



National Aeronautics and
Space Administration

NASA Headquarters

Earth Science Data Systems

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A large, circular graphic on the right side of the slide. It features a central image of Earth from space, surrounded by concentric rings. The rings contain various images: a satellite, a desert landscape, a forest, a river, and a close-up of a plant. A white NASA aircraft is flying in the lower right. The text "NASA Earth" is written in large white letters across the center of the graphic.

NASA Earth

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Division Director



Julie Robinson
Deputy Director

ELEMENTS

Earth Science Technology Office



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Associate Director



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Flight Programs



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Earth Science Data Systems



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Earth System Science Research Program



Barry Lefer
Associate Director



Michelle Hawkins
Deputy Associate
Director

Earth Action



Thomas Wagner
Associate Director



**Emily Sylak-
Glassman**
Deputy Associate
Director

Program Overview

The ESDS program resides in the Earth Science Division of the Science Mission Directorate at NASA Headquarters and oversees the entire Earth science data life cycle, facilitating unrestricted access to the data that researchers, managers, and governments need to understand and protect our planet.

<https://earthdata.nasa.gov>



ESDS Operates One of the Largest Open Archives on the Planet

Earthdata

FY25

Highlights



End User Average
Distribution Volume
~800* TB/Day



Total Archive
Volume In Cloud Only
163* PB



End User Distribution
Files incl. From Cloud
7.8 Billion
(4.3B in Cloud)



