

# CEOS SEC Report

(two pages max.)

**Entity:** CEO

**Prepared By:** Steven Hosford (ESA/CNES)

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## Updates on issues raised during the last CEOS SEC teleconference

### (Dot points)

- **CEO/DCEO.** Contact with two potential CEO candidates have taken place since SEC-246. This involved providing CEO TORs and telephone calls with both potentially interested parties. Both candidates have decided to proceed no further with the opportunity.
- **CEOS 2019-2021 Work Plan.** Responses and iterations with CEOS entities have progressed steadily since SEC-246 and the end of the shutdown. Consolidated inputs have yet to be received from:
  - WGClimate, WGCV, OCR-VC, P-VC, OSWV-VC, Water theme, Biodiversity, Blue PlanetDespite this, it is anticipated that a consolidated “first draft” version of the document will be available by early march. One final general iteration will then be possible before finalising the Work Plan ahead of SIT-34. The proposed inclusion of a set of CEOS deliverables linked to key ongoing “CEOS Services” as discussed at SEC-246, has the agreement of all potential contributing CEOS entities. It is proposed to include this new category of deliverables (see Issues for discussion).
- **CEOS-GEO Bilateral meeting.** The meeting will take place on 21/02 PM to 22/02 COB. Latest agenda sent this week.
- **CEOS Plenary Action 32-01 (Letter to agencies regarding their membership status).** Full report provided at SEC-246.

## Issues requiring discussion/decision during current CEOS SEC teleconference

### (Dot points)

- **Structure of the CEOS Work Plan.** In addition to the inclusion of a new category of CEOS deliverables described above, a slight restructuring of the work plan is also proposed. This would see the changes shown below implemented:

## Proposed CEOS 2019-2021 WP Structure

- 3.1. Climate Monitoring, Research, and Services
- 3.2. Carbon Observations, Including Forested Regions
- 3.3. Observations for Agriculture
- 3.4. Observations for Disasters
- 3.5. Observations for Water
- 3.6. ~~Future Data Architectures~~ **CEOS Services/Infrastructure Elements**
- 3.7. ~~Capacity Building, Data Access, Availability and Quality~~ **Data Discovery, Access, Preservation, Usability and Exploitation**
- **3.8 Data Quality**
- **3.9 Capacity Building and Data Democracy**
- 3.10 Advancement of the CEOS Virtual Constellations
- 3.11 Support to Other Key Stakeholder Initiatives
- ~~3.12 Outreach to Key Stakeholders~~
- 3.12 Organizational Issues and **Outreach**

**The evolutions are:** FDA section removed - deliverables attributed to the CEOS entities that are responsible for each deliverable; CEOS Services?Infra section added; Capacity Building, Data Access, Availability and Quality split in 3 sections (one for each WG); Outreach and Organisational Issues sections merged.

### **Other highlights, activities, actions, projects, collaborations**

**(Dot points, 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)**

– None

### **Attachments**

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

## CEOS SEC-247 Report

**Entity:** SIT Chair Team

**Prepared By:** Kerry Sawyer (NOAA)

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### Updates on issues raised during the last CEOS SEC teleconference

#### (Dot points)

- No report on SDG AHT update. Suggest this be deleted from SEC discussion because there is an action from Plenary to report at SIT-34.

