**Minutes V1.0**

**333rd CEOS SECRETARIAT MEETING**

Thursday, 13 March 2025

Chaired by UKSA

**Participants**

**Biodiversity Study Team:** Marc Paganini

**CSA:** Frédéric Fournier, Carmen Marcu

**ESA:** Marie-Claire Greening

**EUMETSAT:**  Paul Counet

**Executive Officer Team:** Steven Ramage, Irena Drakopoulou, Lefteris Mamais

**GA:** Jonathon Ross, Maggie Arnold

**JAXA SIT Chair Team:** Osamu Ochiai, Yuko Nakamura, Satoshi Uenuma, Teppei Sato

**NASA:** Christine Bognar

**NOAA:** Katy Matthews

**OCR-VC:** Jeremy Werdell

**SEO:** Dave Borges

**UKSA CEOS Chair Team:** Beth Greenaway, Niall Bradshaw, Patrick Gibson, John Remedios, Svetlana Zolotikova, Matt Steventon, Libby Rose, Harvey Jones

**WGCapD:** –

**WGCV:**  Cody Anderson

**WGClimate:** Wenying Su

**WGDisasters:**  Laura Frulla

**WGISS:**  Tom Sohre

1. **UKSA CEOS Chair Welcome and Action Review**

Beth Greenaway (UKSA, CEOS Chair Team) welcomed participants to SEC-333. Beth reviewed the agenda, and no additions or changes were requested.

**Action Review**

Updates were provided for the following open CEOS SEC actions:

329-03: *Upon receipt of the final minutes, decisions, and actions of the 2024 CEOS Plenary, the CEOS Executive Officer Team will reach out to agencies that were not present at the meeting to ensure they have received and digested the executive summary and are aware of the 2025 CEOS Chair themes. This will also present an opportunity to update the information on the CEOS website (under “Our Agencies”) that lists CEOS Agency Principals and Contacts, as well as the corresponding listservs.*

* Steven Ramage (CEOS Executive Officer) suggested that this action be closed as the initial action has been completed. The review of CEOS Agency Principals and Contacts is an ongoing process and will be continued under the regular duties of the CEOS Executive Officer.

331-01: *CEOS Executive Officer to undertake an assessment of CEOS Agency participation in the 2025 GEO Global Forum (Rome, Italy; 5-9 May 2025).*

* Steven Ramage (CEOS Executive Officer) found that ESA, Geoscience Australia, JAXA, NASA, ASI, DLR, ECCC, and UNOOSA are planning to attend the GEO Global Forum. CEOS SEC action 331-01 was closed.
* Steven noted that CEOS, as a Participating Organisation of GEO, should have formal representation at the GEO Ministerial and Plenary sessions. This is usually the SIT Chair, CEO, or other designee.

|  |  |  |
| --- | --- | --- |
| **333-01** | CEOS Chair Team to ensure CEOS representation at the GEO Ministerial and Plenary is on the agenda for SEC-334. The CEOS Secretariat should confirm who will represent CEOS at the GEO Plenary. | **SEC-334** |

* Marie-Claire Greening (ESA) noted that the end of March was the deadline ESA (also a Participating Organisation of GEO) received for providing their delegate list for the GEO Ministerial and Plenary sessions. However, due to the delay in providing the agenda, CEOS should request an extension to this deadline, so that the CEOS delegation can be discussed at SIT-40 (Fukuoka, Japan; 8-10 April, 2025).
* Marie-Claire added that ESA will also host an exhibition booth at GEO Global Forum 2025, and inputs from the CEOS community are welcomed, in the absence of a dedicated CEOS exhibition booth.
* Dave Borges (NASA, SEO) noted that due to changes in U.S. Federal Government regulations, the SEO will be unable to provide a CEOS exhibition booth at the 2025 GEO Global Forum.
* Marie-Claire Greening (ESA) has worked to ensure ESA can cover the costs for a CEOS exhibition booth at the Living Planet Symposium 2025 (Vienna, Austria; 22-27 June, 2025), to ensure CEOS representation at this event.

