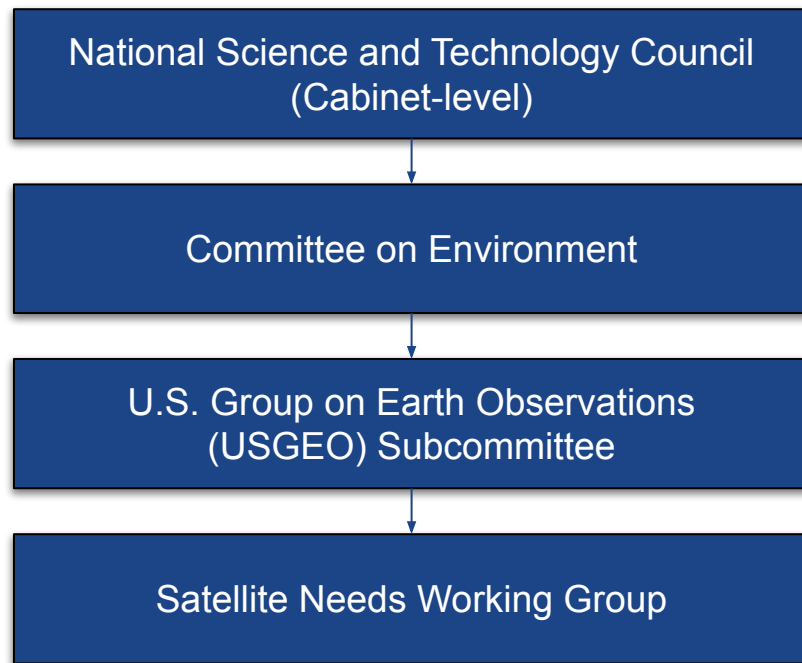


Background

The Satellite Needs Working Group (SNWG):

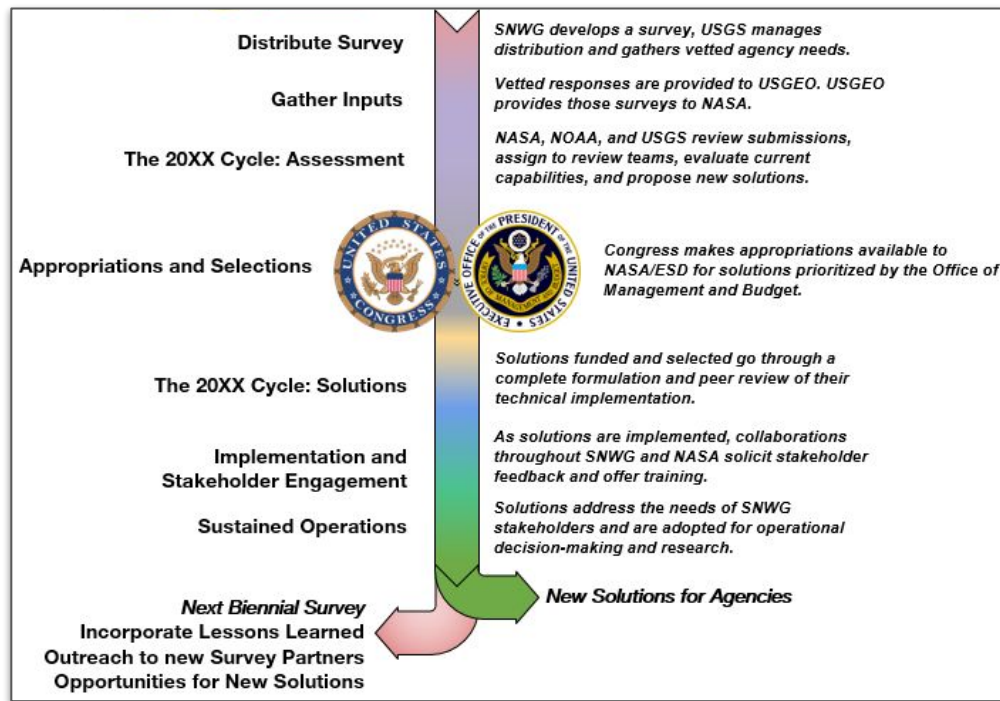
- Part of USGEO
- Surveys U.S. federal civilian agencies every two years about the Earth observation data they need to accomplish their high-priority objectives