### Issues requiring discussion/decision during current CEOS SEC teleconference

#### (Dot points)

- Updates on SIT-34
  - Venue is confirmed for Mayfair Hotel of Coconut Grove in Miami, Florida. Invitation letter has been sent, along with logistics package. Registration links are available on the CEOS website – two separate: one for meeting attendance and another to make your reservation for hotel rooms.
  - Tuesday, 2 April reserved for side meetings
    - Very strict rules and deadlines for side meetings – three rooms available only, likely no A/V support but wifi and polycom will be available
  - Wednesday, 3 April and Thursday, 4 April for main SIT-34
  - Proposing site visit afternoon of 2 April to NOAA's Atlantic Oceanographic and Meteorological Laboratory in Key Biscayne
  - Registration/Meeting fee required of ~\$105 for ALL participants
  - Will have a draft agenda available for SEC by the end of this week. Compressed schedule because of U.S. government shutdown so we kindly request your consideration and understanding with tight deadlines and confirmations of proposed presenters.
- VC Reports and SDG AHT
  - LSI-VC held their 7<sup>th</sup> meeting last week in Hanoi; it was very successful. Adam Lewis reported that the meeting attendees endorsed the product family specifications for Backscatter, Surface Reflectance, and Land Surface Temperature. This is a major milestone for the VC and for analysis ready data as a concept.
  - SDG AHT will be reporting separately
- VC/WG/AHT Telecons
  - Scheduled for 28 Feb, 6, 7, and 11 March. All VCs, WGs, and AHTs, have responded except OST-VC, P-VC, and SDCG.
- CEOS-GEO Bilateral in Geneva
  - Meeting is scheduled for 21 and 22 Feb (PM on 21<sup>st</sup> and all day on 22<sup>nd</sup>). Steve Volz, Steven Hosford, Brian Killough, and Kerry Sawyer are attending for CEOS.
  - Five key themes for discussion:
    - GEO and CEOS Work Plans/Programmes for 2019 and preparing the GEO Work Programme for 2020-2022
    - Organizing the interface to EO data user communities: organization and roles
    - Evolving GEO/GEOSS
    - Role of CEOS and GEO in End-user Engagement
    - Role of CEOS in the GEO Knowledge Hub
  - Outcomes will be shared at SEC-248
- Updates on any relevant CEOS 32<sup>nd</sup> Plenary, SIT Technical Workshop and SIT-33 actions

No.	Action	Due Date
CEOS-32-03	<b>SIT Chair</b> to lead the drafting of a CEOS letter to CNES suggesting the approach required for CEOS to consider information on the SCO, its scope, and relevance to existing activities.	<b>December 2018</b>
	<p><b>2/19/19</b> - SIT Chair Team has talked with some of the CEOS space agency representatives who attended the 1 Feb SCO meeting hosted by CNES in Paris. Still waiting for input from our CEOS rep to SCO before preparing the letter to CNES to confirm we have consolidated response to CNES from space agencies.</p> <p><b>12/13/18</b> – Reported at SEC-245 that will SIT Chair Team will work with WGClimate Chair to prepare the letter. JAXA also has interest in letter.</p> <p><b>10/17/18</b> - Plenary Action <b>CEOS-32-03</b> on CEOS (leadership) to send letter to CNES suggesting the approach required for CEOS to consider information on the SCO, its scope and relevance to existing activities – content would include a number of items (Local adaptation scale issues – more socioeconomic). <b>SIT Chair</b> has volunteered to prepare the letter – what time period? Before COP, before January...? Earlier the better – have high-level political pressure to move forward with this; at bilateral level, get comments but at CEOS level, would be clearly welcome.</p>	
CEOS-32-11	SDG-AHT Co-Leads are tasked to bring a proposal on the way forward organizationally for the SDG activity within the CEOS structure.	SIT-34
	Will be discussed during SDG AHT tag-up with SIT Chair	
CEOS-32-12	Virtual Constellation Co-Leads to propose at SIT-34: a documented approach to VC leadership that includes a leadership rotation cycle. Each VC has the liberty to propose different time cycles.	SIT-34
	Will be discussed during VC tag-ups with SIT Chair	
CEOS-32-13	LSI-VC to draft a plan forward for the proposed merger of SDCG for GFOI and the CEOS <i>Ad Hoc</i> Working Group on GEOGLAM into LSI-VC. This plan would address the discussions and concerns raised at the CEOS Plenary meeting.	SIT-34
	Will be discussed during VC tag-up with SIT Chair	
CEOS-32-15	<b>SIT Chair</b> to develop agenda items for discussion at SIT-34, proposal at SIT TW, and recommendation(s) for decision at CEOS Plenary 33 on: various CEOS governance, processes, and organisational issues.	<b>CEOS-33</b>
	Will be discussed during Tag-ups with SIT Chair	

## Other highlights, activities, actions, projects, collaborations

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

- Outcomes from 12<sup>th</sup> GEO Programme Board – 7-8 February 2019
  - Steven Hosford and Kerry Sawyer participated in two-day meeting. GEO Summary of PB attached.
  - Key items: GEO is restructuring the Foundational Tasks for the 2020-2022 GEO Work Programme. GEO is proposing a new Foundational Task – GEOSS Data and Information Resources – which will once again consolidate space-based and *in situ* observations under one task, along with the addition of data sharing and frequency management. *In situ* and space-based resources were merged until 2015, when CEOS successfully lobbied to have them separated because they were completely different communities and CEOS was getting penalized for lack of meeting deliverables for the Task. Foundational Tasks are led by the GEO Secretariat (except for GEOSS Platform which is under redevelopment).
  - Implementation Plans for GEO Flagships and Initiatives were due 15 Feb. CEOS was not required to submit any IPs.
  - There will be a GEO Symposium May 27-29 in Geneva. The expectation is that the new GEO Work Programme will be the focus of discussion and a draft agenda has been shared with the PB.

