

MINUTES v1.0

CEOS SIT-41 Meeting

15-16 April 2026

Executive Summary

1. CEOS leadership is working with the CEOS Executive Officer to clarify the approaches for documentation and requests to be presented to CEOS Principals, with a draft presented at SIT-41. The CEOS Governance and Processes document will be revised to incorporate the proposal, and presented for endorsement at the 2026 CEOS Plenary.
2. The Systems Engineering Office has drafted a Digital Object Identifier (DOI) Process Paper to define the CEOS DOI assignment process, roles and responsibilities, utilising the Zenodo platform. The paper aims to align with the Executive Officer's revision to the Governance and Processes document, and is also intended for endorsement at the 2026 CEOS Plenary.
3. The 2026-2028 CEOS Work Plan was virtually endorsed by CEOS Principals on 2 April 2026.
4. The 2026 CEOS-ARD Strategy is built on six pillars underpinned by the CEOS Interoperability Handbook, and will be refined with the community over the coming months, before being presented for endorsement at the 2026 CEOS Plenary. Feedback from CEOS Agencies was requested.
5. WGISS is developing an Interoperability Maturity Matrix – an assessment and planning tool to help users evaluate how organisations are implementing the recommendations of the CEOS Interoperability Handbook, and is applicable to all data and services which have the potential to be integrated, exchanged or shared.
6. WGISS will develop five Interoperability Demonstrators over the next two years, including collaborations with WGCV, the SIT Chair Team, SEO, WGDisasters, COAST-VC and WGClimate. This includes alignment with the SIT Chair activity which aims to understand whether CEOS data sources provisioned by the WGDisasters Data Coordination Team (DCT) are CEOS-ARD compliant, and whether the data and provision mechanisms observe the recommendations of the Interoperability Handbook.
7. The SIT Chair Team is developing a new CEOS Value Chain, aiming to strengthen internal organisational resilience, understand where new activities align, understand gaps and roles where commercial engagement could be increased or improved, and increase documentation of downstream impacts.
8. The CEOS Chair Resilience activity will prepare information products to support CEOS Principals in strategically considering the role CEOS is playing, and can play, in supporting societal adaptation and resilience in the face of environmental change. Two products will be produced: an external-facing product (the 2026 Earth Observation Handbook), and an internal-looking product (tentatively titled *CEOS Support for Adaptation and Resilience in a Changing Global Context*).
9. The 2026 EO Handbook on adaptation and resilience is in development, and will be published in print and online. It will explain the ways in which EO data provides value for adaptation and resilience, including a collection of global case studies.
10. The CEOS Biodiversity Virtual Constellation (B-VC) was established, with the overall objective to *“advance biodiversity understanding, monitoring, and applications for the benefit of society by strengthening the community’s use of space-based Earth observations and data products.”* B-VC will be led by CSA, ESA and NASA. Agencies are asked to nominate members to the new B-VC.
11. The SEO established a CEOS Organisational GitHub as a means for CEOS to collaborate on projects, develop software, tools and documentation. SIT-41 endorsed the CEOS GitHub Governance Repository.
12. CEOS Communications continues to improve, with strong engagement on LinkedIn. SIT-41 endorsed the 2026-2027 CEOS Communications Strategy.
13. The International Coordination Group for Spaceborne Synthetic Aperture Radar (ICGS-SAR) was created in 2018 to promote closer coordination and collaboration for SAR missions and enhance the overall utility of current and planned systems. There were multiple benefits identified for incorporating this group into the CEOS organisation as a Virtual Constellation. ICGS-SAR presented an Initial Proposal for a CEOS Synthetic Aperture Radar Virtual Constellation (SAR-VC), and a Full Proposal will be presented to the 2026 CEOS Plenary.

14. The CEOS Chair Team and SIT Chair Team co-hosted the first CEOS Water Quality Workshop on Monday, 13 April 2026. The workshop recognised the complexity of the catchment-to-coast paradigm, and the importance of interoperability, cooperation and inclusive partnerships. The second workshop in the series will be held alongside SIT Technical Workshop in September 2026, followed by the development of a white paper summarising the workshop findings.
15. The SIT Chair priority *Water Planet - Seeing Earth's Water from Space* aims to advance understanding of Earth's water cycle by monitoring terrestrial waters, coastal regions, and oceans from space and transform this knowledge into actionable insights. This includes activities on integrating multiplatform and multispectral data, CEOS-ARD for water applications, and providing water related inputs to the SIT Chair's impact assessment.
16. The CEOS Aquatic Carbon Roadmap completes CEOS coverage of the carbon cycle. A draft was presented to SIT-41, with a final version to be presented to the 2026 CEOS Plenary.
17. The GHG Task Team is working to improve science on atmospheric fluxes over the Southern Ocean. Agencies are asked to support these efforts by enabling the placement of sensors at relevant validation sites.
18. The newly established LSI-VC Wildfire subgroup will provide a venue to support coordination between agencies producing EO data used to generate wildfire monitoring products and the downstream community. It seeks to enhance reliability and support wildfire management with current and future satellite missions. This is supported by the [CEOS Wildfire Portal](#).
19. New WGDIsasters demonstrator projects began in March 2026 focused on landslides, drought, biodiversity, wildfire preparedness, and interoperability.
20. The LSI-VC Agriculture subgroup is conducting a stocktake of EO and CEOS Agency support to the Essential Agriculture Variables (EAVs), which has been implemented for five variables. CEOS input is required to complete the stocktake for the first five EAVs, ensuring that all missions, products and tools are represented.
21. The Virtual Constellations are each continuing to progress in their activities, with a harmonised report delivered by the SIT Chair Team showcasing mission timelines for each constellation. There are varying levels of engagement with the commercial sector across the Virtual Constellations, and the SIT Chair Team will coordinate a discussion around barriers and opportunities to help inform future engagement.
22. SIT-41 endorsed the WGCV Land Product Validation (LPV) Subgroup Land Cover and Change Map Accuracy Assessment and Area Estimation Good Practices Protocol.
23. The CEOS AFOLU Roadmap includes 48 actions across 8 recommendation areas. CEOS Agencies are asked to reflect on how their activities link to each of the action areas so that they can be documented and promoted via a new CEOS AFOLU Portal.
24. AC-VC is developing a paper titled *Expanding the Geostationary Atmospheric Composition Constellation: Toward Global Coverage*, which identifies five new geostationary missions required to fill gaps in observing diurnal cycles, rapidly changing events, and specific pollutants in the southern hemisphere and populated northern hemisphere regions. The final document will be presented at the 2026 CEOS Plenary.
25. WGCapD is coordinating with WGClimate, WGDIsasters and B-VC to address domain-specific capacity building needs. EOTEC DevNet also continues to expand, with over 2200 individuals connected.
26. NOSA will take on the role of CEOS Chair for 2027, under the headline theme "*Trusted Satellite Data for a Better Future*".
27. The SIT Technical Workshop 2026 will be held 8-10 September 2026 in Washington DC, USA. The event will be followed by the second Water Quality Workshop on Friday, 11 September 2026.
28. The 2026 CEOS Plenary will be held on 3-6 November 2026 in Hobart, Tasmania, Australia.

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Wednesday April 15th

Session 1: Welcome and Core Business

1.1: Welcome and Opening Remarks

Julie Robinson (NASA, SIT Chair Team) [[presentation](#)] welcomed everyone to Irvine, California, USA for the 41st CEOS Strategic Implementation Team (SIT) meeting. Karen St. Germain (NASA, SIT Chair) sends her apologies, as she is attending Space Symposium this week. CEOS Principals were invited to introduce members of their delegation attending SIT-40. The full list of participants can be found in Appendix A.

1.2: Welcome from our host

Dr. T Arul Mozhi, Aeronautics and Space Engineering Board, NASEM, welcomed all to the Beckman Center of the National Academies of Science, Engineering and Medicine (NASEM). NASEM is delighted to host the SIT and SIT Technical Workshop meetings over the next two years, at both the Beckman Center and at their facility in Washington DC. An Act of Congress signed by President Lincoln in 1863 established NASEM as a non-profit organisation aiming to unite the societies of science, engineering and medicine. NASEM delivers credible independent guidance and consultations for investments, regulations, and community initiatives. The organisation is preparing to undertake the decadal survey on Earth Sciences.

1.3: SIT-41 Objectives

Julie Robinson (NASA, SIT Chair Team) [[presentation](#)] reviewed the objectives and decisional items for SIT-41, which will address organisation matters, the SIT Chair priorities, CEOS Chair priorities, and Working Group and Virtual Constellation topics.

1.4: Review of 2025 CEOS Plenary Actions

Presenter: Matt Steventon (CEOS Chair Team) [[presentation](#)]

Main points:

- Updates were provided on the following actions:
 - o **CEOS-39-10**: Following the 2025 Plenary's request for WGClimate to develop a proposal for the UNFCCC Tiger Team's continuity, a decision was taken at WGClimate-24 (9-13 February 2026; Harwell, UK) to incorporate the team into the regular activities of WGClimate.
 - o **CEOS-39-24**: One expression of interest for the 2028 CEOS Chair role has been received, and the CEOS Chair team is working with the agency to prepare the official nomination.

Discussion

- Jonathon Ross (Geoscience Australia, CEOS Chair Team) suggested refining the decision to clarify that WGClimate is the primary point of contact for CEOS engagement with UNFCCC.
- Marie-Claire Greening (ESA) noted that WGClimate is a joint working group with CGMS.
- Paul Counet (EUMETSAT) confirmed the role of the joint WGClimate in interfacing with UNFCCC is well recognised and that there is no issue from CGMS to continue as proposed.
- Mark Dowell (European Commission) noted via chat: *From a WGClimate perspective, I think that Jonathon's suggestion makes sense, and that the interface to UNFCCC Secretariat through WGClimate should serve the broader interests of CEOS and CGMS.*

1.5: CEOS Document Status and Handling Framework

Presenter: Jonathon Ross (Geoscience Australia, CEOS Chair Team) and Lefteris Mamais (CEOS Executive Officer) [[presentation](#)]

Main points:

- Led by the CEOS Executive Officer Team, the CEOS Decision Types clarification activity began following CEOS Plenary Action 39-02, which asked for a revision of the CEOS Governance and Processes document to clarify the approaches for documentation and requests to be presented to Principals at CEOS leadership meetings. The draft document was presented to SIT-41.
- A near final draft of changes to the CEOS Governing Documents will be presented at the 2026 SIT Technical Workshop, for adoption at the 2026 Plenary.

SIT-41-01	CEOS Agencies to provide feedback on the CEOS document status and handling framework .	15 May 2026
	<i>Rationale: The document clarifies the different approaches for presenting documents and decisions to CEOS leadership (Principals) and how these are managed afterwards. The document will be integrated into the CEOS Governance and Processes document. A next to final draft will be presented at the 2026 SIT Technical Workshop and be finalised for endorsement at the 2026 CEOS Plenary.</i>	

1.6: CEOS Digital Object Identifier (DOI) Process Paper

Presenter: Dave Borges (NASA, SEO) [[presentation](#)]

Main points:

- Following multiple requests from CEOS entities to assign Digital Object Identifiers (DOIs) to CEOS documents, the SEO is developing a CEOS DOI Process Paper that defines the DOI assignment process, roles and responsibilities utilising the Zenodo platform.
- The draft document was presented to SIT-41 for feedback on its approach, scope and governance alignment. The final document is planned for endorsement at the 2026 Plenary.

SIT-41-02	SEO to prepare a near final draft of the DOI Process Paper for discussion at the 2026 SIT Technical Workshop, with a view to endorsement at the 2026 CEOS Plenary.	SIT TW 2026
	<i>Rationale: The document clarifies the technical and governance process for CEOS documentation to receive a DOI. A next to final draft will be presented at the 2026 SIT Technical Workshop and be finalised for endorsement at the 2026 CEOS Plenary.</i>	

Discussion

- Alex Held (CSIRO, CEOS Chair) recognised the value of DOIs in enabling professional advancement of CEOS material, and asked whether CEOS will be able to provide DOIs for datasets as well.
- David Borges (NASA, SEO) noted that some preliminary conversations have been held on this topic, but initially the scope will be limited to documents. If there is interest, the SEO can look to expand the scheme.

