

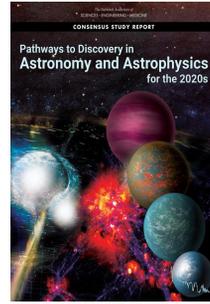


Decadal Surveys

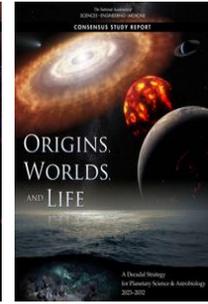
The National Academy of Sciences' decadal surveys are scientific community-based and recommend **ranked, consensus priorities** for the coming decade.

The decadal surveys' overriding priority has been a **balanced program...**

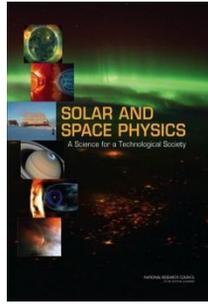
- across discipline and mission size
 - between competitive and strategic programs
 - between facilities and grants
- ...to **optimize return on taxpayer investment**



Astrophysics
(2021-2031)



Planetary
Science
(2023-2033)

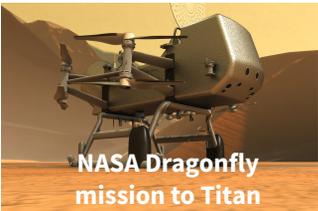


Solar and Space
Physics
(2013-2023)

Current Missions and Facilities

Small- and Mid-scale

Competitive | Focused Science | Investigator-led



NASA Dragonfly
mission to Titan



NASA Juno mission to
Jupiter



NASA Psyche mission to asteroid
Psyche



NASA OSIRIS-REX
asteroid sample
return



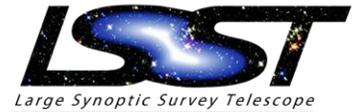
NASA Europa Clipper

Flagship

Directed | Broad Science | Competed Instruments



NASA
Mars 2020 Perseverance



Large Synoptic Survey Telescope

NSF

Image credits, clockwise from top left:
NASA/APL/SwRI/JPL/JPL/NSF/UA LPL/ASU

Competitive Grants

- Awards are based on the **scientific merit** and **potential impact** of proposed research.
- NASA, NSF, and DOE fund **students and researchers in all fifty states and territories** across the **academic, industry, government, and nonprofit sectors**.
- Current selection rates for Planetary Science Division (PSD) Research and Analysis (R&A) Programs are ~20%. **Sustainable support of the planetary science community requires funding levels tied to 10% of the PSD budget, as directed in the 2022 Planetary Science decadal survey.**



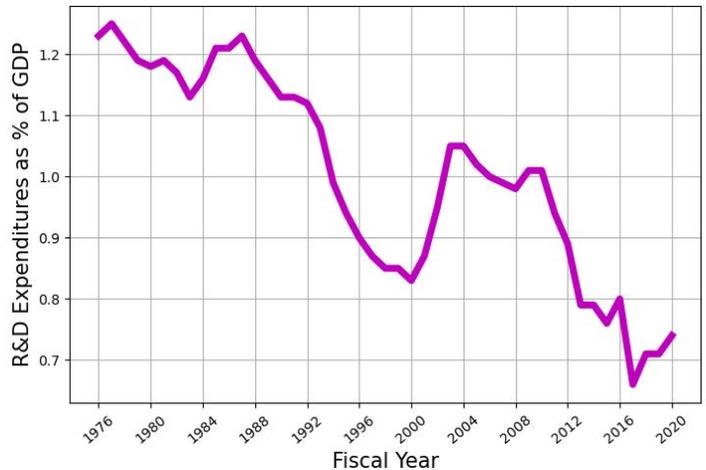
Left: Missions to **Venus** (center) have been chosen for launch by NASA's Discovery competitive mission program, with planned launches starting in 2025



Robust Investments Needed for Scientific Research

Curiosity-driven research is vital to innovation and economic growth in the U.S. For example, in FY19 NASA efforts generated more than \$64 billion in economic output in all 50 states from a budget of \$21.5 billion. However, **the U.S. has seen a 35% decrease in R&D expenditure relative to our GDP over the last three decades.**

To ensure that the U.S. remains a global leader in innovation, **we ask that Congress fund sustained, robust growth for the science agencies**, including the NASA Science Mission Directorate (SMD) and the NSF.



Data retrieved from the AAAS R&D budget and policy tracker at [aas.org/programs/r-d-budget-and-policy/historical-trends-federal-rd](https://www.aas.org/programs/r-d-budget-and-policy/historical-trends-federal-rd)

2023 Appropriations Request

The FY23 funding AAS requests will allow NASA and the NSF to support a **balanced, coordinated, and world-leading planetary sciences program** that advances **top community priorities.**

Account	FY22 Omnibus	FY 2023	
		PBR	AAS Ask
NASA	\$24.0	\$26.00	—
SMD	\$7.61	\$7.99	\$9.0
- PSD	\$3.12	\$3.16	\$3.6
NSF	\$8.84	\$10.50	\$11.0

All values are given in billions of USD.



Above: Planetary scientists open an untouched sample from the Apollo mission at Johnson Space Center (NASA/James Blair)

- **NASA requires a robust increase to the Planetary Science Research & Analysis** budget to be 10% relative to the Planetary Science Directorate budget, in accordance with the 2022 Planetary Sciences decadal survey
- An increased SMD budget would also enable **NEO Surveyor to launch without delay** as well as the continued support for both the **Mars Exploration Program and Planetary Defense Coordination Office** activities
- **NSF requires a historic funding increase** to jumpstart the U.S. scientific enterprise and long-term economic security