### **Upcoming meetings or events**

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

- CEOS-GEO Bilateral Meeting in Geneva: 21 and 22 February 2019
- GEO ExCom-47 and 13<sup>th</sup> GEO PB: 19-22 March 2019
- SIT-34: 2-4 April 2019

### **Attachments**

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

- Outcomes from 12<sup>th</sup> GEO Programme Board Meeting (PDF)

# CEOS SEC Report

*(two pages max.)*

**Entity:** GEO SEC

**Prepared By:** Akiko Noda, Douglas Cripe (GEO Secretariat)

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## **Updates on issues raised during the last CEOS SEC teleconference**

### **(Dot points)**

- NA

## **Issues requiring discussion/decision during current CEOS SEC teleconference**

### **(Dot points)**

- NA

## **Other highlights, activities, actions, projects, collaborations**

### **(Dot points, e.g. outputs, new products, papers, technical reports, media, pipeline and new projects, interactions, project status changes, new opportunities)**

- 2nd Expert Advisory Group (EAG) Meeting, 5-6 February 2019, Geneva, Switzerland

The Secretariat presented the draft Infrastructure for Results-oriented GEOSS document to the 2nd EAG meeting for discussion. The document reprised the vision for a results-oriented GEOSS and defined the concept of a GEO Knowledge Hub (comprising research papers on methods and results; software algorithms used for processing; in situ and satellite imagery data used; and results), before considering issues related to implementation of the Hub such as the use of cloud computing services; in situ data sources (including household surveys, in field campaigns, and citizen science) as well as barriers related to sharing; multi-satellite data analysis and processing; technologies required to build the Hub; and integration of the GEOSS Platform with the GEO Knowledge Hub.

The EAG requested clarification pertaining to aspects of the proposal, such as: how the Hub can be leveraged to help activities of the GEO Work Programme upscale globally; how to ensure that end-users would find information on the Hub to be relevant, as well as be capable of understanding and using it; what is meant by “data curation”, who will perform it, and if it is to be the Secretariat, are there sufficient resources; what are the implications for privacy and intellectual property rights when using publicly available cloud computing services, as well as the sustainability of a Hub that relies on these services (especially if provided by the commercial sector); to what extent should the in situ data stored by the Hub be related to activities of the GEO Work Programme; what is foreseen in terms of capacity development; and how to best integrate the EO search and discovery capabilities of the GEOSS Platform with the Hub. These questions notwithstanding, the EAG gave its support for the Secretariat to go ahead and develop a small number of pilot cases for examination at the 3rd and final meeting of the EAG in April 2019. In the meantime, the Secretariat will revise the

Infrastructure for Results-oriented GEOSS paper to respond to the concerns of the EAG.

**Upcoming meetings or events**

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

- CEOS-GEO Bilateral meeting, 21-22 February, Geneva
- GEO Data Technology Workshop, 23-25 April, Vienna
- GEO Symposium, 27–29 May, Geneva
- 2019 GEO Ministerial Summit, 4-9 November, Canberra

**Attachments**

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

# CEOS SEC-247 Report – February 2019

**Entity:** SEO

**Prepared By:** Brian Killough (NASA)

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## **Issues requiring discussion/decision during CEOS SEC teleconference**

- None

## **Updates on issues raised during the last CEOS SEC teleconference**

- None

## **Upcoming meetings or events**

- No upcoming U.S. Government shutdowns are expected

## **Other highlights, activities, actions, projects, collaborations**

(e.g. outputs, new products, papers, technical reports, media, pipeline and new projects, interactions, project status changes, new opportunities)

- The SEO has started interactions with WGCapD on the development of a new Global Training Database and has started interactions with the CEO on revisions to the CEOS Deliverables Tracking tool.
- The SEO participated in the 3rd annual Open Data Cube workshop at GA in Canberra, Australia on February 11-15. The ODC Partners discussed strategic planning for the coming year, data flows including ARD creation and access, industry engagement and new releases of a "Cube in a Box" and an "ODC Sandbox" . The developer group focused on interoperable algorithms for water detection and land classification using Landsat, Sentinel-1 and Sentinel-2.
- The SEO Team met with the GEO Secretariat on February 20 to provide Open Data Cube training and to discuss GEO plans for managing \$1.5M of Amazon cloud credits for their new GEO-Amazon Cloud Credit Programme. They are expecting many of the proposals will use the data cube.

