**Minutes V1.0**

**331st CEOS SECRETARIAT MEETING**

Thursday, 23 January 2025

Chaired by UKSA

**Participants**

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

**Biodiversity Study Team:** Marc Paganini

**CSA:** Frédéric Fournier

**ESA:** Marie-Claire Greening

**EUMETSAT:**  Robert Husband

**GA:** Maggie Arnold

**JAXA SIT Chair Team:** Satoshi Uenuma

**NASA:** Julie Robinson, Christine Bognar

**NOAA:** Adria Schwarber

**SEO:** Dave Borges

**UKSA CEOS Chair Team:** Harshbir Sangha, Beth Greenaway, Niall Bradshaw, Shaneigh Turner, Patrick Gibson, Matt Steventon, Libby Rose, Harvey Jones

**WGCapD:** Dan Matsapola

**WGCV:**  Cody Anderson

**WGClimate:** Wenying Su

**WGDisasters:**  Laura Frulla

**WGISS:**  Tom Sohre

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

Harshbir Sangha (UKSA, CEOS Chair Team) welcomed participants to SEC-331 and reviewed the agenda for the meeting. No additions or changes were requested.

**Action Review**

The following open CEOS SEC actions were reviewed:

SEC-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) noted this action is in progress. The Executive Officer team has reviewed the official points of contact for all agencies that did not participate in the 2024 CEOS Plenary. Steven will provide an update on the status at SEC-332.

SEC-330-04: *CEOS SEC to consider whether a CEOS Community Event at the GEO Global Forum 2025 is desired. The deadline for proposals is January 31, 2025.*

* ESA (Marie-Claire Greening) provided feedback via email, noting that many CEOS Agencies will be present across the various sessions of the Forum, and it likely wouldn’t be worthwhile or feasible to organise an additional community event specifically for CEOS. Beth Greenaway (UKSA, CEOS Chair Team) agreed.
* Dave Borges (NASA, SEO) noted that the SEO will fund the CEOS booth at the Forum. This space could be used as a convening location in the absence of a formal Community Event.
* Marie-Claire Greening (ESA) recognised the importance of coordination between CEOS Agencies to ensure clear messaging at the Forum. ESA has reached out to EuroGEO and other regional GEO initiatives to understand their role and presence at the GEO Global Forum.

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| **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). | **SEC-332** |

1. **Biodiversity Study Team Status Report**

Marc Paganini (ESA, Biodiversity Study Team Co-lead) reported:

* The Biodiversity Study Team (BST) was established at the 2024 CEOS Plenary with a one-year duration. The first meeting of the BST took place on the 10th of January, 2025, with 25 participants.
* Three co-leads for the BST have been appointed based on geographical representation: Gary Geller (NASA/JPL), Shaun Levick (CSIRO), and Marc Paganini (ESA). In addition, Roger Sayre (USGS) and Jason Duffe (ECCC) were identified as leads for specific stakeholder engagement areas, with Roger leading on ecosystem extent and the GEO Ecosystem Atlas, and Jason leading UN CBD Secretariat engagement.
* Terms of Reference for the BST have been drafted and shared with team members for review and comment.
* The BST will conduct a stakeholder assessment and consult internally within CEOS to leverage existing and related activities. Information gathered will inform a proposal for a future mechanism for CEOS support for biodiversity and provide the relevant supporting documentation and an implementation plan.
* The SDG Coordination Group will likely be consulted on certain areas, including engagement with the United Nations Convention to Combat Desertification (UNCCD). As a member of both the BST and the SDG Coordination Group, Marc Paganini is well placed to ensure coordination between the two groups.
* The next meeting will take place on January 28, 2025, during which there will be confirmation of further stakeholder engagement leads.
* The [BIOSPACE25](https://biospace25.esa.int/) event (10-14 February 2025; ESA-ESRIN, Frascati, Italy) will have the participation of CEOS, the GEO Biodiversity Observation Network (GEO BON), and the Secretariat of the UN Convention on Biological Diversity (UN CBD). UKSA will provide a welcome message as CEOS Chair. All external stakeholders currently identified by the BST are expected to be in attendance and a workshop session is planned specifically focused on CEOS support to the biodiversity community.

