Division for Planetary Sciences of the AMERICAN ASTRONOMICAL SOCIETY

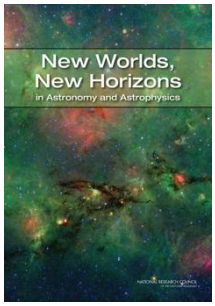
Decadal Surveys

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

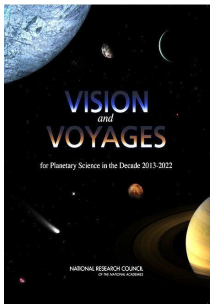
The decadal surveys' overriding priority has been a **balanced program…**

- across discipline and mission size
- between competed and strategic programs
- between facilities and grants

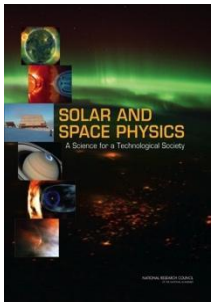
…to **optimize return on taxpayer investment.**



Astronomy and Astrophysics (Ongoing)



Planetary Science (Starts 7/2020)



Solar and Space Physics (Midterm)

Missions and Facilities

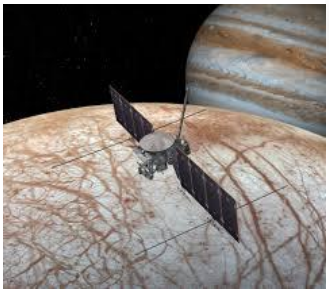
Small and Mid-Scale

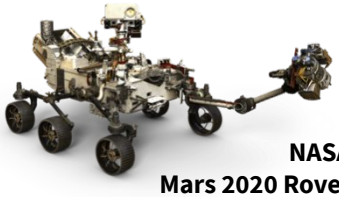
Competed | Investigator-led | Focused Science

Flagship

Directed | Broad Science | Community Instruments

NASA Europa Clipper





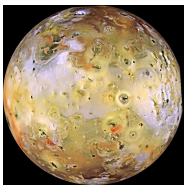
NASA Mars 2020 Rover

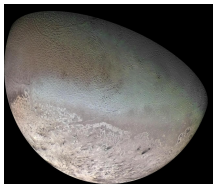
Large Synoptic Survey Telescope

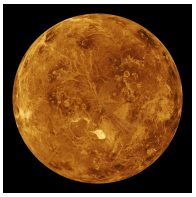
NSF

Competed Grants

- Awards are based on the **scientific merit** and **breadth of impact** of proposed research.
- NASA, NSF, and DOE fund **students and researchers in all fifty states** across the **academic, industry, government, and nonprofit sectors.**
- Current selection rates for Planetary Science Division (PSD) R&A Programs are ~20%. **In order to increase grant selection rates to a sustainable 33% requires an additional $200 million to NASA's PSD budget for Planetary R&A.**







*Left: Missions to **Io** (left), **Triton** (right), and **Venus** (center) have been chosen for further study by NASA's Discovery competed mission program*

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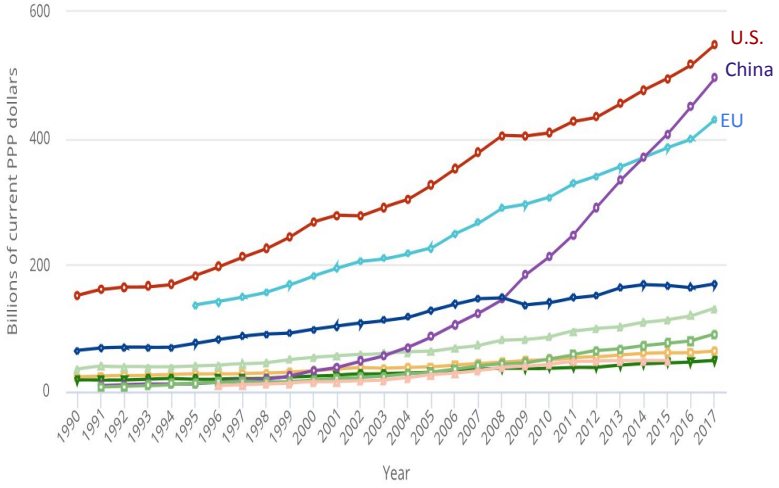
Robust Investments Needed for Scientific Research

Curiosity-driven research is vital to innovation and economic growth in the U.S. . Other countries are accelerating their investments in Research and Development (R&D) activities; China is surpassing the U.S. investment this year. The U.S. has maintained a generally flat R&D expenditure relative to our GDP (3%) 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), NSF, and the DOE Office of Science (SC).

Gross domestic expenditures on R&D, by the United States, the EU, and selected other countries: 1990–2017



2020 NSB Science & Engineering Indicators

2021 Appropriations Request

The FY21 funding AAS requests will allow NASA, NSF, and DOE to support a **balanced, coordinated, and world-leading planetary sciences program** that advances **top community priorities**.

Account	FY19 Enacted	FY20 Enacted	FY21	
			PBR	AAS Ask
NASA	$21.5	$22.6	$25.2	**$26.5**
SMD	$6.9	$7.1	$6.3	**$7.5**
- PSD	$2.8	$2.7	$2.7	**$2.9**
NSF	$8.1	$8.3	$7.7	**$9.0**
DOE (SC)	$6.6	$7.0	$5.8	**$7.4**

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)

In FY21, the AAS

- Supports an appropriation that enables an FY24 **Europa Clipper** launch without delay, completion of **James Webb Space Telescope**, and continues to support **Planetary Defense Coordination Office** activities, including **Arecibo Observatory**
- Seeks an **historic increase for NSF** to jumpstart the U.S. scientific enterprise and long-term economic security, enabling investments like **mid-scale instrumentation**
- Advocates for strong **Research & Analysis** grant funding (>$350 million) and following the balanced **cadence of Small and Mid-scale missions** called for in the Planetary Sciences Decadal Survey

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