# CEOS SEC 247 Report

(two pages max.)

**Entity:** WG Disasters

**Prepared By:** Simona Zoffoli (Italian Space Agency), David Green (NASA)

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## **Updates on issues raised during the last CEOS SEC teleconference**

**(Dot points)**

- None

## **Issues requiring discussion/decision during current CEOS SEC teleconference**

**(Dot points)**

- None

## **Other highlights, activities, actions, projects, collaborations**

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

- CEOS Workplan 2019-2021
  - Revision of the WG Disasters workplan and deliverables list provided to CEOS CEO
- A small team of WG Disasters participants has been formed to reflect on achievements of the WG Disasters, on its objectives, on its current activities, and to make some recommendations about structuring future activities. A first telecon has been held on Feb 4, it was discussed the status of the WG activities, agreed to map the activities toward the Term of reference of the group to identify gaps, analysed the relation with other groups of the DRM community and discussed new potential themes of interest.  
After this call, a presentation has been prepared by the Chair of the group and circulated to the team to be discussed in a second telecon planned on Feb 27. An agenda item has been included in the WGD 11 meeting in Athens in March to report to the entire WG the results of this discussion and early suggestions.
- WG Disasters meeting n.11: 3 days meeting, 1 of the 3 days open to local community (Civil Protection, earth observation experts, scientists) to share results from WG disasters and local activities. One slot in the agenda dedicated to interaction with WG Capacity Building.
- GEO initiatives: GEODARMA & GSNL
  - On going activities with no major updates during the last month
- Recovery Observatory (RO)
  - RO team is working with key international stakeholders (EU, World Bank, UNDP, UNEP) to extend RO experience on a generic basis after major events (G-RO). An advocacy G-RO paper is under preparation. Recovery Observatory activities are proceeding. A capacity-building event is planned together with a workshop next May.
- Geohazards Lab

- Available as one option to serve as a repository of all COSMO-SKyMed data provided for Supersites and pilot initiatives.
- On-going promoting hosted processing and raising awareness (capacity building, training courses, workshops) and the integration of services and tools to better meet community needs.
- Seismic hazard demonstrator
  - On-going activities on active fault mapping and on capacity building in coordination with GSNL. The team started ordering data to Space Agencies involved in the project.
- Volcano demonstrator
  - On-going activities to define a detailed implementation plan with regional leaders and tasks.
- Landslide Pilot
  - The landslide project is progressing smoothly. Data is flowing to users and products are being generated.

### **Upcoming meetings or events**

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

- CEOS WG Disasters meeting n.11, Harokopeion University, Athens, Greece, March,5-7, 2019. The agenda has been circulated as well as the information package.
- EGU (7-12 April, 2019): WG Disasters Chair co-convenor of the Session NH6.1 Application of remote sensing and Earth-observation data in natural hazard and risk studies.
- Living Planet Symposium (13-17 May, 2019): The jointly proposed session (GEO/CEOS) has received a large number of papers that have been peer-reviewed. The convenors have selected the 6 requested oral presentations for the session.
- CEOS WG Disasters meeting n.12, University of Iceland /Nordic Volcanological center, Iceland, September,23-27, 2019

### **Attachments**

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

## CEOS SEC 247 Report

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

**Prepared By:** Mirko Albani - Chair (ESA), Rob Woodcock – Vice-chair (CSIRO)

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### Updates on issues raised during the last CEOS SEC teleconference

(Dot points)

- None

### Issues requiring discussion/decision during current CEOS SEC teleconference

(Dot points)

