**Minutes V1.0**

**308th CEOS SECRETARIAT MEETING**

Thursday 18 May 2023

Chaired by GISTDA

**Participants**

**CEO:** Marie-Claire Greening

**CSA:** Frédéric Fournier, Emma Fernandes

**EUMETSAT:** Robert Husband

**ESA SIT Chair Team:** Eleni Paliouras, Stephen Briggs, Stephen Ward

**GISTDA:** Pakorn Apaphant, Atipat Wattanuntachai, Sutinee Sihirunwong,

Matt Steventon, Riza Singh

**JAXA:** Osamu Ochiai, Yukio Haruyama, Satoshi Uenuma

**NASA:** Julie Robinson, Christine Bognar

**NOAA:** Steve Volz, Charles Wooldridge, Katy Matthews

**SEO:** Dave Borges

**WGCapD:** Jorge Del Rio Vera

**WGCV:**  Philippe Goryl

**WGClimate:** Jeff Privette

**WGDisasters:**  Laura Frulla

**WGISS:**  Makoto Natsuisaka

1. **Welcome and Introductions, Review of Agenda, Review of Actions**

Pakorn Apaphant (GISTDA, CEOS Chair) welcomed everyone to CEOS SEC-308. It was noted that the open SEC actions will be covered under their respective agenda items.

## CEOS Chair Report

Pakorn Apaphant (GISTDA, CEOS Chair) reported:

* The selection of the hotel for CEOS Plenary 2023 will be finalised next week and it is expected that the formal invitation will be sent to CEOS Agencies in the first week of June 2023.
* The CEOS Chair will attend the upcoming 66th United Nations Committee on the Peaceful Uses of Outer Space (UN COPUOS) meeting in Vienna, which is due to take place from May 31 to June 9, 2023. Pakorn will deliver a CEOS statement at the meeting. Feedback is welcomed on the draft statement, which was emailed to the SEC by Marie-Claire Greening (CEOS Executive Officer) on May 10, 2023.
* ﻿The CEOS Chair Team asks that SEC help them follow up with Working Group and Virtual Constellations contacts regarding their request for assistance with the observation gaps section of the New Space Task Team Working Document, which has been delegated to GISTDA.
* Consistent with the CEOS Terms of Reference (excerpt below), it was noted that CEOS needs to identify a candidate agency to be 2025 CEOS Chair from the Europe/Africa region before the 2023 Plenary. (CSA is already confirmed as the 2024 CEOS Chair.)

*“At the Plenary meeting of CEOS, the time, place, and host (CEOS Chair) for the next two meetings will be confirmed. Every effort should be made to rotate the CEOS Chair responsibility among major geographic regions (Americas, Europe/Africa, Asia/Pacific) to promote leadership diversity.”*

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| **308-01** | CEOS Chair team to email the SEC summarising the status of their request for support with the New Space Task Team Working Document. SEC representatives are asked to please follow up their agency contacts, where applicable. | **SEC-309** |

1. **SIT Chair Report**

Eleni Paliouras (ESA, SIT Chair Team) reported:

* The New Space Task Team (NSTT) is working on finalising the table of contents for their white paper, which will be presented for endorsement at the 2023 CEOS Plenary.
* The International Methane Emissions Observatory (IMEO) Satellite Coordination Workshop is scheduled to take place at Harvard University in Cambridge, Massachusetts, USA on June 7-8, 2023. The SIT Chair Team has been coordinating CEOS participation.
* Significant progress has been made on the development of the 2023 Earth Observation Handbook (EO Handbook), which has a focus on EO support to the Paris Climate Agreement and the Global Stocktake (GST). It was reiterated that the SEC will be given the opportunity to review the Handbook in the late June timeframe. This edition will be entirely digital.
* Stephen Ward (SIT Chair Team) provided an update on the Agriculture, Forestry, and Other Land Uses (AFOLU) Roadmap document. It was noted that Ben Poulter (NASA) continues to lead the development of this document. The team is nearing completion of the recommendations section and recently designed a cover. The document is in the final stages of technical review. Several iterations and rounds of feedback are anticipated before presenting the roadmap to the SIT Technical Workshop and seeking endorsement at the 2023 CEOS Plenary. A version of the document will be shared with the SEC soon.
* SIT Technical Workshop 2023 will be held at ESA ESRIN in Frascati, Italy on October 17-19, 2023.