SNWG Management Office

The SNWG Management Office at NASA IMPACT is responsible for:

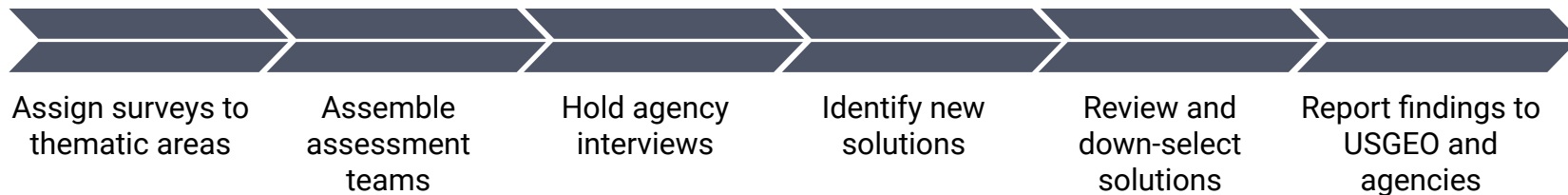
- Managing and coordinating the assessment of agency needs
- Managing the implementation of solutions to meet agency needs



Assessment of Satellite Data Needs

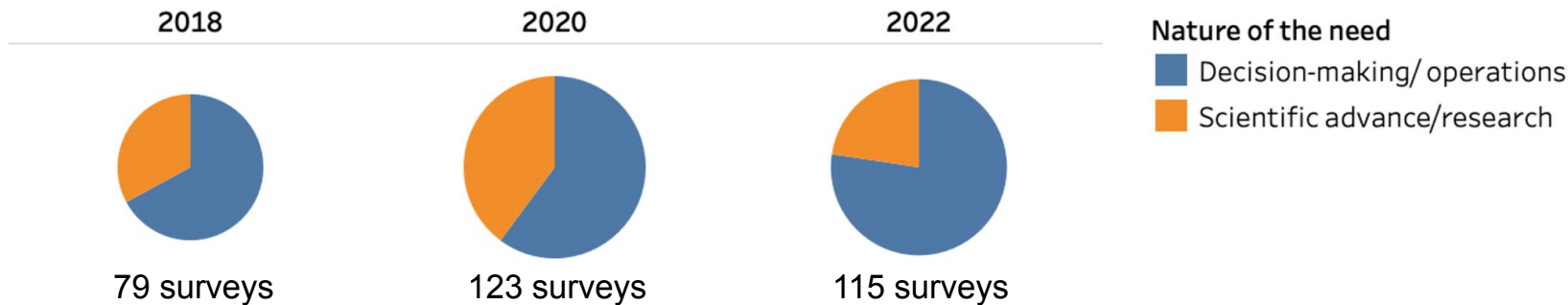
The SNWG assessment is an eight-month process carried out by three agencies that operate Earth-observing satellites: NASA, NOAA, and USGS