- None

### Other highlights, activities, actions, projects, collaborations

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

- WGISS provided inputs for the CEOS 2019-21 Work Plan; awaiting first draft version for comments.
- Preparation of next WGISS-47 meeting including dedicated sessions on FDA elements demonstration and technology for EO is ongoing.
- A “CEOS Agencies Participation/Contribution to WGISS” table (showing the different WGISS groups, their scope, CEOS agencies interest/benefits, and skills of representatives) is being finalised, and will be distributed and posted to advertise and stimulate participation to WGISS.
- *Collaborations with:*
  - **COVERAGE Initiative** to make some key thematic datasets discoverable and accessible through the WGISS Connected Data Assets. Coordination ongoing with identified data providers for the utilisation of FedEO for automatic registration in IDN.
  - **WGCV** on four identified topics. Activities have experienced some delay due to workload of key people. Joint teleconference held in February 2019 and next steps defined. Main focus will be on the use of data cubes in support to CAL/VAL activities: two prototypes available.
  - **Carbon Team** on prototype carbon portal development. New version issued for review by Carbon Team and opened to the wider user community in December 2018. Carbon Portal handover and governance after final release to be defined. Carbon Portal development team looking into the possibility to support a case study on forest monitoring in the Mekong area. Next team teleconference and teleconference with VAST team planned by end February 2019.
  - **WGClimate** on ECV inventory Version 2.0 datasets registration in IDN as first step for accessibility through WGISS Connected Data Assets Infrastructure. Registration of an initial set of data is progressing in coordination with WGClimate chair using the FedEO dedicated “fast registration” procedure also used in the frame of the COVERAGE/WGISS activity and through CWIC. Second batch of data will be registered through collecting relevant information from data providers during the ECV Inventory update to V3. Template for information provision sent to WGClimate chair for circulation to data providers.
  - **WGCapD** for technology and user oriented webinars. WGISS supported the organization of the SAR training/meeting in Vietnam in February. WGISS representatives will participate remotely to the next WGCapD meeting planned in March.
  - **Virtual Constellations** to update the inventory of Virtual Constellations datasets and ensure discoverability/accessibility through WGISS Connected Data Assets infrastructure. Inventory update to be started in cooperation with CEO.
  - **GEO:** Robert Woodcock (CSIRO) participated to the 2<sup>nd</sup> GEO Expert Advisory Group (EAG) meeting; WGISS (Mirko Albani, Rob Woodcock) supporting the organization, in

coordination with SEO and SIT Chair team, of the 4<sup>th</sup> GEO Data Technology workshop which will be hosted by UNOOSA in Vienna Austria from the 23<sup>rd</sup> to the 25<sup>th</sup> April 2019.

- *Data Preservation and Stewardship*
  - Proposal for GEO Data Management Principles Implementation Guidelines (DMP IG) improvement/update on the basis of CEOS WGISS Maturity Matrix being drafted.
  
- *Data Discovery and Access (WGISS Connected Data Assets Activities)*
  - Possible implementation of a map based front-end/portal within the IDN for CEOS data discovery and access is being discussed by the System Level Team.
  - 150 EO data collections from JAXA have been registered in IDN. Access at granule level will be addressed in the upcoming months; NOAA datasets being registered/updated in the International Directory Network (IDN) and granule search/access is being implemented.
  - CWIC tests with National Remote Sensing Center of China (NRSCC) ChinaGEOSS platform for metadata harvesting to be started.
  - A simplified procedure for collections/granules discovery and access through FedEO and automatic registration in IDN is being used to increase number of partners and collections and in different cooperation activities.
    - All FedEO data collections are being registered in the IDN; granule access to FedEO datasets registered in the IDN will be provided through FedEO.
    - Activities ongoing with JAXA for discovery/access through WGISS CDA and automatic registration in IDN; activities progressing with DLR and EUMETSAT and to be resumed with ROSCOSMOS.
    - Granule search and access to Essential Climate Variables (ECV) and COVERAGE data collections is being implemented.
  - CEOS IDN added in the catalogues visible and searchable through the GEOSS Platform. This will increase visibility of CEOS contribution to GEO/GEOSS.
  
- *Interoperability and Use*
  - Future Data Architectures:
    - FDA actions assigned to WGISS in the CEOS 2018-2020 Work-plan are being actively discussed and addressed by WGISS members with substantial progress.
    - Open source Software and tools inventory lists now more than a hundred items; DB implementation solution is under analysis in coordination with SEO.
    - First version of FDA inventory table under review.
  
- *Technology Exploration:*
  - Next webinar will focus on “Tools and Data Interoperability Demonstrations” and will be organised in cooperation with WGCapD. It will consist in a dedicated workshop during WGISS-47 meeting.
  - Dedicated sessions on “Cloud Computing services” and on “Artificial Intelligence and Machine Learning application in EO” are being organised during WGISS-47 meeting.

#### **Upcoming meetings or events**

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

- 2019 Conference on Big Data from Space (BiDS'19): 19-21 February 2019, Alte Kongresshalle, Munich, Germany.
- WGISS-47 – April 29 to May 02, Silver Spring, Maryland (MD), USA.
- ESA 2019 Living Planet Symposium, Milan, 13-17 May 2019: focus on how Earth Observation contributes to science and society, and how disruptive technologies and actors are changing the traditional Earth Observation landscape, which is also creating new opportunities for public and private sector interactions.