1. **CEOS Executive Officer Report**

Marie-Claire Greening (CEOS Executive Officer) reported:

* Marie-Claire emailed to the SEC a draft of the CEOS Statement that Pakorn will present in person at the 66th UN COPUOS meeting in Vienna on June 1, 2023. The final version of the Statement will also be posted online on the UN COPUOS [website](https://www.unoosa.org/oosa/en/ourwork/copuos/2023/index.html). Final comments on the draft statement are welcomed by 19 June.
* The CEOS community slide deck has been split into five separate presentation packs, namely: Overview of CEOS, CEOS Leadership, Working Groups (WG), Virtual Constellations (VC), and *Ad Hoc* and Task Teams. The slide deck is now ready and will soon be posted on the CEOS website. The plan is to update it as needed, and at minimum, annually. Please direct any inputs or suggestions to Marie-Claire at any time.

CEOS-GEO Relationship

This is a follow up to the preliminary discussion held at the CEOS SEC-307 meeting regarding the state of overall GEO-CEOS interaction. Today’s SEC discussion aims to cover GEO-CEOS communication (i.e., the identification of a new GEO Secretariat representative to CEOS, the potential strengthening of the CEOS liaison point for GEO), as well as the state of overall GEO-CEOS interactions.

* GEO is an important partner for CEOS. In GEO governance, CEOS is a Participating Organisation to GEO and is often described as the ‘space arm’ of GEO. Understanding the full extent of CEOS activities that contribute to GEO is a challenge, given that some substantial contributions are made by CEOS agencies through their intergovernmental engagement in GEO, and not under the “CEOS” banner.
* CEOS participates in GEO at a strategic level through its elected observer status on the GEO Executive Committee (GEO ExCom) for 2023 and as an elected member of the GEO Programme Board (until the end of 2025). The CEOS Executive Officer and SIT Chair are the CEOS Principals in both fora.
* GEO is currently undergoing significant change, including in the structure and staff makeup of the GEO Secretariat. The GEO post-2025 discussion is enabling a broad reconsideration of the purpose and prioritisation of the organisation.
* It is the opinion of the CEOS Executive Officer (CEO) that having a dedicated POC for CEOS in GEO is vital for efficient and effective exchange and response between the two organisations, given the scope and scale of CEOS contributions as the space arm.
* The CEO has asked the GEO Secretariat about a replacement GEO PoC for CEOS following Laurent Durieux’s departure, but one has not been identified, with a lack of resources being cited. This is understandable given the recent staff changes, including a shift in expertise/focus in the GEO Secretariat. A new Partnerships Officer role is to be created within the staffing structure and this is earmarked as the PoC for CEOS into GEO, but there are no immediate plans to fill the post.
* CEOS should take the opportunity to reassess the CEOS-GEO relationship, in consideration of the evident shift in GEO Secretariat vision and priorities; the drive towards operational services; and a shift in the GEO Secretariat priorities from projects to fundraising.
* Marie-Claire presented the above communication points at a pre-SEC call on May 17, 2023. The highlights of that call are noted below:
  + Some on the telecon noted that GEO has changed substantially since its establishment in 2005. With 114 Member governments and more than 140 Participating Organisations, it may be that ‘preferential’ treatment of CEOS is no longer appropriate. This perspective was countered by the point that the scope and scale of CEOS contributions to GEO are significantly larger than most Participating Organizations, and that a GEO representative for the CEOS SEC is important.
  + Substantive and productive communication between CEOS and GEO is vital, given the consequential changes that GEO is discussing, enacting, and potentially implementing (i.e., post-2025).
  + When discussing the CEOS-GEO relationship, CEOS must be mindful of the distinction between the ‘GEO Secretariat’ and the ‘overall GEO community’. CEOS is well embedded in many GEO activities. It is important for CEOS to clearly map out who is doing what. Framing the needs of CEOS in a clearer and more deliberate way may allow us to articulate what CEOS wants from the broader GEO, and then, to identify specifically what we need from the GEO Secretariat.
  + In communicating with GEO, CEOS should clearly distinguish between the CEOS collective and, for example, the activities of GEO Member governments represented in CEOS, and/or activities supported by CEOS agencies themselves.
  + With respect to GEO “asks” of CEOS, call participants noted that CEOS has well-established governance and processes. We need to ensure that all requests are well formed/developed and pass through the relevant governance processes.
  + Two fundamental questions arose from the call:
    - What does CEOS need from GEO?
    - What does GEO need from CEOS?
* In broad terms, the value of GEO for CEOS is that as an intergovernmental convening forum, GEO facilitates connections to EO data users, policy/decision makers, and organisations in countries, on a scale that CEOS cannot achieve on its own.
* The GEO Secretariat as GEO’s administrative body appears to be moving away from project-based scoping and demonstration to member service, conceptualisation, and delivery. There is an emerging push within the GEO Secretariat to focus on resource mobilisation to achieve sustained funding for these types of effort.
* It was proposed during the pre-SEC meeting that this topic be discussed with the wider CEOS community at the SIT Technical Workshop, followed by strategic discussion and potential decision-making at the 2023 CEOS Plenary.

