CEOS SEC-276 Report

Entity: SIT Chair Team

Prepared By: J. Ross (GA) & CSIRO

Updates on issues raised during the <u>last</u> CEOS SEC teleconference

275-01	CEOS Executive Officer to organise a teleconference between the SIT Co-Chairs, COVERAGE, COAST AHT, and CEOS Chair Team to	SEC-276
	address CEOS Plenary Action 34-20 and to confirm	
	the mechanics of the role of CEOS representation	
	to the United Nations Decade of Ocean Science for	
	Sustainable Development (2021-2030).	

CEOS-34-20	COVERAGE, COAST, and SIT Chair Teams to discuss and conclude on how CEOS will coordinate internally and externally on CEOS involvement in the United Nations Decade of Ocean Science for Sustainable Development (2021-2030). Once determined, the SIT Chair will prepare a follow-up letter (in coordination with the	ASAP
	prepare a follow-up letter (in coordination with the CEOS Secretariat) to the IOC identifying the appropriate CEOS contact for matters relating to the Decade.	

- The SIT Chair and CEO convened a meeting that included representatives of the Chair Team, COVERAGE and COAST to discuss the way forward. The group agreed to recommend the following model to SEC:
 - o The SIT Co-Chairs nominate Paul and/or Vardis/Jorge as joint CEOS liaison points with IOC and the UN Decade Process.
 - Although the individuals are involved in leading COASTS and COVERAGE which is beneficial, it is not those teams that are being nominated. The individuals are nominated to provide a whole of CEOS liaison point on the broader topic, and will bring relevant matters back to the broader CEOS community for consultation.
 - This team approach provides different perspectives; provides some level of redundancy.
 - o The nominated liaison points have the autonomy to manage that relationship, including engaging with IOC to understand what CEOS contributions could be, supporting discussions at SEC when scheduled by the CEOS Chair, etc
 - o They are invited to present on this matter on the agenda of SIT, SIT TW and Plenary as appropriate and as needed to secure Agency support.

- o The CEO liaises with them regularly and provides support (e.g. helps with connections to other parts of the CEOS family, provides strategic advice, advice on CEOS processes, etc).
- o The SIT Chair provides overall guidance and support.
- The SIT Co-Chairs seek SEC concurrence with this approach, and will, subject to SEC concurrence, seek confirmation from Principals during the SIT-36 meeting.

Issues requiring discussion/decision during <u>current</u> CEOS SEC teleconference

<u>SIT-36</u>

- The SIT Co-Chairs thank agencies for their comments on the draft SIT-36 Objectives document.
- The SIT Chair Team circulated the draft SIT-36 agenda to SEC on February 10, inviting comments on SEC-276. Final deadline for comments from SEC will be the 22nd after which time an updated draft (with SEC comments addressed) will be sent to the broader CEOS community.
- We have reached out to Working Group Chairs and Virtual Constellation Leads asking them to start preparations for the SIT-36 Working Group and Virtual Constellation Showcase session. This is a key opportunity for Working Teams to engage with Principals and the community, and would welcome agency encouragement of their Chairs/Leads to make the most of this opportunity. The first request is to confirm that the Group/Constellation will present, who will present, and what the focus topic will be. Because of tight timing, we will ask for just one main topic and one slide from the teams.

<u>SIT TW 2021</u>

- The SIT Chair Team has developed the following concept for the 2021 SIT Technical Workshop and would appreciate SEC comments and concurrence.
- The 2020 SIT Technical Workshop will be a fully virtual event to take place over an approximately two week period from 6 September to 16 September inclusive.
- In light of the substantial 'meeting fatigue' issues that have become apparent the 'SIT TW Fortnight' will be arranged as follows:
 - Week 1 commencing 6 September will be informal time for groups to get together, have discussions and prepare materials on specific topics. It will be largely "self organised" by groups themselves providing maximum flexibility. A SIT Chair Team representative will call in to sessions whenever possible but there will be no expectations others will.
 - o Week 2 commencing 13 September will be the formal whole group sessions focussing on items required for Plenary. During the week there will be 3x2-2.5 hour sessions held in the usual timeslots on 14, 15 and 16 September.

