**Minutes V1.0**

**293rd CEOS SECRETARIAT MEETING**

Thursday 12 May 2022

Chaired by CNES

**Participants**

**CEO:** Marie-Claire Greening

**CNES:** Selma Cherchali, Olivier Marsal, Aurélien Sacotte, Matt Steventon, Stephen Ward

**ESA SIT Chair Team:** Ivan Petiteville

**EUMETSAT:**  Robert Husband

**GEO SEC:** Laurent Durieux

**GISTDA:** Watanyoo Suksa-ngiam, Warinthorn K. Evans, Nuttavipa Thanthawewut, Tanita Suepa

**JAXA:** Osamu Ochiai, Yukio Haruyama, Koji Akiyama

**NASA:** Christine Bognar

**NOAA:** Charles Wooldridge, Katy Matthews

**SEO:** Brian Killough  
**WGCapD:** Jorge Del Rio Vera

**WGClimate:**  Albrecht von Bargen

**WGCV:**  Akihiko Kuze

**WGDisasters:** Helene de Boissezon, Laura Frulla

**WGISS:** Makoto Natsuisaka

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

Olivier Marsal (CNES, CEOS Chair Team) welcomed and thanked everyone for attending SEC-293.

Olivier reviewed the agenda for SEC-293 and opened the floor for any comments and additions to the agenda. There were no further changes or additions to the agenda.

1. **Action Review**

Actions were covered under their respective agenda items that follow.

1. **CEOS Chair Report**

Selma Cherchali (CNES, CEOS Chair) reported:

CEOS Plenary 2022

* The CNES Chair team has started preparation for the 2022 CEOS Plenary. Information will be shared soon regarding the dates and accommodation options. This will be the first in-person Plenary since 2019, and CNES hopes that most participants will join in person. CNES will also be working to facilitate virtual participation.
* A poll will be sent to get an understanding of in-person versus virtual participation, similar to that recently sent by ESA regarding the September SIT Technical Workshop.

CEOS Executive Officer

* ***SEC Action 292-01****: CEOS Chair Team to reflect on the inputs and discussion regarding CEO continuity and suggest next steps to SEC for both:*
  + *Long-term solution: starting with a review of CEOS leadership Terms of Reference and responsibilities;*
  + *Potential short-term solution: 1) a new CEO contract, with a cost sharing arrangement; 2) securing another CEO to overlap with the incumbent for a few months.*
* Ask all agencies to reconsider if there are potential nominees. If nothing is forthcoming from a single agency, CEOS SEC may need to consider a cost-sharing mechanism as a short-term solution.
* If the cost sharing mechanism is to be explored, the CEOS Chair will convene a Troika meeting to initiate that discussion.
* From a mid-term and long-term perspective, CEOS may need to re-examine CEOS governance and reflect on why it is a continual struggle to fill this position. Questions include: How has CEOS evolved? What are the current limits of the organisation? Selma proposed a discussion along these lines at the Plenary, and perhaps SIT Technical Workshop.

*Discussion*

* Ivan Petiteville (ESA, SIT Chair Team), Christine Bognar (NASA) and Charles Wooldridge (NOAA) supported the proposal from Selma to have a session at SIT Technical Workshop dedicated to the topic of reflecting on CEOS organisation and resourcing.
* Christine Bognar (NASA) noted that the secretariat has a critical role in supporting the CEOS Chair. The CEOS self-study recognised that there would be situations for which the CEOS Chair can ask for support, such as this situation.
* Christine also noted that CEOS has experienced this kind of situation before and underscored that CEOS should not allow the situation to become desperate over time to the point of putting the future CEOS Chair, GISTDA, in a difficult position. The SEC should be working to ensure a smooth transition for GISTDA. A few years ago when faced with this situation, the responsibilities of the CEO were distributed across CEOS leadership (e.g., the CSIRO-GA SIT Chair Team took on additional responsibilities). Jonathon Ross of GA had previously served as CEO. While this solution was generous in a time of need, it added a significant burden to the SIT Chair team and is not equitable. Christine suggested that the current Chair and/or SIT Chair team reach out to GA to hear directly from them.
* SEC Action **292-01** was closed and replaced by SEC Actions **293-01** and **293-02**:

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| **293-01** | CEOS Chair Team to draft a concept note for the discussion planned for SIT Technical Workshop on CEOS evolution, resourcing, organisation limits, etc. | **SIT TW** |
| **293-02** | CEOS Chair Team to convene a Troika meeting to discuss the way forward to solve the immediate priority of having a capable individual in the CEO role for the next two years. | **ASAP** |