- Following a question from Patrick Gibson (UKSA), David confirmed that there will be retroactive assignment of DOIs for previously endorsed documents, which will be based on the list of documents on the publications page on the CEOS website.
- Mark Dowell (European Commission) suggested that public statements (referenced in the flow chart on acknowledgement vs endorsement) do not likely need a DOI.
- Jonathon Ross (Geoscience Australia, CEOS Chair Team) recognised that some documents may be split into two parts - a shorter part for endorsement, and a longer part with background information for acknowledgement. Authors can work with the Executive Officer to decide what warrants review and acceptance by Principals (endorsement), and what can be accepted by Principals but not requiring extensive review (acknowledgement).

1.7: CEOS 2026-2028 Work Plan

Presenter: Lfteris Mamais (CEOS Executive Officer) [[presentation](#)]

Main points:

- The CEOS Executive Officer Team manages the annual update of the 3-year CEOS Work Plan and the definition and monitoring of deliverables it informs. The CEOS Work Plan is updated by all CEOS entities every year and put forward for virtual endorsement ahead of the SIT meeting in March/April.
- The CEOS 2026-2028 Work Plan includes a new structure for CEOS leadership and themes, as well as some reorganisation to the chapters on observations for climate and water.
- The overall status of the CEOS deliverables were presented, with the majority completed on time or on track for completion.
- The Work Plan was virtually endorsed by CEOS Principals on 2 April 2026.

Discussion

- NASA, NOSA, and Geoscience Australia acknowledged the CEOS Executive Officer Team's effort and thanked them for their thoughtfulness and attention to detail.

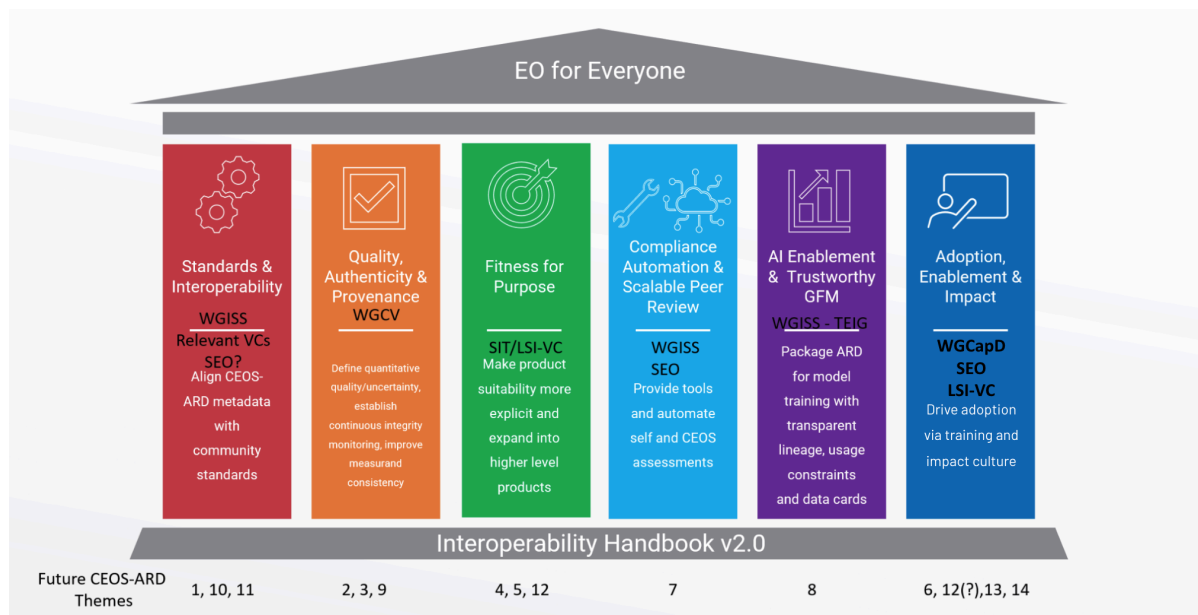
Session 2: Connected Data for Community Resilience

2.1: 2026 CEOS Analysis Ready Data (CEOS-ARD) Strategy

Presenter: Ferran Gascon (ESA, CEOS-ARD Oversight Group Lead) [[presentation](#)]

Main points:

- In 2025, CEOS-ARD undertook a community engagement campaign and survey to understand the evolving needs of data providers, users, and stakeholders. The 111 survey respondents identified areas to develop further in the 2026 CEOS-ARD Strategy.
- The 2026 CEOS-ARD Strategy is built on six pillars underpinned by the CEOS Interoperability Handbook: standards and interoperability; quality, authenticity and provenance; fitness for purpose; compliance automation and scalable peer review; AI enablement and trustworthy geospatial foundation models (GFMs); adoption, enablement and impact.
- The high-level draft of the strategy was presented to CEOS Principals at SIT-41 for feedback on its strategic direction and pillars. The final strategy will be presented to the 2026 CEOS Plenary for endorsement.



CEOS ARD Strategy Pillars

Discussion

- Jonathon Ross (Geoscience Australia, CEOS Chair Team) commended the team on the practical demonstration of CEOS promoting complementarity between both government and commercial sectors. Providing a foundation for trust in the information products derived from this data underpins the reputation of EO, particularly in the age of AI.
- Darcee Killpack (USGS) highlighted the value of a trusted, interoperable and scalable gold standard, particularly with a focus on AI enablement and readiness. Need to connect with and ensure alignment with geospatial standards like OGC and ISO.
- John Remedios (UKSA) suggested that the AI pillar needs careful definition of the action. Overall fitness for purpose is also important, to ensure CEOS-ARD products provide the right level of guidance for people using the data.
- Ferran Gascon (ESA, CEOS-ARD Oversight Group Lead) recognised a key element of the strategy is the link with users and fitness for purpose. The links to data services are not explicitly referred to in the document, and should be reinforced.
- Christian Hauglie-Hanssen (NOSA) commended the work and stressed the need for the pillars to align with space agency priorities.
- Dave Borges (SEO) noted that CEOS has had varying levels of success engaging with OGC and ISO. ISO is particularly tricky given membership and voting rights are at a national level, and space agencies can only serve as experts that inform how their national standards body may vote. CEOS Agencies should ensure sufficient voting rights and influence over ARD standards, to avoid a competing ARD standard appearing that is not aligned with CEOS-ARD work.
- Mark Dowell (European Commission) noted via chat: “... I agree that the Fitness for Purpose pillar may need a bit more thought on how to make it actionable, and the relevance to the higher level product traceability highlighted in the 2025 future priorities paper.”

SIT-41-03	CEOS Agencies to provide feedback on the draft 2026 CEOS-ARD Strategy .	31 May 2026
	<i>Rationale: The Strategy is organised around six high-level pillars that are intended to remain in place for a number of years. The identification of an initial set of initiatives</i>	

and tasks that will achieve the strategic outcomes of these pillars will take place between SIT-41 and the 2026 SIT Technical Workshop. To facilitate these technical discussions, CEOS Agencies are asked to confirm the pillars in the Strategy are the correct strategic directions and consider:

- Are they actionable enough?
- How do the pillars align with national / space agency priorities?
- What can agencies and CEOS entities offer to develop and implement them?

2.2: WGISS Interoperability Maturity Matrix

Presenter: Mirko Albani (ESA, WGISS) [[presentation](#)]

Main points:

- The CEOS Interoperability Handbook provides guidance to organisations for developing interoperable data and services, facilitating common understanding and collaboration between stakeholders and users.
- The Handbook contains five factors: Vocabulary (Semantics), Architecture, Interface (Accessibility), Quality, and Policy - delivering a total of 76 recommendations.
- The WGISS Interoperability Maturity Matrix is an assessment and planning tool to help users evaluate how organisations are implementing the recommendations, and is applicable to all data and services which have the potential to be integrated, exchanged or shared.
- The development of the maturity matrix began within WGISS at the start of 2026 and is planned to be finalised by September 2026.

Discussion

- Jonathon Ross (Geoscience Australia, CEOS Chair Team) recognised the critical work led by WGISS on interoperability, which is supporting the development of the 2026 CEOS-ARD Strategy.

2.3: WGISS Interoperability Demonstrators

Presenter: Nitant Dube (ISRO, WGISS Chair) [[presentation](#)]

Main points:

- The WGISS Interoperability Demonstrators aim to demonstrate how the recommendations of the CEOS Interoperability Handbook can help improve the interoperability of data and services, how the Handbook itself can be improved, and identify gaps in CEOS-ARD and CEOS vocabulary.
- The success criteria include assessing against the Interoperability Maturity Matrix (for data and service providers), or the ability to access data and services from multiple sources and generate homogenous analyses (for end users).
- Demonstrators will be developed through Jupyter Notebooks hosted in GitHub, and summarised in best practices and technical notes.
- There are five proposed interoperability demonstrators which will be developed over the next two years, including collaborations with WGCV, SIT Chair Team, SEO, WGDisasters, COAST-VC and WGClimate.

Discussion

- Jonathon Ross (Geoscience Australia, CEOS Chair Team) commended the work in collaborating across CEOS groups. Interoperability is core to CEOS, and increasingly urgent to improve data resilience and ensure product continuity in the face of policy changes or mission failures.

Regarding ‘decision ready data’, CEOS also needs to consider how far to go down the processing chain to support this need.

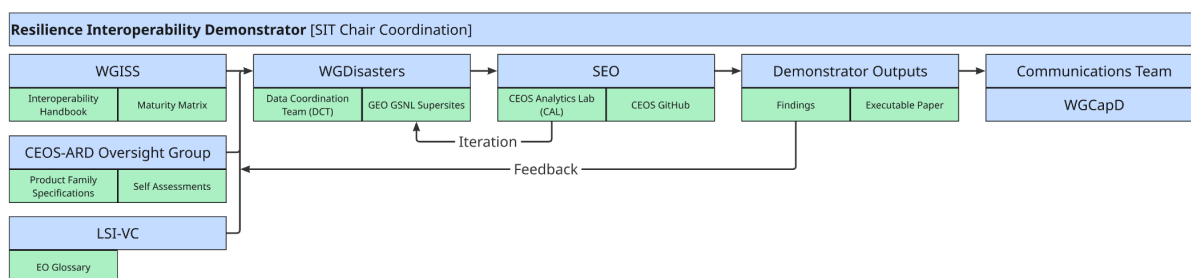
SIT-41-04	CEOS-ARD Oversight Group to engage WGISS on the concept of ‘decision ready data’ to ensure alignment with the CEOS-ARD Framework.	2026 SIT TW
	<p><i>Rationale: CEOS-ARD was defined to provide clarity on the meaning of ‘analysis-ready’. With the emergence of the phrase ‘decision ready data’, there is a need to clearly define this and how it differs from / aligns with CEOS-ARD.</i></p> <ul style="list-style-type: none"> • <i>Is there a way to incorporate this concept under the CEOS-ARD Framework to prevent divergence?</i> • <i>Should the term ‘decision ready data’ be phased out in favour of ‘decision ready information’?</i> • <i>What should CEOS do in relation to the definition and provision of decision-ready information and who do we need to partner with?</i> • <i>How does CEOS-ARD interface with this concept and support the derivation of decision-ready information?</i> • <i>How does this align with the CEOS-ARD Framework concept of higher level / derived products and specifications.</i> 	

2.4: CEOS Analytics Lab Resilience Interoperability Demonstrator

Presenter: Dave Borges (NASA, SEO) [[presentation](#)]

Main points:

- The SIT Chair Team has committed to developing an interoperability demonstrator under their second priority, aiming to understand whether CEOS data sources provisioned by the WGDisasters Data Coordination Team (DCT) are CEOS-ARD compliant, and whether the data and provision mechanisms observe the recommendations of the Interoperability Handbook.
- CEOS Analytics Laboratory (CAL) will be used to create an artificial supersite processing environment, to demonstrate what tangible benefits the GNSL community could realise if the stated objectives were realised.



Discussion

- Antonio Montuori (ASI, WGDisasters Vice Chair) noted via chat: “ ... WGDisasters and GSNL have identified 2 Supersites for Interoperability Demonstrator, i.e. Hawaii and Etna Supersites as potential contributors for the initiative. We will continue interactions offline with GSNL Coordinator and DCT also to check ARD compliances.”

