CEOS SEC-330 SIT Chair Written Report

CEOS Entity: SIT Chair Team

Prepared by: SIT Chair Team

New updates, particularly those that would benefit from CEOS SEC awareness, discussion, help and/or guidance:

- SIT-40 registration and logistics information have been prepared and sent around earlier this week. Please advise if not received.
- AFOLU Roadmap actions continue to need concluding. SIT Chair Team is engaging with colleagues in NASA and ESA for their attention to this task and implementation going forward. SIT Chair would welcome confirmation of the representatives from ESA and NASA going forward.
- Climate Policy Impact call was held on 18th December this process seeks to provide more bandwidth for discussion in this area of significant investment for CEOS and its agencies. Topics included lessons learned from Baku COP. We will work with WGClimate to finalise the GST lessons learned documentation for SIT-40 and launch a GST Strategy update there.
- SIT Chair Team is seeking clarity from IMEO on their status and existing action threads to establish whether they remain a viable partner going forward.
- SIT Chair Team participated in the EW4ALL subgroup in the WGDisaster held on Dec 3rd. SIT Chair further proposed to organize a workshop inviting experts from 4 Pillars - UNDRR, WMO, ITU and IFRC in order to understand the requests from all Pillars.
- WMO/WIGOS requested Osamu Ochiai as CEOS rep to develop WIGOS Vision 2050. The request e-mail has been circulated to SEC on Dec 6th. Further clarity has been given by WMO that they seek an expert from Asia region and Space Agency rep.
- The status of the assessment for the UNCCD external request is in Step-C. There are 7 requests and these requests consist of SDGs, Standardization, and UN CBD-related requests. SIT Chair Team has requested SDG CG, LSI-VC & ARD-OG, and the Biodiversity Study team to assess Step-C of UNCCD requests. We plan to confirm each VC's additional assessment during the VC Consultation Meeting, which takes place from December to February.

CEOS Entity: CEO Team

Prepared by: Steven Ramage, December 2024

- Following the email sent to the CEOS community on the 6th of November 2024, deliverables have been regularly updated on the tracking tool. The communication material has been prepared for the 2025 Work Plan update. An email will be sent to all working groups, virtual constellations and other stakeholders on the 20th of January 2025 asking them to provide all necessary updates to the Work Plan before the 20th of February 2025. The next step is to give the final draft version to CEOS Principals on 1st March 2025 with 3 weeks to review and endorse the Work Plan before the overview presentation at the SIT-40 meeting in Japan in April 2025.
- 2. Action CEOS 38-01. Work has been done with the SIT Chair to close this action from Plenary which includes the virtual constellations. The CEO team has also been participating in SIT Chair meetings with VCs. The team is working towards finalising the assessment following the feedback from the Plenary discussions, the action will be closed in the coming weeks.
- 3. Working Group on Capacity Building and Data Democracy The group has successfully updated all deliverables and reported new ones for the upcoming Work Plan. This progress was achieved through close collaboration and continuous monitoring with the working group, ensuring alignment with objectives and timely task execution. The group's ongoing commitment is reflected in the upcoming reported training, which can also be seen in the tracking tool.
- The CEO team joined the SIT Chair and WG Disasters on the Early Warning for All (EW4All) deliberations in early December and is available to support future coordination with the various coordinators for EW4All pillars.
- 5. Other WG Climate calls were also joined, and the CEO team is available to help with coordination across IMEO, IPCC, UNFCCC and WMO.
- 6. Other working groups have also been actively requesting input to the Work Plan and preparing their working group members for contributions in early 2025.
- 7. The CEO team has also been supporting the Biodiversity Study Team set-up.
- 8. The CEO reviewed the CEOS Jupyter Notebook Best Practice guidance in support of the Working Group on Information Systems and Services (WGISS).
- 9. Ongoing conversations with the coordinator for the GEO Post-2025 Strategic Implementation Plan (SIP) review of the latest version is due by 31 December 2024. This will be presented at the GEO Global Forum in May 2025 in Rome, Italy. Here are the key dates and the website for more information:

- a. Expression of Interest for Community Events Deadline: 31 January 2025
- b. Request for financial support to go to Rome Deadline: 15 February 2025
- c. Participant Registration Deadline: 31 March 2025
- d. Expression of interest for Exhibits Deadline to be announced later
- e. <u>https://earthobservations.org/events/geo-global-forum-2025</u>
- 10. CEOS Communication Team Meeting

Activities for 2025 were discussed thoroughly, notably the 2025 CEOS Chair themes, the CEO team joined this meeting in early December and continues to contribute, notably around key themes to communicate and the social media strategy.