# CEOS SEC-247 Report

*(two pages max.)*

**Entity:** WGCapD

**Prepared By:** Prakash Chauhan (ISRO)

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- Revised Work Plan for 2019-21 has been submitted to CEOS and discussions are in progress to finalise the deliverables.
- Working Group on Capacity Building & Data Democracy (WGCapD) and Ad Hoc Team on Sustainable Development Goals Sustainable Development Goals conducted an Awareness Webinar on December 19, 2018 and it was well received and attracted a large number of participants.
- A technical training on Synthetic Aperture Radar (SAR) applied in Rice and Forest monitoring is planned at Hanoi during Feb 20-22, 2019. This is supported by CEOS, NASA, CESBIO, CSIRO, SERVIR-Mekong. Target participants are from academy from VAST, ministries and universities of Vietnam.
- WGCapD inputs were provided for CEOS Newsletter.
- 8<sup>th</sup> Annual meeting of CEOS WGCapD meeting is going to take place at Dehradun, India during March 6-8, 2019.

# CEOS SEC Report

(two pages max.)

**Entity:** WGVC

**Prepared By:** Cindy Ong and Jennifer Zhu (CSIRO)

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## Updates on issues raised during the last CEOS SEC teleconference

### **(Dot points)**

- None

## Issues requiring discussion/decision during current CEOS SEC teleconference

### **(Dot points)**

- None

## Other highlights, activities, actions, projects, collaborations

### **(Dot points, e.g. outputs, new products, papers, technical reports, media, pipeline and new projects, interactions, project status changes, new opportunities)**

- GHG action on Atmospheric Composition:
  - The GHG Val Expert Meeting will take place in Sapporo in conjunction with the IWGGMS-15 most probably on day-1.
  - There will be a dedicated Cal/Val session and a GHG Cal/Val side-meeting at the AC-VC the week before IWGGMS (also in Japan). Al-Saady (AC-VC Chair) and D. Crisp (GHG whitepaper lead).
  - ACSG was asked to present the GHG plans at the upcoming WGClimate meeting in Morocco in March.
- LPV:
  - Global Surface Albedo Product Validation Best Practice Protocol V1.0 finished. Waiting for DOI number to distribute.  
<https://documentcloud.adobe.com/link/track?uri=urn%3Aaid%3Aascds%3AUS%3Af2c90eb1-0807-48d0-8636-d1895a3acbda>
  - CEOS WP. New CARB action proposed: Biomass Intercomparison Exercise (BRIX-2), under discussion with NASA and LPV members.
  - LPV super sites:
    - Presented at the FLEX MAG meeting (31 January).
    - A telecon coordinated by LPV Chair, with representatives of ESA and EC Copernicus Global land on 14 of February to discuss potential synergies towards a European land product validation super site network.
  - ESA Living Planet Symposium: Presentations for LPV overview, Albedo, NDVI, SM, Biomass.
- A teleconference was held to discuss the organisation and timing of the preflight calibration workshop. It was decided that the best timing for the workshop would be early 2020, most likely in February.

### **Upcoming meetings or events**

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

- IVOS Subgroup will hold a meeting at CSIRO in Perth, Australia March 25-29, 2019 including a tour of the proposed RadCalNet site north of Perth.
- Next LPV Plenary to be held during the ESA Living Planet (13-17 May, exact dates TBC) Objective: Consolidate the LPV WP for 2019-2021 period.
- Pre-flight calibration workshop is being scheduled for February 2020
- WGCV Plenary will be held in the week of 15<sup>th</sup> July 2019 in Perth, Western Australia
- [SECOND ACIX2/CMIX WORKSHOP TO BE HELD AT ESRIN \(EVALUATION OF THE COMPARISON RESULTS\) IN THE TIME FRAME OF JUNE TO SEPTEMBER 2019.](#)

### **Attachments**

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

# CEOS SEC Report

(two pages max.)