2.5: CEOS Value Chain

Presenter: Dave Borges (NASA, SEO) [[presentation](#)]

Main points:

- SIT Chair Priority 2 also includes the Value Chain activity, which aims to strengthen internal organisational resilience, understand where new activities (biodiversity, wildfire, etc.) align, understand gaps and roles where commercial engagement could be increased or improved, and realise and increase capture of downstream impact.
- Value chains can take a number of forms, including more complex forms such as networks. There have been a variety of examples produced, both for CEOS specifically and for the wider EO sector, which attempt to explain the process from data to information. However, they have become out of date, and are missing the emphasis on impact.
- Over the next six months, the SIT Chair Team will conduct interviews with the CEOS Community to develop a series of recommendations and visual products.

Discussion

- Jonathon Ross (Geoscience Australia, CEOS Chair Team) noted it is important to identify the critical partnerships along the chain, including the current level of engagement. The Group on Earth Observation (GEO) used to support this aspect, but now CEOS often engages directly.
- Peter Strobl (European Commission) suggested mapping the elements of the Interoperability Handbook onto the value chain would allow for a better understanding of issues regarding interoperability at each point on the value chain.
- Mark Dowell (European Commission) noted via chat: *"It was exactly this, motivated through the work we do on value chain traceability in the KCEO, that led us to develop the KCEO Glossary which has now transitioned to the CEOS Glossary."*
- Dave Borges (SEO) noted via chat: *"I neglected to mention discussion yesterday where we all agreed all terminology used in an updated CEOS value chain should be defined, and added to our EO Glossary. So fully agree, Mark."*

	<p>CEOS Agencies to nominate points of contact to contribute to the SIT Chair's Data Value Chain activity, by emailing nasa-sit-chair-2026-27@googlegroups.com.</p>	<p>31 May 2026</p>
<p>SIT-41-05</p>	<p><i>Rationale: SIT-41 began conversations on updating the existing CEOS Data Value Chain to fit the needs and purposes of the CEOS Agencies and represent CEOS partners/impact areas. The POCs will help develop a new Data Value Chain for presentation at the 2026 SIT Technical Workshop.</i></p>	

2.6: Impact Assessment

Presenter: Ayia Lindquist (NASA, SIT Chair Team) [[presentation](#)]

Main points:

- The goal of the NASA SIT Chair Team's Impact Assessment is to assess the impact of existing activities and end user requirements to build community resilience. To date, 25 assessments and reports have been reviewed from 21 CEOS Agencies and groups.
- Impact can be measured in a variety of ways, including economic valuation and modeling, willingness to pay, social and environmental responsibility, cost avoided, time saved and capital expenditure reductions.
- Key sectors for EO impact include water resource management, disaster risk reduction, resilience and agriculture. The SIT Chair Team is conducting an in-depth impact assessment including interviews with CEOS members.

Discussion

- Patrick Gibson (UKSA) offered UKSA support for this work, recognising past experience with this type of activity.
- In response to a question from Darcee Killpack (USGS), Eleanor Pierel (NASA) confirmed that the study contractor will look at a variety of use cases, and also look into what metrics we can use to measure impact.
- Lefteris Mamais (CEOS Executive Officer) noted GEO is hosting a community event focused on the GEO Impact Assessment Toolkit in May 2026, which he will attend and can bring CEOS perspectives.
- David Borges (SEO) recalled that the team is connected to GEOValue.
- Ola Nordbeck (NOSA) suggested comparing how EO data is gaining ground compared to other data sources, in particular, what unique aspects EO data has that is creating impact.
- Jonathon Ross (Geoscience Australia, CEOS Chair Team) recognised there are many ambitious projections regarding economic value of the EO market, and the study should consider the methodology used in economic analyses.
- Lefteris Mamais (CEOS Executive Officer) suggested conducting a robust qualitative analysis of impact realisation avenues related to CEOS' added value. It would require a structured approach but would open further impact assessments up for its components.
- Osamu Ochiai (JAXA) recognised the criticality of scientific value vs economic value, and suggested the study address the role of the public sector in providing scientific value.
- Julie Robinson (NASA, SIT Chair Team) recognised that as our sector evolves to include more private operators, we may need to adapt our impact assessment methods as well. There is a growing group of 'value-adders', who take public data, and produce a commercial product or service for their users. This is an extra step which is not usually accounted for in typical impact assessments, and should be explored in future versions.

SIT-41-06	CEOS Agencies to submit impact assessment case studies to support the SIT Chair Team Impact Assessment initiative.	31 May 2026
	<i>Rationale: Additional case studies would support the in-depth impact assessment. The analysis will look at the value of EO for resilience and water focused use-cases, in alignment with the SIT Chair priorities. Submit to: "NASA SIT Chair Team 2026-2027" <nasa-sit-chair-2026-27@googlegroups.com>.</i>	

2.7: CEOS Chair Resilience Theme Introduction

Presenter: Alex Held (CSIRO, CEOS Chair) [[presentation](#)]

Main points:

- The CEOS Chair Resilience activity will prepare information products that support CEOS Principals at the 2026 Plenary to strategically consider the role CEOS is playing, and can play, in supporting societal adaptation and resilience in the face of environmental change.
- The 2026 CEOS Chair Team will oversee a CEOS-internal report to collate and analyse challenges and opportunities around CEOS engagement on the topic.
- ESA will contribute a 2026 EO Handbook on Adaptation and Resilience that is aimed to promote the role of EO more broadly.

2.8: 2026 Earth Observation Handbook & Missions, Instruments and Measurements (MIM) Database Update

Presenter: Marie-Claire Greening (ESA) [[presentation](#)]

Main points:

- The CEOS EO Handbook has been produced since 1992 for major events related to CEOS priorities, promoting the role and importance of satellite EO for thematic areas. The handbook is powered by the CEOS MIM Database, and is sponsored by ESA as a permanent CEOS Secretariat member.
- The 2026 EO Handbook is under development, and has a focus on adaptation and resilience - consistent with the CEOS Chair and SIT Chair priorities. The 2026 edition will be printed for online and physical publication, and explain the ways in which EO data provides value for adaptation and resilience, including a collection of global case studies.
- 110 case study submissions have been received, of which around 20 will be selected for printed publication and another around 20 for the online publication. The Handbook will be published for distribution ahead of the 2026 CEOS Plenary.
- The CEOS MIM Database provides an official, consolidated view of CEOS Agency missions, instruments and measurements, supporting coordination, gap analysis, and EO Handbook content. CEOS Agencies will be contacted to provide inputs to the annual database survey in accordance with the standard schedule.
- The database has recently been expanded with the addition of a Wildfire Satellite Missions Portal, a collection of case studies on the CEOS GHG Portal, and overall improved usability and performance.

Discussion

- It was clarified that, in line with past practice, the CEOS Secretariat will be invited to review the EO Handbook draft text, with Part 1 expected to be shared in the first half of May, and Part 2 (case studies) in early June.

2.9: Opportunities for CEOS Support to Adaptation & Resilience

Presenter: Alex Held (CSIRO, CEOS Chair) [[presentation](#)]

Main points:

- The internal CEOS Adaptation Assessment will highlight scalable opportunities for CEOS engagement in adaptation and resilience, designed to inform future strategic direction.
- A survey will go out to CEOS representatives to gather inputs and perspectives regarding current and future engagement on this topic.
- The document will be titled *CEOS Support for Adaptation and Resilience in a Changing Global Context*, and will be presented at 2026 CEOS Plenary.

Discussion

- Jonathon Ross (Geoscience Australia, CEOS Chair Team) noted that the consultation process started at yesterday's side meeting and will proceed in a structured way to capture what's happening at an agency level. The link to the SIT Chair Team value chain activity is noted, and will help ensure the right partnerships are in place to ensure the correct linkage across the value chain.

Session 3: Early Warnings for All

3.1: Introduction to Early Warnings for All (EW4All)

Presenter: Anthony Rea (WMO) [[presentation](#)]

Main points:

- Early Warnings for All (EW4All) is an initiative that aims to protect everyone everywhere by 2027. It was requested in 2022 by the UN Secretary-General as part of the Acceleration Agenda.
- The four pillars for EW4All's implementation are: disaster risk knowledge; detection, observations, monitoring, analysis and forecasting of hazards; preparedness and response capabilities; and warning dissemination and communication.
- WMO is coordinating globally across agencies, global infrastructure and hazard assessments; regionally through requirements gathering and specialised centres; and nationally through benchmarking assessments and capacity development. Weather and climate-related infrastructure must be designed and managed globally.
- Ongoing challenges within WMO include gaps in the Early Warning system governance and community feedback, predictable and sustainable resourcing, delivering warnings in fragile contexts, multi-hazard approaches, and empowering local populations.

3.2: EW4All in the Asia-Pacific Region: Ensuring Data Access

Presenter: Agnes Lane (Bureau of Meteorology, CEOS Chair Team) [[presentation](#)]

Main points:

- Floods, drought, tropical cyclones, and thunderstorms are the top hazards in the Asia-Pacific region. With limited in situ observations in the southern hemisphere, satellite observations are essential for weather and warning services in the Asia-Oceania region, with a number of dependencies across both LEO and Geostationary platforms.
- The draft EW4All Preliminary Gap Analysis for the Asia-Pacific draws together identified available products from satellite operators that address the top five hazards faced by the region, as well as identified user requirements. The gap analysis will dictate follow up work and it provides lessons for space agencies.
- Noted the launch of the [EW4ALL Satellite Products Dashboard](#), which provides a guide to comprehensive satellite data products for early warning systems across priority hazards.
- The gap analysis highlighted the need for more frequent observations of surface winds and wind fields for tropical cyclones, higher temporal and spatial resolution rainfall products, drought monitoring products and lightning observations. Some countries also reported a lack of data storage, archival and retrieval systems for analysis and climate monitoring.

3.3: WGDisasters EW4All Subgroup

Presenter: Lóránt Czárán (UNOOSA, WGDisasters Chair) [[presentation](#)]

Main points:

- The WGDisasters EW4All Subgroup coordinates between WGDisasters, the CEOS Executive Officer and SEO, GEO Disaster Risk Reduction, UNOOSA, and the SDGs. WMO requested support to the EW4All initiative at SIT-39 (9-11 April 2024; Tokyo, Japan), following which WGDisasters organised a subgroup to coordinate engagement with the EW4All pillars.
- Satellite remote sensing is capable of supporting hazard detection and monitoring, risk and vulnerability mapping, forecasting and prediction, and real time decision support. Potential areas where CEOS can support early warnings include the advancement of InSAR techniques for

landslide risk and slope deformation, cyclone prediction and forecasting, extreme rainfall events, and satellite based fire weather indices for fire risk.

- The WGDisasters-25 / WGISS-61 meeting (16 - 20 March 2026; Dehradun, India) introduced the concept of 'decision ready data' for EW4All, which would provide actionable data linked to specific decision goals. Paired with a decision support system, it would generate clear insights from satellite data, improve interoperability, make information accessible to non-experts, and bridge scientific data providers and decision makers.

Discussion

- Agnes Lane (BOM) clarified that a gap analysis has also been completed for the Americas, and an African one is underway.
- Anthony Rea (WMO) explained the WMO satellite data requirements groups and their different leadership and approaches, recognising significant regional variation. However, national gap analyses are happening in a systematic way.
- Anthony hoped for an ongoing dialogue with CEOS Agencies, recognising that WMO members rely on a broader set of satellite observations than those coordinated by CGMS.
- Simona Zoffoli (ASI) recognised one primary challenge for EW4All is the capacity to derive information for users from the available data. CEOS should position itself not only as a data provider of coordinated observations, but also support activities for interoperability, ARD, etc. as a means of supporting users and lowering the barrier to entry.
- Yasha Moz (NASA, WGCapD) noted WGCapD has also been discussing EW4All, and is working to fill the training gap through EOTEC DevNet. WGCapD will work with WGDisasters to make progress on this.
- Alice Andral (CNES) asked whether geological hazards are within scope, and Anthony explained that the focus of EW4All is on warnings for weather and climate events (as these can more easily be predicted and warnings produced), but that can include tsunamis and ash clouds.

