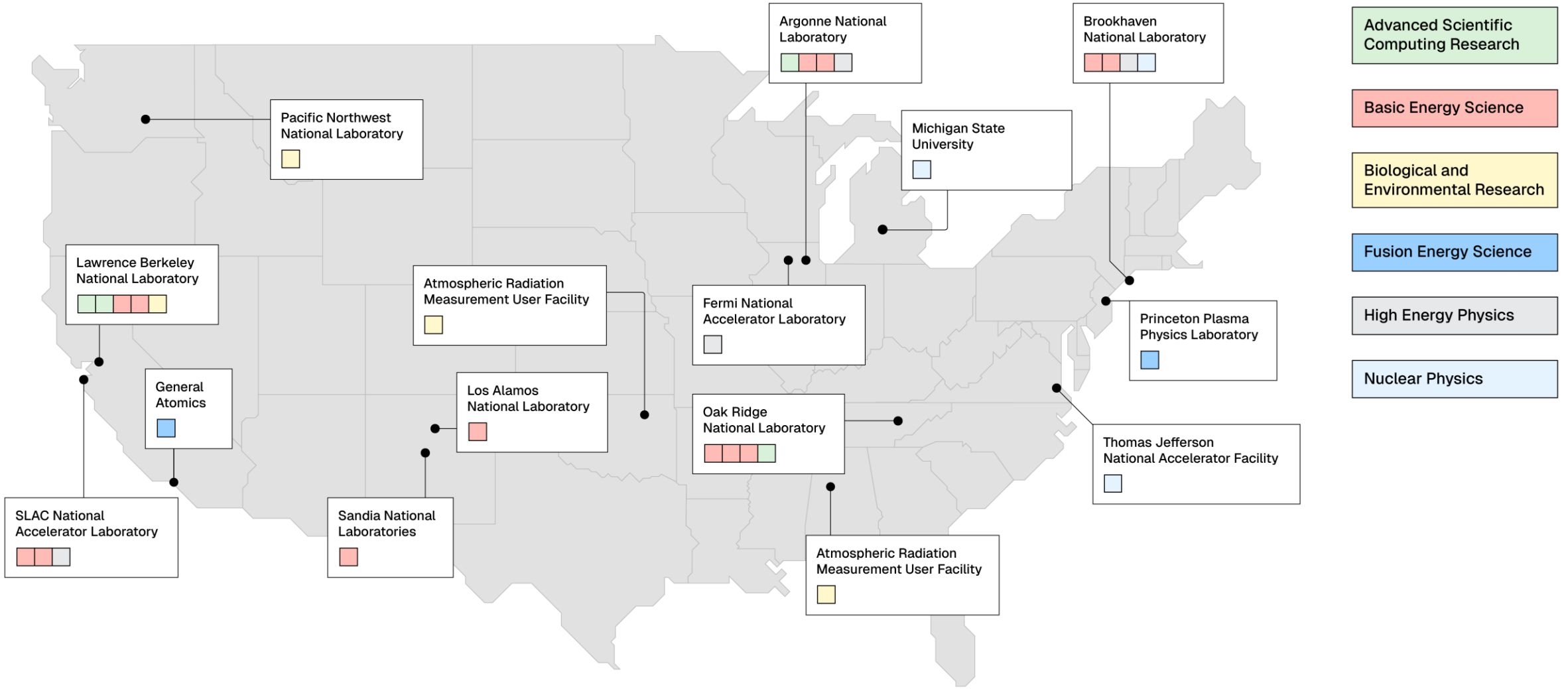


Industrial-scale production of iron-air batteries for the grid (form energy)


Cumulative Funding Awarded by Fiscal Year
$ Millions
350
300
250
200
150
100
50
0
FY 2026 Planned
$320,834,683
October
November
December
January
February
March
April
FY 2023
FY 2024
FY 2025
FY 2026 Planned