332-01: *CEOS Chair Team to poll the Secretariat to find a time for a dedicated meeting to discuss experiences regarding CEOS engagement with GEO. Ahead of the meeting, Secretariat members will be invited to share any views and experiences to inform the agenda. Key areas for collaboration with GEO, including activities proposed for the new GEO Work Plan, should be considered.*

* The CEOS Chair Team held a series of calls with individuals to discuss this matter. The action will be closed.

332-02: *CEOS Executive Officer to clarify the decision to volunteer for the Innovative Funding Task Team of the GEO Programme Board (via email to the CEOS Secretariat mailing list).*

* Steven Ramage (CEOS Executive Officer) conferred with the CEOS SIT Chair and CEOS Chair on this matter and later notified the GEO Secretariat that he will not participate in the group. This was communicated to the CEOS Secretariat via the mailing list on 11 March, 2025.
1. **BioSpace25 Report and Biodiversity Study Team Update**

Marc Paganini (ESA, BST Co-Lead) reported:

* BioSpace25 (Frascati, Italy; 10-14 February 2025) was the first international conference dedicated to Earth observation for all areas of biodiversity. Organised by ESA, the conference engaged a wide range of stakeholders, and the response from the community exceeded expectations.
* ESA received over 500 submissions for content, some of which had to be rejected due to limited space. The conference was the largest event ever organised at ESRIN with 430 participants.
* There was widespread interest to host another conference in 2027.
* At BioSpace25, the CEOS Biodiversity Study Team (BST) organised a workshop to gather input for the BST’s stakeholder assessment work and to understand barriers to the uptake of space-based EO for biodiversity. The workshop concluded that better integration with the *in situ* community is needed to improve data products and make them more widely available.
* The first task of the BST is a stakeholder assessment, which will be followed by CEOS Agency consultations to seek opportunities to leverage existing work. Different leads have been identified for each stakeholder assessment.
* For SIT-40 (Fukuoka, Japan; 8-10 April, 2025), the BST is hoping to present a draft assessment of stakeholder needs, alongside a preliminary assessment of what CEOS can aim to address.
1. **CEOS Chair Report**

Niall Bradshaw (UKSA, CEOS Chair Team) reported:

* The Climate and Clean Air Conference 2025 will take place next week (Brasilia, Brazil; 16-21 March, 2025). It will be co-chaired by the UK Department for Energy Security and Net Zero. This role will support and advocate the use and uptake of the *Common Practices for Quantifying, Reporting, Validating, and Assessing Facility Scale Methane Emissions Using Remote Sensing* (methane best practices) being developed by the Greenhouse Gas Task Team under WGClimate. The Climate and Clean Air Coalition (CCAC) have requested a two-page brief on the document, to explain the work and the linkage to the Global Methane Pledge.
* The UKSA CEOS Chair and JAXA SIT Chair teams are organising a side meeting at SIT-40 to explore the links between CEOS Agencies and their respective national UNFCCC COP negotiators and delegates. A concept note has been developed and will be shared with the CEOS Secretariat soon. UNFCCC COP negotiators from the UK and Japan will participate.
* The UKSA CEOS Chair successfully held the first CEOS in Schools webinars on 26 February 2025, focused on applications of EO for the urban environment and natural disasters. Over 120 students from six countries participated, all of whom worked through and discussed various case studies. Preparations are underway for the second set of webinars on March 26, 2025, which will focus on EO for biodiversity and will feature a speaker from ESA’s Biomass mission team.
* A poster exercise will be conducted by students following the international webinars, which will be presented at the CEOS Youth Event at the 2025 CEOS Plenary.
* Preparations for CEOS Plenary are ongoing; invitations will be sent shortly.
* To address the ‘EO for the Public Sector’ theme of the UKSA CEOS Chair, a side event will be held at the SIT Technical Workshop (Darmstadt, Germany; 9-11 September, 2025) to discuss agency experiences.

# SIT Chair Report

Osamu Ochiai (JAXA, SIT Chair Team) and Matt Steventon (SIT Chair Team) reported:

* The SIT-40 meeting (Fukuoka, Japan; 8-10 April, 2025) draft agenda and logistics information were circulated to the CEOS community and registered participants on 4 March, 2025. The agenda will be finalised, and no further edits will be made from 25 March 2025, two weeks prior to the meeting.
* The latest Climate Policy Impact call was held on 6 March, 2025 to encourage feedback on the UNFCCC Global Stocktake (GST) Lessons Learned Study undertaken by WGClimate, and to prepare for SIT-40 discussions. There are plans to update the Global Stocktake Strategy, beginning at SIT-40.
* The SIT Chair Team convened a coordination call between IMEO and CEOS experts on 27 February, 2025, focused on revitalising a range of collaborations, including a new database on controlled releases and observations.

