



## 2026–2027 Strategic Implementation Team (SIT) Chair Priorities

### Executive Summary

In its role as SIT Chair for the 2026–2027 term, the United States National Aeronautics and Space Administration (NASA) has established two interconnected priorities that unite CEOS collective capabilities to optimize societal benefit and inform decision making. Priority 1 focuses on strengthening Earth observation capabilities for water-related challenges, while Priority 2 emphasizes enhancing data interoperability and community-focused resilience solutions. These priorities work in concert to deliver coordinated observations, accessible data products, and actionable information that supports both water management and community resilience at global, regional, and local scales.

The NASA SIT Chair team remains committed to working closely with the 2026 CEOS Chair, Team Australia, to ensure alignment on CEOS governance, stakeholder engagement, and the advancement of Working Group (WG) and Virtual Constellation (VC) deliverables.

### Deliverables

#### Priority 1: Water Planet - Seeing Earth's Water from Space

1. Guidance on integrating multiplatform, multispectral data for enhanced water variables and decision-support solutions
2. Water thematic section contribution to the updated CEOS-ARD strategy
3. Stakeholder engagement and outreach programming like the Water Quality Workshop (2026, co-led with CEOS Chair)
4. Use Cases illustrating socio-economic benefits and useability of satellite-based water solutions

#### Priority 2: Connected Data for Community Resilience

1. Impact Assessment of current resilience-related activities, identifying lessons learned
2. Interoperability Demonstrator developed in collaboration with WGISS and other partners
3. Updated Data Value Chain to reflect modern CEOS functions and collaborations
4. Resilience Data Partner Workshop featuring practical demonstrations and feedback from stakeholder
5. Comprehensive Resilience Findings Report guiding scaling efforts for resilience applications

### Call for Collaboration

The CEOS SIT Chair invites CEOS member agencies and WG/VC partners to contribute to advancing these two priorities. We welcome input on relevant ongoing activities within CEOS entities, members, and associate members, that would contribute to these priority deliverables. We also encourage you to identify expert points of contact who may wish to participate or inform this work. By partnering to produce meaningful outputs, CEOS will optimize user-driven solutions, improve interoperability across datasets, and demonstrate the socio-economic impacts of Earth observations in addressing global challenges.

Please reach out to [nasa-sit-chair-2026-27@googlegroups.com](mailto:nasa-sit-chair-2026-27@googlegroups.com) with a brief note on a related activity and/or point(s) of contact interested in further discussion.



## Priority 1: Water Planet - Seeing Earth's Water from Space

### Strategic Context

Water is essential to life on Earth, yet global water resources face increasing pressures due to growing demands and heightened exposure to water-related extremes, such as droughts and floods. Innovative solutions are required to ensure a sustainable future and satellite observations play a critical role in advancing our understanding of the water cycle, monitoring changes over time, and addressing challenges in water availability, accessibility, and quality. The Water Planet priority leverages the capabilities of past, present, and future planned missions alongside collaborative efforts within CEOS to deliver tailored water data solutions globally. By integrating multiplatform, multispectral data, and user-driven approaches, CEOS offers valuable assets and collective strength to support research, inform water management decisions, and enhance preparedness for water-related hazards.

### Key Outcomes

#### Outcome 1: Coordinated Water Observations

This outcome focuses on strengthening coordination within CEOS to deliver integrated water data products that leverage multiple observation platforms. The initiative includes coordinating gap analyses of water variables and performing adequacy assessments of in-situ networks and calibration/validation infrastructure. A critical component involves collecting specific data needs and requirements for water science and applications while developing guidelines on integrating multiplatform and multispectral (optical and SAR) data to derive enhanced water variables.

#### Outcome 2: Accessible & Interoperable Water Data Products

The second outcome advances CEOS Analysis Ready Data (ARD) capabilities specifically for water applications while enhancing interoperability of multisource integrated water products. This work involves close collaboration with established partners including OpenET, AquaWatch, and GEOGLOWS to understand applications needs of water community to develop higher-level analysis ready products that address water scarcity, quality degradation, and hazard-related challenges across varied user communities.