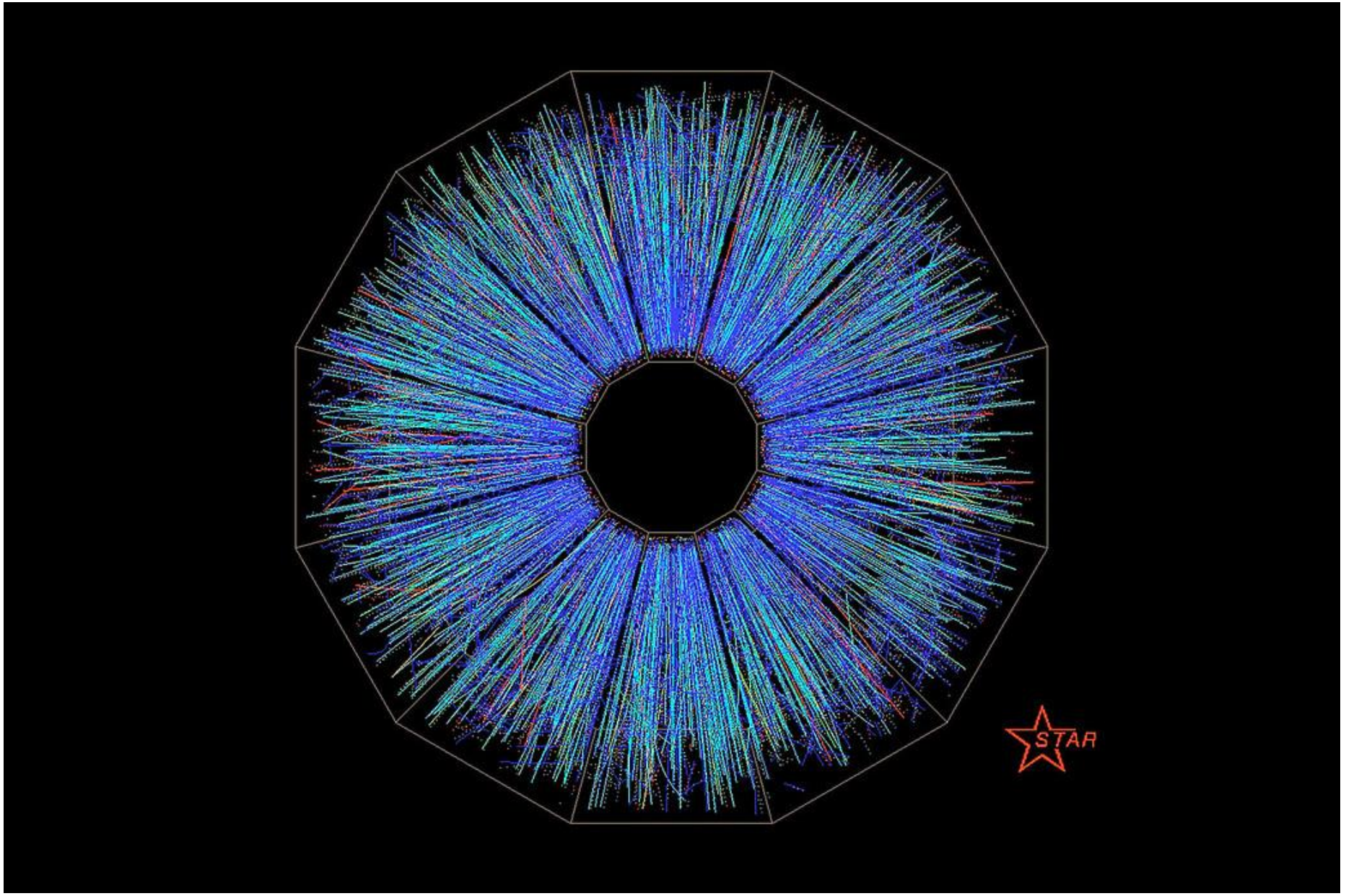
An unparalleled collection of the world's most powerful tools for science