- Over 100 scientists participated in the assessment of 2022 SNWG agency needs



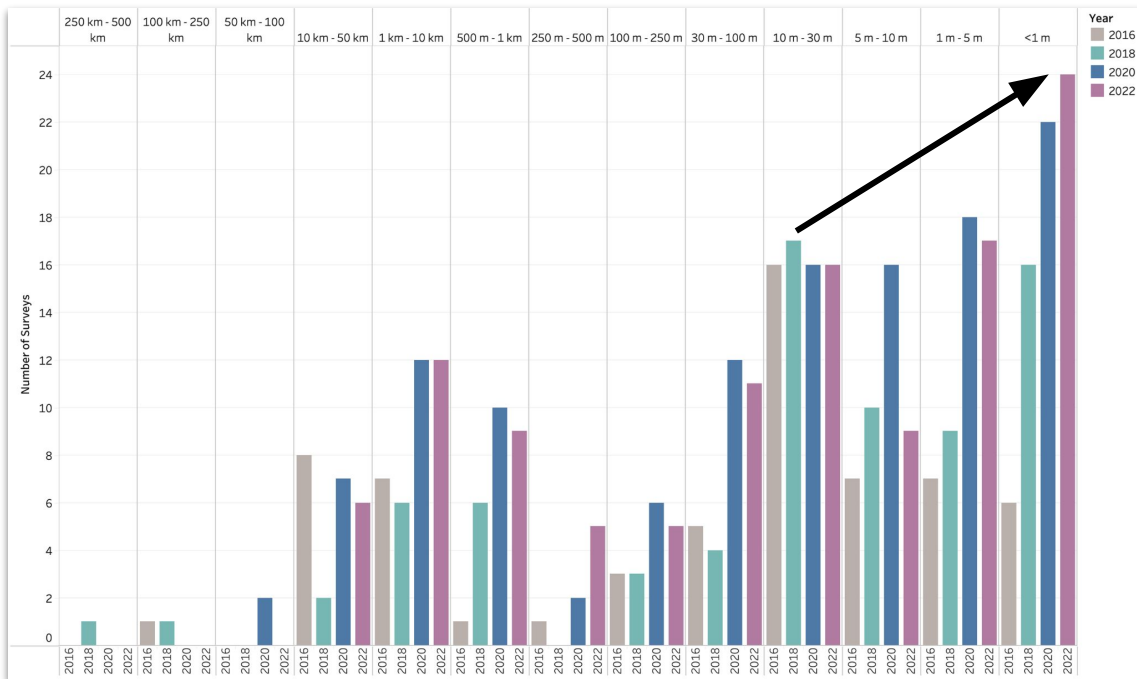
Agency Participation and Requested Observables

- In 2022: NASA assessed 115 surveys submitted by 29 agencies across the Federal government
 - Slight decrease from 2020
- Number of surveys needing to observe infrastructure doubled
- **Trend: More agencies need data for decision-making purposes**



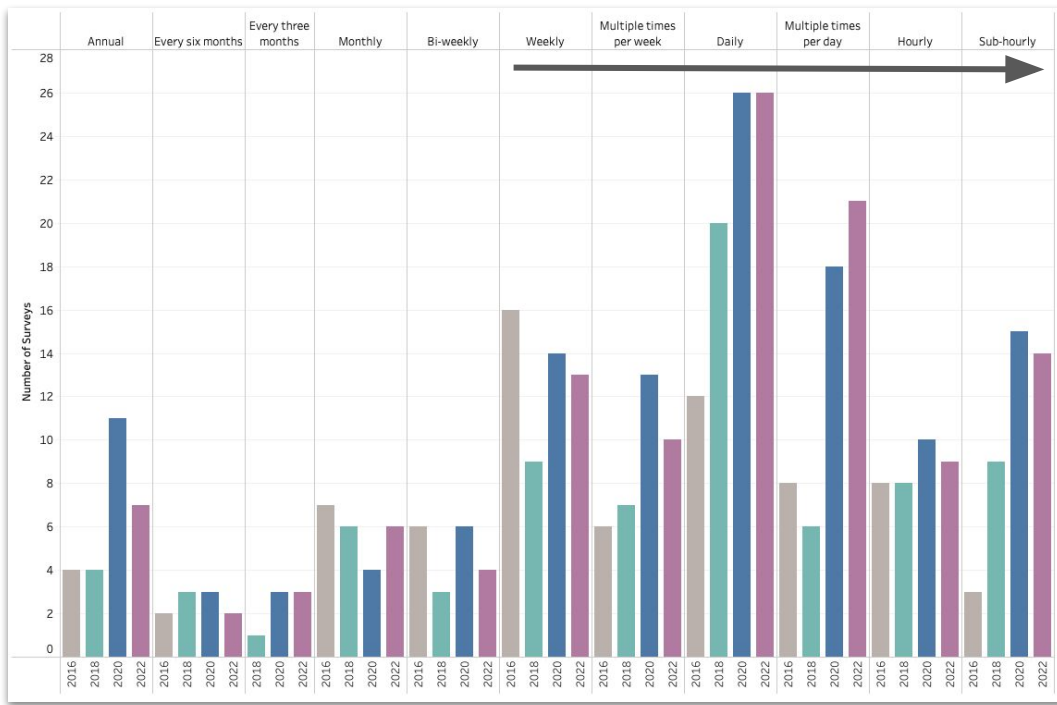
Key Measurement Characteristics (1 of 2)