#### Outcome 3: User-Centered Solutions for Water Challenges

This outcome emphasizes co-developing tailored solutions with users and stakeholders using Earth observation data to address pressing water challenges including water scarcity, degraded inland and coastal water quality, and related hazards. The initiative aligns and promotes EO-driven tools such as early warning and forecasting systems for droughts, floods, declining groundwater, reduced streamflow, and degraded water quality. Engagement and outreach programming are provided through activities including a Water Quality Workshop in 2026, while guidance is developed showcasing how enhanced EO-derived water variables can inform water resources management.

#### Outcome 4: Assessment of Socio-Economic Benefits

The last outcome demonstrates the socio-economic impact of Earth observation data and collaboration by leveraging CEOS activities to assess and showcase tangible benefits. This includes conducting preliminary impact assessments of CEOS water and resilience activities in collaboration with Priority 2, evaluating sector-specific benefits across agriculture, resource management, industry, fisheries, and ecosystems, and developing use cases that highlight the application of EO water data in community-resilience activities.



## Priority 2: Connected Data for Community Resilience

### Strategic Context

CEOS operates across a comprehensive data-driven value chain, from observations to measurable impact. However, increasing extreme weather events and disasters demand enhanced support for community resilience, while growing data volume, variety, and complexity require improved coordination and data fusion capabilities. In response, CEOS is advancing existing capabilities to provide actionable information that supports community-level resilience through enhanced cross-collaboration and interoperability efforts.

### Key Outcomes

#### Outcome 1: Enhanced Cross-CEOS Collaboration

This outcome seeks to leverage existing CEOS expertise to facilitate collaboration across CEOS Working Groups and Virtual Constellations. The initiative leads the delivery of connected data for community resilience products, including impact assessments of existing activities, an analysis of the existing CEOS value chain to include findings and opportunities to optimize co-development approaches, and interoperability demonstrators. A Connected Data for Community Resilience team will focus on cross-collaboration to maximize the impact of CEOS assets in supporting resilience-building efforts.

#### Outcome 2: Impact Assessment and User Requirements

The second outcome conducts comprehensive impact assessments of key existing resilience-related activities, incorporating input from both CEOS members and CEOS partners. This work identifies opportunities for further demonstrations and enhanced data interoperability, working closely with the Priority 1 team to ensure complementary approaches to water and resilience challenges.

#### Outcome 3: Enhanced Interoperability Efforts

This outcome supports ongoing CEOS Interoperability Framework implementation, utilizing the framework's six factors (Vocabulary, Architecture, Interface, Quality, Policy) to unite relevant CEOS efforts related to interoperability. The work contributes to the CEOS-ARD Strategy 2026 with resilience-related components and supports ongoing civil/commercial space calibration/validation and data quality standards collaboration. A key deliverable includes working with WGISS and partners to identify and deliver a Resilience Interoperability Demonstrator.

#### Outcome 4: Actionable Information Delivery

The last outcome improves capabilities to deliver actionable information built on resilience community input. This includes hosting workshops with key resilience data partners to demonstrate existing activities and inform resilience findings. The objective produces a comprehensive Resilience Findings deliverable to guide efforts in scaling resilience-focused applications based on impact assessments, workshop outcomes, and demonstrator results.



## Timeline

### 2026 Activities and Milestones

Both priorities initiate with team formation and strategic planning. Priority 1 begins gap analyses of water variables and adequacy assessments of infrastructure. Priority 1 composes guidelines for integrating multiplatform, multispectral water variable data for science and decision-support solutions. Priority 2 launches impact assessments of existing resilience activities and delivers the Interoperability Demonstrator. Stakeholder engagement and outreach efforts commence for both priorities, including co-hosting a Water Quality Workshop with the CEOS Chair (Priority 1), and planning a Resilience Data Partner Workshop (Priority 2). Both priorities contribute to the updated CEOS-ARD Strategy 2026 with their respective thematic components.

### 2027 Activities and Completion

Priority 1 finishes guidelines for integrating multiplatform and multispectral data for enhanced water variable derivation and actionable water solutions and delivers comprehensive use cases demonstrating socio-economic benefits. Priority 2 produces the final Resilience Findings report, hosts a Resilience Data Partner Workshop, and establishes frameworks for scaling resilience-focused applications based on collaborative assessments and demonstrations.