SIT-41-07	SIT Chair team to facilitate discussions between the WGDisasters subgroup on EW4All, WGCapD/EOTEC DevNet, and WMO to explore opportunities for collaboration.	2026 SIT TW
	<i>Rationale: There are perhaps connections to be made to EOTEC DevNet priorities on flood and drought, as well as opportunities for sharing algorithms/approaches between CEOS and the EW4ALL Satellite Products Dashboard.</i>	

Session 4: Other Business

4.1: Establishment of a CEOS Biodiversity Virtual Constellation (B-VC)

Presenter: Gary Geller (NASA, Biodiversity Study Team Co-Lead) [[presentation](#)]

Main points:

- The Ecosystem Extent Task Team ran from 2022-2024, and was tasked with exploring and demonstrating use of EO for mapping ecosystem extent (current and forthcoming sensors). A [White Paper](#) was published and three demonstrator activities initiated.
- The Biodiversity Study Team, established in 2024 following the conclusion of the Ecosystem Extent Task Team, was tasked with assessing CEOS options for an enduring engagement with biodiversity.

- The recommendation from the study team is for CEOS to establish a Biodiversity Virtual Constellation (B-VC), which will have the overall objective to *“advance biodiversity understanding, monitoring, and applications for the benefit of society by strengthening the community’s use of space-based Earth observations and data products.”*
- Proposed B-VC activities include identifying and filling data product gaps, facilitating the enhancement of data utilisation tools, stakeholder engagement, prototype monitoring system development, capacity building, and acting as the space arm of the Global Biodiversity Observing System (GBIOS).
- B-VC will be led by CSA (Lucie Viciano), ESA (Marc Paganini, transitioning to Federica Marando), and NASA (Gary Geller, transitioning to Yoseline Angel).

Discussion

- Darcee Killpack (USGS) shared USGS support for the establishment of B-VC and recommended the group focus on filling data gaps, enhancing usability, building capacity, and emphasising multi-modal data approaches. Darcee encouraged B-VC to leverage existing observations and to maintain strong links to CEOS-ARD and CEOS Interoperability principles to ensure that biodiversity products that are transparent, traceable and fit for purpose.
- Eleni Paliouras (ESA) thanked the team for the very thorough work in all the steps leading up to today, and confirmed ESA fully supports the establishment of the B-VC, and agrees with the proposed terms of reference and implementation plan.
- Alex Held (CSIRO, CEOS Chair) endorsed the establishment of the B-VC and encouraged the group to leverage CEOS work on interoperability and ARD to support the production of consistent, long time series.
- Osamu Ochiai (JAXA) recognised the importance of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) in providing methodology and guidance to support the requirements of the UN Convention on Biological Diversity (CBD). Gary Geller (NASA, Biodiversity Study Team Co-Lead) noted a variety of connections between members of the proposed B-VC and IPBES, GEOBON and CBD. B-VC will work closely with IPBES to monitor the Essential Biodiversity Variables (EBVs).
- Alex Held (CSIRO, CEOS Chair) would like to develop a CEOS statement for UN CBD COP-17 in October 2026, and will work with B-VC on the content and delivery.
- Julie Robinson (NASA, SIT Chair Team) acknowledged the wide variety of new and upcoming science missions which will support biodiversity observations. Integrating with the user community will be critical for B-VC, to combine ground-based and space-based observations to solve challenging problems. Endorsed the establishment of B-VC.
- Peter Strobl (European Commission, LSI-VC Co-lead) endorsed the creation of B-VC, and recognised LSI-VC interest in close collaboration with B-VC, especially around the application of land sensors.
- James Donnellon (NOAA) acknowledged the importance of mapping user needs to missions, and the emerging technologies to support biodiversity. NOAA supports the creation of B-VC.

DECISION 01	CEOS SIT established the Biodiversity Virtual Constellation (B-VC), and endorsed the B-VC Terms of Reference and Implementation. SIT welcomed ESA, CSA and NASA as co-leads of B-VC.
	<i>Rationale: The Full Proposal, Terms of Reference and and Implementation Plan was presented and reviewed by CEOS SIT, in accordance with the Virtual Constellation Process Paper.</i>

SIT-41-08	CEOS Agencies to nominate members to the new Biodiversity Virtual Constellation.	31 May 2026
	<i>Rationale: CEOS SIT established the Biodiversity Virtual Constellation, following the proposal process outlined in the Virtual Constellation Process Paper.</i>	
SIT-41-09	B-VC to work with the CEOS Chair Team to develop a CEOS statement for UN CBD COP-17.	June 2025
	<i>Rationale: CEOS delivers a statement annually to UNFCCC SBSTA, and it would be good to also showcase the use of EO to the biodiversity policy community. Previous SBSTA statements can be used as a guide for the level and type of content.</i>	

4.2: CEOS Organisational GitHub Governance

Presenter: Dave Borges (NASA, SEO) [[presentation](#)]

Main points:

- The SEO established a CEOS Organisational GitHub as a means for CEOS to collaborate on projects, develop software, tools and documentation. It has become clear that governance rules are needed to clarify the procedures and approaches to be used.
- A draft Governance framework was developed following discussions in December 2025 with 20 participants from across the CEOS community. Governance documentation is itself developing on GitHub (in the governance repository) and a high-level governance summary was presented for review at SIT-41. The Governance repository established on GitHub will continue to evolve. The current version is presented to SIT-41 for endorsement.
- Licensing is complicated for an organisation like CEOS, which is not a legal entity. The SEO recommends a three-layer approach where each component compensates for limitations in the others: 1) contributors explicitly agree their work is licensed under the project license; 2) per-commit provenance tracking via the Developer Certificate of Origin; 3) Contributors and their institutions retain copyright, with no Intellectual Property (IP) rights transferred to CEOS.

Discussion

- Jonathon Ross (Geoscience Australia, CEOS Chair Team) endorsed the thorough and thoughtful approach to facilitate the use of GitHub for collaboration. CEOS Agencies should be aware of the nuance in the contributor licensing, in that the contributor or their organisation remains the owner of their contributions and are legally liable for that contribution.
- Darcee Killpack (USGS) endorsed the governance, and commended the SEO in setting a model for open transparent collaboration to encourage standardised conventions. The governance rule should be periodically reviewed and updated, to evolve with needs and technological advances.
- Peter Strobl (European Commission, LSI-VC Co-lead) recognised the impact of GitHub to improve interoperability, and noted the facilitation of CEOS EO Glossary on GitHub.
- Eleni Paliouras (ESA) endorsed the GitHub Governance Framework, and recognised the importance of this foundational work to ensure that CEOS resources are made accessible in a professional and coordinated manner.
- Julie Robinson (NASA, SIT Chair Team) suggested the regular SEO reports include status and updates on GitHub for Principal awareness.

DECISION 02	CEOS SIT endorsed the current CEOS GitHub Governance Repository .
	<i>Rationale: Establishes the core licensing and procedures for operation of the CEOS Organisational GitHub. The governance is captured in a GitHub repository and there is potential for this governance to continue evolving over time. If this happens, proposed changes will be brought to future Principal-level meetings for further endorsement.</i>

4.3: 2026-2027 CEOS Communications Strategy

Presenter: Libby Rose (SEO) [[presentation](#)]

Main points:

- CEOS Communications serves to support the overall mission and objectives of CEOS, increasing awareness of EO data and its applications, showcasing the impact of CEOS activities, and enabling information sharing amongst members.
- The external stakeholders of CEOS Communications have been refined to align with the high level data value chain, and will be further reviewed alongside the CEOS Value Chain activity led by the SIT Chair Team.
- LinkedIn is the primary social media platform used by CEOS, with followers, views and engagement all continuing to increase year-on-year.
- Shared the 2026-2027 CEOS Communications campaigns, which align with the CEOS Chair and SIT Chair priorities including the Future of CEOS-ARD, Adaptation and Resilience, Interoperability, and the Water Quality Workshops.
- The SEO plans to undertake a comprehensive design refresh of the website in 2026-2027 to bring the website up to date with current design best practices, and ensure it supports the needs of the community.

Discussion

- Darcee Killpack (USGS) welcomed the internal and external focus on communication. USGS is keen to engage with younger professionals with new experience and perspectives and is pleased to endorse the new strategy.
- Elenie Paliouras (ESA) agreed with the focus on LinkedIn as a channel. ESA will support any way they can and endorse the strategy.
- Patrick Gibson (UKSA) recognised the support of the CEOS Communications efforts during their Chair term, in particular to support internal briefings on why CEOS is important.
- Christian (NOSA) commented that strategic communication is very tough and equally important. It's hard to break through clutter in daily news and the important work ongoing in CEOS deserves a good communication strategy.
- Jonathon Ross (Geoscience Australia, CEOS Chair Team) suggested collaborating with specialist news outlets and sector-specific communication channels, to spread the CEOS message further.

DECISION 03	CEOS SIT endorsed the 2026-2027 CEOS Communication Strategy.
	<i>Rationale: Provides strategic direction and guidance for the coming two year period, in particular overarching objectives, specific campaigns and stakeholders.</i>

4.4: CEOS in Schools: 2026 Programme Update

Presenter: Agnes Lane (Australian Bureau of Meteorology, CEOS Chair Team) [[presentation](#)]

Main points:

- Australia is continuing the successful CEOS Youth Programme piloted by the UKSA CEOS Chair in 2025. Four webinars have been held in 2026 on monitoring fires and water quality from space. Webinars were delivered in English and Spanish and engaged approximately 200 students from South Africa, UK, Greece, Norway, Japan, Ecuador and Australia.
- Students will have the opportunity to develop a poster or video presentation on what they have learned or ideas they have for Earth observation in the future. The posters will be presented at the second CEOS Youth Summit in Hobart Australia in November 2026, and will also include a Q&A panel session with students and CEOS leadership.

4.5: International Coordination Group for Spaceborne SAR (ICGS-SAR) Update

Presenter: Paul Rosen (NASA/JPL) [[presentation](#)]

Main points:

- ICGS-SAR was created in 2018 to promote closer coordination and collaboration for SAR missions and enhance the overall utility of current and planned systems. The group includes three Working Groups (Present and Future Data, Future Imaging Systems, and Data Exploration) and three Thematic Areas (Polarimetric and Multi-Frequency SAR Applications, Interferometric SAR Applications, and Program and Mission Coordination). Participating agencies include NASA, JAXA, ISRO, CONAE, VNSC, DLR, ESA, CSA, and ASI.
- ICGS-SAR has hosted three workshops, with virtual meetings held in between. The most recent workshop was held 6-8 November 2024 in Japan and produced recommendations to space agencies regarding future SAR activities, highlighting the need for SAR-specific coordination.
- The group has explored options to become integrated with CEOS as a Virtual Constellation, enabling better coordination with CEOS activities, formalisation of ongoing work into the CEOS Work Plan, and ensured continuity of activities beyond the engagement of individuals. There is interest in integrating with the existing WGCV SAR Subgroup and exploring linkages with LSI-VC, WGDisasters, and other CEOS entities.
- The potential changes to ICGS-SAR as it integrates into CEOS may include the renaming of working groups to subgroups, coordination with the WGCV SAR Subgroup with occasional joint meetings, and the incorporation of CEOS-ARD SAR efforts.
- As per the CEOS VC Process Paper, ICGS-SAR presented an initial proposal for the establishment of a CEOS SAR-VC to SIT-41, requesting approval to deliver a full proposal at the 2026 CEOS Plenary.

Discussion

- Simona Zoffoli (ASI) supported the incorporation of ICGS-SAR into the CEOS structure, noting the mutual benefits and facilitation interaction with other entities in CEOS and leveraging the experience of other CEOS groups.
- Yann Denis (CSA) recognised the opportunity for improved coordination that would result from the transition of ICGS-SAR into a SAR-VC.
- Medhavy Thankappan (Geoscience Australia, WGCV Vice Chair) reiterated that there is already a level of coordination between the WGCV SAR Subgroup and ICGS-SAR, noting that many of the same individuals are involved in both groups. Should also ensure to coordinate between the WGCV Land Product Validation subgroups and the ICGS-SAR thematic areas. Bringing the group into CEOS would also enable an additional group of experts to support CEOS-ARD.
- Peter Strobl (European Commission, LSI-VC Co-lead) suggested CEOS review why the group was developed outside of CEOS, and whether the CEOS structure needs to be revised. Recent thematic Virtual Constellations such as COAST and Biodiversity, and now the proposed

sensor-based SAR-VC, stretch the initial concept of a Virtual Constellation. Recognised coordination between the proposed SAR-VC, LSI-VC and the WGCV Terrain Mapping Subgroup.