**Entity:** Ad Hoc Team on SDG

**Prepared By:** Flora Kerblat (CSIRO) on behalf of co-leads (M. Paganini ESA, and Alex Held CSIRO)

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## **Issues requiring discussion/decision during current CEOS SEC teleconference** **(Dot points)**

- “Engagement Plan” to be submitted at SIT (at least a final draft): does it need to be endorsed or just for information?
- Please make sure your POC for SDG is up-to-date (the person who receives our AHT SDG emails and can liaise with us on this topic) so we can reach out the right person for your agency

## **Other highlights, activities, actions, projects, collaborations**

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

- Communication has been reactivated after Christmas (and Flora’s) breaks:
  - o Confcalls with co-leads & Flora (CSIRO)/Argie (NASA) + with SIT chair planned 11/3 + AHT SDG call ahead of SIT to help prepare the meeting (planned on 19/3)
  - o Email/updates sent to the AHT SDG team with some information about :
- **SIT-34 in Miami 2-4 April:**
  - o Intention to deliver a comprehensive Engagement Plan for our future activities (see the Work Plan), and also present an updated Compendium, listing CEOS agencies activities in this field. In regard to it, we are about to contact **SDG points of contacts** to get updated information about their agency and SDG-related activities. For instance, if your country will report at the HLPF in July, it would be interesting for others to see how your agency contributes to the Voluntary National Review (VNR).
  - o Marc will probably share a draft plan ahead of the meeting
  - o a face-to-face meeting - interactive: on top of (brief) usual updates from GEO/CEOS on SDG and time to finalise the Engagement plan, the aim is to get updates from agencies and present a summary of your activities (format TBD, 2 slides or 5 minutes each max). To help update the Compendium. An email will be sent shortly.
  - ⇒ We will **appreciate contributions from all agencies** especially on these two deliverables (Engagement Plan and Compendium)
- **AHT SDG Updates have been submitted to the current CEOS Work Plan.**
  - o Main additions – new deliverables:
    - a “requirements’ table” including a few SDG indicators (as a start) that are already or will be supported by satellite data, for

CEOS Agencies to get more technical and precise information of what is actually needed in terms of satellite data, coverage, frequency, resolution, etc. to help countries in SDG reporting or Targets achieving.

ex: already working with ESA to increase Sentinels coverage for Pacific Islands' needs (see below re- the Pacific)

- Another linked to SEO: Develop and demonstrate a set of Data Cube algorithms that use CEOS satellite data and can be applied to several SDGs (e.g. 6.6.1, 11.3.1, 15.3.1), and seeking feedback from statistical agencies and other stakeholders to understand how to improve these algorithms.
- Working with other CEOS entities (WGCapD...) and talking to other WG and VC to see where CEOS existing bodies can further help – but this needs to be reactivated.

- **GEO – ongoing support**

- **LDN (N. Sims):**
  - In the process of finalising the ToR and Work Plan for the LDN Initiative to establish working groups and identify priority projects to fund to improve LDN monitoring capacity globally. Some funding has already been sourced through GIZ (Antje Hecheltjen) but more will be required to support projects in the three working groups (Data standards, Capacity building, Data Analytics)
  - Working with Vietnam/VNSC to implement methods to predict land degradation on the Vietnam data cube. This will include implementing the methods to map land degradation consistent with SDG 15.3.1 and the LDN programme, and linking these maps to climatic and land use planning information to predict where land degradation is likely to occur in future.
- **GEO Work Plan 2020-22 inputs:** as co-leads and active members of the GEO EO4SDG, we have provided inputs to the GEO WP in regard to the EO4SDG activity.
- **Ministerial Summit in Australia** this year (4-9 Nov):
  - Where and how to talk about **SDG** – TBD
  - **Pacific region** likely to be highlighted - strong commitment from Australia to support Pacific Island nations, as well as other interested partners (France/CNES, the USA/USGS, ESA, NZ, etc.) in terms of EO data access, analysis, use and reporting to tackle issues like Climate change and disaster risk. More to come later.
  - Organisation of the GEO Plenary/Summit: GA is leading and coordinating the effort, with active support from other agencies incl. CSIRO

- **Pacific region & SDG:**
  - A draft report on the Pacific workshop organised by CSIRO in Oct 2018 is being finalised (will be shared with CEOS in due course)
  - Working with ESA to increase Sentinels coverage for Pacific Islands' needs
  - CSIRO (Alex H.) attended the SCO meeting in Paris (1/2) to get more information about the initiative – CNES and CSIRO are strengthening their EO collaborations in the Pacific region. Note that Jörg Schulz (EUMETSAT, WG Climate Chair) represented CEOS
  
- **WGCapD collaboration** (thanks to Argie, and Marc for your inputs) delivered a webinar on “CEOS WGCapD & SDG-AHT on SDG Awareness” on 19/12/18. You can access all learning materials, including the webinar presentation and recording, as well as useful links and readings [here](#).  
=> more to follow later this year (maybe on more specific topics?)
  