11. Living Planet Symposium 2025 Abstract

On the 2nd of December, the abstract was submitted with the title: "Advancing Climate Action through International Cooperation in Satellite-Based Earth Observations" under THEME F. Global Cooperation and Policy Support, SUB-THEME 02. International Cooperation in Earth Observation. The abstract that was submitted integrated all input collected and the final version was shared with the CEOS SEC before its submission. WG Climate and other interested parties will be part of the session leadership once the organisers have confirmed the type of session.

- 12. EUMETSAT on behalf of the Coordination Group for Meteorological Satellites (CGMS), invited CEOS agencies to attend the 3rd CGMS WGIV cloud technology workshop at NOAA in Silver Spring, MD, USA from 4-6 March 2025. The deadline for the call for papers is 15 January 2025, and feedback will be provided by 31 January 2025.
- 13. Barbara Ryan (former GEO Secretariat Director and organising committee member) informed the CEO that they are seeking speakers for the ISRSE-40 Conference in Farnborough in March 2025. It was mentioned that Harshbir Sangha from the UK Space Agency and CEOS Chair will be speaking, as well as Alex Held from CSIRO. The suggestion from Barb was that they would like to organise a CEOS session at the event. There was no further information provided regarding the topic(s) to address or other content.
- 14. The CEOS calendar is regularly updated, and members of the CEOS Secretariat are requested to continue providing input regarding upcoming events.

Upcoming events

There are no more meetings in December 2024. Starting in January 2025, the schedule is:

- AMS Annual Meeting : January 12th 16th, 2025 | New Orleans, Louisiana, USA
- 17th European Space Conference : January 28th 29th, 2025 | Square, Brussels

Online CEOS meeting calendar

Meetings

Upcoming

CEOS

SIT

- SIT-40 : April 8th 10th, 2025 | Fukuoka, Japan
- 2025 SIT Technical Workshop : September 9th 11th, 2025 | Darmstadt, Germany

Plenary

• 39th CEOS Plenary : November 4th - 6th, 2025 | Bath, UK

Working Groups

- WGClimate-22 & GHG Task Team : February 11th 13th, 2025 | Harwell, UK
- WGISS-59 : March 24th 28th, 2025 | Bangkok, Thailand
- WGISS-60 : October 13th 17th, 2025 | Oberpfaffenhofen, Germany

Virtual Constellations

• LSI-VC-17 : April 14th - 16th, 2025 | Tsukuba, Japan

External

- AMS Annual Meeting : January 12th 16th, 2025 | New Orleans, Louisiana, USA
- 17th European Space Conference : January 28th 29th, 2025 | Square, Brussels
- BIOSPACE25 Conference : February 10th 14th, 2025 | Frascati, Italy
- 3rd CGMS WGIV Cloud Technology Workshop : March 4th 6th, 2025 | Silver Spring, MD, USA
- 40th International Symposium on Remote Sensing of the Environment (ISRSE40) : March 17th - 21st, 2025 | Farnborough, UK
- JACIE 2025 Workshop : April 7th 11th, 2025 | Virginia, USA
- GEO Global Forum : May 5th 9th, 2025 | Rome, Italy
- CGMS-53 : June 3rd 5th, 2025 | Europe
- ESA Living Planet Symposium 2025 : June 23rd 27th, 2025 | Vienna, Austria
- IGARSS 2025 : August 4th 8th, 2025 | Brisbane, Australia
- 76th International Astronautical Congress : September 29th October 3rd, 2025 | Sydney, Australia
- UNFCCC COP-30 : November 10th 21st, 2025 | Brazil
- AGU 25 : December 15th 19th, 2025 | New Orleans, Louisiana, USA

CEOS Entity: SEO

Prepared by: Dave Borges

New updates, particularly those that would benefit from CEOS SEC awareness, discussion, help and/or guidance:

- Regarding SEC-329-01, David Borges redistributed updated external and internal commercial engagement language, which incorporated all received feedback, to the SEC on Thursday 12 December. If approved during SEC-330, the external language will be posted to the CEOS website and CEOS Chair Team will distribute the internal language to the CEOS community.
- The CEOS SDG Coordination Group was well represented by Neil Sims (CSIRO) at UNCCD COP 16, per official requests to attend and participate in an STI High Interactive Dialog Panel, received from UNCCD, GEO-LDN, and GEO Secretariat. Actions and outcomes from COP will be shared and discussed at the next monthly SDG Coordination Group meeting on 19 December. Discussion will include ongoing evaluation whether CEOS should pursue UNCCD Civil Society Organization (CSO) accreditation in 2025.
- SEO will support CEOS-ARD evolution in 2025, aligned with CEOS-ARD Strategy 2024, through partnership with the Cloud Native Geospatial Forum and the development of a "<u>building blocks</u>" approach to the CEOS-ARD specification.
- SEO will support WGISS and the ongoing development of the <u>Interoperability Handbook 2.0</u>, leading development of the Architecture Factor component.

Additional points (for written reference only):

 SEO sponsored a Cloud Native Geospatial for Earth Observation Workshop at <u>FOSS4G</u> 2024, 3 December, in Belem Brazil. Interest exceeded capacity and feedback received has been very positive. Full details available <u>here</u>. Discussion underway regarding future training opportunities in coordination with WGCapD.

- GEO Global Forum 2025, Rome Italy, 5-9 May. Expression of interest for CEOS exhibition booth submitted.
- ESA Living Planet Symposium, Vienna Austria, 22-27 June. Expression of interest for CEOS exhibition booth submitted.

CEOS Entity: WGCapD

Prepared by: Daniel A. Matsapola, Chair

New updates, particularly those that would benefit from CEOS SEC awareness, discussion, help and/or guidance:

- WGCapD held its monthly meeting on December 12, 2024 focused on updating the CEOS Work Plan 2024 – 2026 with the CEOS CEO's office and to explore collaboration with other Working Groups e.g., WGISS, WGDisasters.
- New Work Plan 2025 2027 were invited from WGCapD Community, with link to UN SDGs
- WGCapD Community undertook to highlight linkages with UN SDGs with all Work Plan 2025 – 2027 new activities.

Additional points (for written reference only):

- Role of EO in Mapping and Forecasting Natural Disasters Massive Open Online Course (MOOC) initiated by ESA to be delivered in 2025 as WGCapD contribution to WGDisasters collaboration, also contributing to the UNCCD request.
- Call to action was shared with WGDisasters Chair to consider participation in an initial online orientation workshop.
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- South African high schools eager to participate in the CEOS In Schools initiative, and WGCapD Community invited to consider enrolling schools from their countries.
- SANSA to liaise with UKSA on possible dates in January 2025 to meet with schools representatives. Schools open January 15, 2025.

CEOS Entity: Working Group on Climate

Prepared by: Wenying Su & Vincent-Henri Peuch

New updates, particularly those that would benefit from CEOS SEC awareness, discussion, help and/or guidance:

- A request was sent on October 27, 2024, to CEOS and CGMS to review the 2024 Gap Analysis Report and the 2024 Coordinated Action Plan. Please send your review feedback to Joerg Schulz (Joerg.Schulz@eumetsat.int) by November 22, 2024. We received feedback from NOAA any concerns on these two documents, and they are now considered endorsement by CEOS and CGMS.
- Wenying presented the current activities and recent developments of WGClimate at the UNOOSA Workshop on Space for Environmental and Climate Change on November 20, 2024.
- WGClimate released the V5.0 Essential Climate Variable (ECV) Inventory in early November. Email to responders, CEOS and CGMS communities was sent on November 25, 2024. CEOS communication team also posted on social media to support the new release.
- The joint CEOS-CGMS Working Group on Climate and GHG Task Team meeting will be held on Feb. 11-13, 2025, in Harwell, UK. Email was sent to CEOS and CGMS communities on Dec. 4 with registration link and draft agenda.
- GCOS (Global Climate Observing System) held a consultation meeting with WGClimate to gather feedback on the GCOS Essential Climate Variable (ECV) rationalization process and the proposed new ECV list.
- Key outcomes of this work are the removal of anthropogenic ECVs (GHG emissions and water use) and the introduction of four cross-panel ECVs: CH₄ and short-lived GHG, CO₂ and long-lived GHG, albedo, and turbulent heat fluxes. This reorganization has also streamlined the ECV list, reducing it from 55 to 42.
- The public review of the new ECV list is scheduled for 2025, with the final ECV list to be formalized in the GCOS Implementation Plan in 2028.
- *WGClimate members reviewed the proposed ECVs and associated quantities. Feedback will be sent to the GCOS before December 24th, 2024.*
- Wenying was invited to join the WMO Global Greenhouse Gas Watch Data Task Team.
- WGClimate is working with the SEO and the SDG coordination group to deliver a new support sheet on SDG13.2.2 (total greenhouse gas emission per year) in 2025.
- For the UNCCD support request, this is out of the scope of work within the WGClimate.