- Dave Borges (NASA, SEO) recognised the findings of the SIT Chair Team’s value chain activity will inform discussions around whether the CEOS structure is fit for purpose.
- Eleni Paliouras (ESA) agreed with the approach to move the group into CEOS, as agencies already fund participation in ICGS-SAR. However, CEOS should be cautious around adding additional activities, and ensuring there is enough support and effort for each.
- Jonathon Ross (Geoscience Australia, CEOS Chair Team) recognised ICGS-SAR will add value to CEOS. As the sector looks more at integrated multi-modal products, the ability to have different parts of the CEOS community working together is increasingly important. As the proposal is developed, all the interfaces should be clearly mapped.
- Julie Robinson (NASA, SIT Chair Team) supported the development of SAR-VC, and the SIT Chair Team will work with ICGS-SAR over the coming months to prepare the proposal.

DECISION 04	CEOS SIT acknowledged the receipt of the ICGS-SAR Initial Proposal to become a SAR Virtual Constellation.	
	<i>Rationale: ICGS-SAR is a mature and functioning external group that is seeking to be incorporated into CEOS. It has a well defined role, activities, and membership. The SAR-VC has a draft terms of reference and will work to develop a Full Proposal by the 2026 SIT Technical Workshop.</i>	

SIT-41-10	SIT Chair Team to work with ICGS-SAR leadership to develop the Full Proposal for a CEOS Synthetic Aperture Radar Virtual Constellation (SAR-VC).	2026 SIT TW
	<i>Rationale: Bringing ICGS-SAR under the CEOS umbrella increases coordination opportunities and reduces overlap.</i>	

Thursday April 16th

Session 5: Water Planet

5.1: First Water Quality Workshop Outcomes

Presenter: Alex Held (CSIRO, CEOS Chair) [[presentation](#)]

Main points:

- The CEOS Chair Team and SIT Chair Team co-hosted the first CEOS Water Quality Workshop on Monday, 13 April 2026. There were 45 in-person and virtual participants, from CEOS Agencies alongside a few invited subject matter experts.
- The workshop recognised the complexity of the catchment-to-coast paradigm, and the importance of interoperability, cooperation and inclusive partnerships. There was a focus on end user needs to ensure that robust science can support informed/evidence-based decision making.
- The second workshop in the two-part series will be held alongside SIT Technical Workshop in September 2026, followed by the development of a white paper summarising the workshop findings.

Discussion

- In response to a question from Simona Zoffoli (ASI), Alex Held confirmed that the main objective of the white paper is to bring up a new topic in CEOS, and identify opportunities for new missions to help fill gaps in water quality remote sensing.
- In response to a question from Nima Pahlevan (NASA, COAST-VC Co-lead) regarding field campaigns, Alex Held noted that the Australian AquaWatch programme hopes to expand the number of in-situ sites, with sites currently around the world including in USA, Italy, Vietnam, and Indonesia.
- Julie Robinson (NASA, SIT Chair Team) recognised the importance of multi-mission observations, and combining different modalities. Continuing work on ARD will be a key area CEOS can support.
- Jonathon Ross (Geoscience Australia, CEOS Chair Team) suggested including regulatory agencies in future discussions, as well as data distributors who provide services which draw from multiple data sources, including space-based EO.
- Alex Held (CSIRO, CEOS Chair) recognised challenges with a wide range of different regulations around the world when it comes to water quality. The products produced will need to be flexible to support all frameworks.
- Christian Hauglie-Hanssen (NOSA) noted a link between resilience and water quality, in particular how natural hazards such as flooding can impact water quality.

5.2: SIT Chair Water Planet Activities

Presenters: Erin Urquhart and Dave Borges (NASA, SIT Chair Team) [[presentation](#)]

Main points:

- The SIT Chair priority *Water Planet - Seeing Earth's Water from Space* aims to advance understanding of Earth's water cycle by monitoring terrestrial waters, coastal regions, and oceans from space and transform this knowledge to actionable insights to enhance water use efficiency, improve water quality, and enhance resilience to water-related hazards such as droughts, floods, and storms.
- The SIT Chair is prioritising four activities in support of this ambition:

- Developing best practice guidance for integrating multiplatform and multispectral data for water science and applications;
 - A water focused contribution to the 2026 CEOS-ARD Strategy, including Initial self-assessment of product compliance with CEOS-ARD for SWOT and PACE;
 - Supporting the water quality workshops with the CEOS Chair;
 - Providing water related inputs to the impact assessment of existing CEOS activities as part of the second SIT Chair priority.
- Following SIT-41 feedback, the team will finalise the scope and table of contents of the best practices document, targeting a draft for review at the 2026 SIT Technical Workshop and again at Plenary, with the final deliverable to be presented at SIT-42 in April 2027.
 - There are decisions to be made regarding appropriate targets for CEOS-ARD for water. Does CEOS need to prepare new specifications for higher level water products in order to meet the requirements of the community? Should these be aligned with the Essential Water Variables (EWVs)? And what is the appropriate 'Level' of CEOS-ARD water products?

Discussion

- Alice Andral (CNES) noted the relevance of SWOT contributions and suggested connection to the One Water Vision initiative, which aims for global cooperation on water with an international network to promote EO data, models, and capacity building.
- Jonathon Ross (Geoscience Australia, CEOS Chair Team) asked whether the proposed document might consider land matters such as fertiliser application. Erin Urquhart (NASA, SIT Chair Team) noted that NASA is commencing a few studies about impacts of land management and land change and would expect to see a use case around that.
- Dave Borges (NASA, SEO) recognised the need to address how CEOS manages living documents in the document status and handling framework. The framework should also define what requires elevation to Principals and what should stay at the working level. CEOS Working Groups and Virtual Constellations should be trusted to handle technical updates.
- Osamu Ochiai (JAXA) recalled the relevance of the GEO Water Strategy and welcomed the SIT Chair Team's approach to the best practices.
- Ferran Gascon (ESA, CEOS-ARD Oversight Group) noted that with the emergence of the term 'decision ready data', the CEOS-ARD Oversight Group is conscious of the need to clarify the relationship to CEOS-ARD and commits to work with WGISS and other groups to ensure this is addressed. Alyssa Whitcraft (LSI-VC GEOGLAM Subgroup) noted past use of the term 'Application Ready Data (ARD+)'. These all point to the same concept and need to be addressed together and aligned.
- A CEOS-ARD Strategy section on water and its potential focus on addressing the Essential Water Variables will be a useful pathfinder and have lessons for how we might address other thematic areas such as biodiversity (EBVs) and agriculture (EAVs) in the CEOS-ARD Framework.

SIT-41-11	CEOS Agencies to consider how their activities link to the SIT Chair's Water Planet Best Practices and Guidance Document, and nominate points of contact for the editorial team by emailing nasa-sit-chair-2026-27@googlegroups.com .	31 May 2026
	<i>Rationale: The SIT Chair Team kicked off the writing team at SIT-41 as part of Priority #1: "Water Planet - Seeing Earth's Water From Space." The Team is opening the</i>	

opportunity for additional CEOS entities to nominate POCs and contribute to the document.

5.3: Aquatic Carbon Roadmap

Presenter: Marie-Helene Rio (ESA, OCR-VC Co-Lead) [[presentation](#)]

Main points:

- The CEOS Aquatic Carbon Roadmap completes CEOS coverage of the Earth System by addressing the second largest, long-term store of carbon on Earth. The development of the CEOS Aquatic Carbon Roadmap was tasked by the 37th CEOS Plenary (14-16 November 2023; Chiang Rai, Thailand) as the ‘aquatic leg’ of the [CEOS Carbon Strategy](#), complementing the CEOS Greenhouse Gas (GHG) and Agriculture Forestry and Other Land Use (AFOLU) roadmaps.
- The roadmap addresses carbon dynamics across a land to ocean aquatic continuum, with a focus on open oceans, coastal and blue carbon ecosystems, and inland waters. It takes into consideration current EO capabilities, gaps and opportunities, prioritisation of needs, foundational science, global assessments, and capacity building. The document was coordinated by ESA, NASA and JAXA, with over 25 contributors from OCR-VC, the International Ocean-Colour Coordinating Group (IOCCG), and the scientific community.
- Short, medium, and long-term recommendations are delivered around the continued support of aquatic carbon research, observational platforms and satellite datasets to fill aquatic flux priority areas and track the Earth’s environmental health.
- The draft roadmap was delivered to CEOS Principals on 1 April 2026, and will be presented for acknowledgement by CEOS Principals at the 2026 Plenary.

Discussion

- Julie Robinson (NASA, SIT Chair Team) commended the team on the great work. The SIT Chair Team has suggested that the document be presented for acknowledgement by CEOS under the new decision types paradigm.
- Alex Held (CSIRO, CEOS Chair) recognised a connection to the water quality catchment to coast efforts, which is one of the biggest gaps in carbon budget processes. There are mature products that can provide some data on how much carbon is moving from land to oceans to be reflected in budgets.
- Jonathon Ross (Geoscience Australia, CEOS Chair Team) suggested the presentation to Plenary highlights priority areas for action and help Principals draw out the things they want to pursue through CEOS including via the CEOS Work Plan.

SIT-41-12

CEOS Agencies to provide feedback to the authors of the CEOS Aquatic Carbon Roadmap, Marie-Helene Rio <Marie-Helene.RIO@esa.int>, Hiroshi Murakami <murakami.hiroshi.eo@jaxa.jp>, and Laura Lorenzoni <laura.Lorenzoni@nasa.gov>, to be delivered two weeks prior to the 2026 SIT Technical Workshop ahead of its submission to the 2026 CEOS Plenary for acknowledgement.

30 June 2026

Rationale: OCR-VC has drafted the roadmap and now requires input from the broader CEOS community, in particular the agencies and individuals involved with the CEOS GHG and AFOLU Roadmaps to ensure alignment and complementarity.

5.4: Validation of Atmospheric Observations Over the Oceans

Presenter: Yasjka Meijer (ESA, GHG-TT Lead) [[presentation](#)]

Main points:

- In response to the SIT Chair’s Water Planet priority, the GHG Task Team aims to specifically improve science on atmospheric fluxes over the Southern Ocean.
- Net flux is large as an accumulation of small fluxes over the vast Southern Ocean. Improved satellite observations, including from the upcoming Copernicus CO2M mission, might meet the needs, but this requires establishing L2 validation of atmospheric observations. A number of potential validation sites have been identified.
- Agencies are asked to support these efforts by enabling contact with potential validation site host agencies; informing the GHG Task Team on potential funding schemes; providing of weatherproof EM-27 sensors; supporting network optimisation exercises testing optimal locations; and suggestions for exploiting other instruments and measurements, such as ship-based sensors.

Discussion

- Medhavy Thankappan (Geoscience Australia, WGCV Vice Chair) has made a connection to the EM27 operator at the Australian Cape Grim site.
- Jonathon Ross (Geoscience Australia, CEOS Chair Team) suggested that GOOS may be able to assist.
- Laura Lorenzoni (NASA) noted via chat: *“this is the type of activity that intersects with interests from the aquatic realm and will be useful for both Roadmaps.”*

Session 6: Adaptation and Resilience: Thematic Topics

6.1: Earth Fire Alliance & CalFire

Presenter: Mike Falkowski (Earth Fire Alliance), Phillip SeLegue (CalFire) [[presentation](#)]

Main points:

- CalFire is the Californian state entity responsible for responding to wildfires. They use a variety of data sources and platforms to collect and analyse data to support wildfire response, including airborne and space-based EO sensors.
- Earth Fire Alliance is a public-private-philanthropic partnership, aiming to deliver high-fidelity, globally accessible data to predict and manage wildfires.
- A series of missions called FireSat are being developed, which will identify fires as small as 5m x 5m, with twice daily revisit in 2026, aiming to scale to global revisit of 20 minutes or less by 2030.
- Engaged with 12 early adopters from USA, Australia and Portugal.