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| **Decision 01** | CEOS SEC agreed that the CEOS-GEO relationship discussion should be on the meeting agenda for the 2023 CEOS SIT Technical Workshop and Plenary meetings to allow for discussion with all CEOS Members and Associates. |

*Discussion*

* Pakorn Apaphant (GISTDA, CEOS Chair) acknowledged the importance of the GEO relationship and the need to address these issues and achieve a firm response on the issue of a new GEO point of contact for CEOS.
* Steve Volz (NOAA) agreed that this topic should be a continuing discussion in the upcoming SIT Technical Workshop and the 2023 CEOS Plenary. Recognising that while CEOS is only one of 140+ Participating Organisations, there is a need for CEOS to have a high-volume interaction with GEO and it should be established in whatever new structure GEO is establishing. CEOS should continue to have a role on the GEO Programme Board and the ExCom.
* Stephen Briggs (SIT Chair Team) expressed the view that CEOS should think more about the fundamental CEOS-GEO relationship, rather than just the immediate need of securing the GEO point of contact replacement. The connection GEO offers to end users, participating organisations, and member governments is a great service for CEOS. The close relationship that was existing until now has changed. CEOS should recognise that and think about what CEOS specifically needs from the relationship, instead of trying to influence GEO’s own direction. He suggested constructing the mechanisms on our side to achieve what CEOS wants to achieve and then working with contacts on the GEO side to achieve this goal.
* Stephen Briggs also noted the need to ensure that the discussions at the SIT Technical Workshop and CEOS Plenary are suitably designed to meet the specific scope of each meeting, noting the SIT Chair’s effort at last year’s plenary to raise awareness of the differences among the three major CEOS meetings per year, consistent with the “*CEOS Governance and Processes Document” (available at* [*https://ceos.org/about-ceos/governing-documents/*](https://ceos.org/about-ceos/governing-documents/)*).*
* Jorge Rio Del Vera (UNOOSA, WGCapD Chair) remarked that there needs to be an analysis of what CEOS needs from GEO; what CEOS can offer to GEO; what GEO needs from CEOS; and what GEO can offer to CEOS. He asked how the relationship between CEOS and GEO is captured in the GEO post-2025 vision.
* Marie Claire Greening (CEOS Executive Officer) noted the post-2025 discussions are currently ongoing via a dedicated working group. Marie-Josee Bourassa (CSA) was the CEOS representative on the team, and recently retired from CSA. Osamu Ochiai (JAXA), Katy Matthews (NOAA), and Jonathan Ross (GA) are engaged in the working group on behalf of their respective agencies. They may be able to act as conduits for CEOS interventions. However, if this approach is chosen, there must be clear delineation on which interventions are made on behalf of CEOS and which are made in representation of their respective agencies. It is expected that by the end of the summer there will be a near complete version of the GEO post-2025 document. This projected timing is ideal for the discussion at the CEOS SIT Technical Workshop.
* Osamu Ochiai (JAXA) noted that the document is being finalised and it will be shared with GEO members in June. CEOS will have an opportunity to review it at that time.
* It would be useful to have a collective assessment of the extent of CEOS interactions with GEO. This could be done somewhat via an analysis of the CEOS Work Plan.
* Steve Volz (NOAA) noted there is a GEO ExCom meeting in July. It would be useful to include this topic on the agenda for the next CEOS SEC meeting so we can explore if CEOS would like to offer preliminary input to the GEO ExCom.
* Stephen Briggs discussed the changing direction of the GEO Secretariat and acknowledged that CEOS needs to respect this shift. GEO may potentially have less technical expertise and it may face challenges with internal structures within its own Secretariat. CEOS can view this as an opportunity to respond to that change and consider its own approach to the future direction. CEOS needs to work out the new dynamic and relationship going forward to ensure continued mutual benefit.