*Discussion*

* Marc Paganini (ESA, BST Co-lead) recognised the limited resources available. However, he noted that the BST is building on previous work and existing relationships, which will help lighten the load. The first BST meeting had 25 participants, indicating broad CEOS Agency support.
* Julie Robinson (NASA) congratulated the BST on promptly drafting the Terms of Reference and selecting co-leads. Biodiversity and the work of UNCCD naturally fit well together, so it will be good to see the BST working closely with the SDG Coordination Group.
* The BST will respond to the SIT Chair’s request regarding the Step-C analysis of the UNCCD letter to CEOS.
1. **CEOS Chair Report**

Niall Bradshaw (UKSA, CEOS Chair Team) reported:

* UKSA is working with the Climate and Clean Air Coalition (CCAC) to organise a meeting with Global Methane Pledge (GMP) ‘champion’ countries in February 2025 to discuss the methane best practices.
* A letter jointly signed by the CEOS Chair and SIT Chair was sent to CEOS’ contacts at the International Methane Emissions Observatory (IMEO) last week seeking to revitalise the dialogue and calling for enhanced engagement between the two organisations in 2025.
* The CEOS Chair Team and SIT Chair Team are planning a side meeting at SIT-40 to share the experiences of CEOS Agencies who regularly attend UNFCCC COP meetings and engage with national delegations, with the goal of clarifying the process and opportunities for other CEOS Agencies. UKSA and JAXA plan to meet alongside WGClimate-22 to plan this side event. Anyone interested in contributing should contact the CEOS Chair Team.
* Harshbir Sangha (UKSA, CEOS Chair Team) will provide a keynote speech at the 40th International Symposium on Remote Sensing of Environment (ISRSE-40; March 17-21, 2025; Farnborough, UK) on behalf of the CEOS Chair. The speech will provide a general introduction to CEOS and share details of the UKSA 2025 CEOS Chair themes. Alex Held (CSIRO) will also participate and provide a keynote of his own.
* Planning for the 2025 CEOS Plenary is underway. The meeting will be held November 4-6, 2025, in Bath, UK. An invitation letter will be sent to the "CEOS community in the coming months.
* The CEOS Chair Team is aware of the need to identify a CEOS Chair for 2027, nominally from the Americas region, before CEOS Plenary 2025 and will begin steps to solicit nominations.

Patrick Gibson (UKSA, CEOS Chair Team) reported on the “CEOS In Schools” programme:

* The “CEOS In Schools” programme is progressing well, with seven countries engaged. UKSA have run workshops at four schools in the UK so far.
* There are three pillars to the programme: 1) pilot workshops and Youth Summit, 2) collation of educational materials from CEOS Agencies, and 3) ensuring the programme continues in future years.
* Version 1 of the “CEOS In Schools” teaching material was shared with CEOS SEC earlier today. All material is repurposed and focuses on introducing students to EO and its application for the urban environment and biodiversity.
* The next step in the programme are the international workshops, which will see schools from around the world participating in two workshops, the first on February 26, 2025 and the second in March. The aim of these is to be interactive and present a chance for discussion between students. Information about these workshop sessions will be shared in the next couple of weeks.
* The hope is to embed this as a longer term project within CEOS. UKSA has had some early discussions with Dan Matsapola (SANSA, WGCapD Chair) on the possibility for “CEOS in Schools” to find a permanent home in WGCapD.

*Discussion*

* Marie-Claire Greening (ESA) via chat: *“CEOS Chair, please can you share the letter that has been sent to IMEO with the SEC?”*

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| **331-02** | SIT Chair Team to share the letter sent to the International Methane Emissions Observatory (IMEO) on January 15,2025, with the CEOS Secretariat mailing list. | **COMPLETE** |

* Steven Ramage (CEOS Executive Officer) via chat: *“I managed to quickly browse the CEOS Youth teaching material. It's good but I only see European resources mentioned (I did say I only managed to browse quickly). Since this is branded as CEOS will you obtain more info from other global regions?”.* Beth Greenaway (UKSA, CEOS Chair Team) responded saying the UKSA team would like to include materials from other CEOS Agencies and regions, however none have been received.
1. **SIT Chair Report**

Matt Steventon (SIT Chair Team) reported on behalf of Osamu Ochiai (JAXA, SIT Chair Team) who was attending a WMO WIGOS Vision 2050 development meeting at the time of the CEOS Secretariat meeting.