- **ESA Living Symposium (13-17 May):** there will be a session dedicated to SDG (abstracts have been received) “[D2.02 EO for the Sustainable Development Goals \(SDGs\)](#)” In the section “Benefits for a resident society”. Marc P. (ESA) is the best person to contact for further information
  
- Research activities in the following special issues:
  - Call for papers: “[Measuring and Monitoring Progress towards SDGs by Integrating Geospatial and Statistical Information](#)” for *ISPRS International Journal of Geo-Information*;
  - Call for papers: “[EO Solutions to Support Countries Implementing the SDGs](#)” for RS Journal;
  - We are in the process of reviewing papers (submissions are now closed, thank you to those who submitted a paper!) for the [RSE special issue on “Earth Observation for the Sustainable Development Goals”](#)
  - Further reading: “[Can the Sustainable Development Goals Be Measured by Satellite?](#)”

### **Upcoming meetings or events**

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

- Side-meeting face-to-face **just before SIT-34 in Miami** (2<sup>nd</sup> April)
- **Global Conference on Space for Emerging Countries** (GLEC) in Marrakech (Morocco) 22-24 April (see “Benefits of Space Technology and Applications to Socio-Economic Development” section) – what’s CEOS representation there?
- **ESA Living Symposium (13-17 May):** a session dedicated to SDG (abstracts have been received) “[D2.02 EO for the Sustainable Development Goals \(SDGs\)](#)”

# CEOS SEC-247 Report

(two pages max.)

**Entity:** WG Climate

**Prepared By:** Jörg Schulz (EUMETSAT)

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## Updates on issues raised during the last CEOS SEC teleconference

**(Dot points)**

- none

## Issues requiring discussion/decision during current CEOS SEC teleconference

**(Dot points)**

- WGClimat Chair participated in a first international meeting on SCO on 1 February at CNES headquarter in Paris with the mandate given by SIT and Plenary. The meeting has discussed a draft Programme Definition. Some salient points from the meeting will be compiled into an extra document available next week.
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## Other highlights, activities, actions, projects, collaborations

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

- Input to CEOS work plan will be finished by 22 February;
- For the Vice chair WGClimat received one application from DLR. Deadline is 28 February
- The population of the ECV Inventory is ongoing. We received a massive amount of new data records [have ~240 new entries]. For the first time we have contributions from Korea and we have also much more from Japan. The deadline until which inputs will be considered for the 2019 gap analysis is approaching fast (28 February). However, inputs are taken continuously, thus all who cannot make it until 28 February should not stop.
- WGCLIMATE CHAIR VISITED WMO TO DISCUSS THE STATUS OF THE IMPLEMENTATION OF THE ARCHITECTURE FOR CLIMATE MONITORING FROM SPACE. THIS IS TO SUPPORT WMO TO COMPILE A PAPER ON THIS FOR THE 19<sup>TH</sup> CONGRESS OF WMO IN JUNE. AT THIS CONGRESS, WGCLIMATE WILL ALSO ORGANISE A SIDE EVENT DEMONSTRATING THE ARCHITECTURE AT WORK. BOTH ITEMS WILL BE FURTHER DISCUSSED AT WGCLIMATE#10;
- WGCLIMATE CHAIR PARTICIPATED IN THE 14<sup>TH</sup> WMO SCOPE-CM EXECUTIVE PANEL MEETING WHERE THE STATUS AND FUTURE WAS DISCUSSED. THE SCOPE-CM EXECUTIVE PANEL STRIVES FOR A MUCH CLOSER RELATIONSHIP WITH WGCLIMATE AND IS WORKING ON A CONCEPT PAPER REFLECTING THIS. THE CHAIR OF THE SCOPE-CM EXECUTIVE PANEL (JEFF PRIVETTE, NOAA) WILL BE AT WGCLIMATE #10 AND THERE IS OPPORTUNITY TO DISCUSS THE CONCEPT.

## Upcoming meetings or events

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

- Planning for the WGClimate #10 IN MARRAKECH, MOROCCO IN 18-22 MARCH 2019 IS ALMOST COMPLETED. A COMMENTED AGENDA WAS SEND FOLLOWING THE TELECOM OF WGCLIMATE ON 12 FEBRUARY. The agenda for the joint meeting with GCOS and WCRP DAC is still under discussion.
- NEED TO ELABORATE MEETING PLACE FOR WGCLIMATE #11 WHICH SHOULD BE PRIOR TO THE 2019 TECHNICAL WORKSHOP. IF THE TW IS MOVING TO ALASKA WE WILL EXPLORE FEASIBILITY TO MEET THERE AS WELL.

## Attachments

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