1. **SIT Chair Report**

Ivan Petiteville (ESA, SIT Chair Team) reported:

CEOS Participation in the GEO Post-2025 Working Group

* The GEO Secretariat Director, Yana Gevorgyan, has confirmed that Ivan’s nomination for the Working Group through the European caucus has not been accepted.
* The GEO Secretariat can still nominate a few members for the Working Group, in addition to these regional caucus representatives. Yana has confirmed this route is a possibility for the CEOS nomination.
* To improve the gender balance of the working group, CEOS was asked to offer a female representative.
* To further inform the CEOS nomination, Yana will be providing additional information on the current membership of the Working Group and the expected workload.
* Marie-Josee Bourassa (CSA) and Andreia Siqueira (GA) have been suggested as potential candidates.

SIT-37

* The draft decisions and actions from SIT-37 were circulated on April 12.
* The SIT-37 draft minutes were circulated on May 5 for review. The deadline for comments is May 26.

Carbon & Biomass

* The SIT Chair Team has reached out to IMEO following the agreement at SIT-37 to explore a collaboration. The CEOS Greenhouse Gas Task Team, AC-VC and WGCV have provided points of contact to help scope the work.

CEOS Analysis Ready Data (CEOS-ARD)

* There was recently a presentation to the CEOS-ARD Oversight Group from an ISO-OGC team regarding the use of CEOS-ARD as the basis for formal standards. The Oversight Group is now considering if/how to engage.
* The Oversight Group is continuing to work towards a shared cross-domain template Product Family Specification.
* LSI-VC-11 is being held next week, with discussions planned to progress various aspects of CEOS-ARD for Land.
* CEOS will be well represented at ESA’s Living Planet Symposium Session B1.07.1: *Analysis Ready Data: are we there yet?*

Upcoming Meetings

* The SIT Technical Workshop is planned as an in-person meeting at ESA ESRIN from 13-15 September 2022. A room has been reserved for an AFOLU Roadmap Team meeting on 12 September. Some *week at a glance* and logistics information is in preparation. A straw poll was sent to all CEOS lists to estimate how many CEOS colleagues plan to attend in person as helpful insight for the SIT Chair Team’s overall planning and logistics. The poll is here: <https://strawpoll.com/polls/e7ZJOeD4dy3>
* A ‘New Space & Future CEOS’ session is being considered for the SIT Technical Workshop agenda, noting the significant interest generated by the teaser session held at SIT-37 in March 2022. The SIT Chair Team recognises that rapid and significant changes in the sector are of heightened interest to CEOS Agencies. It proposes time on the SIT Technical Workshop to focus on the impact of public EO programmes, the societal impact overall on the sector, and benefits for users. The SIT Chair Team may explore the idea of pitches at the Technical Workshop on measures to support these objectives, such as:
  + Use of legacy cal-val infrastructure to serve the New Space sector and support improved accuracy of smallsats.
  + SITSATs and calibration transfer.
  + Key data standards for data mixing (ARD, etc.)
* The SIT-38 meeting is proposed as an in-person meeting at ESA ESRIN in Frascati, Italy during the week of 27 March 2023. March 28 will be reserved for side meetings and March 29-30 will be the days of the SIT-38 formal agenda. Meeting room bookings at ESRIN are still being confirmed. SEC agencies are invited to raise any known conflicts in the meantime.

*Discussion*

* Selma Cherchali (CNES, CEOS Chair) noted that she was invited by GEO Secretariat Director Yana Gevorgyan to be the CEOS representative for the GEO Post-2025 Working Group, but she is not able to take on this additional role at this time. It was suggested that the CEOS SEC inquire if Marie-Josee Bourassa of CSA is interested in taking on the role. If this is not possible, the SEC will need to find another candidate.
* Ivan Petiteville (ESA, SIT Chair Team) fully supports Selma’s proposal.
* Christine Bognar (NASA) asked what action would be taken if Marie-Josee is unable to accept the candidature. Ivan noted that, as proposed by Selma, we would put out the call to other CEOS Agencies. Andreia Siqueira (GA) would also be a good candidate. NASA supported this suggestion.
* Olivier Marsal (CNES, CEOS Chair Team) asked if there is a deadline for this nomination. Ivan is unsure of the deadline but the GEO Post-2025 Working Group is planning to have its first meeting before the end of May.
* Laurent Durieux (GEO SEC) will ask Yana regarding the nomination deadline and will confirm to CEOS SEC shortly.