* Planning for SIT-40 is progressing, with [registration](https://ceosdotorg.wufoo.com/forms/zm502hh1c7zocj/) and [side meeting request](https://ceosdotorg.wufoo.com/forms/zfvcvyc0xat42x/) forms recently distributed via email. As noted in the email, these links are not being posted to the CEOS website to curb spam and registrations from the public.
* Objectives for SIT-40 have been drafted, considering discussions, actions and decisions from past SIT, SIT Technical Workshop and CEOS Plenary meetings, as well as inputs from the Virtual Constellations and Working Group inputs from CEOS Secretariat meeting reports. The draft objectives will be shared with the CEOS Secretariat shortly, with a full draft agenda to be shared ahead of SEC-332.
* A CEOS Carbon Roadmaps Coordination Call was held on January 20, 2025, with the leads from the Greenhouse Gas, AFOLU and Aquatic Carbon Roadmaps participating. One objective was to help the Aquatic Carbon Roadmap team plan their document and explore necessary interfaces. Another call is planned in February, following the WGClimate-22 meeting.
* LSI-VC is still seeking nominations for the Polarimetric-Interferometric SAR (PolInSAR) team (Action SIT-39-09).
* The latest round of biannual SIT Chair consultation calls with Virtual Constellation co-leads is almost complete. The summary notes will be shared with the CEOS Secretariat for information once complete.
* The SIT Chair Team thanks the Biodiversity Study Team for agreeing to support the assessment of the UNCCD request to CEOS.

*Discussion*

* Harshbir Sangha (UKSA, CEOS Chair Team) recognised that SIT-40 clashes with the 40th Space Symposium (7-10 April 2025; Colorado Springs, CO, USA). UKSA is finalising their delegation assignments for each of these events.

## CEOS Executive Officer Report

Steven Ramage (CEOS Executive Officer) reported:

* The request for CEOS Work Plan updates was sent to all Working Groups, Virtual Constellations and other CEOS entities and stakeholders on January 20, 2025. Updates are requested by February 20, 2025.
* The Executive Officer has been joining calls with all Virtual Constellations organised by the SIT Chair, highlighting that the discussions provide useful input for action CEOS-38-01.
* The CEOS Chair has been invited to share a recorded message at the [BIOSPACE25](https://biospace25.esa.int/) conference (10-14 February 2025; ESA-ESRIN, Frascati, Italy). This will be shown alongside remarks from the directors of related international organisations.

## CEOS Systems Engineering Office (SEO) Report

Dave Borges (SEO, NASA) reported:

* The new ‘Commercial Collaboration’ page has been added to the CEOS website: <https://ceos.org/about-ceos/commercial/>. The approved CEOS internal document addressing commercial engagement is expected to be distributed to the CEOS community this week *(Update: distributed Friday, January 24)*.
* Regarding UNCCD COP 16, Neil Sims (CSIRO) attended and represented CEOS during multiple events, presenting on ‘Horizon Scanning’ during the Plenary session, and serving on the High-Level Dialogue Panel chaired by Yana Gevorgyan (GEO Secretariat Director). The SDG Coordination Group will likely pursue UNCCD Civil Society Organization (CSO) accreditation later this year.
* The CEOS SDG Coordination Group is actively working to finalise a UNCCD external request process response for the SIT Chair.
* The SEO is hosting a CEOS exhibition booth at the GEO Global Forum (Rome, Italy; 5-9 May 2025) and ESA Living Planet Symposium (23-27 June 2025; Vienna, Austria).
* The SEO is supporting the Cloud Native Geospatial Conference 2025 (30 April to 2 May, 2025; Snowbird, Utah, USA). WGISS, LSI-VC, the CEOS-ARD Oversight Group and the SEO are coordinating to ensure CEOS representation across the conference, in particular on the topics of interoperability and CEOS-ARD.

## Working Group Impacts & Key Issues for Discussion

**WGCapD**

Dan Matsapola (SANSA, WGCapD Chair) reported:

* WGCapD is looking at options for their 2025 in-person meeting, including the possibility of co-locating the meeting alongside another conference in Europe. The Chair hopes to ensure maximum in-person attendance, which may mean holding the meeting later than the traditional March period.
* SANSA is excited to participate in the CEOS In Schools pilot. WGCapD is also open to exploring options to host the programme within WGCapD in the long-term.
* WGCapD is discussing new deliverables for the 2025-2027 CEOS Work Plan, aligned with the UN SDGs and exploring further collaboration with other Working Groups, including WGDisasters.
* WGCapD is fortunate to have Dr. Arijit Roy (IIRS/ISRO) taking part in both WGCapD and WGDisasters, which is helping to support collaboration between the two Working Groups.