**Ocean Colour Radiometry Virtual Constellation (OCR-VC) Report**

Jeremy Werdell (NASA, OCR-VC Co-Lead) reported:

* Version 2 of the CEOS-ARD Aquatic Reflectance Product Family Specification (AR PFS), updated to include the oceans, is nearing completion. The document will be reviewed by OCR-VC, IOCCG, and LSI-VC over the next few weeks before its endorsement at the upcoming IOCCG (online; 14-17 April, 2025) and LSI-VC-17 (Tsukuba, Japan; 14-16 April, 2025) meetings.
* The CEOS Aquatic Carbon Roadmap has been in development since November 2023. Scientific leads have been identified for each section, and writing has commenced. A first draft is anticipated for SIT-40 (Fukuoka, Japan; 8-10 April, 2025), with a consolidated draft to be shared at the 2025 CEOS Plenary (Bath, UK; 4-6 November, 2025). The final version is expected early in 2026, following thorough community review. The Aquatic Carbon Roadmap leads have participated in meetings with the GHG and AFOLU Roadmap leads to ensure activities across the three Roadmaps are well coordinated.
* OCR-VC contributed to a recently published peer-reviewed paper, titled [*System Vicarious Calibration for Climate and Global Long-Term Operational Ocean Color Applications*](https://journals.ametsoc.org/view/journals/bams/106/2/BAMS-D-24-0085.1.xml).
* PACE field work is ongoing, with campaign data from September 2024 being analysed, and the team exploring a global system of radiometric floats.

## CEOS Executive Officer Report

CEOS Work Plan

Steven Ramage (CEOS Executive Officer) reported:

* A draft version of the CEOS 2025-2027 Work Plan (40+ pages) was sent to the CEOS community on 6 March, 2025, with a five business day deadline for review.
* Feedback has been received regarding the ‘Chair Themes’ and ‘Strategy’ sections.
* The plan is to share a revised version of the Work Plan with CEOS Principals on 18 March, 2025, allowing three weeks to review before virtual endorsement ahead of SIT-40.

*Discussion*

* Christine Bognar noted that NASA recommends the draft Work Plan be further developed and its endorsement postponed until late April or early May. Agency contributions in CEOS vary greatly in scope and scale; some agencies need more time than others to consult with their representatives on many activities before recommending endorsement. In the annual cycle of Work Plan review (Nov.-Dec.) and development (Jan.-Feb.), it is reasonable and timely to request Agency review in February rather than March because now agencies are preparing for the SIT meeting.
* Marie-Claire Greening (ESA) agreed that the document should not be rushed and endorsement after the SIT-40 meeting would be appropriate. She added that it is important that deliverable leads keep their deliverables’ status up to date through the tracking tool throughout the year.
* Paul Counet (EUMETSAT) agreed that quality is more important than the timeline, and an appropriate review period should be defined to ensure the quality of the CEOS Work Plan.
* Beth Greenaway (UKSA, CEOS Chair Team) suggested that perhaps the document’s structure and fitness for purpose might need further discussion at the CEOS Secretariat level.

|  |  |  |
| --- | --- | --- |
| **333-02** | CEOS Executive Officer to share draft version 0.2 of the CEOS Work Plan along with a revised timeline for the endorsement. Agencies should be given at least three weeks after SIT-40 to review the document.  | **ASAP** |

Other CEOS Executive Officer Updates

Steven Ramage (CEOS Executive Officer) continued his report on other matters:

* Regarding action CEOS-38-01: *CEOS Executive Officer to consult the SIT Chair Team on the requirements and approach for the further level of analysis that was requested by the Plenary in order to close action SIT-39-01 (regarding an assessment of the level of activity of CEOS constituent groups)*
	+ The assessment is with the SIT Chair Team for final review and will then be shared with the CEOS Secretariat.
	+ Consistent with the duties of the SIT Chair role, regular meetings are held between Virtual Constellation Co-Leads and the SIT Chair Team. The CEOS Executive Officer and SIT Chair have agreed that this action be closed as a result.
* The CEOS Executive Officer supported the SIT Chair at the recent GEO Executive Committee meeting (Geneva, Switzerland; March, 2025). Funding for GEO is currently a headline issue and there is a lot of uncertainty regarding the Secretariat structure. The GEO Programme Board has reviewed the GEO Work Programme, and it is almost ready for endorsement at the GEO Global Forum (Rome, Italy; May 5-9, 2025).
* Steven recently attended the 14th GOOS Steering Committee meeting (Paris, France; 19-25 February, 2025) on behalf of COAST-VC. The meeting demonstrated how GOOS could make better use of satellite data and identified the need for closer ties to the space agency community. The GOOS Steering Committee will compile the meeting outcomes, and these will be shared with the CEOS Secretariat once available.

*Discussion*

* Jonathon Ross (GA) suggested establishing a small team to draft any interventions CEOS may wish to make at the GEO Global Forum. The new Implementation Plan will be proposed for adoption and should be reviewed by CEOS to craft any relevant interventions.

|  |  |  |
| --- | --- | --- |
| **333-03** | CEOS Executive Officer to lead the drafting of interventions for CEOS at the GEO Global Forum. Jonathon Ross (GA), David Borges (SEO), and Marie-Claire Greening (ESA) offered support. The interventions should be shared with the SEC for review via email ahead of SIT-40. | **SEC-334** |

## CEOS Systems Engineering Office (SEO) Report

Dave Borges (SEO, NASA) reported:

* With support from the NASA Scientific Visualization Studio (SVS), the SEO has created a “[CEOS Fleet](https://ceos.org/ourwork/other-ceos-activities/systems-engineering-office/)” visualisation that captures the volume and scale of the combined global satellite constellation of all CEOS member agencies. The CEOS Communications Team intends to leverage this visualisation in various ways for events, etc.
* The CEOS Analytics Lab (CAL) has received a significant update to include a new interface and back-end software. Account provision remains open to the entire CEOS community, and this can be requested on the [CAL home page](https://ceos.org/cal/).
* The SEO is coordinating with LSI-VC and WGISS on CEOS participation and input to the Cloud Native Geospatial Conference (Utah, USA; 30 April - 2 May, 2025). An update on CEOS-ARD will be presented.

## Working Group Impacts and Key Issues for Discussion

**WGCapD**

WGCapD was not represented at the SEC-333 meeting. Dan Matsapola (SANSA, WGCapD Chair) provided a written report prior to the meeting and sent apologies for not being able to attend.

**WGClimate**

Wenying Su (NASA, WGClimate Chair) reported:

* The Global Stocktake (GST) Lessons Learned document is open for review until Friday 14 March, 2025. It will be presented for endorsement at SIT-40, and the final version will be sent to the CEOS and CGMS communities next week.
* WGClimate has drafted a letter of support for WMO’s Global Greenhouse Gas Watch (G3W), to be sent by CEOS and CGMS to WMO leadership. The draft will be discussed at SIT-40 (Fukuoka, Japan; 8-10 April, 2025). The letter should be signed by the CEOS Chair and CGMS leadership.
* The revitalised IMEO Use Cases Working Group met for the first time on Tuesday 11 March, 2025. Yasjka Meijer (ESA, GHG Task Team Lead) is leading the effort from the CEOS side.
* The Space Agency Response to the GCOS Implementation Plan is being finalised for distribution to CEOS and CGMS ahead of its anticipated endorsement at SIT-40.
* The newly established UNFCCC Engagement and Coordination Tiger Team will meet on 18 March, 2025. To date, 16 members have volunteered to participate in the team.
* WGClimate is drafting a note to provide climate inputs to the WIGOS 2050 Vision. These will be ready by mid-April, and shared with Osamu Ochiai (JAXA, SIT Chair Team) and Sean Burns (EUMETSAT) as the CEOS and CGMS representatives on the expert team.

*Discussion*

* Paul Counet (EUMETSAT) suggested coordinating with Jörg Schulz (EUMETSAT) and Anne Taube (EUMETSAT) for a signature from CGMS on the letter to WMO regarding G3W.