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| **293-03** | CEOS Chair to check whether Marie-Jose Bourassa would be open to accepting the nomination for the GEO Post-2025 Working Group. If not, it will issue a general call to the CEOS Community requesting female nominations for the working group. | **May 20** |

1. **CEOS Executive Officer Report**

Marie-Claire Greening (CEOS Executive Officer) reported:

***SEC Action 292-02****:* *Marie-Claire to confirm to the GEO Secretariat that CEOS expects to have a delegation of approximately 6-8 people to GEO Week 2022. Representatives will primarily come from the CEOS Chair Team, SIT Chair Team, CEO and SEO.*

* Confirmation was sent to GEO SEC on 14 April, 2022 that CEOS plans to send an in-person delegation to GEO Week in Accra, Ghana from October 31 to November 4. The delegation would consist of approximately 6-8 people, led by the CEOS Chair. It was stressed that this number is an estimate contingent on the lifting of global COVID-19 travel restrictions.
* This action has been **closed**.

***SEC Action 290-01****:* *Marie-Claire to lead drafting of a general CEOS statement for UN-COPUOS in June.*

* It was agreed at SEC-290 that CEOS would submit a statement to the UN Committee on the Peaceful Uses of Outer Space (COPUOS) at its 65th Session, to be held on 1 June to 10 June 2022.
* The reading of the statement is tentatively scheduled for 6 June, during the exchange of views session. The verbal statement should be five minutes in length and can either be read in person or can be a pre-recorded video presentation. A draft statement was circulated to the SEC on 10 May for final review and discussion at SEC-293.
* The final version will be emailed to CEOS Principals for endorsement prior to submission to COPUOS.
* Feedback on the statement is still welcomed.

GEO Symposium 2022

* The GEO Symposium 2022 was held virtually from 2-5 May, 2022.
* The theme of the symposium was “Global Action for Local Impact” with the aim to explore how EO products and services can provide evidence for decision making, policy development, and ultimately provide tangible impact at the local scale.
* Many sessions focused on the end-user perspective and the need to exemplify action through use cases. The discussions during the symposium are foundational to the development of the 2023-2025 GEO Work Programme.
* CEOS was well represented throughout the four days of the meeting. There were notable presentations from the COAST *Ad Hoc* Team, GEOGLAM, Digital Earth Africa and the CEOS Systems Engineering Office (SEO).
* All sessions were recorded and can be viewed via links on the dedicated [webpage](https://earthobservations.org/symposium2022.php).
* GEO Programme Board Meeting #23 will be held from 21-23 June, 2022.

*Discussion*

* Regarding the UN COPUOS Statement, Jorge Del Rio Vera (WGCapD) noted that it is possible to read a shorter version of a longer statement that will be available on the COPOUS website. Marie-Claire (CEO) acknowledged the possibility of having two versions of the statement.
* Ivan Petiteville (ESA, SIT Chair Team) thanked Marie Claire Greening for the updated statement.
* Selma remarked that some details of key CEOS activities are missing.
* Christine Bognar (NASA) suggested changing the sequencing of a few paragraphs so that the paragraph on the UNFCCC Global Stocktake would appear closer to the beginning. Christine also suggested being mindful to mention partner entities where applicable in the final text, especially if they are UN entities. For example, in the case of EOTEC DevNet, we need to mention that UNOOSA has partnered with CEOS for this initiative.
* SEC Action **290-01** was closed and replaced by **293-05**:

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| **293-04** | CEO to update the statement to UN COPUOS (in coordination with the CEOS Chair), preparing a single document for the CEOS Chair to read and be posted online. | **15 June 2022** |

1. **Working Group Reports**

**WGDisasters**

Helene de Boissezon (CNES) reported:

* WGDisasters members have prepared papers showcasing WGDisasters’ experiences with the pilots and demonstrators for the ESA Living Planet Symposium, which is being held during the week of 23 May 2022.
* A dedicated session on WGDisasters’ experience is also planned at International Society for Photogrammetry and Remote Sensing (ISPRS) in Nice, during the week of 6 June 2022, on *“Innovative Applications of Satellite Data for Risk Management and Disasters”,* highlighting selected WGDisasters activities.
* WGDisasters created a dedicated subgroup in March 2022 to examine the issue of sustainability of initiatives beyond the Demonstrator phase, to consider how successful technical projects can transfer lessons learned and practices to user communities outside of CEOS, including identifying funding mechanisms for sustainable services beyond CEOS pilots and demonstrators. The subgroup will work throughout 2022 and report back to the WGDisasters meetings in September 2022 and March 2023.
* CEOS Work Plan Deliverable DIS-19-03: *Seismic Demonstrator report* has been delayed until Q2 2022.
* WGDisasters-18 will be held in Nice, France from 3 to 7 October, and will offer both in-person and virtual attendance options.