**WGClimate**

Wenying Su (NASA, WGClimate Chair) reported:

* WGClimate has finalised the Space Agency Response to the GCOS Implementation Plan (IP), providing comprehensive responses to all 48 space-related activities. The report has been submitted to the GCOS Panels for review, with a feedback deadline of February 14, 2025.
* Following the review, WGClimate will incorporate the feedback received, and share the revised Space Agency Response to the GCOS IP with the CEOS and CGMS communities for review by early March 2025. Endorsement of the document will be sought at SIT-40 in April 2025.
* Preparation for the joint WGClimate and GHG Task Team meeting is progressing, with the near-final agenda now available on the CEOS website. To date, 69 participants have registered, including 44 who plan to attend in person.
* The Canadian Space Agency has nominated Dr. Mark Dejmek to serve as their representative to WGClimate.
* The *"Lessons Learned and Recommendations from Space Agencies' Support for the First Global Stocktake"* document is currently under development, with a draft expected to be completed by the end of January 2025.

**WGCV**

Cody Anderson (USGS, WGCV Chair) reported:

* On January 14, 2025, WGCV IVOS and LPV members attended an online workshop of the CEOS Surface Reflectance Quality and Consistency project. The workshop had over 50 attendees and sought to define the measurand and parameters for Surface Reflectance products.
* WGCV has endorsed the *‘Good Practice Guidelines for UAV-based Surface Reflectance Validation’* document.

**WGDisasters**

Laura Frulla (CONAE, WGDisasters Chair) reported:

* CNES will serve as the lead agency of The International Charter: Space And Major Disasters for the period of October 2025 to April 2026. It is expected that this will help to reinforce links between the Recovery Observatory Demonstrator and the Charter.
* The Early Warnings for All (EW4All) subgroup will meet for the second time in March. The objective is to define leadership and discuss the way forward. The SIT Chair Team and Executive Officer also suggested organising an online workshop for all EW4All partners to meet with CEOS. The goal of this workshop would be to discuss and clarify the scope of CEOS support for the initiative. The WGCapD Chair has been invited to join the EW4All subgroup as well.
* The UNCCD request to CEOS was raised during the recent WGDisasters teleconference, and in an email sent to WGDisasters members requesting participation in the Step-C assessment of the CEOS External Request Process.
* Antonio Montuori (ASI) will present *“The Italian Space Agency Contribution to CEOS WGDisasters For Disaster Monitoring And Response”* at the EGU General Assembly meeting to be held in Vienna from April 27 to May 2, 2025.
* Global Volcano Early Warning and Eruption Response from Space (G-VEWERS) activities will be presented at the Scientific Assembly of the International Association of Volcanology and Chemistry of Earth’s Interior (IAVCEI) meeting in Geneva, to be held from June 29 to July 4, 2025.
* WGDisasters-23 will be held in Catania, Italy, on March 25-27, 2025, at the invitation of the National Institute of Geophysics and Volcanology (INGV).
* WGDisasters-24 will be held in Argentina in September at the invitation of CONAE.

**WGISS**

Tom Sohre (USGS, WGISS Chair) reported:

* WGISS is soliciting candidates for their next Vice Chair, to commence at CEOS Plenary 2025.
* UKSA has stepped up to co-lead the Technology Exploration Interest Group, alongside JAXA, with the nomination of Maral Bayaraa from the UK’s Satellite Applications Catapult.
* Registration for WGISS-59 (24-28 March, 2025; Bangkok, Thailand) is now open [here](https://ceosdotorg.wufoo.com/forms/zpi4yqx1v6nrn5/), and the draft agenda is in progress.
* WGISS will participate in a few events in the coming months, including the 3rd CGMS WGIV Cloud Technology Workshop in March, and the Cloud Native Geospatial Conference in April.

*Discussion*

* Harshbir Sangha (UKSA, CEOS Chair Team) expressed that UKSA is happy to support Maral Bayaraa, from UK’s Satellite Applications Catapult, as the new co-lead for the WGISS Technology Exploration Interest Group.

## AOB

WGCapD Vice Chair Nominations

Dan Matsapola (SANSA, WGCapD Chair) noted that WGCapD has started looking for its next Vice Chair to assume the role from CEOS Plenary 2025. He requested that the CEOS Secretariat consider potential candidates.

