

CEOS SEC Report

(two pages max.)

Entity: CEO

Prepared By: Steven Hosford (ESA/CNES)

Updates on issues raised during the last CEOS SEC teleconference

(Dot points)

- **CEO/DCEO.** Following the extension request made by CEOS leadership (VAST/VNSC and NOAA) to ESA and CNES by letter dated 29/03, it has unfortunately not been possible to put in place an extension to my current two year CEOS Executive Officer mandate. I will therefore complete my CEO mandate as initially scheduled at the conclusion of the 33rd Plenary on 16th October 2019. We will be working with renewed urgency in the coming weeks to find a solution to this issue.
- **CEOS side event for GEO Ministerial/ Plenary.** The action SIT-34-05 called for ideas to be submitted to “Jonathon Ross, Steven Hosford, and Kerry Sawyer for a possible CEOS side event at the GEO-XVI Plenary” for 25th May. None have been received as yet by this group.
- **Plans for the Virtual Endorsement of Albrecht von Barga as WGClimate Vice Chair.** Virtual endorsement by CEOS principals to be coordinated with endorsement at CGMS-47 (19th-24th May)

Upcoming meetings or events

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

- Living Planet Symposium 2019, 13th-17th May, Milan
- AC-VC-15, 10th – 12th June, Tokyo
- WGCV-45, 15th-19th July, Perth, Australia

CEOS SEC Report

(two pages max.)

Entity: GEO SEC

Prepared By: Akiko Noda

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)

- GEO Data Technology Workshop
The Workshop, hosted in Vienna by the UNOOSA from 23-25 April, provided broad perspectives of the role that technology is playing in changing how Earth observations are used. Speakers provided a wide-ranging view of how these technologies are changing the way we work, highlighted the needs of the GEO community, provided an overview of commercial sector needs and applications, and discussed on the social and legal impacts of new technologies.

Upcoming meetings or events

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

- 2019 GEO Symposium (Geneva, 27-29, May)
The Symposium is a part of the 2020-2022 GEO Work Programme (GWP) development. GWP activities leads would share their progress, knowledge and plans then discuss how to shape GEO's direction over the next three years.

Attachments

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

CEOS SEC Report

Entity: SEO

Prepared By: Brian Killough (NASA)

Issues requiring discussion/decision during CEOS SEC teleconference

- None

Updates on issues raised during the last CEOS SEC teleconference

- None

Upcoming meetings or events

- Brian Killough (SEO), Analytical Mechanics (AMA) and the Global Partnership for Sustainable Development and Data (GPSDD) will conduct a 3-day Africa Regional Data Cube training in Accra, Ghana on May 22-24.

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)

- **NOT FOR PUBLIC RELEASE:** Brian Killough (SEO) is working with Steven Hosford, Adam Lewis, and Steve Labahn to review the GEO-Amazon proposals and provide feedback. There were 24 proposals received. 16 of 24 proposals plan to use CEOS satellite data. 5 of the proposals plan to use the Open Data Cube. Feedback will be given to GEO by May 15.

CEOS SEC-250 Report

(two pages max.)

Entity: WG Climate

Prepared By: Jörg Schulz (EUMETSAT)

Updates on issues raised during the last CEOS SEC teleconference

(Dot points)

- none

Issues requiring discussion/decision during current CEOS SEC teleconference

(Dot points)

- UNFCCC/ SBSTA-50 will take place 17-27 June in Bonn, Germany. As expected UNFCCC Secretariat has asked for a CEOS/CGMS statement to be delivered on 17th June at the beginning of the session. Chair WGClimate has agreed to draft it and will provide it via WGClimate for agency review early next week. It has been added to the CGMS-47 Plenary (23-24 May) agenda and it is proposed to do virtual endorsement in CEOS in the same week. Then the statement can be submitted in time for SBSTA-50.

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)

- Meeting minutes from WGClimate #10 have been finalised and with this the complete meeting documentation is on ceos.org;
- WGClimate Chair was providing a presentation to WGISS-47 and good discussions on ECV Inventory and IDN as well as potential future automation of ECV Inventory population took place.
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Upcoming meetings or events

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

- WGClimate Chair will participate in climate round table at ESA LPS in Milano and will provide a presentation based on: Space agency contribution in support of the Paris Agreement based on the paper written last year;
- WGClimate Chair will participate in SBSTA-50 that includes a meeting between the SBSTA chair and the scientific community on 21st June;
- Planning for WGClimate #11 in Alaska, USA has started but still need to refine exact dates.