**WGClimate**

Albrecht von Bargen (DLR, WGClimate Chair) reported:

***SEC Action 292-04****:* *WGClimate Chair to inform the CEOS SEC and nominees of the dates of the WGClimate meeting during which the WGClimate Vice Chair 2022-2024 final nominee discussion and decision will occur*.

* The date of the WGClimate Vice Chair nomination meeting has been fixed for 19 May. There is an opportunity to participate online and in-person. CEOS SEC and CGMS have been informed about the date. All candidates have been informed of the presentations they have to prepare for the nomination meeting.

***SEC Action 292-03:*** *WGClimate Chair to inform the CEOS SEC on the meeting dates, next steps, and process toward the selection of a final nominee for WGClimate Vice Chair 2022-2024. As agreed during SEC-292, the WGClimate’s selection will be discussed by CEOS SEC at SEC-294 (June 9) before the nomination is potentially submitted for endorsement at the CGMS Plenary (June 15-17)*.

* The WGClimate Vice Chair Nomination Procedure document was attached with the CEOS SEC-293 written reports.
* Received a letter from ESA confirming support for the candidate from NASA (Wenying Su) and that ESA will withdraw its own nomination in response. ESA remains willing to serve as WGClimate Chair at a later time.
* WGClimate will report back on the Vice Chair result at the CEOS SEC-294 and CGMS Working Group #2 meetings in advance of the CGMS Plenary.

Working Group Updates

* Updates of the use cases are ongoing. There was a dedicated meeting between WGClimate and CCI Copernicus Climate and Atmospheric Monitoring Service regarding opportunities to combine use cases with WGClimate.
* ECV Gap Analysis Workshop: Expecting around thirty people to attend, around half in-person in Darmstadt, and the other half online. The agenda is currently being finalised.
* The GCOS Implementation Plan update is now out for public review.

*Discussion*

* Selma Cherchali (CNES, CEOS Chair) thanked Albrecht for the WGClimate Vice Chair Nomination Procedure document. She also thanked NASA and ESA for their coordination on their nominations for WGClimate Vice Chair.
* Osamu Ochiai (JAXA) also thanked Albrecht for creating the nomination process document. Osamu asked if the WGClimate members are fully aware of the process. Then, he suggested that next steps on how a consensus will be achieved be communicated
* Albrecht von Bargen (DLR, WGClimate Chair) noted it is quite difficult to reach a consensus. The first point is for the Chair to see if there could be a consensus. If a consensus is not possible, the process will be stopped. The Chair should not pre-empt any decision. It is difficult to describe the consensus process. This could be discussed during the WGClimate meeting next week and the document could be updated accordingly.
* Osamu suggested it is important to have this discussion and achieve clarity among the WGClimate members before the nomination/voting process begins.
* Christine Bognar (NASA) thanked ESA for their support for Wenying Su, the candidate from NASA, who has been an active contributor to the WGClimate for six years now.
* Christine asked for clarification on Albrecht’s comment regarding there being two candidates remaining out of three. Albrecht confirmed that he is awaiting an official withdrawal letter before declaring that there is a single candidate.
* Christine noted that different information has been sent to the CGMS Secretariat and CEOS Secretariat at different times. For example, when the nominee for ECMWF was sent to the CGMS Secretariat, the letters of nomination from NASA and ESA were not provided (this mistake was later corrected). The draft document Albrecht circulated for the SEC-293 meeting could be interpreted to mean that CGMS and CEOS could each offer a different candidate, rather having the WGClimate reach consensus on one final candidate to be presented for endorsement at both plenaries. In other words, as currently written, the document is not clear on this point.
* Albrecht noted that having multiple candidates is not something that has happened in the past, so this is a learning experience.
* Christine noted a part of the ambiguity that has been observed by several agencies is the fact that in the WGClimate Terms of Reference it indicates that there is alternating leadership between meteorological and non-meteorological agencies. ESA previously sent a letter pointing this out. It would be important for both the CEOS Secretariat and CGMS Secretariat to be aware of this. Albrecht agreed and noted he has written to one candidate making sure they are aware of this.
* Ivan Petiteville (ESA, SIT Chair Team) noted that ESA retracted the nomination of Susanne Mecklenburg, not because she is not a formidable candidate, but rather because ESA has already chaired the Working Group and it is fair to allow another agency to have the opportunity. ESA’s nomination was initially made at a time when a non-meteorological agency nomination was needed to respect the WGClimate Terms of Reference. With the NASA nomination, this is no longer necessary.
* ESA fully supports Wenying Su’s nomination. The ECMWF nomination does not fulfil the requirements set out in the Terms of Reference. Two years from now, when it is the turn of a meteorological agency to be Vice Chair, ESA hopes that ECMWF will offer a nominee again.
* Albrecht noted that it will be up to WGClimate members to ensure that the Terms of Reference are respected.
* Ivan noted the Terms of Reference need to be respected in the nomination process.