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| **308-02** | CEOS Executive Officer to prepare a collective assessment of CEOS interactions with GEO via an analysis of CEOS Work Plan and interactions with CEOS entities. | **SIT TW** |
| **308-03** | CEOS Chair Team to include a GEO ExCom topic on the SEC-309 agenda so that SEC might consider whether it wants to provide input on the matter of the CEOS-GEO relationship. | **SEC-309** |

1. **Working Group Reports**

**WGDisasters**

Laura Frulla (CONAE, WGDisasters Vice Chair) reported:

* WGDisasters is preparing its inputs for the New Space Task Team Working Document.
* WGDisasters-19 was hosted by CONAE in Córdoba, Argentina on 18-21 April 2023. A joint session was held with WGISS, with discussions on possible collaboration on machine learning and artificial intelligence for Earth observation. WGDisasters will prepare a use case on machine learning for forest fires.
* The Recovery Observatory (RO) activity is in the critical phase of preparing use cases of cost-benefit to support co-investment from partners for the next phase from 2024-2026.
* The Volcano Demonstrator is preparing a proposal for the International Virtual Volcano Observatory for 2024 and beyond.
* Landslide Demonstrator is preparing a sustainability report for ongoing science and possible pre-commercial activity in collaboration with the insurance sector.
* Seismic Demonstrator will prepare a proposal for rapid seismic response activity, as continuity of the previously completed Demonstrator.
* Geohazard Supersites and Natural Laboratory (GSNL) created a Kahramanmaras Supersite and many agencies including ASI, CNES, CONAE, DLR, and ESA are providing data.
* WGDisasters-20 will be hosted by USGS in Gardiner, Montana, USA on September 5-9, 2023.
* The Earth Observations for Disaster Risk Management (EO4DRM) and GSNL teams are participating in GEO Symposium panels on June 13-14, 2023.

**WGClimate**

Jeff Privette (NOAA, WGClimate Chair) reported:

* Still seeking a WGClimate representative to the GCOS Terrestrial Observation Panel for Climate (TOPC). All applicants are welcome.
* Submitted an article on the WGClimate-18 meeting for the CEOS Newsletter.
* Presented WGClimate’s 2023-2024 Work Plan, activity updates, and Greenhouse Gas Task Team highlights at the CGMS-51 Working Group II meeting on April 24, 2023.
* A productive kick-off meeting on the Space Agencies’ Response to the GCOS IP (SARGIP) was held virtually on April 21, 2023, with GCOS panel representatives. Teams are now contacting experts in agencies to help with answers. An initial check-in meeting has been planned for the first week of June 2023. Encouraging all CEOS Agencies to help support this large undertaking.
* Work has been paused on the ECV Inventory restructuring due to normal contract competition and turnover period. The work will resume once the new contract is in place.
* CGMS-51 Plenary will be held in Tokyo, Japan on June 26-28, 2023. Jeff Privette is attending in person.
* The WGClimate-19 meeting will be held on October 16-17, 2023, preceding the CEOS SIT Technical Workshop.
* COP28 and the Earth Information Day will be held in Dubai, UAE on November 30 - December 12, 2023.