Office of Science → User facility locations



Relativistic Heavy Ion Collider,
Brookhaven National Laboratory

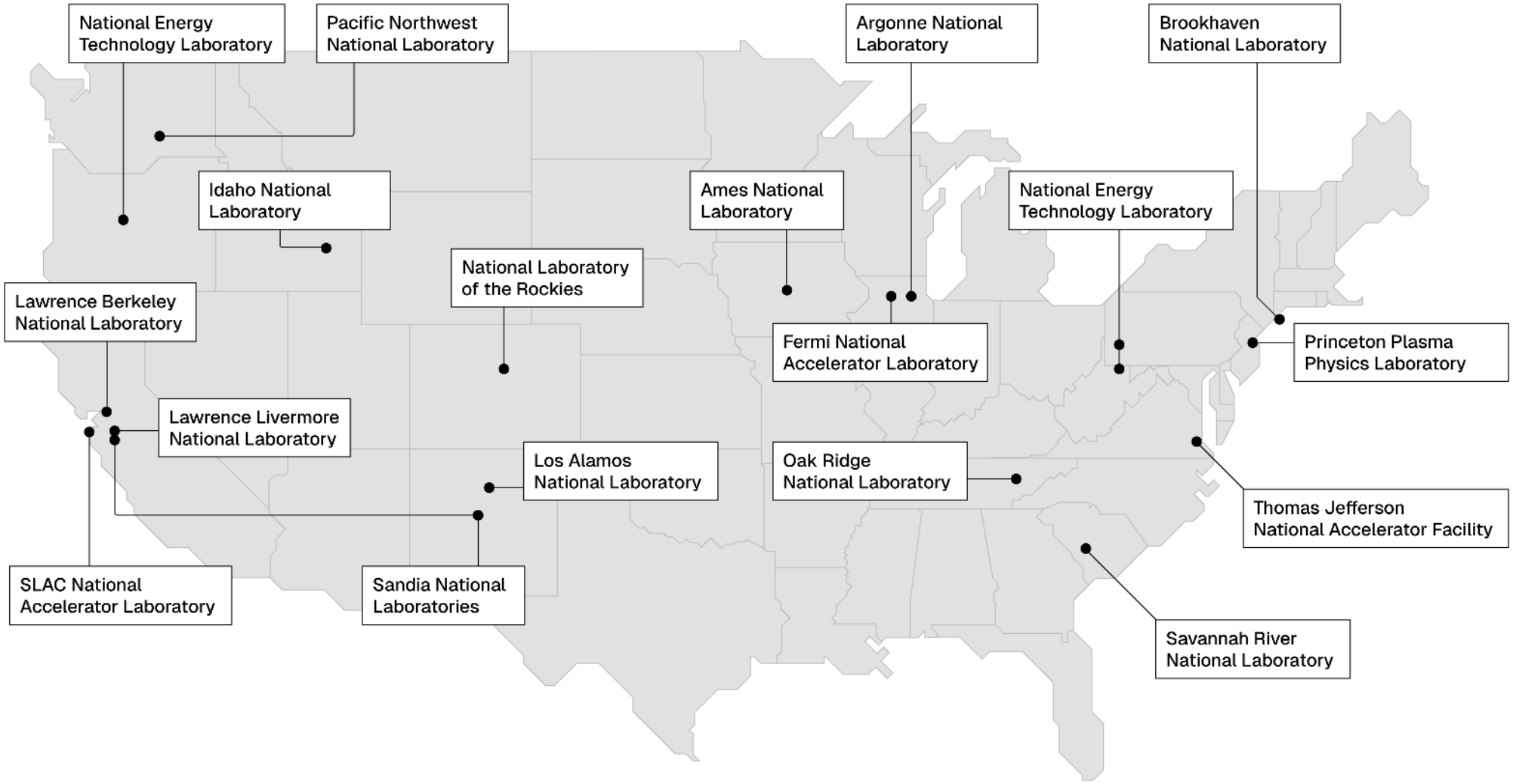
STAR detector, Relativistic Heavy Ion Collider, Brookhaven National Laboratory



Frontier Supercomputer at the Oak Ridge Leadership Computing Facility, Oak Ridge National Laboratory

A testament to the power of focused scientific inquiry and collaborative innovation