Other highlights, activities, actions, projects, collaborations

Carbon & Biomass

- Work continues on addressing the steps identified on the last call of the AFOLU Roadmap team. In particular there has been good progress on the test country group thread thanks to USGS/SilvaCarbon.

- The ESA SIT Vice-Chair Team has prepared a first draft of the CEOS GST Strategy Paper as the main item for discussion on the next GST call scheduled for late February.
- The biomass protocol will be presented for endorsement at SIT-36.
- The biomass multi-mission calibration and validation group, with representatives from GEDI, ICESat-2, NISAR, ESA BIOMASS, field networks, and the MAAP platform, have submitted a proposal for a coordinated activity to provide refined global biomass and biomass change estimates at jurisdictional level in support of the GST. This will be discussed on the coming AFOLU call and with the Contacts and Principals of the key agencies that would need to engage and support.

<u>SDGs</u>

- The SDG-AHT Future workshop was held on Feb 11, 2021. The workshop reviewed and discussed the three options presented in the synthesis paper v 1.3 <u>here</u>.
- The workshop participants provided their inputs to the Miro board <u>here</u> and were asked to vote using the google form <u>here</u> on the preferred two options that will be further developed and presented at the SIT-36 meeting. The Miro board and google form will remain active for two weeks allowing the workshop participants to provide further inputs.
- The next SDG-AHT monthly teleconference will be held on Feb 24 to discuss the SDG-AHT roadmap short term plan for 2021.

<u>ARD</u>

- The CARD4L SAR Webinars were held on Feb 1 & 2. The two sessions had around 150 participants and received very positive feedback.
- The CARD4L Product Family Specifications review cycle has started and feedback is expected from IVOS and the aquatic reflectance communities.
- The first telecon discussing the ARD Framework Review was held on 21 January chaired by Ed Armstrong. Particular emphasis was given to the governance processes around the Product Family Specifications.

Upcoming meetings or events

- <u>SIT-36</u>. Virtual. March 23-25, 2021.
- <u>Technical Workshop 2021</u>: Current plan is to be held as a virtual event over two weeks. The first week will have self-organised sessions with narrower thematic/topical focus and self organised. The second week will be more structured, debriefing from each thematic discussion.
 - o Week 1: 6th September
 - o Week 2: 13th September with three 2-2.5h sessions planned.

(two pages max.)

Entity: SDG AHT

Prepared By: Marc Paganini, Alex Held, George Dyke and Andreia Siqueira

Updates on issues raised during the <u>last</u> CEOS SEC teleconference (<u>Dot points</u>)

– N/A

Issues requiring discussion/decision during <u>current</u> CEOS SEC teleconference (<u>Dot points</u>)

– N/A

Other highlights, activities, actions, projects, collaborations

- The SDG-AHT Future workshop was held on Feb 11, 2021. There was very good participation from agencies with around 26 people attending the call.
- The workshop discussed the 3 proposed options presented in the synthesis paper v 1.3 here for the future of the SDG AHT including Pros, Cons, and level of resources for each option.
- Workshop participants provided their inputs to the Miro online whiteboard <u>here</u> and were invited to vote using the google form <u>here</u> on their preferred two options that will be further developed and presented at the SIT-36 meeting. The Miro online whiteboard and google form will remain active for two weeks allowing the workshop participants to provide further inputs.

Upcoming meetings or events

(Dot points, e.g. meetings, conferences of relevance, visits)

 The Feb SDG-AHT monthly teleconference will be held on Feb 24 to review the progress made by the 4 AHT Sub-teams (water-related ecosystems, land degradation, urban and coastal) on their SDG indicator satellite data analyses.

CEOS SEC-276 Report

Entity: CEO

Prepared By: Marie-Claire Greening

Updates on issues raised during the <u>last</u> CEOS SEC teleconference (<u>Dot points</u>)

274-01	CEOS Chair Team and CEO to review the CEOS Governance and Processes document, the External Request Process Paper, and the New Initiatives Process Paper to determine if and what changes may be needed in relation to the CEOS Executive Officer Terms of Reference.	SEC-276
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Action 274-01: CEOS Governance and Processes document updated and put forward for SEC approval at this meeting. The External Request Process Paper, and the New Initiatives Process Paper do not require any updates.