Attachments

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

CEOS SEC Report

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

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

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-47 meeting successfully held in Silver Spring (hosted by NOAA) with 66 registered participants.

- Dedicated presentations from WGCV, WGCapD, WGClimate and SDG-AHT chair: way forward on ongoing and new cooperation activities discussed and agreed:
 - Cooperation with **WGCV** mainly focussing on the use of data cubes in support to CAL/VAL activities and on the CEOS data Maturity Matrix. Two data cube prototypes (ESA and GA/CSIRO) are being used to access ACIX (16 sites), RadCalNet (4 sites) and LPV (3 sites) sites cal/val data. WGCV is also providing detailed feedback on data quality aspects defined in the CEOS WGISS Maturity Matrix;
 - Cooperation with **WGCapD** for technology and user oriented webinars (*Action FDA-05 and DATA-11*); next webinars will address FDA Elements demonstrations and ARD for Scientific communities and researchers;
 - Cooperation with **WGClimate** on ECV/CDR datasets registration in IDN as first step for accessibility through WGISS Connected Data Assets Infrastructure (*Action DATA-09*). Registration will be implemented through collecting relevant information from data providers during the ECV Inventory update to V3;
 - Cooperation with **SDG-AHT** on accessibility of CEOS agencies datasets relevant for SDG Indicators through WGISS Connected Data Assets and on discoverability/accessibility of relevant SW tools and services.
- Dedicated discussion on cooperation with **Carbon Team** on prototype carbon portal development (*Action CARB-15*). Carbon portal Version 1 has implemented all preliminary feedback received from users and will be released in May. Coordination ongoing with VAST for possible use to support a case study on forest monitoring in the Mekong area. NOAA continuation of support ensured until end 2019. Next team teleconference and teleconference with VAST team planned by end May 2019. Carbon Portal handover and governance after final release to be defined.
- Dedicated sessions on **GEO** Knowledge Hub and discussion on WGISS potential contribution to tasks and activities in the new GEO Workplan currently under preparation. WGISS supported the organization, in coordination with SEO and SIT Chair team, of the 4th GEO Data Technology workshop hosted by UNOOSA in Vienna (Austria) on 23-25 April 2019. Rob Woodcock chaired the CEOS organised session and participated to the 3rd Expert Advisory Group meeting.
- New web page on CEOS web site (<http://ceos.org/ourwork/lessons-learned-best-practices/>) being populated with best practices and guidelines from all Working Groups in order to improve collaboration and knowledge sharing.
- *Data Preservation and Stewardship Session*
 - Dedicated session on CEOS agencies EO thesauri: mostly based on GCMD, agreement to cooperate in GCMD thesauri improvement inside WGISS.

- Proposal for GEO Data Management Principles Implementation Guidelines (DMP IG) improvement/update in relation to CEOS WGISS Maturity Matrix will be sent to GEO.
- Discussed potential improvement of CEOS WGISS maturity matrix to include FAIR principles and to consider relevant work done in the Research for Data Alliance (RDA) and World Meteorological Organization (WMO) Expert Group on Data Management.
- *Data Discovery and Access Session (WGISS Connected Data Assets Activities, [Action DATA-2](#))*
 - Implementation of a map based front-end/portal within the IDN for CEOS data discovery and access discussed and agreed, approach to be further assessed.
 - 150 EO data collections from JAXA have been registered in IDN, access at granule level through FedEO will be implemented in the upcoming months.
 - NOAA OneStop datasets being registered/updated in the International Directory Network (IDN) and granule search/access is being implemented through CWIC.
 - CWIC tests with National Remote Sensing Center of China (NRSCC) ChinaGEOSS platform for metadata harvesting to be started.
 - Additional ESA Earth Explorers and Heritage Missions data collections were made available through FedEO.
 - FedEO 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 through FedEO.
 - CEOS IDN, CWIC and FedEO searchable through the GEOSS Platform ([Action DATA-16](#)).
- *Interoperability and Use Session*
 - Open source Software and tools inventory lists now more than a hundred items; DB implementation solution developed in coordination with SEO was demonstrated during the WGISS meeting; it will go live on the WGISS web-site before summer allowing to discover/access CEOS agencies SW tools and services.
 - EO Services Metadata Use cases session: several use cases presented with different metadata models necessary to best achieve them; Services metadata for an initial set of use cases will be defined and circulated for possible adoption in WGISS. They should then be used to describe CEOS agencies services with the goal to make them discoverable through the IDN interface and possibly link them to data discovery and access.
 - Federated Identity Management (Single Sign on) white paper activities review and progress monitoring ([Action DATA-13](#)).
- *Technology Exploration Session*
 - Dedicated session on FDA elements with presentations and demos of 11 platforms characterised in the WGISS FDA inventory; defined way forward for WGISS activities on FDA along three lines:
 1. Make mature FDA services/tools/elements from CEOS agencies discoverable/accessible through WGISS CDA ([Actions FDA-9, FDA-10, FDA-14](#));
 2. Pursue interoperability between FDA elements through a manageable number of possibly standardized interfaces ([Action FDA-8](#)); initially address data cubes interoperability (ODC, ESA HMDC & DCFS) and possibly follow-up/rely on standardization in OGC;
 3. Showcases of FDA Elements supporting CEOS/GEO Initiatives.
 - Dedicated sessions on EO Services in the Cloud and Artificial Intelligence & Machine Learning with 10 presentations on actual use in EO and lessons learned which can be used as preliminary input to address [Action DATA-15](#).