DOE → National Laboratories



National Laboratories

17

Elements Discovered

22

Nobel Prize Recipients

129

Production of gadolinium-153, University of Missouri Research Reactor

From protein structures to biotechnology applications

Protein data bank
> 200,000 structures

Structural biology resources for molecular structure determination

AI driven prediction of protein structures

2024
Nobel Prize
in Chemistry

Predictive protein design for biotechnology

Accelerate metabolic engineering for bioproduct production

Understand interactions between and among microbes and plants

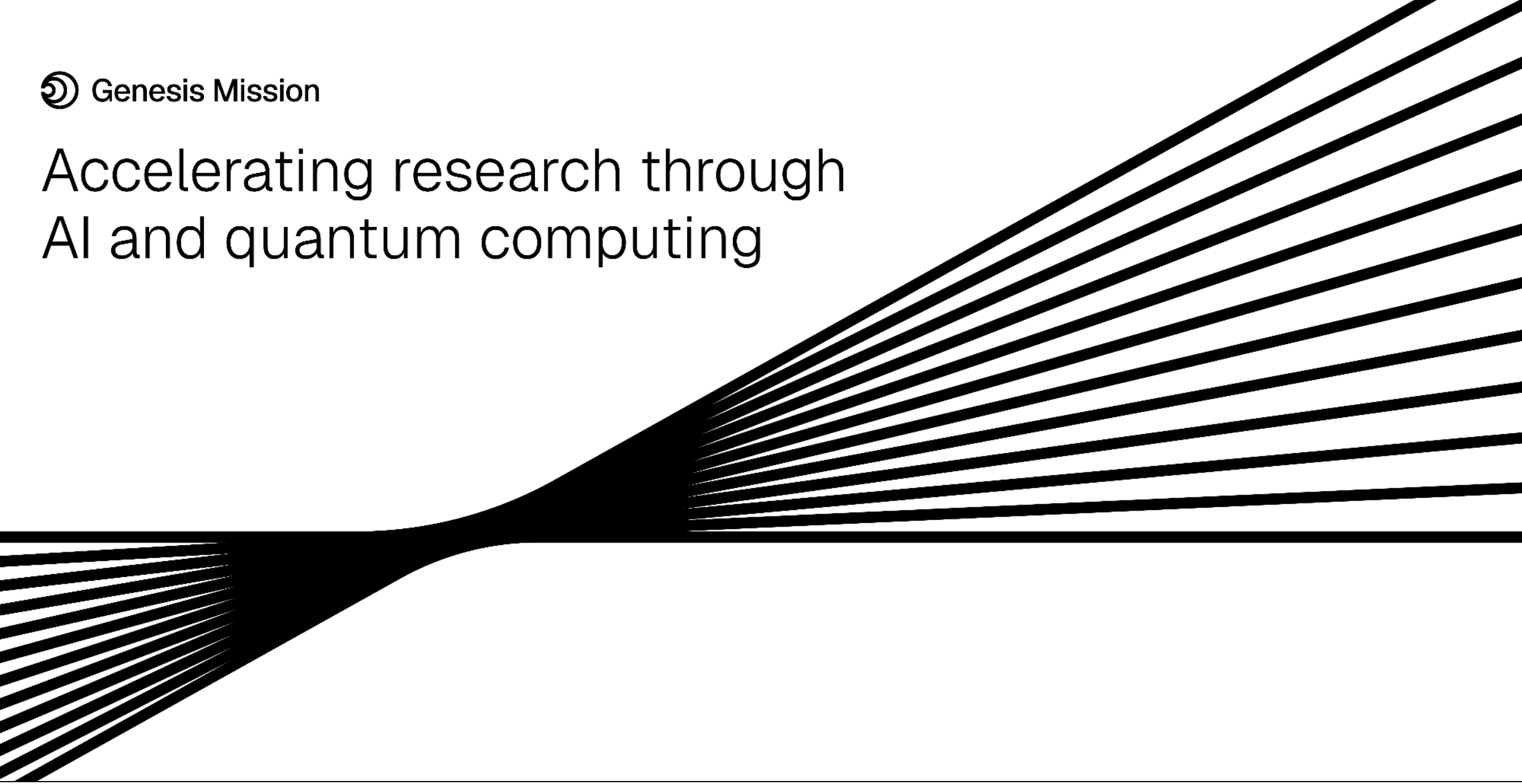
Tailor microbes and plants for DOE missions in energy, economy, and national security