275-01	CEOS Executive Officer to organise a teleconference between the SIT Co-Chairs, COVERAGE, COAST AHT, and CEOS Chair Team to address CEOS Plenary Action 34-20 and to confirm the mechanics of the role of CEOS representation to the United Nations Decade of Ocean Science for Sustainable Development (2021-2030).	SEC-276
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Action 275-01: On 9th February 2021, a telecon was held between the CEOS Chair, SIT Chair, COAST AHT, COVERAGE and the CEO. The results of these discussions are part of the SIT Chair report at this meeting.

275-02	Marie-Claire to send Sandra Cauffman the draft CEOS-GEO bilateral meeting agenda, to facilitate CEOS Chair Team coordination.	ASAP
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Action 275-02: On 14th January 2021, the draft agenda for the CEOS-GEO bilateral was sent to Sandra Cauffman and the CEOS Chair team.

Issues requiring discussion/decision during <u>current</u> CEOS SEC teleconference (<u>Dot points</u>)

- CEOS 2021-2023 Work Plan

- Deadline for receipt of 2021-23 updates to the CEOS Work Plan was Friday 12th February. Thanks go to all who submitted their updates on time; reminders have gone out for delayed responses. Any late submissions very gratefully received asap.
- The aim is to do a first pass over the entire document and generate a first draft of the 2021-23 Work Plan for final review and substantive comment within the next fortnight, then for virtual approval by the end of February.
- The 2021-23 update to the 2020-22 Work Plan will be a "light touch" as the 2020-22 Work Plan was endorsed later in 2020 than originally scheduled due to the COVID global pandemic.

- GEO Programme Board (PB-19) 26-28 January

- Attended PB-19 with Andreia Siqueira (GA, PB Principal) and Amy Parker (CSIRO, PB Alternate).
- For 2021, the CEOS GEO PB team will be involved in the following PB Subgroups and Engagement Team (ET)s:
 - 2021 GEO Symposium Subgroup (Andreia and Marie-Claire)
 - Equality, Diversity and Inclusion Subgroup (Amy)
 - Biodiversity / ecosystems ET: GEO-BON, GEO-WETLANDS, GFOI, EO4EA (Andreia)
 - Hazards ET: GEO-DARMA, GSNL, GWIS (Amy)
 - Land / agriculture: GEOGLAM, GDIS, GEO-LDN (Andreia)
 - Water: AQUAWATCH, BLUE-PLANET, GEOGLOWS (Marie-Claire)

- CEOS-GEO bilateral 2-3 February

The following table outlines the main discussion points, agreements, actions and considerations that resulted from the bilateral consultative meeting between CEOS and GEO:

Space-based Earth Observation Data for Open Science and	There is CEOS and GEO consensus on the need to focus attention on open science. Actions:	
Decision Support	Marie-Claire Greening to share GEO statement on Open Science with CEOS SEC for comment and feedback to GEO ahead of the GEO Executive Committee in March.	
	CEOS/Brian Killough to work with GEO/Doug Cripe on a possible further example that could be included as a Knowledge Hub package that CEOS is currently working on for an IGARSS paper (a Google Earth Engine comparison with Sentinel 1 data)	
	Consideration:	
	 CEOS and GEO leadership to consider producing a joint leadership statement to encourage more widespread adoption of open science principles. 	

Open Earth Alliance and Data Cubes	Community involvement in sandboxing ideas that can then be scaled up when appropriate is a useful approach. Data Cube technology should ideally be open source from beginning to end. Action: Brian Killough to arrange regular meetings with GEO to engage on a strategic level about topics on data, technology, intellectual property rights, etc., and to outline generic principles that should be followed as the Open Earth Alliance (OEA) develops.
Analysis Ready Data and the Cloud: Status, Activities, Pilots (incl. Digital Earth Africa)	Analysis Ready Data (ARD) is a very useful step in defining an end- product. Improving quality in ARD products should help user uptake. Cloud providers need to know what is considered to be authoritative data. Cloud platforms are powerful enablers but, if they provide closed solutions, this does not comply with the ideal of open science nor the need for processing transparency. -> Vendor-independence essential for open science solutions
<i>In situ</i> and Biomass Reference Network	 CEOS and GEO have held discussions on the Biomass Reference Network. There is now a need to turn opportunities identified into actionable items. Action: Klaus Scipal (ESA) to discuss options with the GEOSEC for GEO to host the Biomass Reference Network on the GEO Knowledge Hub. Consideration: GEO to launch a new community within its Work Programme to assist outreach to funders; this additional community activity would be in line with GEO strategy.
Capacity Building and EOTEC	 EOTEC DevNet is the culmination of a multi-institutional effort. EOTEC DevNet would like to enhance sharing and come up with one huge community of practice, taking into account what other organisations are doing. Consideration: GEOSEC to consider what supporting role and level of commitment it can continue to have in EOTEC DevNet.
Dashboards (beyond COVID-19)	 The COVID-19 dashboard created by NASA / ESA / JAXA was impressive and unanimously commended. There was collective interest in maintaining this dashboard (with a possible repurposing), but also recognition that these are internal agency decisions. Action: CEOS and GEO communities to suggest what future expressions of the NASA / ESA / JAXA dashboard could look like and/or include.