Additional points (for written reference only):

• At COP29 in Baku, Wenying moderated the Earth Information Day breakout session on "Observations for climate change mitigation" and provided an expert contribution on space-based greenhouse gas observations during the breakout session.

- During the Panel presentation on Earth Information Day, both Global Climate Observing System and WMO's Global Greenhouse Gas Watch acknowledged the contribution from WGClimate.
- The UK Space Agency (UKSA) delivered the CEOS-CGMS Statement at the opening of SBSTA 61. UKSA also released a <u>video</u> on social media highlighting the vital role of Earth observation in supporting climate monitoring and decision-making. Vincent-Henri Peuch was featured in the video. A short news story about the CEOS statement was published on the UK government <u>webpage</u>.
- WGClimate members had a telecon on Nov. 19th, 2024. Discussion included COP29 EID, response to GCOS Implementation Plan, GCOS ECV rationalization, joint CEOS-CGMS Working Group on Climate and GHG Task Team meeting planning, Essential Climate Variable Inventory update.
- *GHG Task Team met on November 22, 2024 to discuss the short-term actions for each thematic areas outlined in the update Greenhouse Gas Roadmap.*
- *The joint CEOS-CGMS Working Group on Climate and GHG Task Team meeting Registration Link*
- Encouraging active participation from CEOS agencies: contributing members are DLR, EC, ECMWF, ESA, EUMETSAT, JAXA, NASA, NOAA, UKSA, USGS.

- WGClimate #22, Feb. 11-13, 2025, UK.
- G3W Global Data Providers Workshop, March 5-7, 2025, Geneva.
- CGMS working group meeting, March 24-28, 2025, China.
- CEOS SIT-40, Apr. 8-10, 2025, Japan.
- CGMS Plenary, June 2-6, 2025, France.
- UNFCCC Bonn Climate Change Conference, June 16-26, 2025, Germany.
- GCOS Steering Committee meeting, July 1-11, 2025, Brazil.
- CEOS SIT TW, Sep. 9-11, 2025, Germany.
- CEOS Plenary, Nov. 4-6, 2025, UK
- COP-30, Nov. 10-21, 2025, Brazil.



CEOS Entity: Working Group on Calibration and Validation (WGCV)

Prepared by: Cody Anderson, WGCV Chair, USGS

<u>New updates, particularly those that would benefit from CEOS SEC awareness, discussion, help and/or guidance:</u>

• WGCV members attended the Very High-resolution Radar & Optical Data Assessment (VH-RODA) 2024 Workshop from 2-6 December at ESA-ESRIN, Frascati, Italy. The workshop presented an open forum for New Space to communicate current and future developments in EO Cal/Val.

Additional points (for written reference only):

• The Workshop on Pre-flight Calibration and Characterisation of Optical Satellite Instruments for Earth Observation was held from 19-22 November at ESA ESTEC in Noordwijk, The Netherlands. The workshop had a large participation and engagement.

Upcoming meetings and events (for written reference only):

 The annual Joint Agency Commercial Imagery Evaluation (JACIE) Workshop will be held from April 7-11, 2025 at USGS Headquarters in Reston, Virginia, United States. JACIE 2025 will include presentations, posters and exhibits providing details about new systems, new methods of improving data, and the potential for new applications made possible with improved quality Earth observations. The workshop's abstract submission deadline was extended to December 20th.