**WGISS**

Makoto Natsuisaka (JAXA, WGISS Chair) reported:

* The WGISS-55 meeting was held successfully in April 2023, hosted by CONAE in Córdoba, Argentina. There was a special session on the CEOS Interoperability Framework and dedicated discussion on the WGISS contributions. The status of the CEOS New Space Task Team, CEOS Engagement with Standards Organisations, and the CEOS Ocean Coordination Group were shared with WGISS members. In the joint session with WGDisasters, an information exchange on common interests for AI/ML. A white paper initiative and service discovery task were identified.
* The fourth meeting of the CEOS Interoperability Framework team was held on May 10, 2023. The team is advancing its definition of the key ‘Factors’ and is looking to various groups across CEOS to lead each.
* WGISS proposes Mirko Albani (ESA) to be a CEOS representative for the GEO Infrastructure Development Task Team (GIDTT) in addition to Dave Borges (SEO, NASA).
* WGISS will have a joint meeting with CGMS-IV on June 7, 2023, to identify seeds of the collaborations focusing on technical issues. One of the potential issues is knowledge sharing for data management stewardship.
* WGISS will participate in the WGCV-52 meeting on June 9, 2023, to discuss the CEOS Interoperability Framework.
* WGISS-56 will be hosted by CNES in Paris, France on October 24-26, 2023.

**WGCapD**

Jorge Del Rio Vera (UNOOSA, WGCapD Chair) reported:

* Still seeking nominations for the next WGCapD Vice Chair. The endorsement decision is scheduled for 2023 CEOS Plenary.
* An *ad hoc* group inside WGCapD is analysing options for improving the reusability of learning objects. The *ad hoc* group has met three times. During the last meeting held on May 15, 2023, there was a short discussion on data and learning objects repositories. This discussion will continue in the week of June 19, 2023. This *ad hoc* group is working on a document that will describe findings and propose solutions.
* The WGCapD monthly meeting was held on May 4, 2023, with the discussion centred on a document compiling needs from the presentations of UN entities that took place during the joint UN-Space and WGCapD-12. The document is a work in progress and it is available [here](https://docs.google.com/document/d/1rodHrJ4cTJaUoK18b9nJT8ZXBDrz2XTk/edit?usp=sharing&ouid=101442450556142068613&rtpof=true&sd=true). There is a form to insert resources matching the needs. The link to the form is [here](https://docs.google.com/forms/d/e/1FAIpQLSfU5cHdvhnXFQqAsSiHvV8jV3mWIhVlZsltFe5-_EOOcW-Ouw/viewform). Inputs are welcome via the form.
* CSA and NASA will jointly conduct a training on *“Indigenous Mapping Workshop Australia 2023”* in early June 2023.

*Discussion*

* Jorge and Marie-Claire have drafted a letter for the CEOS Chair to send to CEOS Agencies regarding nominations for the position of WGCapD Vice Chair.

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| **308-04** | Following on from an email from the CEO on 30 March seeking nominations for the upcoming WGCapD vice-chair position, CEOS Chair to write to CEOS Agencies seeking nominations. | **SEC-309** |

**WGCV**

Philippe Goryl (ESA, WGCV Chair) reported:

* Preparations for the WGCV-52 meeting are progressing well. The agenda is now being consolidated. Key documents such as guidelines for cal/val in the hyperspectral domain, a Fiducial Reference Measurement Assessment Framework, and terms of reference for an SI-Traceable Satellite (SITSat) coordination group are being finalised for discussion at the meeting.
* The organisation of the workshop on pre-flight calibration and characterisation has resumed. The scope of the workshop is being considered and a location and dates should be proposed shortly.
* The WGCV SAR subgroup is looking for a new Chair to take over from Bruce Chapman (JPL). Bruce will however continue to lead the development of SARCALNET, which is a major activity within WGCV.
* CEOS Interoperability Framework: WGCV has been asked to lead some topics like the 'Semantic’ Factor, which includes terminology. The status of the discussion will be presented and discussed at WGCV-52. The task might require additional resources that are currently difficult to find. This will potentially be raised as an issue in the next WGCV SEC report.
* The WGCV Terrain Mapping subgroup meeting and a DEMIX workshop will be organised in July 2023 together with the [Geomorphometry 23 Workshop](https://geomorphometry.org/geomorphometry-2023/).
* WGCV IVOS subgroup meeting will be organised at DLR in Germany at the end of September 2023.
* WGCV SAR subgroup workshop will be organised at DLR in Germany in October 2023.
* The WGCV AC subgroup and AC-VC will organise a joint workshop in Brussels in October 2023.
* The annual meeting of the NDACC-IRWG / TCCON / COCCON will be hosted by the Royal Belgian Institute for Space Aeronomy (BIRA-IASB) and supported by the Belgian Science Policy Office (BELSPO) on June 12-16, 2023, at the Radisson Blu Balmoral Hotel, Spa, Belgium.