Disasters - Emerging Activities and Ensuring Linkages	There is a need to bridge between the policy frameworks and the national framework in terms of reporting and plans. Pilot projects are useful to identify what people need in terms of information to guide their actions. Information needs to come from many sources, not just satellite; CEOS has a focused priority looking at floods in this context.
Climate - Informing the GST Process & Prep for the 2023 GST	CEOS (led by ESA) has initiated a comprehensive strategy process, stepping back to ensure that, from a CEOS point of view, all bases are covered and to make conscious decisions about what EO can and should contribute. GEOSEC supporting countries and the processes they are adopting for the Global Stocktake (GST), with a focus on vision and long- term perspectives. Adaptation is an area that can particularly benefit from space-based EO support.
Marine - COAST, COVERAGE & UN Decade of Ocean Science	COVERAGE has been submitted as an 'Ocean Shot' and COAST as a 'Programme' to the UN Decade of Ocean Science for Sustainable Development. The GEO Secretariat has been invited by UNESCO-IOC to become a 'key strategic partner' in running the UN Decade on Ocean Science, with a focus on observations and data. GEO will be submitting a proposal to the March Executive Committee meeting to mobilize an action across the GEO community to contribute to the UN Decade for Ocean Science for Sustainable Development. Action: CEOS-COAST and GEO Secretariat to plan an ARD session during the GEO Data and Knowledge Week (May 2021)
GEO Urban Resilience - scoping and links	Urban Resilience Subgroup for GEO has been asked to provide an Engagement Plan to work with the main stakeholders to see how EO can support the implementation of the New Urban Agenda. Expected impacts of this activity are to increase awareness of the communities and to inform decision making.
SDGs - Potential CEOS framework and complementarity	 CEOS SDG Ad hoc team to discuss option for the future structure of the SDG effort within CEOS at a dedicated workshop on 11 Feb. Options are: Create a new CEOS Working Group Transfer SDG work into existing bodies Reduce the scope of CEOS support to GEO

Other highlights, activities, actions, projects, collaborations (<u>Dot points</u>, e.g. outputs, new products, papers, technical reports, media, pipeline and new projects, interactions, project status changes, new opportunities)

None

Upcoming meetings or events (Dot points, e.g. meetings, conferences of relevance, visits)

- 1-5 March: WGCapD-10
- 9-11 March: WGDisasters-15

Attachments

(e.g. pictures, figures, graphs, links – for use in overall CEOS reporting and as website resources etc.)

- Updated CEOS calendar of meetings / events attached to this report. If any key meetings or events are missing from the calendar, please contact Marie-Claire.

(two pages max.)

Entity: WGDisasters Chair Team

Prepared By: NASA

Updates on issues raised during the <u>last</u> CEOS SEC teleconference (<u>Dot points</u>)

No updates

Issues requiring discussion/decision during <u>current</u> CEOS SEC teleconference (<u>Dot points</u>)

No updates

Other highlights, activities, actions, projects, collaborations (<u>Dot points</u>, e.g. outputs, new products, papers, technical reports, media, pipeline and new projects, interactions, project status changes, new opportunities)

- WGDisasters Wildfire Pilot Implementation Plan will be shared with the CEOS community for review and feedback early March 2021. Pilot endorsement will be requested during SIT-36.
- WGDisasters Landslide Demonstrator Implementation Plan will be shared with the CEOS community for review and feedback early March 2021. Demonstrator endorsement will be requested during SIT-36.
- WGDisasters is still seeking a new Data Coordination Team (DCT) Lead. Pierric Ferrier has led DCT activities, but a replacement needs to be identified, before Pierric becomes WGDisasters Chair at 35th CEOS Plenary.