Discussion

- Eleanor Pierel (NASA, SIT Chair Team) asked for EFA’s vision for further space agency engagement and Mike Falkowski (Earth Fire Alliance) noted they are looking for partnerships with civil space agencies on both technology development and to help push data out to communities, leveraging the existing systems and approaches developed by space agencies over many years.
- Responding to a question from ASI, Mike noted that hot spot alerts are sent to the public via the responsible government entity, such as CalFire. Commercial ground stations are currently used to downlink information in near-real time, and the plan is to use Starlink connectivity in future to reduce latency.

- Alex Held (CSIRO, CEOS Chair) expressed interest in collaborating on pre-fire moisture content. Osamu Ochiai (JAXA) noted the relevance of Japanese datasets from e.g. GCOM-C for pre-fire analyses using moisture products, providing risk and prediction information.
- In response to a question from the European Commission regarding data retention policies, Mike noted that all Level-1 and Level-0 data is stored in the cloud for at least 3 years. Would like to store for longer to allow contribution to climate data records. The data policy is still in development, but the intention is to share as openly as possible with fire responders in near-real time as well as the scientific community. Commercial users will be charged in order to recoup operating costs.

6.2: International Charter: Space and Major Disasters

Presenter: Mike Budde (USGS) [[presentation](#)]

Main points:

- Space agencies established the International Charter for Space and Major Disasters in 2000 to provide satellite data to support disaster relief organisations in saving lives, property, infrastructure and the environment. 17 members and 15 data contributors support the charter, providing free satellite data worldwide, facilitating the creation and delivery of value-added products over damaged areas, and working with expert communities and capacity building initiatives.
- Since its creation, the Charter has been activated over a thousand times, informing the rapid tasking from a pool of over 270 satellites and providing crucial insights that are impossible to obtain from the ground. Humanitarian aid organisations benefit from the charter's free, 24/7 access to community experts and decision makers.
- The Charter Mapper Service is a processing environment implemented by ESA to enable access, processing, and visualisation of EO data products for charter project managers and value adders during charter activations. It provides pre-processed analysis-ready data in a common format and calibration across sensors, enabling rapid comparison and evaluation.
- CEOS WGDisasters was approved as an observer to the charter in 2020, granting the Working Group's activity leads access to the Charter Operational System (COS-2).
- WGDisasters created the Recovery Observatory (RO) jointly with the EU, World Bank, and UNDP to allow operational use of EO data for post disaster needs assessment and recovery planning. Further coordination with CEOS is being explored through the Charter Board meetings.

Discussion

- Jonathon Ross (Geoscience Australia, CEOS Chair Team) asked whether the Charter is thinking about the policy and technical architecture for commercial data contributions. CEOS is doing a lot of work on ARD, and can work with charter to highlight CEOS-ARD benefits to the different providers. Mike replied that the Charter has several commercial contributors.
- Ola Nordback (NOSA) asked whether the Charter has systematic capturing of user stories post-disaster. Mike responded that post-event reports are produced for each activation but that getting user feedback can be hard.
- Peter Strobl (European Commission) noted the Charter has a large user base of people that represent a different community to those that we usually engage with. It would be helpful to have replies to the CEOS-ARD survey (ceos.org/ard/survey) from this community.

6.3: LSI-VC Subgroup for Wildfire Observation Coordination

Presenter: Tracey Cooke, Mark De Jong (NRCan) [[presentation](#)]

Main points:

- Infrared EO is widely used in active fire detection and monitoring, with active fire products provided by a small number of low Earth orbiting missions. While existing missions providing long-term support to active fire monitoring approach their operational end of life, new opportunities from commercial and philanthropic providers are attempting to fill this gap.
- Canada is developing the WildFireSat mission, a purpose built, government funded wildfire monitoring mission providing free and open global active fire monitoring and Level-1B data. The mission is planned to launch in the 2029 timeframe and support the international coordination of EO for fire management.
- Led by NRCan, CSA, NASA, and FAO, WGDIsasters conducted the Wildfire Pilot as a gap analysis of LEO civil space agency missions for active fire EO. Concluding in 2025, the pilot highlighted the need for increased international coordination and governance of global active fire monitoring satellites.
- The concept of a new CEOS initiative on the international coordination of wildfire monitoring was supported by the 2025 CEOS Plenary and further discussed with the SIT Chair, LSI-VC and WGDIsasters. After an ensuing options analysis, a consensus supported the formation of a new Wildfire Subgroup under LSI-VC. The CEOS SEC-344 meeting requested expressions of interest for membership and leadership of the new LSI-VC Subgroup from CEOS Members and Associates.
- The established LSI-VC Wildfire Subgroup is co-led by CSA, NRCan, ESA, and SANSA, with membership from EC, HSC, INPE, NASA, UKSA and further interest from the wider community. Its purpose is *‘to provide a venue to support coordination between agencies producing EO data used to generate wildfire monitoring products and the downstream community, to enhance reliability and support wildfire management with current and future satellite missions’* with an initial scope limited to active fire.

Discussion

- The approaching end-of-life of MODIS observations was noted. This is a big loss to the fire community, with continuity to be provided by VIIRS for afternoon observations and Sentinel-3 SLSTR for morning observations.
- There are numerous commercial and non-profit organisations operating in this space and it was noted that they should be encouraged to participate in the subgroup.
- John Remedios (UKSA) asked about connectivity of the wildfire coordination group to international user networks. Mark noted that GOF-C-GOLD, who will be represented in the wildfire subgroup, have numerous connections to such global networks.

6.4: CEOS Wildfire Portal

Presenter: Libby Rose (CEOS LSI-VC and MIM Database Team) [[presentation](#)]

Main points:

- The CEOS Wildfire Satellite Missions Portal (ceos.org/wildfires) is built on the CEOS MIM Database, and follows the success of the GHG Portal.
- The Portal lists all CEOS Agency missions with the potential to monitor active wildfires, delineating missions by their orbit.
- Future updates include the inclusion of commercial missions, adding tags to understand demonstrated application or operational products, reviewing and adding to the list of historical missions, and expanding to other elements of the fire cycle, including pre-fire conditions.

6.5: WGDIsasters Pilot Projects

Presenter: Antonio Montouri (ASI, WGDIsasters Vice Chair) [[presentation](#)]

Main points:

- New WGDIsasters demonstrator projects began in March 2026 focused on landslides, drought, biodiversity, wildfire preparedness, and interoperability.
- The Landslide Pilot identifies five topics with a cross-cutting scope to enable the transfer of science advances to operational disaster risk management and supports the SIT Chair Priority 1: Water Planet. The pilot will run from 2026-2029, culminating in a report to WGDIsasters.
- The Wildfire Preparedness Pilot aims to benchmark and operationalise globally consistent fuel dryness indicators to support anticipatory fire management in a coordinated CEOS pathway to purpose-built pre-fire monitoring satellites and operational services, also addressing the SIT Chair water priority. The pilot will be developed in four phases, including a literature review, algorithm benchmarking, sensor evaluation, and operational integration and uptake.
- The Biodiversity Pilot aims to analyse areas covered by multi-hazard phenomena and how biodiversity reacts to disasters.
- The Drought Pilot aims to evaluate how different EO data sources and processing techniques can improve drought monitoring over different disaster-prone areas and for different users and stakeholders. Key outputs include a drought monitoring observation framework, a consolidated inventory of drought parameters and datasets, a drought-prone areas assessment report, a user requirements and gap analysis report, an EO data sources and constellation assessment study, a method framework for EO and Big Data processing, and a scientific validation and data integration plan.

Discussion

- Jonathon Ross (Geoscience Australia, CEOS Chair Team) recognised an emerging theme of resilience in the data supply chain, which is key to discussing how to move from pilots and R&D into operational impact.

Session 7: Working Group & Virtual Constellation Topics

7.1: Essential Agriculture Variable (EAV) Stocktake

Presenter: Alyssa Whitcraft (LSI-VC GEOGLAM Subgroup) [[presentation](#)]

Main points:

- The EAV Working Group was recently reactivated, with a workshop held at EC-JRC in May 2025. A new framework for documenting EAVs has been adopted, which has now been implemented for five variables. CEOS input is required to complete the stocktake for the first five EAVs, ensuring that all missions, products and tools are represented (action CEOS-39-21).
- The European Commission is providing support to help complete the first phase, improve public content on EAVs, and prioritize, plan, and recruit participants for the second phase.
- A joint LPV-GEOGLAM Workshop on Evapotranspiration will be hosted by UN FAO later in 2026.
- Plan to work with the MIM Database Team to represent EAVs in the MIM Database.
- Agencies are asked to identify accountable/lead points of contact for the EAV stocktake activity and be ready to engage with the EAV consultant being brought on to support this project.

Discussion

- Alyssa Whitcraft (GEOGLAM) reiterated that NASA is steadfast in their commitment to GEOGLAM and agriculture.
- Yann Denis (CSA) recalled that the former contact for CSA for this activity has recently retired, and a new contact will be identified.

- Alex Held (CSIRO, CEOS Chair) recalled CSIRO support for the rangelands pasture productivity activity, and noted recent Saudi Arabian interest in contributing from a hyper-arid perspective. This is also a connection to the GEO Land Degradation Neutrality (LDN) work.
- Peter Strobl (European Commission, LSI-VC Co-lead) noted LSI-VC support this activity. The EAVs work should be closely connected to EBVs and B-VC.
- Osamu Ochiai (JAXA) noted Kei Oyoishi will serve as the new contact for JAXA. He also suggested CEOS should consider supporting the topic of food security more broadly.

SIT-41-13	CEOS Agencies are asked to nominate additional points of contact to contribute to the stocktake of the first five Essential Agriculture Variables (EAVs) being undertaken in the LSI-VC GEOGLAM Subgroup.	31 May 2026
	<i>Rationale: The LSI-GEOGLAM team is aware that there are many more efforts already undertaken by CEOS agencies related to observations and EAV development that should be included in the stocktake. Additional CEOS agencies need to be involved in the LSI-GEOGLAM Subgroup. The CEOS MIM Database and LSI-GEOGLAM team will scope an agriculture portal to present findings of the stocktake.</i>	

7.2: Virtual Constellation Synthesis Report

Presenter: Sid Boukabara (NASA, SIT Chair Team) [[presentation](#)]

Main points:

- Shared customised mission timelines of CEOS Agency missions supporting each CEOS Virtual Constellation.
- AC-VC supports the GHG-TT and WGClimate with the implementation of the GHG Roadmap and GST Strategy, and recently completed the harmonisation of tropical ozone datasets deliverable. The VC is developing the PM2.5 Roadmap, following the white paper and recommendations published in 2022.
- Nima Pahlevan (NASA) has recently replaced Paul DiGiacomo (NOAA) as COAST-VC Co-lead. COAST-VC is leading CEOS-wide subject matter expert meetings for gap analysis and limitations reporting, and will deliver the keynote address for the 2026 CoSPAR General Assembly (August 2026, Florence, Italy) and to the CoastPredict General Assembly in April 2026.
- LSI-VC is supporting the development of CEOS-ARD products with 12 compliant products for optical and another 12 compliant products for SAR. The VC is supporting the development of the new Wildfires Subgroup, while continuing to implement the AFOLU Roadmap’s recommendations through the LSI-VC Forests and Biomass Subgroup and coordinate a stocktake of EAVs in the GEOGLAM Subgroup. LSI-VC is coordinating ongoing engagement with the commercial sector and standards organisations, and together with SST-VC, is developing an updated Surface Temperature CEOS-ARD Product Family Specification (PFS). Matt Adams (Geoscience Australia) recently replaced Jonathon Ross (Geoscience Australia) as LSI-VC Co-lead.
- OCR-VC highlighted the Geostationary ocean colour radiometry gap, as well as a potential future gap in global, daily LEO hyperspectral ocean colour coverage.
- OST-VC published “A Coordinated International Satellite Altimetry Virtual Constellation: Towards 2050” in 2025, and they are considering publishing it in a peer-reviewed journal. The community is working on the commissioning of the Copernicus Sentinel-6B mission, and looks forward to the launch of the Copernicus Sentinel-3C mission.