**WGCV**

Cody Anderson (USGS, WGCV Chair) reported:

* WGCV-55 (Hyderabad, India; July 8-11 2025) [registration](https://ceosdotorg.wufoo.com/forms/zvtfaaa1p5zvd5/) is now open. WGCV will invite local commercial organisations to present on their current activities, challenges, and opportunities in a dedicated session on the agenda.
* The JACIE (Joint Agency Commercial Imagery Evaluation) workshop will take place on 7-11 April, 2025, hosted at USGS Headquarters in Reston, Virginia, USA.
* The 2025 GSICS Annual Meeting (Changchun, Jilin Province, China; 17-21 March, 2025) will be attended by Paolo Castracane (ESA) on behalf of WGCV. WGCV has also prepared several recorded presentations.

**WGDisasters**

Laura Frulla (CONAE, WGDisasters Chair) reported:

* The second meeting of the Early Warnings for All (EW4All) subgroup was held on 11 March, 2025. Natalia Donoho (WMO) and Agnes Lane (Bureau of Meteorology, Australia) attended to provide additional details on the WMO-led pillar of EW4All. Leadership of the subgroup is still to be defined, and WGDisasters asks that all CEOS Agencies nominate individuals to participate in the group.
* WGDisasters will work with the CEOS Executive Officer to develop a workshop on “Satellite Data and Early Warning for All”, which would aim to gather the four pillars of the EW4All initiative alongside the CEOS community to discuss how Earth observations can best support EW4All.
* The WGDisasters-23 meeting (Catania, Italy; 25-27 March, 2025) will be hosted by the National Institute of Geophysics and Volcanology (INGV) and may include a field trip to Mount Etna.
* The WGDisasters-24 meeting (San Carlos de Bariloche, Río Negro, Argentina; September 2025) will be hosted by CONAE. Dates for the meeting are still to be decided.

*Discussion*

* Osamu Ochiai (JAXA, SIT Chair Team) acknowledged the message from WGDisasters regarding support for EW4All. The SIT Chair Team led a presentation at SIT Technical Workshop 2024 (Sydney, Australia; 17-19 September 2024) regarding CEOS support for EW4All. The topic was delegated to WGDisasters following the discussion; however, it appears that a broader conversation is still needed.
* Marie-Claire Greening (ESA) suggested that the CEOS approach to EW4All should be more strategic, since the item is not within the typical narrative of current CEOS Principal-level priorities. EW4All should be discussed in a broad strategic fashion at SIT-40 (Fukuoka, Japan; April 8-10, 2025).

**WGISS**

Tom Sohre (USGS, WGISS Chair) reported:

* The WGISS-59 meeting is proceeding as planned for 24-28 March, 2025 in Bangkok, Thailand, hosted by GISTDA. The agenda has been adjusted to support an increased virtual participation.
* The Interoperability Handbook v2.0 draft is progressing. WGISS will review contributions at WGISS-59 and present the draft at SIT-40 (Fukuoka, Japan; 8-10 April 2025).

## AOB

Christine Bognar (NASA) shared the news that Nancy Searby, who leads the capacity building program in NASA’s Earth Science Division and has made strong contributions to capacity building in CEOS and GEO for many years, will retire on 30 May 2025. Nancy built an outstanding team around her, which is part of her legacy as a highly effective and committed leader. NASA is confident that NASA’s future engagement in WGCapD is in capable hands.

## Adjournment

Beth Greenaway (UKSA, CEOS Chair Team) thanked the participants of SEC-333. The next CEOS Secretariat meeting will be SEC-334, which will be held alongside SIT-40 on 8 April, 2025, at 9:30am JST. The plan for SEC teleconferences/meetings leading up to the 2025 CEOS Plenary is as follows (typically Thursday):

|  |  |
| --- | --- |
| SEC-334: 8 April 2025 *(at SIT-40)*SEC-335: 15 May 2025SEC-336: 17 June 2025SEC-337: 17 July 2025 | SEC-338: 21 August 2025SEC-339: 9 September 2025 *(at 2025 SIT TW)*SEC-340: 9 October 2025SEC-341: 4 November 2025 *(at CEOS Plenary 2025)* |

The start time for all teleconferences will be 7 AM U.S. Eastern. If there are face-to-face meetings, the times will be communicated closer to the dates.