1. **GEO SEC Report**

This item was skipped since no GEO Secretariat representative was present, nor a written report provided.

1. **SEO Report**

David Borges (NASA, SEO) reported:

* The GEO Secretariat invited the SEO to join the reconstituted GEOSS Infrastructure and Data Task Team (GIDTT), which was accepted. CEOS representation on the GIDTT will include Mirko Albani, Alex Held, and Dave Borges.
* SEO attended the ARD23 Satellite Data Interoperability Workshop, which aims to advance interoperability and collaboration in the Earth observation and remote sensing industry. SEO continues to support collaboration between CEOS-ARD activities, the OGC ARD SWG and the ISO 19176 ARD Working Group.
* *SEC Action 307-03:* *SEC to email the CEOS Communications Team (via Dave Borges and Libby Rose): A short paragraph on thoughts regarding the target audience for CEOS communication efforts. Names and contact details of additional representatives to support the CEOS Communications Team and the development of a new CEOS Communications Strategy. Names and contact details of communications experts from CEOS agencies that are willing to work with the CEOS Communications Team and to amplify CEOS communications content via social media, etc.*
  + The SEO has not received any feedback to date. This action will remain open until SEC-309. Any feedback on the topic either in a short email or otherwise would be appreciated.
  + CEOS Communications Strategy update process is ongoing with delivery planned prior to CEOS Plenary 2023.
* GEO Open Data Open Knowledge Workshop will be held in Geneva, Switzerland on June 15-16, 2023.
* IGARSS 2023 will be held in Pasadena, California, USA. The SEO team is organising the CEOS exhibition booth. Please reach out to Dave Borges and Libby Rose if interested in contributing any specific CEOS content.

*Discussion*

* Pakorn Apaphant (GISTDA, CEOS Chair) encouraged SEC to share contact details and to nominate representatives to the CEOS Communications Team.

1. **AOB**

New POC for the ESA SIT Chair Team

Eleni Palouris (ESA, SIT Chair Team) reported:

* ESA is striving to make sure it fulfils its commitment to the CEOS community. With the retirement of Ivan Petiteville from ESA after SIT-38, there has been a gap.
* The recruitment process for a replacement has concluded, and Marie-Claire Greening will be joining ESA to take on the vacant position from June 1, 2023.
* There will be no practical change to the CEOS Executive Officer position held by Marie-Claire until the end of the calendar year. ESA has agreed with NASA to take over the commitment to allow Marie-Claire to complete her term as CEO.
* ESA will support EUMETSAT in the competitive ITT process to find a new CEO for 2024.

*Discussion*

* Christine Bognar thanked Eleni and ESA for the announcement. She noted that it is reassuring to hear that Marie-Claire will continue in the role of CEO until the end of the year.
* Other SEC members congratulated Marie-Claire on her new position with ESA.

Thailand Space Week

Pakorn Apaphant (GISTDA, CEOS Chair) announced that GISTDA will organise the Thailand Space Week press meet on September 27-29, 2023, in Bangkok. There will be a seminar on New Space. GISTDA will also take the opportunity to promote CEOS activities. Interested agencies are welcome to join this event. More information will be shared soon.

## Next Meeting and Adjournment

Pakorn Apaphant (GISTDA, CEOS Chair) thanked everyone for participating in SEC-308. SEC-309 will be held on June 15, 2023, at 7 AM US East. The plan for CEOS SEC teleconferences/meetings leading up to the 2023 Plenary is as follows (typically Thursday):

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| SEC-309: June 15, 2023  SEC-310: July 20, 2023  SEC-311: September 7, 2023 | SEC-312: September 28, 2023  SEC-313: October 17, 2023 (SIT TW)  SEC-314: November 14, 2023 (CEOS Plenary) |

The start time for all teleconferences will be 7 AM US East. Face-to-face meeting times will be advised closer to the dates.