- OSVW-VC is advancing coordination for the development of a coordinated multi-mission global wind product to improve temporal resolution, particularly for capturing high-frequency extreme weather events. OSVW-VC emphasises the importance of fiducial reference measurements (FRM) for in-situ wind measurements, and is engaging with the CEOS-FRM Assessment Framework developed by WGCV.
- P-VC is working on the definition of what CEOS-ARD looks like for the precipitation community, and also investigating the integration of data from commercial sources into the P-VC pipeline.
- SST-VC is engaging with COAST-VC to explore the combination of different data sources to achieve actionable information and identifying collaboration areas with the new Biodiversity VC. SST-VC coordinates closely with the Group for High Resolution Sea Surface Temperature (GHRSSST) to produce SST from GEO TIR imagers, LEO TIR imagers, and LEO microwave imagers in the GHRSSST Data Specification (GDS) format.
- Shared a summary of commercial engagement activities within each Virtual Constellation.

Discussion

- Julie Robinson (NASA, SIT Chair Team) thanked the VCs for contributing to reporting opportunities to the SIT throughout the year. This overview helps Principals recognise areas for collaboration and that require strengthening.
- Maggie Arnold (Geoscience Australia, CEOS Chair Team) commented that the standardised report format from the VCs is welcome and easy to follow.
- Patrick Gibson (UKSA) noted that UKSA has had a lot of approaches asking about engaging with CEOS. He suggested that it would be helpful to gather feedback from the commercial sector as to what they get out of CEOS engagement.
- CNES has started a first phase study for a future geostationary ocean colour mission, which will address the gap identified by OCR-VC.
- Will McCarty (NASA, P-VC Co-lead) reported that NASA has recently purchased radar data from tomorrow.io under an elevated license allowing for international collaborator access. The purchase was justified through the impact of the data through P-VC and CEOS.

SIT-41-14	SIT Chair Team to coordinate a discussion at SIT Technical Workshop 2026 with commercial and non-profit satellite operators to raise awareness of CEOS activities, and understand barriers and opportunities for future engagement.	SIT TW 2026
	<i>Rationale: There are varying levels of engagement with the commercial sector across the Virtual Constellations and Working Groups, and a coordinated discussion around barriers and opportunities would help inform future engagement.</i>	

7.3: WGCV Land Product Validation (LPV) Subgroup Land Cover and Change Map Accuracy Assessment and Area Estimation Good Practices Protocol

Presenter: Alexandra Tyukavina (UMD) [[presentation](#)]

Main points:

- WGCV LPV has 12 focus areas, each providing guidance and best practices on product validation for the GCOS land surface variables.
- A team of 35 land cover mapping and validation experts from 18 institutions from 9 countries set out to update the *Strahler et al. (2006)* guidelines to reflect literature over the last 20 years, existing and new sources of reference data, and examples of existing global and continental-scale

validation efforts. Development of the guidelines started in October 2022 and concluded in November 2025, with a revised version incorporating minor feedback from and endorsed virtually by CEOS WGCV.

- Shared an overview of the document, covering land cover definitions, key principles of map accuracy assessment, core recommendations, comparisons against previous methodologies, and a forward look of emerging topics.

Discussion

- Medhavy Thankappan (Geoscience Australia, WGCV Vice Chair) thanked LPV for their substantial and practical work, and noted the rigorous review that has been undertaken.
- Jonathon Ross (Geoscience Australia, CEOS Chair Team) welcomed this extremely important work and asked whether validation protocols will adapt to use emerging AI technologies. Alexandra noted that one of the challenges with synergised reference datasets is how to identify those recommended for AI ingestion.
- ASI intends to adopt these guidelines for their national land cover efforts.
- Peter Strobl (European Commission) suggested that it could be time to think about CEOS-ARD specifications for land cover. For the problem of validation in the variation of legends, LPV could work jointly with LSI-VC.
- Julie Robinson (NASA, SIT Chair Team) welcomed this generational update in land cover validation protocols, coordinating sectoral developments. It has followed an incredibly rigorous process.

DECISION 05	CEOS SIT endorsed the WGCV Land Product Validation (LPV) Subgroup Land Cover and Change Map Accuracy Assessment and Area Estimation Good Practices Protocol.
	<i>Rationale: The good practices protocol recommends that map accuracy assessments be prioritised, planned, and sufficiently resourced as a core aspect of research projects and products.</i>

7.4: Agriculture, Forestry, and Other Land Uses (AFOLU) Roadmap Update

Presenter: Clement Albergel (ESA, LSI-VC Forests & Biomass Co-Lead) [[presentation](#)]

Main points:

- The CEOS AFOLU Roadmap provides a framework for long-term coordination of CEOS Agency observing programmes in support of the needs of society for AFOLU-related information. Its implementation is overseen by the LSI-VC Forests and Biomass subgroup.
- There are 48 actions across 8 recommendation areas. CEOS Principals are asked to reflect on how their activities link to each of the action areas and provide information and contacts.
- The LSI-VC Forests and Biomass team hopes to provide a public-facing means to stocktake and present CEOS Agency contributions to the AFOLU Roadmap to facilitate identification of collaboration opportunities, gaps, opportunities; communicate CEOS Agency work and achievements for AFOLU; and show progress on implementation of the AFOLU Roadmap.

SIT-41-16	CEOS Agencies to reflect on how their activities/projects link to each of the action areas of the AFOLU Roadmap and provide information and contacts to the LSI-VC Forests and Biomass subgroup leads.	31 May 2026
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Rationale: The intention is to create a public-facing means to more accurately stocktake and communicate CEOS Agency contributions to the AFOLU Roadmap to track progress and facilitate identification of gaps and opportunities. Also need CEOS Agency POCs for the LSI-VC Forests and Biomass subgroup.

7.5: Expanding the Geostationary Atmospheric Composition Constellation: Toward Global Coverage

Presenter: Emma Knowland, Ali Omar (NASA, AC-VC) [[presentation](#)]

Main points:

- CEOS Agency observations of air quality from polar-orbiting missions offer global coverage, but limited temporal resolution. However, gaps remain in observing diurnal cycles, rapidly changing events, and specific pollutants in the southern hemisphere and populated northern hemisphere regions.
- Five new geostationary satellites have been identified to cover the gaps, which will provide continuous, wide-area coverage over currently undermonitored regions. Significant ownership and participation at the regional level will be required to build capacity. Inclined Geosynchronous Orbits (IGOs) are also proposed to observe under-monitored regions at high northern latitudes.
- The paper will be presented to CEOS Principals later in 2026, and will be shared shortly for review.

Discussion

- Jonathon Ross (Geoscience Australia, CEOS Chair Team) suggested the team plan to present at Plenary for acknowledgement. Emma Knowland (NASA, AC-VC Co-lead) replied that the higher level of endorsement might help the weight of CEOS in getting the attention that these groups need to implement the recommendations. The CEOS Chair and SIT Chair Teams will continue discussing with AC-VC to prepare the document for Plenary.

7.6: WGCapD and EOTEC DevNet

Presenter: Yasha Moz (NASA, EOTEC DevNet) [[presentation](#)]

Main points:

- WGCapD member agencies are currently working to execute 16 deliverables, including supporting the uptake of Copernicus data in Africa, providing training events for satellite data utilisation, and developing guidance for capacity building needs assessment.
- WGCapD recently supported a UN/UNU-INWEH/CEOS Training event on Resilience and Humanitarian Aid, with participation by 17 organisations, 5 CEOS Agencies and 23 national embassies in a blend of theoretical and practical training for the utilisation of EO data. Further editions of the training were requested on an annual basis, with deeper technical modules and multi-sensor analyses.
- Recent activities have begun with CEOS WGClimate to address capacity building needs for the climate domain and with WGDisasters and its new pilot projects. Engagements have also begun with the CEOS Biodiversity Virtual Constellation and GEO Indigenous Alliance.
- EOTEC DevNet continues to expand, extending five years of WGCapD reach to over 2200 individuals between five global networks (UNOOSA, VLab, GEO, WMO, and CEOS) across five communication channels. An analysis of EOTEC DevNet's social network has identified successful engagement through distributed leadership, short information path lengths, distributed connections between isolated clusters, and strong regional interaction.
- Regular engagement across EOTEC DevNet is maintained by five Regional Leads and ten Working Group leads. Over the next five years, the network aims to strengthen collaboration with

WGCapD in supporting other CEOS entities, implement the EOTEC 2026-2027 Strategy, expand its network to additional EO capacity building partners, and support the SIT Chair priorities in water hazards and data for community resilience.

Discussion

- Julie Robinson (NASA, SIT Chair Team) recognised that significant domestic capacity building is required to support the community in becoming more resilient. Julie also noted that NASA intends to nominate for the WGCapD Vice-Chair position.
- Jonathon Ross (Geoscience Australia, CEOS Chair Team) suggested WGCapD consider training materials around applying interoperability in practice, in line with the resilience and interoperability discussions this week. He recognised the usefulness of such materials domestically as well, to share with universities to enhance their remote sensing courses.
- Jonathon also recognised the aspect of the 2026 CEOS-ARD Strategy which addresses the need for capacity in algorithm development and cal/val, and suggested WGCapD connect with the ARD Oversight Group.
- Yasha Moz (NASA, EOTEC DevNet) noted new members are welcome to join WGCapD, to bring specific expertise to support future training activities.

Session 8: Closing Session

8.1: NOSA 2027 CEOS Chair Priorities Preview

Presenter: Christian Hauglie-Hanssen (NOSA) [[presentation](#)]

Main points:

- The headline theme is “Trusted Satellite Data for a Better Future”, which includes three activities:
 - “True Blue” will focus on trustworthy ARD over the oceans and rapidly changing polar regions, with links to the NASA SIT Chair ‘Water Planet’ priority.
 - “True Green” will support ARD over rainforests, with links to the existing efforts of CEOS-ARD, the Biodiversity Virtual Constellation, and the Global Forest Observation Initiative (GFOI).
 - “True Future” will provide continuity to the CEOS Youth Engagement Programme.
- The 2027 CEOS Plenary will be held in Bergen, Norway, during the week of 1-5 November 2027.

8.2: Review of Actions & Decisions

The SIT Chair Team reviewed the recorded Actions & Decisions, which can be found in Appendix B.

8.3: Closing Remarks

Presenters: Julie Robinson (NASA, SIT Chair Team), Alex Held (CSIRO, CEOS Chair) [[presentation](#)]

Main points:

- The SIT Technical Workshop 2026 will be held 8-10 September 2026 in Washington DC, USA. The event will be followed by the second Water Quality Workshop on Friday 11 September 2026.
- The 2026 CEOS Plenary will be held on 3-6 November 2026 in Hobart, Tasmania, Australia. Tuesday, 3rd November will be reserved for side meetings, followed by CEOS Plenary on Wednesday 4th and Thursday 5th November. On Friday, 6th November, the Antarctic Plenary Experience will take place at the Australian Antarctic Division.