ESA Living Planet Symposium (23-27 June 2025; Vienna, Austria)

Marie-Claire Greening (ESA) noted that the programme for ESA’s Living Planet Symposium is still under formulation and won’t be finalised until April. Marie-Claire is coordinating an International Collaboration Plenary session, to which Paul Bate (UKSA, CEOS Chair) has been invited to speak as CEOS Chair. Other CEOS Agencies have also been invited to speak at the event.

CEOS-GEO Relationship

Dan Matsapola (SANSA, WGCapD Chair) asked for an update on the state of CEOS and GEO relations, particularly at higher levels of management. He asked if CEOS is still considered the ‘space arm’ of GEO and about the implications of the GEO Post-2025 Strategy on CEOS activities. A discussion followed:

* Steven Ramage (CEOS Executive Officer) noted that the relationship between CEOS and GEO hasn’t changed much in recent times. CEOS remains represented on the GEO Executive Committee and the GEO Programme Board. There are various activities and consultations at the working level.
* Christine Bognar (NASA) noted that the relationship is not the same. The removal by GEO of their liaison on the CEOS Secretariat is still being felt across CEOS on matters for which there was consultation for years. GEO has indicated to CEOS that this lack of a liaison on the CEOS Secretariat will not change. It is also relevant for the new CEOS Chair team to be aware that the composition of the GEO Secretariat has changed considerably; there are fewer remote sensing experts with whom CEOS can engage about EO requirements, which for years was the way GEO and CEOS interacted. As a result, CEOS is getting an increasing number of questions and requests to perform work that GEO used to do as the convening authority. She also noted that requests from GEO should be directed to the CEOS Chair; CEOS has a defined process for triage. Such requests are at the GEO organizational level and should not be directed to a specific WG, VC, or ad hoc team in CEOS.
* Steven Ramage (CEOS Executive Officer) noted that he and the previous Executive Officer have raised these issues with the GEO Secretariat Director, the GEO Programme Board, and others with no result.
* Marie-Claire Greening (ESA) suggested that CEOS is no longer generally considered the ‘space arm’ of GEO since the change in direction of GEO in recent years. CEOS Agencies continue to be present throughout the GEO Work Programme and can be found in practically every working-level element, but collectively, CEOS needs to consider how to rebuild engagement at the more strategic level. Resourcing requests to space agencies need to be considered carefully, and we are increasingly seeing that such requests are directed at individuals rather than the collective. In some cases, this is appropriate, but in many there is a need to deal with requests in the proper manner as consistent with their scale and strategic nature.
* Dave Borges (NASA, SEO) via chat: *“​​Historically, we also had annual GEO-CEOS coordination meetings (in Jan/Feb). These were also dropped by GEO.”*
* Adria Schwarber (NOAA) via chat: *“We might recognize that GEO is also going through a major change with the Post-2025 Strategy so they may not be ready.”*
* Beth Greenaway (UKSA, CEOS Chair Team) asked whether there was a need for the CEOS Chair to meet with the GEO Secretariat Director. Marie-Claire Greening (ESA) noted that CEOS-GEO bilateral meetings used to happen every year. However, the last one of these was held in early 2022. When CEOS requested subsequent meetings in 2023 and 2024, the idea was pushed back by the GEO Secretariat as not needed. Their rationale was that these types of annual bilateral coordination meetings only happened for CEOS and not for any other GEO Participating Organisation. Our response was to point out that CEOS is not like other Participating Organisations and that space-based EO forms such an important and integral part of the GEO Work Programme that we would both benefit from enhanced coordination, as had previously been the case.

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| **331-03** | CEOS Chair with support from the CEO to convene a dedicated meeting of the CEOS Troika to further discuss the status of CEOS’ relationship with the GEO Secretariat and consider approaches to potentially re-establishing more frequent dialogue. It was suggested that a letter might be appropriate. | **February 2025** |

## Adjournment

Harshbir Sangha (UKSA, CEOS Chair Team) thanked the participants of SEC-331. The next CEOS Secretariat meeting will be SEC-332 on February 20, 2025. The plan for SEC teleconferences/meetings leading up to the 2025 CEOS Plenary is as follows (typically Thursday):

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| SEC-332: 20 February 2025SEC-333: 13 March 2025SEC-334: 8 April 2025 *(at SIT-40)*SEC-335: 15 May 2025SEC-336: 17 June 2025 | SEC-337: 17 July 2025SEC-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 advised closer to the dates.