CEOS Entity: WG on Disasters

Prepared by: L.A. Frulla, Lorant Czaran, Andrew Eddy

New updates, particularly those that would benefit from CEOS SEC awareness, discussion, help and/or guidance

- On December 3, it was held the first teleconference of Early Warnings for All subgroup. It was not possible to gather more than 50% of the participants, so the co-leads could not yet be defined. The main problem is that according to the wide scope of the Early Warnings for All, it is very difficult to find the best way to be engaged and cooperate with some type of information. Moreover, it is not yet clear how WG Disasters can contribute to the initiative, but anyway we are trying to add the other pillars and of course, other CEOS participants to understand the extent of contributions that CEOS can make to this initiative.
- WG Disasters activities are directly connected with the UN Sustainable Development Goals, particularly those focused on poverty, resilience, climate action, food security, and water management. The Agencies collaborate with their satellite data and the WG Disasters, through the different pilots and demonstration projects, contributes to disaster risks reduction, preparedness, response, and recovery, and thus to the achievement of the broader SDG agenda. The SDGs that could have connection with the WG Disasters activities could be:
 - <u>SDG 1-No Poverty</u>: through early warning systems, it can be provided critical information for decision-making, reducing the vulnerability of communities to disasters and helping with the prevention or mitigation of poverty by improving disaster preparedness and response.
 - <u>SDG 2-Zero Hunger</u>: considering weather patterns, and identifying areas at risk of food insecurity because of droughts, floods, storms, fires, volcanic eruptions among others, it can be facilitated targeted food aid in disaster-affected areas, helping mitigate the impact of disasters on food security.
 - <u>SDG 6-Clean Water and Sanitation</u>: disasters like floods, droughts, and flood-induced pollution or other type of pollution in ocean and coastal waters can impact to the clean water access. Therefore, the monitoring and prevention of this type of disasters can help water management to ensure continued access to clean water for drinking, domestic use or food production among others.
 - <u>SDG 11: Sustainable Cities and Communities</u>: the monitoring and prevention of floods, landslides, or heat islands, earthquakes and volcanic eruptions can improve disaster preparedness, response and mitigation.
 - <u>SDG 13: Climate Action</u>: The monitoring of climate-related hazards such as hurricanes, heatwaves, and floods, among others, and the understanding of how climate change is affecting disaster patterns, helps the mitigation of the impacts that these disasters provoke.

- <u>SDG 15: Life on Land</u>: The monitoring of disasters before, during, and after the events can reduce the impact they can have on ecosystems and urban regions, biodiversity and other terrestrial resources.
- We have not yet consulted the Working Group on Action 38-11, which was adopted at the last Plenary. However, in view of this, we will put it on the agenda of the last teleconference of the year scheduled for January 8, 2025.

Additional points (for written reference only):

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- The WG Disasters 23 meeting will be held in March from 25 to 27 of March in Italy at the invitation of the National Institute of Geophysics and Vulcanology (INGV).
- The WG Disasters 24 meeting will be held in September (dates TBC) in Argentina at the invitation of CONE, and we are thinking of San Carlos de Bariloche, Río Negro Province in the South of Argentina.

CEOS Entity: WGISS

Prepared by: Tom Sohre, Chair

<u>New updates, particularly those that would benefit from CEOS SEC awareness, discussion, help and/or guidance:</u>

- WGISS intends to have representation at the CGMS cloud technology workshop (March 2025). WGISS can send CGMS WGIV cloud technology workshop registration info and survey to WGISS distribution list pending SEC guidance.
- In response to SEC Action 329-02:
 - WGISS does not connect directly to the UN Sustainable Development Goals but does provide Enabling Infrastructure to support SDGs. Note: I do recommend adding WGISS Discovery and Access tools (FedEO, IDN, CWIC) to the Enabling Infrastructure list but am not sure whether something like Google Earth Engine should be listed?
- WGISS chair in process of soliciting future WGISS v.Chair / Chair to begin in November 2025. No assistance required at this time.
- WGISS soliciting co-lead for Technology Exploration Interest Group following retirement of prior co-lead (CNES).

Additional points (for written reference only):

 WGISS held its monthly meeting on December 10th with the main focus being on agenda goals for WGISS-59. Interest Groups have started to discuss inputs for the next CEOS Work Plan (2025-2027) pending CEO guidance.

- WGISS-59, March 24-28, 2025, Bangkok Thailand.
 - Awaiting confirmation of venue from GISTDA
 - Exploring opportunities for presentations by WGISS Organizations and/or Commercial organizations re: "Emerging Technology"
 - Plan to dedicate at least a full day to review of draft Interoperability Handbook.
- WGISS-60, October 13-17, 2025, Oberpfaffenhofen Germany