Upcoming meetings or events

(Dot points, e.g. meetings, conferences of relevance, visits)

- WGDisasters-15
 - o Virtual, 9-11 March 2021

(two pages max.)

Entity: WGISS (Working Group on Information System and Services)

Prepared By: Robert Woodcock - Chair (CSIRO)

Updates on issues raised during the last CEOS SEC teleconference

(<u>Dot points</u>)

– N/A

Issues requiring discussion/decision during <u>current</u> CEOS SEC teleconference (Dot points)

– N/A

Other highlights, activities, actions, projects, collaborations

(<u>Dot points</u>, e.g. outputs, new products, papers, technical reports, media, pipeline and new projects, interactions, project status changes, new opportunities)

- CEOS Earth Analytics Interoperability Laboratory – The CEOS EAIL team (WGISS, CSIRO Aus, CSIRO Chile and CEOS SEO) have populated the CEOS EAIL with a USGS Landsat Collection 2 and Element 84 Sentinel 2 across region spanning states of the East Coast of the USA (Virginia and surrounding states). S1 ARD from Sinergize will be added shortly. This area was selected as a general use area for training notebooks and interoperability trials in the use of STAC and Cloud Optimised GeoTiffs made directly available on the Cloud. Support mechanisms and outreach to CEOS projects to use the EAIL are now underway starting with identification of Regions and Sensors of Interest with which to populate the EAIL.

- The WGISS Open Search Best Practices has been updated and circulated for review over the past few weeks. No comments were received which was unusual. WGISS has sent out another review request round to ensure changes are properly communicated and will report back at WGISS-51 on the update.

- WGISS 51 planning is well underway with good responses from presenters on the Cloud Formats special topic and data preservation and stewardship interest group. The use of Jupyter Notebooks in Earth Observation will also be showcased in the Technology Exploration interest group. Collaboration with WGCapD on a webinar on Jupy

Upcoming meetings or events

(Dot points, e.g. meetings, conferences of relevance, visits)

Attachments

(e.g. pictures, figures, graphs, links – for use in overall CEOS reporting and as website resources etc.)

(two pages max.)

Entity: WGCapD

Prepared By: Nancy Searby (Chair/NASA) & Pham Thy (Vice Chair/VNSC)

Updates on issues raised during the <u>last</u> CEOS SEC teleconference (<u>Dot points</u>)

 WGCapD continues to look for a new incoming Chair and Vice Chair; consultations continue among CEOS leadership, WGCapD chair and principals on the next steps in identifying members who will take on chair and vice-chair roles starting in October 2021.

Issues requiring discussion/decision during <u>current</u> CEOS SEC teleconference (<u>Dot points</u>)

- The EOTEC DevNet overview paper (deliverable CB-20-05) is ready for review, and for information was presented to GEO (and favorably received) at the bilateral. CEOS is requested to endorse the two year pilot, and commit to supporting WGCapD in its efforts to co-lead and provide Secretariat support.

Other highlights, activities, actions, projects, collaborations (<u>Dot points</u>, e.g. outputs, new products, papers, technical reports, media, pipeline and new projects, interactions, project status changes, new opportunities)

- WGCapD continues work on deliverables as defined in the 2019-2021 work plan, as well as monitoring COVID-19-induced changes. Some recent updates include the completion of two deliverables:
 - CB-20-02: CEOS COVE outreach webinar
 - CB-20-03: CARD4L awareness webinar
- WGCapD is working to update current deliverables and identify new deliverables for the 2020-2022 work plan.
- Following additional consultations with WGCapD members and partners, the revised version of the white paper on Earth Observation Training, Education, and Capacity (EOTEC) Development Network (DevNet) was finalized. It was positively received at the latest GEO-CEOS bilateral meeting. The deliverable will be shared for general CEOS review.
- A <u>summary</u> of capacity building assessment survey was shared with WGCapD members at the recent monthly meeting. A further discussion of key takeaways will take place at the upcoming WGCapD-10 annual meeting on March 1-4.
- A planning team has prepared a provisional <u>agenda</u> for the WGCapD meeting. The meeting will feature a keynote, panels, working sessions and regional exchanges related to the meeting's theme of "Building a Vision for the Next Decade". To maximize the time for discussions, most member updates will be submitted in video <u>format</u> prior to the meeting.