APPENDIX A: Attendees

* = virtual participation

Agency/Organisation	Name	Agency/Organisation	Name
ASI	Antonio Montuori*	NASA	Janet Nackoney*
ASI	Francesco Longo	NASA	Julie Robinson
ASI	Simona Zoffoli	NASA	Kelsey Bisson*
BoM	Agnes Lane*	NASA	Laura Lorenzoni*
CAL FIRE	Phillip SeLegue	NASA	Michelle Hanssen
CEOS Executive Officer	Eleftherios Mamais	NASA	Nima Pahlevan
CNES	Alice Andral	NASA	Robert Cheetham
CSA	Lucie Viciano	NASA	Sid Boukabara
CSA	Yann Denis	NASA	Will Mccarty
CSIRO	Alex Held	NASA	Yasha Moz
CSIRO	Shaun Levick*	NASA	Yoseline Angel
CSIRO	Zandria Farrell*	NASA/JPL	Charles Miller
DLR	Klaus Schmidt*	NASA/JPL	Edward M Armstrong*
EarthFire Alliance	Michael Falkowski	NASA/JPL	Jorge Vazquez*
ESA	Clement Albergel	NASA/JPL	Paul Rosen
ESA	Damiano Guerrucci*	NASA/SSAI	Ayia Lindquist
ESA	Eleni Paliouras	National Academy of Sciences	T. Arul Mozhi*
ESA	Ferran Gascon	NIES	Hiroshi Tanimoto*
ESA	Marc Paganini*	NOAA	Adria Schwarber Makrivadr
ESA	Marie-Claire Greening	NOAA	James Donnellon
ESA	Marie-Helene Rio*	NOAA	Mary Ann Kutny
ESA	Mirko Albani*	NOAA	Michael Ford
ESA	Yasjka Meijer*	NOSA	Christian Hauglie-Hanssen
EUMETSAT	Paul Counet*	NOSA	Erik Ola Nordbeck
EUMETSAT	Robert Husband*	NOSA	Vigdis Lonar*
European Commission	Mark Dowell*	NRCan	Catriona Armstrong*
European Commission	Peter Strobl	NRCan	Mark De Jong*
Geoscience Australia	Jonathon Ross	NRCan	Tracey Cooke
Geoscience Australia	Maggie Arnold	SIT Chair Team	Harvey Jones
Geoscience Australia	Medhavy Thankappan	SIT Chair Team	Matt Steventon
GEOGLAM	Alyssa Whitcraft	SIT Chair Team	Stephen Ward
ISRO	Nitant Dube*	SIT Chair Team / WGClimate	Libby Rose
JAXA	Ake Rosenqvist*	UKSA	Beth Greenaway*

JAXA	Osamu Ochiai	UKSA	Patrick Gibson
JAXA	Takeo Tadono*	UKSA / NCEO	John Remedios
JAXA/RESTEC	Satoshi Uenuma	UMD	Alexandra Tyukavina
JAXA/RESTEC	Toshi Kamei*	UNOOSA	Jorge Del Rio Vera*
MYSA	Kamaruzzaman Wahid*	UNOOSA	Lorant Czarán*
NASA	Ali Omar*	USGS	Darcee Killpack
NASA	David Borges	USGS	Evan Neuwirth
NASA	Eleanor Pierel	USGS	Iris Garthwaite
NASA	Emma Knowland*	USGS	Michael Budde*
NASA	Erin Urquhart	USGS/KBR	Christopher Barnes*
NASA	Gary Geller	WMO	Anthony Rea*
NASA	Jamie Nickeson*		

APPENDIX B: Actions & Decisions Record

ACTIONS

SIT-41-01	CEOS Agencies to provide feedback on the CEOS document status and handling framework .	15 May 2026
	<i>Rationale: The document clarifies the different approaches for presenting documents and decisions to CEOS leadership (Principals) and how these are managed afterwards. The document will be integrated into the CEOS Governance and Processes document. A next to final draft will be presented at the 2026 SIT Technical Workshop and be finalised for endorsement at the 2026 CEOS Plenary.</i>	
SIT-41-02	SEO to prepare a near final draft of the DOI Process Paper for discussion at the 2026 SIT Technical Workshop, with a view to endorsement at the 2026 CEOS Plenary.	SIT TW 2026
	<i>Rationale: The document clarifies the technical and governance process for CEOS documentation to receive a DOI. A next to final draft will be presented at the 2026 SIT Technical Workshop and be finalised for endorsement at the 2026 CEOS Plenary.</i>	
SIT-41-03	CEOS Agencies to provide feedback on the draft 2026 CEOS-ARD Strategy .	31 May 2026
	<i>Rationale: The Strategy is organised around six high-level pillars that are intended to remain in place for a number of years. The identification of an initial set of initiatives and tasks that will achieve the strategic outcomes of these pillars will take place between SIT-41 and the 2026 SIT Technical Workshop. To facilitate these technical discussions, CEOS Agencies are asked to confirm the pillars in the Strategy are the correct strategic directions and consider:</i> <ul style="list-style-type: none"> ● Are they actionable enough? ● How do the pillars align with national / space agency priorities? ● What can agencies and CEOS entities offer to develop and implement them? 	
SIT-41-04	CEOS-ARD Oversight Group to engage WGISS on the concept of ‘decision ready data’ to ensure alignment with the CEOS-ARD Framework.	2026 SIT TW
	<i>Rationale: CEOS-ARD was defined to provide clarity on the meaning of ‘analysis-ready’. With the emergence of the phrase ‘decision ready data’, there is a need to clearly define this and how it differs from / aligns with CEOS-ARD.</i> <ul style="list-style-type: none"> ● Is there a way to incorporate this concept under the CEOS-ARD Framework to prevent divergence? ● Should the term ‘decision ready data’ be phased out in favour of ‘decision ready information’? ● What should CEOS do in relation to the definition and provision of decision-ready information and who do we need to partner with? 	

	<ul style="list-style-type: none"> • How does CEOS-ARD interface with this concept and support the derivation of decision-ready information? • How does this align with the CEOS-ARD Framework concept of higher level / derived products and specifications. 	
SIT-41-05	CEOS Agencies to nominate points of contact to contribute to the SIT Chair’s Data Value Chain activity, by emailing nasa-sit-chair-2026-27@googlegroups.com .	31 May 2026
	<i>Rationale: SIT-41 began conversations on updating the existing CEOS Data Value Chain to fit the needs and purposes of the CEOS Agencies and represent CEOS partners/impact areas. The POCs will help develop a new Data Value Chain for presentation at the 2026 SIT Technical Workshop.</i>	
SIT-41-06	CEOS Agencies to submit impact assessment case studies to support the SIT Chair Team Impact Assessment initiative.	31 May 2026
	<i>Rationale: Additional case studies would support the in-depth impact assessment. The analysis will look at the value of EO for resilience and water focused use-cases, in alignment with the SIT Chair priorities. Submit to: "NASA SIT Chair Team 2026-2027" <nasa-sit-chair-2026-27@googlegroups.com>.</i>	
SIT-41-07	SIT Chair team to facilitate discussions between the WGDisasters subgroup on EW4All, WGCapD/EOTEC DevNet, and WMO to explore opportunities for collaboration.	2026 SIT TW
	<i>Rationale: There are perhaps connections to be made to EOTEC DevNet priorities on flood and drought, as well as opportunities for sharing algorithms/approaches between CEOS and the EW4ALL Satellite Products Dashboard.</i>	
SIT-41-08	CEOS Agencies to nominate members to the new Biodiversity Virtual Constellation.	31 May 2026
	<i>Rationale: CEOS SIT established the Biodiversity Virtual Constellation, following the proposal process outlined in the Virtual Constellation Process Paper.</i>	
SIT-41-09	B-VC to work with the CEOS Chair Team to develop a CEOS statement for UN CBD COP-17.	June 2025
	<i>Rationale: CEOS delivers a statement annually to UNFCCC SBSTA, and it would be good to also showcase the use of EO to the biodiversity policy community. Previous SBSTA statements can be used as a guide for the level and type of content.</i>	
SIT-41-10	SIT Chair Team to work with ICGS-SAR leadership to develop the Full Proposal for a CEOS Synthetic Aperture Radar Virtual Constellation (SAR-VC).	2026 SIT TW
	<i>Rationale: Bringing ICGS-SAR under the CEOS umbrella increases coordination opportunities and reduces overlap.</i>	

SIT-41-11	CEOS Agencies to consider how their activities link to the SIT Chair’s Water Planet Best Practices and Guidance Document, and nominate points of contact for the editorial team by emailing nasa-sit-chair-2026-27@googlegroups.com .	31 May 2026
	<i>Rationale: The SIT Chair Team kicked off the writing team at SIT-41 as part of Priority #1: “Water Planet - Seeing Earth’s Water From Space.” The Team is opening the opportunity for additional CEOS entities to nominate POCs and contribute to the document.</i>	
SIT-41-12	CEOS Agencies to provide feedback to the authors of the CEOS Aquatic Carbon Roadmap, Marie-Helene Rio < Marie-Helene.RIO@esa.int >, Hiroshi Murakami < murakami.hiroshi.eo@jaxa.jp >, and Laura Lorenzoni < laura.Lorenzoni@nasa.gov >, to be delivered two weeks prior to the 2026 SIT Technical Workshop ahead of its submission to the 2026 CEOS Plenary for acknowledgement.	30 June 2026
	<i>Rationale: OCR-VC has drafted the roadmap and now requires input from the broader CEOS community, in particular the agencies and individuals involved with the CEOS GHG and AFOLU Roadmaps to ensure alignment and complementarity.</i>	
SIT-41-13	CEOS Agencies are asked to nominate additional points of contact to contribute to the stocktake of the first five Essential Agriculture Variables (EAVs) being undertaken in the LSI-VC GEOGLAM Subgroup.	31 May 2026
	<i>Rationale: The LSI-GEOGLAM team is aware that there are many more efforts already undertaken by CEOS agencies related to observations and EAV development that should be included in the stocktake. Additional CEOS agencies need to be involved in the LSI-GEOGLAM Subgroup. The CEOS MIM Database and LSI-GEOGLAM team will scope an agriculture portal to present findings of the stocktake.</i>	
SIT-41-14	SIT Chair Team to coordinate a discussion at SIT Technical Workshop 2026 with commercial and non-profit satellite operators to raise awareness of CEOS activities, and understand barriers and opportunities for future engagement.	SIT TW 2026
	<i>Rationale: There are varying levels of engagement with the commercial sector across the Virtual Constellations and Working Groups, and a coordinated discussion around barriers and opportunities would help inform future engagement.</i>	
SIT-41-15	As part of the DOI process paper work, SEO to consider a means for consistently distinguishing (visually) CEOS documents, considering alignment with the needs of the in progress CEOS Document Status and Handling Framework.	SIT TW 2026

	<p><i>Rationale: It would be helpful to have a simple and flexible standardised branding for CEOS outputs. However, this should not be at the expense of visual variety.</i></p>	
<p>SIT-41-16</p>	<p>CEOS Agencies to reflect on how their activities/projects link to each of the action areas of the AFOLU Roadmap and provide information and contacts to the LSI-VC Forests and Biomass subgroup leads.</p>	<p>31 May 2026</p>
	<p><i>Rationale: The intention is to create a public-facing means to more accurately stocktake and communicate CEOS Agency contributions to the AFOLU Roadmap to track progress and facilitate identification of gaps and opportunities. Also need CEOS Agency POCs for the LSI-VC Forests and Biomass subgroup.</i></p>	

DECISIONS

DECISION 01	CEOS SIT established the Biodiversity Virtual Constellation (B-VC), and endorsed the B-VC Terms of Reference and Implementation. SIT welcomed ESA, CSA and NASA as co-leads of B-VC.
	<i>Rationale: The Full Proposal, Terms of Reference and Implementation Plan was presented and reviewed by CEOS SIT, in accordance with the Virtual Constellation Process Paper.</i>
DECISION 02	CEOS SIT endorsed the current CEOS GitHub Governance Repository .
	<i>Rationale: Establishes the core licensing and procedures for operation of the CEOS Organisational GitHub. The governance is captured in a GitHub repository and there is potential for this governance to continue evolving over time. If this happens, proposed changes will be brought to future Principal-level meetings for further endorsement.</i>
DECISION 03	CEOS SIT endorsed the 2026-2027 CEOS Communication Strategy.
	<i>Rationale: Provides strategic direction and guidance for the coming two year period, in particular overarching objectives, specific campaigns and stakeholders.</i>
DECISION 04	CEOS SIT acknowledged the receipt of the ICGS-SAR Initial Proposal to become a SAR Virtual Constellation.
	<i>Rationale: ICGS-SAR is a mature and functioning external group that is seeking to be incorporated into CEOS. It has a well defined role, activities, and membership. The SAR-VC has a draft terms of reference and will work to develop a Full Proposal by the 2026 SIT Technical Workshop.</i>
DECISION 05	CEOS SIT endorsed the WGCV Land Product Validation (LPV) Subgroup Land Cover and Change Map Accuracy Assessment and Area Estimation Good Practices Protocol.
	<i>Rationale: The good practices protocol recommends that map accuracy assessments be prioritised, planned, and sufficiently resourced as a core aspect of research projects and products.</i>