- Spatial resolution, geographic coverage, and temporal frequency are most important to agencies
- Most surveys (53%) request data for US states and territories; 37% request global data
- **Trend toward increased spatial resolution:** The percentage of <1 m requests has nearly tripled



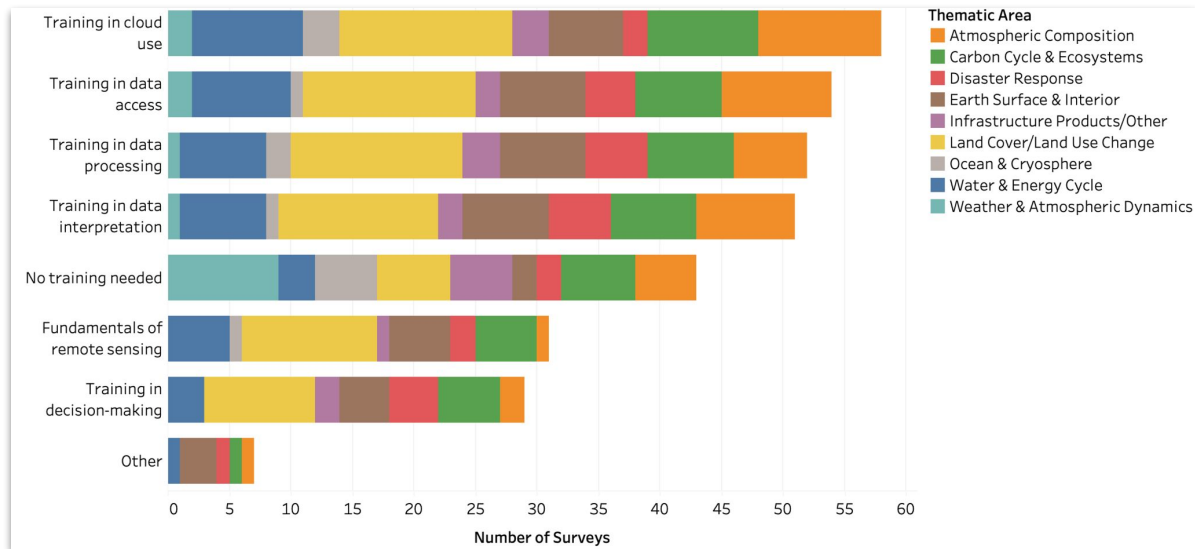
Key Measurement Characteristics (2 of 2)

- **Trend toward more frequent observations:**
Over 50% of responses now seek daily/sub-daily data
- ~27% of responses need data latencies <3 h



Satellites, Data Systems, and Training

- Data handling (data volume and transformation) and need for real-time access are the greatest factors limiting agencies' use of satellite data
- Agencies prefer high-level, gridded, multi-satellite products but can use less processed data
- Trend: Direct download remains the preferred access mechanism, but 79% of responses rank cloud-based mechanisms in their top 3
- **New question on training needs**



2022 Assessment Outcomes

- Over 110 potential solutions (new science activities) identified that would help meet agency needs
- NASA identified six science solutions and four commercial data-related solutions that would best meet the needs of multiple agencies. Science solutions include:
 - Vertical land motion product
 - Low-latency Harmonized Landsat Sentinel-2 (HLS) products
 - TEMPO near real-time SO₂ and enhanced products
 - ARSET remote sensing training
 - Multi-sensor ocean surface winds product
 - Harmful algal bloom (HAB) hotspot product
- **The proposed 2022 solutions are currently awaiting appropriations**

Learn More About SNWG!



SNWG solutions
page on Earthdata

- Background and current status of each solution
- Links to access available data



SNWG Earthdata
search portal

- Direct access to 65 (and counting) datasets related to SNWG solutions



Stakeholder
Engagement
Program webpage

- Training resources and workshop info for SNWG solutions

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Background

Survey

Assessment

Outcomes

Learn More