Total Number of Files
Cataloged (On-Prem
and Cloud)
4.6 Billion



Average Archive
Growth
~180* TB/Day



Distinct Users of EOSDIS
Data & Services
28.6 Million



Total Archive
Volume Including
in Cloud (not inc
duplicate on-prem)
183* PB



Website Sessions
(Google Analytics)
14.9 Million



Unique Datasets
18,755



EOSDIS Customer
Satisfaction Index
Score (2024)
78

Service
Users
**17
Million**

Data & Web
Users
**11.6
Million**

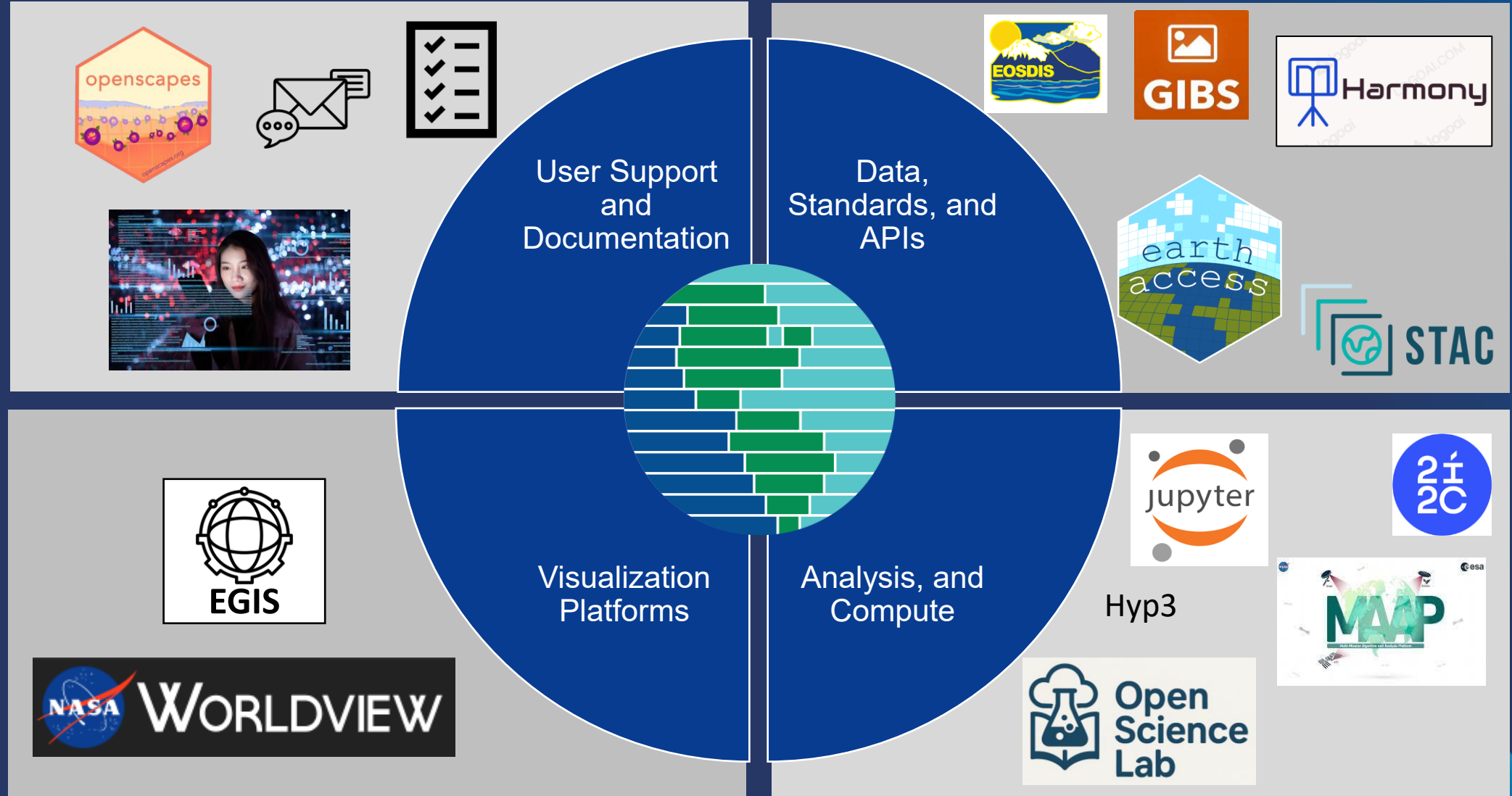
* End of Q3FY26

Goals & Priorities

- **Focus on Core Data Systems mission**
 - Quality and Efficiency
 - Technological Evolution
 - Community Support and Open Science
- **Emphasis on:**
 - Ground-breaking science products
 - Foundational data products used by many different parts of the enterprise from research and modeling to applications
 - Near Real Time (NRT) products
- Consolidation of DAACs from 11 independent locations to thematic **Applications Support and Science Enabling Teams (ASSETs)**
- Structure data systems to support AI/ML and processing innovation
- Coordination with other agencies to sustain and enhance data discovery and utility



Earthdata Capabilities



ESDIS 3.0 Framework – *How?*

Efficient User Centric Focus



Unified Enterprise Framework

- Transition 11 “ESDIS 2.0” DAAC functions into three cross-functional pillars: Data Stewardship, Science Enablement, and Enterprise Services.
- Establish clear councils, teams and working groups to drive collaboration.

Modernized Contracting

- Shifts focus from managing physical infrastructure to driving functional capabilities and measurable performance outcomes.

Applications Support and Science Enabling Teams (ASSETs)

- Serve as the primary user interface, replacing DAAC-specific support. Directly aligned with ESSRP spheres (Atmosphere, Biosphere, Cryosphere, Geosphere, Hydrosphere, and X-ASSET).
- Flexible and scalable to embrace new initiatives, including Earth Action.

Cloud-Native Efficiency

- Eliminates redundant systems across the enterprise.
- Develop tools/processes to lower compute/storage costs and improve global scalability.

Open Science & Interoperability

- Enforces robust, enterprise-wide standards for data and metadata.
- Champions open-source software and community-led development.