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| **293-05** | WGClimate Chair to discuss the Vice Chair nomination process document with WGClimate members at the upcoming WGClimate meeting and ensure a detailed process for reaching consensus among members is agreed and made clear before voting takes place. | **May 19** |

**WGISS**

Makoto Natsuisaka (JAXA, WGISS Chair) reported:

* The WGISS EXEC team started to coordinate WGISS-54. Discussions with WGCV will follow. WGISS-54 is scheduled in Tokyo from 4-6 October 2022. A joint workshop with WGCV is planned for 5 October 2022.
* A parallel STAC implementation in CWIC work thread will be initiated.
* *“Service metadata and discovery best practices”* have been developed. The draft document is under review.
* A hands-on training, *“Jupyter Notebooks Day”* at the end of June is now being prepared jointly with WGCapD.
* A WGISS liaison with ISO will introduce WGISS activities to the ISO/TC 211 54th Plenary to be held in Vienna, Austria on 12-13 May 2022.
* The lead of the Data Preservation and Stewardship Interest Group gave a presentation on CEOS WGISS Best Practices for Space Data Preservation at the CGMS Working Group IV meeting held on 28 April 2022.

**WGCapD**

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

* During the last WGCapD monthly teleconference, there were the following presentations:
  + Paraguay activities for capacity building by Paraguay Space Agency.
  + EOTEC DevNet Regional Communities of Practice working group for Floods: the beta version of the flooding resource tracker is now available for everyone to test at <https://eotec-dev.ceos.org>. Work is ongoing to improve the tracker based on the initial feedback collected at the regional meetings but welcome any additional input.
  + Geography Teacher’s GIS & Remote Sensing Training Workshop by University of Fort Hare and SANSA, where a group of 40 K-12 teachers received training.
  + *“*[*NASA Earth Science Applications Guidebook*](https://appliedsciences.nasa.gov/guidebook/)*”*
* ARSET has completed the training on *“Mapping Crops and their Biophysical Characteristics with Polarimetric SAR and Optical Remote Sensing”*. There were 1365 participants from 115 countries, which shows a growing interest in this kind of training event.
* The EOTEC DevNet Regional Community of Practice Task Team meeting will be held on 15-16 June 2022. Jorge encouraged anyone interested in attending to register [here](https://docs.google.com/forms/d/e/1FAIpQLSfOW70P3Ua_n8crZ1wclt5Vi8bHpL5YTLwI3E22dJF1kKTEOA/viewform).

**WGCV**

Akihiko Kuze (JAXA, WGCV Chair) reported:

* Calibration and validation activities around space-borne sensors, utilising the CEOS Cal/Val portal, will be presented at the ESA Living Planet Symposium.
* WGCV is planning to use legacy Cal/Val infrastructure for an open-source toolkit to serve the New Space sector and support improved accuracy of small satellites. This will be discussed further in the SIT Technical Workshop *‘New Space & Future CEOS’* session in September.
* WGCV Chair is self-nominating for the formulation and implementation of the CEOS collaboration with the International Methane Emissions Observatory (IMEO).
* WGCV-51, a joint in-person meeting with WGISS, will be held in Tokyo from 3-6 October 2022. Travel restrictions in Japan will be lifted next month.