Upcoming meetings or events

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

- 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.

WGISS-48 – October 8-11, Ha Noi, Vietnam, hosted by VAST/VSNC.

CEOS SEC-250 Report

(two pages max.)

Entity: WGCapD

Prepared By: Prakash Chauhan (Chair/ISRO) and Nancy Searby (Vice Chair/NASA)

Updates on issues raised during the last CEOS SEC teleconference

(Dot points)

- None

Issues requiring discussion/decision during current CEOS SEC teleconference

(Dot points)

- Comments would be appreciated on WGCapD CB-37: White paper describing approaches for capacity building networks, e.g. UN's, to work together. We provided this to SIT-34 for discussion and suggestions for improvement ahead of our deliverable due date of Q2 2019, or by end of June 2019. The paper can be found on the CEOS SIT-34 site: <http://ceos.org/meetings/sit-34/>. We are also working on a version for publication.

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)

- Work is ongoing on WGCapD deliverables.
 - CB-21-2019-2: Training calendar pilots are in development.
 - CB-28, 30: The release of the MOOCs on Radar Backscatter and SAR applications has been delayed from Q1 to Q3 2019 to release in conjunction with ESA'S Phi week to maximize attention and to not publish within the idle summer vacation time.
- WGCapD presented at WGISS-47 on May 1, 2019, and discussed continued collaboration on deliverable FDA-5 to build awareness of future data architectures.

CEOS SEC-250 Report

(two pages max.)

Entity: Ad Hoc Team on SDG

Prepared By: Flora Kerblat (CSIRO), on behalf of the co-leads Marc Paganini (ESA), Alex Held (CSIRO)

Updates on issues raised during the last CEOS SEC teleconference

(Dot points)

- N/A
- N/A

Issues requiring discussion/decision during current CEOS SEC teleconference

(Dot points)

- As per the SIT-34 minutes, there is an action for CEOS agencies to demonstrate their support to the proposed streamlined approach SIT-34-08: “Any agency that is ready and able to support one, two, three, any or all of the 6.6.1, 11.3.1, and 15.3.1 Indicators are asked to indicate interest to the Co-Leads of the SDG AHT”. Except NASA (plans to continue working on indicators 6.6.1 and 11.3.1 for the satellite requirements table), no interest registered so far.
- This new approach (focus on 3 indicators first) and work with CEOS existing bodies has been proposed at SIT. But the future of the existing “AHT” is still unclear, especially with the new CEOS WG led by SIT Chair. Co-leads are seeking more clarity.

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)

- SDG AHT organised a side-meeting just before SIT-34 in Miami: Marc P. Alex H. and Flora K. were leading the discussions about SDG and Agencies updates and way forward for the team. ~15-20 participated in the meeting including CSA, EC, NASA, JAXA, NOAA,ESA,CSIRO, US Department.
 - Updates from SDG co-leads & Flora (Status of actions incl. “Compendium”: complete, but will update when required) ; GEO/NASA/EO4SDG (Lawrence F.), EC. (Mark D.)
 - Discussions around GEO WP and CEOS activities
 - New streamlined approach to focus (as a start only) on 3 indicators (same as selected by WGGI), but hope to work on other soon
 - Call for Agencies to show their support to work on those
 - Discussion with SIT Chair/NOAA: future of the team, where to fit in their proposed new WG, eg. a light-weight coordination body to keep the engagement work with external stakeholders and represent CEOS in key