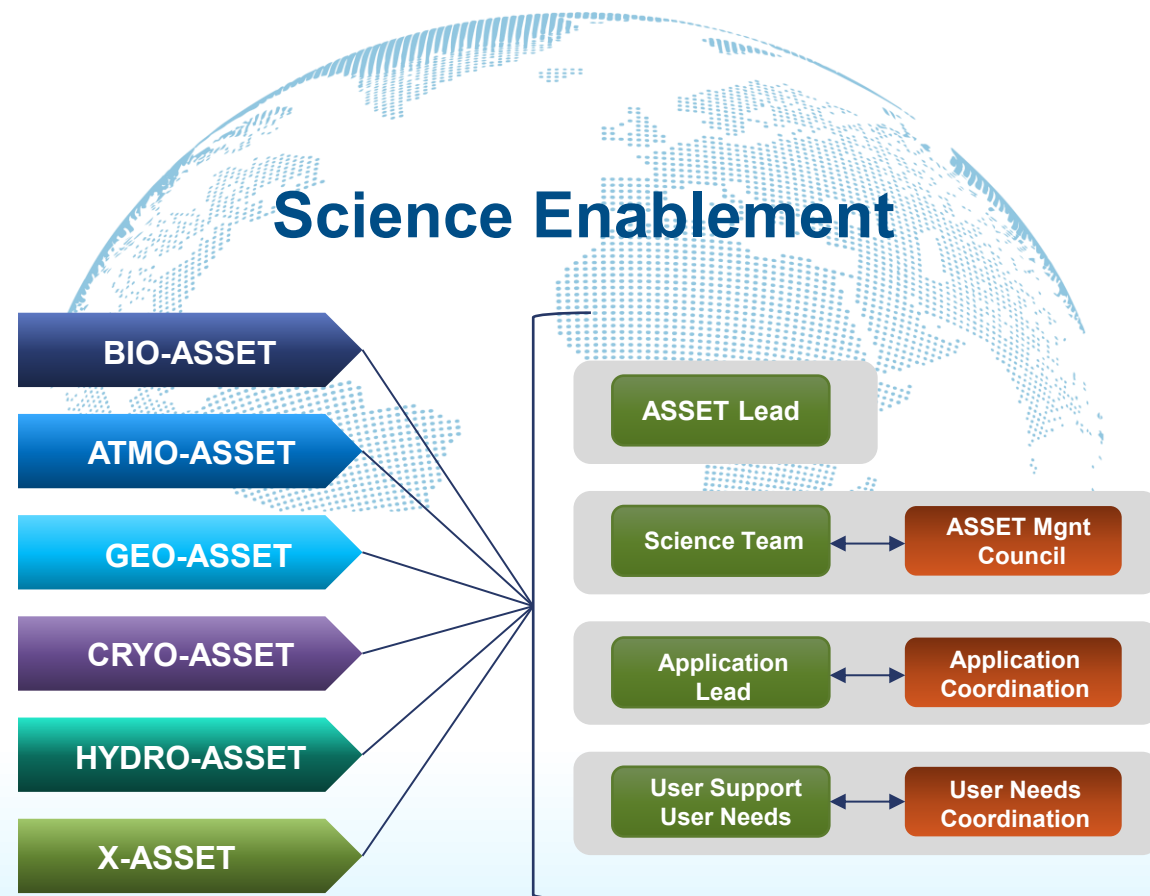
ESDIS 3.0 Organization

Science Enablement

Protects and integrates the deep, domain-specific scientific knowledge formerly housed within individual DAACs into a unified enterprise structure.

- **User Support:** provides domain-specific consultations on data selection, interpretation, and usage
- **External Science Enablement:** develops tutorials, workshops, and guides
- **User Needs Management:** maintains a structured feedback loop
- **Internal Science Support:** evaluate data for quality (especially for ground and airborne data), usability, and standards-alignment

The Science Enablement Team actively empowers users by providing expert guidance, modern cloud-native training, and a powerful voice in shaping the future of NASA's Earthdata tools.



ESDIS 3.0 Summary

The ESDIS 3.0 Reformulation is a strategic restructuring effort to break down organizational and data silos. By eliminating operational duplications and system inconsistencies, we will maximize the utilization of the ESDIS data archive assets for current and future users. This enterprise-level transition will optimize our efficiency and agility while strictly preserving the specialized expertise and capabilities our scientific community relies on.

Throughout the ESDIS 3.0 implementation, open communication is highly encouraged. If you have unresolved concerns or feel your feedback is not being heard, please reach out to:

- Chris Durachka, ESDIS Project Manager: Chris.Durachka@nasa.gov
- Dana Ostrenga, ESDIS 3.0 Implementation Ombudsman: Dana.Ostrenga@nasa.gov

Get started at **earthdata.nasa.gov**

See which Data Tool Is Right for You:
earthdata.nasa.gov/data/tools/which-data-tool-right-for-you

Post questions and engage with the
Earthdata Community:
forum.earthdata.nasa.gov/

Track our Data Alerts and Outages:
earthdata.nasa.gov/data/alerts-outages