1. **GEO SEC Report**

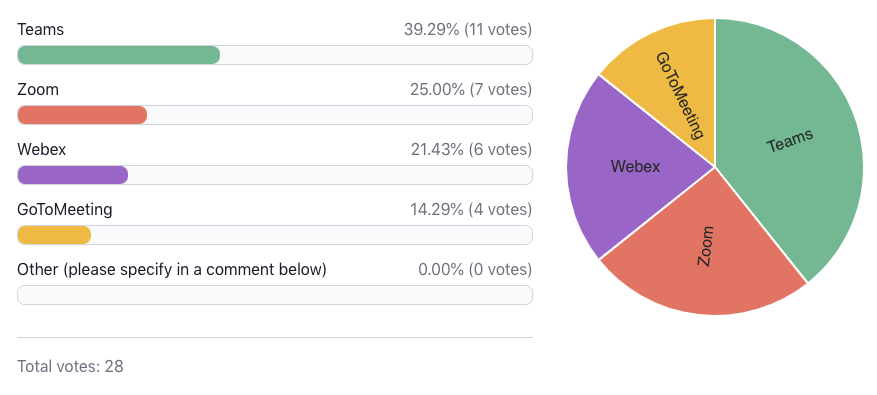
Laurent Durieux (GEO SEC) reported:

* Thanked CEOS SEC for confirming the delegation for GEO Week.
* Requested nomination for the GEO Post-2025 Working Group by the end of this week, if possible.
* There are four new team members in the GEO Secretariat: Madeeha Bajwa (Chief Work Programme Coordinator), Sam Nuttall (Strategic Communications Officer), Ernest Acheampong (Capacity Development Coordinator), and Andreas Albrecht (GEO Post-2025 Coordinator). More information on the team members can be accessed [here](https://www.earthobservations.org/geo_blog_obs.php?id=558).
* The GEO Wetlands Initiative Virtual Irrigation Workshop was held this week to discuss approaches to revive dormant activities and to brainstorm with the community. It was mainly an initiative from ESA with participation from JAXA. It was a two-day workshop with 80 participants and representation from 30 projects, The Ramsar Convention, and SDG Custodian Agencies.
* Ongoing call for implementation plans for the new online system. These are needed by the end of June.
* Doug Cripe and Craig Larlee are leaving the GEO Secretariat.

1. **SEO Report**

Brian Killough (SEO, NASA) reported:

* SEO is participating in the upcoming GEO Plenary meeting. The SEO has submitted a request to GEO SEC for a CEOS exhibition booth at the GEO Plenary in Ghana from 31 October to 4 November 2022. The SEO will plan and host this booth on behalf of CEOS. EOTEC DevNet has expressed an interest in having some of their work showcased at the booth. If CEOS agencies, WGs or VCs have any desires for material at the booth, please contact the SEO – either Brian Killough or David Borges.
* The SEO conducted a survey of the CEOS community regarding the choice of meeting software. The survey results of agency preferences are as below:



* Points raised during the survey included:
  + Zoom is not feasible.
  + Final option must have a web browser client as many cannot install apps.
  + Important to be able to call in if not able to connect through a laptop.
  + Teams and Webex are clearly the most popular.

Given the close result between Teams and Webex, the SEO team will now look at their features and select based on the best functionality and flexibility.

* The SEO submitted a request for a side event at GEO Week focusing on an ODC Sandbox Demo. The proposed theme is: *"Do you want to learn how to use satellite data in the cloud"*? This event seeks to inspire both novice and expert users, to appreciate the impact of satellite data and how modern technology is enabling expanded use across the world. One idea is to create a demo for illegal mining, as Ghana is a prime target of this activity.

1. **Next Meeting and Adjournment**

Olivier Marsal (CNES, CEOS Chair Team) thanked everyone for participating. SEC-294 will be held on 9 June 2022, at the usual time of 7 AM US East.

The plan for CEOS SEC teleconferences/meetings leading up to the 2022 Plenary is as follows (typically Thursday):

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| SEC-294: June 9, 2022  SEC-295: July 21, 2022  SEC-296: September 1, 2022  SEC-297: Mid-September (pre-SIT-TW meeting) |  | SEC-298: October 13, 2022  SEC-299: November 10, 2022  SEC-300: Pre-CEOS-36 Plenary meeting |

The start time for all teleconferences will be 7 AM US East. If there are face-to-face meetings, the times will be advised closer to the dates.