Upcoming meetings or events

(Dot points, e.g. meetings, conferences of relevance, visits)

WGCapD-10 Annual Meeting will be held virtually the week of Mar 1-4, 2021.
 Registration is now <u>open</u>. Details will be made available on the <u>CEOS website</u>.

- WGCapD Monthly Meeting on April 1, 2021.

(two pages max.)

Entity: WGCV

Prepared By: Akihiko Kuze (JAXA) Philippe Goryl (ESA)

Issues requiring discussion/decision during <u>current</u> CEOS SEC teleconference (<u>Dot points</u>)

 The Biomass Validation Protocol submitted by the WGCV LPV is under review and will seek endorsement by SIT.

Second Biomass Retrieval Inter-comparison eXperiment (BRIX-2) Intercompaison of biomass algorithms based on a test dataset, and comparison with ground-truth.
 2 workshops (a first one to discuss the protocol with the participants in April), a second one to share and discuss the results of the exercise. Based on the ESA-NASA Multi-Mission Algorithm and Analysis Platform (MAAP).

Other highlights, activities, actions, projects, collaborations

(<u>Dot points</u>, e.g. outputs, new products, papers, technical reports, media, pipeline and new projects, interactions, project status changes, new opportunities)

– Joining discussion on "ARD beyond land" such as atmospheric compositions.

Upcoming meetings or events

(Dot points, e.g. meetings, conferences of relevance, visits)

-LPV subgroup meeting May 26, 27 (15h-17h UTC)

- WGCV team telecon: the week of March 8 (to be confirmed)

- WGCV-49: June 29-July 2 (virtual, 4-day, 2-hour each day) (to be confirmed)
- WGCV-50: Early 2022 (Tokyo, Japan)

CEOS SEC-276 Report – February 2021

Entity: SEO Prepared By: Brian Killough (NASA)

Issues requiring discussion/decision during CEOS SEC teleconference

- CEOS copyright ... We do not have a copyright on the CEOS <u>name</u> or its <u>logo</u>. Copyright does not generally protect names, slogans, or titles. If CEOS wanted to get a copyright for its logo it would not be possible since CEOS is not a formal entity, such as a non-profit organization. So, it appears we are forced to continue "business as usual" regarding our name and logo. Though this has not been an issue in the past and we have a new CEOS Branding document, there is always a risk of an outside group using our name and logo inappropriately or without our approval and consent. We will need to remain vigilant as an organization to be aware of such situations and to act accordingly.

Updates on issues raised during the last CEOS SEC teleconference

- SEC Action 272-02 CEOS Executive Officer to convene a small group (led by the CEO, and including Brian Killough (SEO), and Jonathon Ross (SIT Chair Team)) to draft a process and policy on the use of logos in CEOS.
 - A CEOS Branding Guideline document was developed by a small team (Killough, Holloway, Ross, Bognar, Greening) and is available for SEC review. This document includes guidelines on the use of the CEOS mission statement, tagline, logos, and website. Review is requested by Feb 26. A final version will be endorsed at the CEOS SIT in March.

Upcoming meetings or events

- None

Other highlights, activities, actions, projects, collaborations

- CEOS website Due to a variety of security issues the CEOS website has experienced several updates and modifications. All of the primary website functions are working well, but there is still limited access to the document management system. Updates to website content should be sent to Kim Holloway (SEO).
- Sentinel-1 CARD4L Tool The SEO and DE-Africa co-funded the development of a new Sentinel-1 CARD4L prototype data processing tool that creates S1 data cubes using the Sentinel-Hub and Amazon Cloud. Cubes have been created for coastal Virginia (support for COAST), a comparison study against Earth Engine S1 data, and the Pacific Islands (Fiji, Vanuatu). The interest in this tool is quite high and the cost of production is very low (~2 Euros per GB of processed data).