The endless frontier continues, powered by AI, HPC, and Quantum

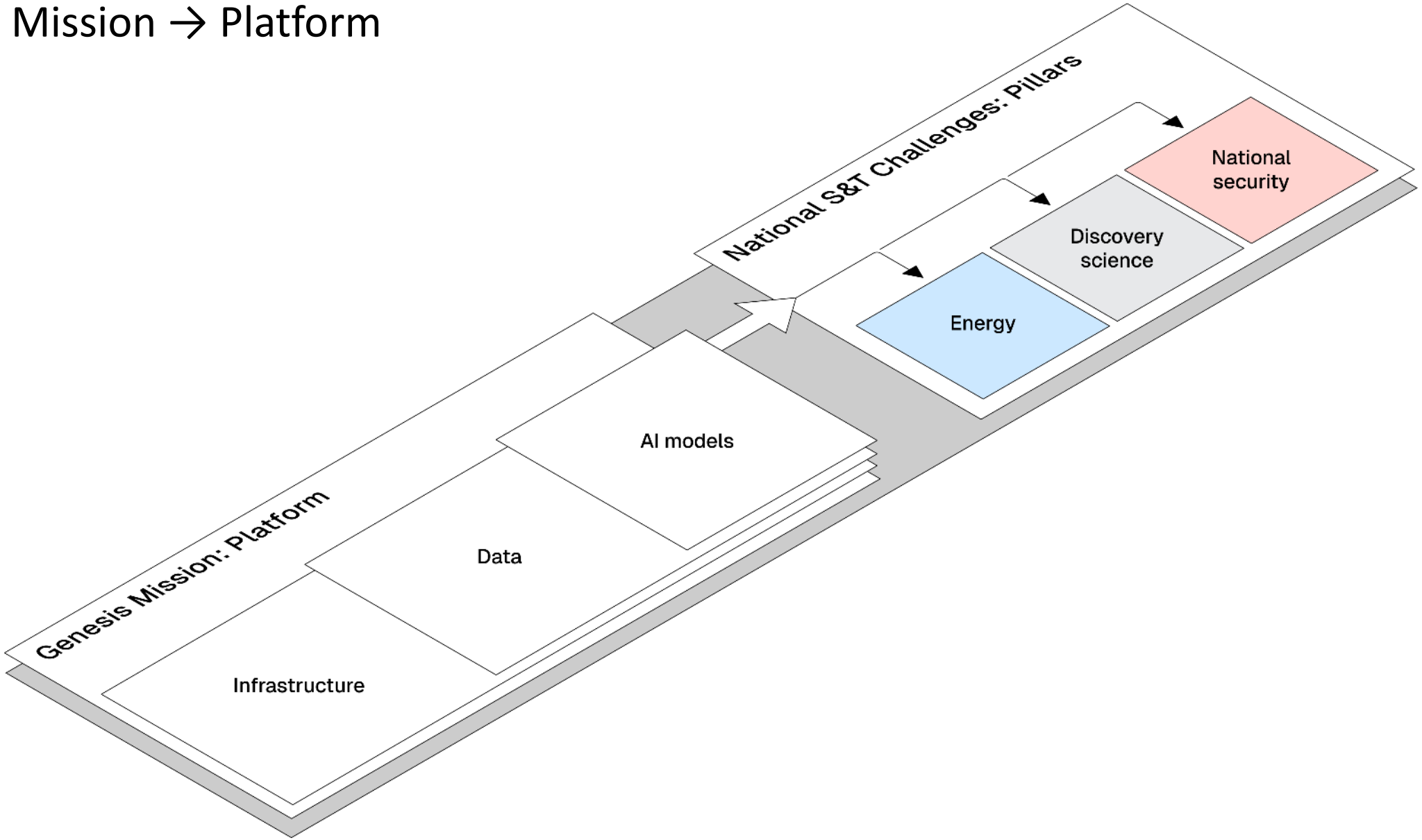
Genesis Mission

Genesis Mission

Accelerating research through AI and quantum computing

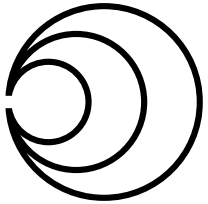


Genesis Mission → Platform



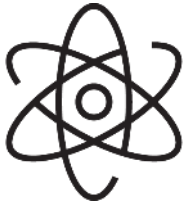
Genesis Mission:
Accelerating research through AI and quantum computing