- strategic high-level and working groups at UN level? + Coordinate SDG activities (focus on specific indicator) with existing bodies.
- GEO LDN initiative (part of SDG team) (Neil S., CSIRO, attended a LDN meeting in Bonn): there are three working groups in the Initiative:
 - WG1 – capacity building: this will establish the mechanisms for capacity building more than ‘do; the capacity building per se, and will focus on Africa initially (lead here is Amos Kabobah from Ghana). Establishing the mechanisms is seen as facilitating a more enduring capacity build than just running a series of training exercises, for example.
 - WG2 – data quality standards (lead is Antje Hecheltjen GIZ). This will follow on from the GPG we wrote for 15.3.1 and aim to identify the requirements of data sets to be suitable for use in 15.3.1 and LDN assessment. Ultimately, this will be an important guide for the revision of the GPG
 - WG3 (Neil and And Alex Zvoleff) – this will aim to build a federated collaborative analytics platform (essentially build on Trends.Earth) to further improve the flexibility and accessibility of tools for calculating 15.3.1 and LDN.
 - In WG3 the plan is to use the CEOS LDN network as the science advisory committee for the GEO LDN one. So, the plan is to use that community to review funding proposals, and perhaps conduct some reviews of existing infrastructure etc.
 - In the upcoming SIT Chair team (CSIRO/GA, Australia), Neil S. and Flora K. (CSIRO) will likely look after the efforts towards the SDG in CEOS, one of the team’s priorities.
 - EO for the Pacific including SDG focus, recent discussions in Australia: CSIRO and other partners (GA, DFAT, Embassy of France, EU representation...) want to launch a one-year designing phase (extensive consultation with Pacific Islands) to assess their needs, and keeping in mind technical issues and political context
 - GEO/EO4SDG (Argie):
 - **Call for stories** (GEO Sec): invited representatives of GEO Flagships, Initiatives, Community Activities and Foundational Tasks to submit stories related to results achieved during the years 2016 to 2019. Based on submissions, the GEO Secretariat will select stories for inclusion in the 2016-2019 GEO Report on Impact, to be presented at the GEO-XVI Plenary and Ministerial Summit in Canberra, Australia.

=> *Opportunity for CEOS SDG AHT to submit stories from Agencies?*
 - Preparation of the Agora session on SDG indicators (Marc P.)
 - Ongoing/active discussions with **WGISS, SEO** (Data Cube algorithms on 3 indicators) and **WGCapD** (discussions with NASA GSFC WQ team: planning an in person training as part of the AmeriGEO week in August (Aug 19-23) in Lima, Peru).

Upcoming meetings or events

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

- Living Planet Symposium (Milan, 13-17 May): session on SDG indicators (NASA, JAXA, ESA and probably also the EC. + Panellists UNCCD, UNEP, INEGI and GPSDD). Marc and Argie will attend
- GEO Ministerial in Canberra (4-9 Nov): EO4SDG side-event proposal with SDG AHT support to be submitted
- AmeriGEO week in Lima, Peru (Aug 19-23)

Attachments

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

Draft Plan for CEOS Newsletter No.53

2019.05.09

JAXA/RESTEC CEOS Team

- Articles and Contributors (Title of article may change as contributor's choice)
- SIT Chair Report including CEOS SIT-34 Outcomes and SIT-TW Plan
CEOS SIT Chair --- 800 words with photo.
- 2019 CEOS Chair Initiative Update and 2019 CEOS Plenary Plan
2019 CEOS Chair ---800 words with photo
- GEO Activities Update
GEO Secretariat---- 500 words with photo
- 2019 GEO Week (2019 GEO Plenary and Ministerial Summit) Plan
GEO Secretariat-----300 words with photo
- CEOS Work Plan Update
CEO-----400 words and photo
- CEOS System Engineering Update and Open Data Cube
SEO-----400 words and photo
- Climate Activities Update
WG Climate Chair----400 words with photo
AC-VC lead-----400 words with photo
- IPCC Guideline for GHG Inventory update including IPCC-49
JAXA-----400 words with photo
- CEOS for SDGs Update
SDGs AHT Lead-----400 words with photo
- CEOS for ARD Update
LSI-VC Lead-----400 words with photo
- -CEOS for Ocean Update (COVERAGE)
NASA-----400 words with photo

- Schedule
- Article submission Target : Jun 15 2019
- Editing & Printing : June - July 2019
- Publication :August 2019