National Science and Technology Challenges



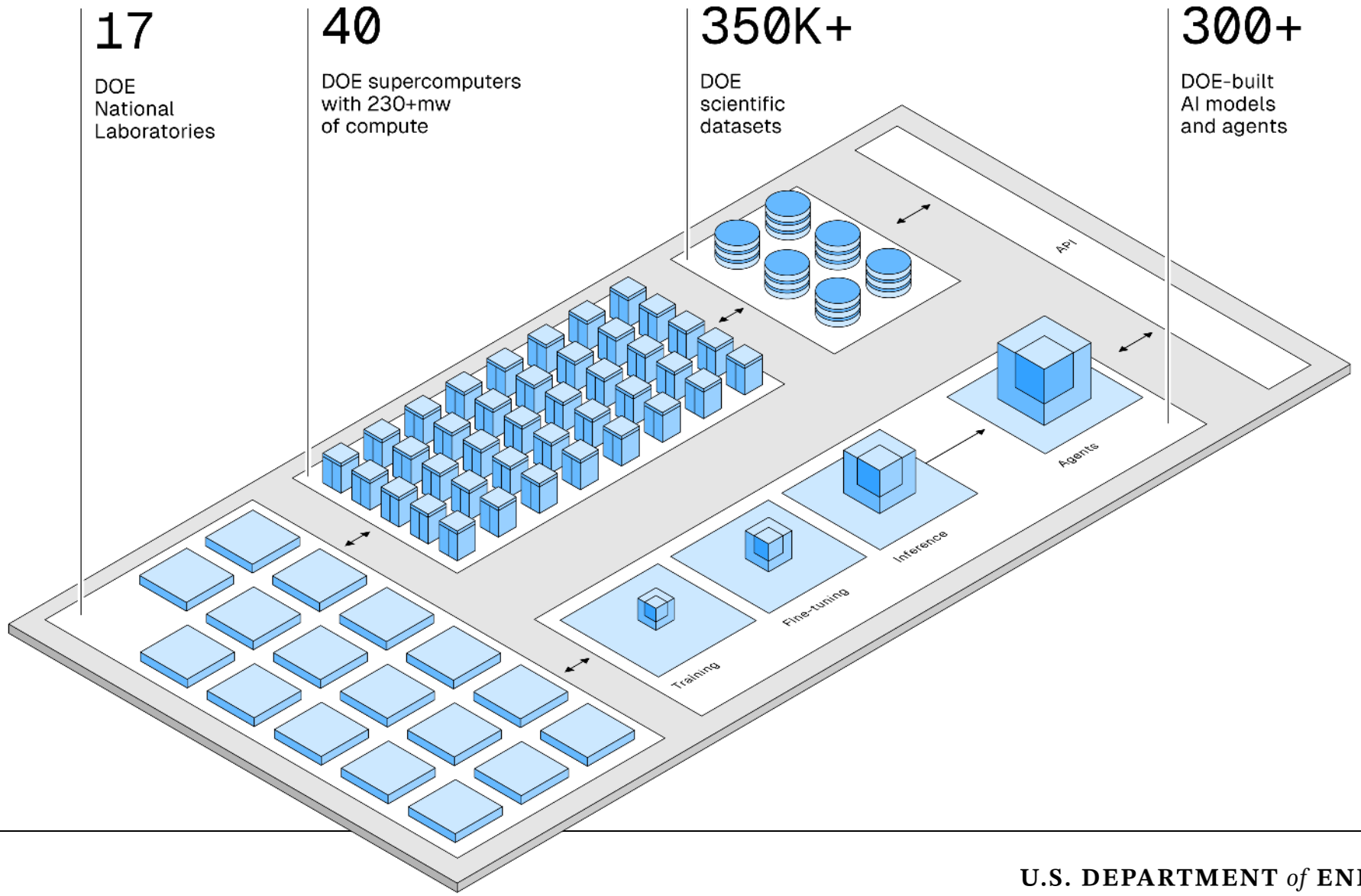
Energy

Discovery Science



National Security

Genesis Mission → Platform architecture



→ National Quantum Initiative

Office of Science
Advisory Committee Charges

Facilities of the Future Subcommittee

AI for Transformative Science Subcommittee

Thank you

A Scientific Renaissance