

CEOS SEC-290 Report

Entity: SIT Chair Team

Prepared By: SIT Chair Team

Updates on issues raised during the last CEOS SEC teleconference

- None

Issues requiring discussion/decision during current CEOS SEC teleconference

- None

Other highlights, activities, actions, projects, collaborations

Climate, Carbon and Biomass

- A substantial session is planned for the first day of SIT-37. UNFCCC SEC has agreed to join us again for an update on the Global Stock Take process.
- The Systematic Observations Synthesis Report developed by an ad-hoc team has been submitted to UNFCCC as part of the GST process. Frank Martin Seifert and David Crisp coordinated the considerable work by several CEOS agencies in support.

New Space

- A 'New Space & Future CEOS' session has been included on the SIT-37 agenda. CEOS agencies have been invited to submit suggestions. This will be a brief, initial and exploratory discussion of this topic and will consider directions for the theme for the remainder of the SIT term.

Working Teams

- All 7 of the Virtual Constellations have met with the SIT Chair team for an informal chat on progress, issues and obstacles. The [compendium of notes](#) from these calls has been shared for information of CEOS SEC.

CEOS ARD Oversight Group

- Finalising Terms of Reference for the Oversight Group for SIT-37.
- Looking at evolving the [Product Family Specification template](#) to better suit all domains. The template has been developed to provide a starting point for future PFS, to ensure commonality in layout, general structure, interpretation and approach. It provides a foundation and common suite of assessment factors for all PFS.
- Engaged with IEEE regarding the use of CEOS ARD specifications as the basis for community standards.
- Members of the Oversight Group and LSI-VC attended a 3-day Spatio-Temporal Asset Catalog (STAC) development sprint last week. Focus on improving discoverability, accessibility, metadata standards, provenance.
- Invited EUMETSAT team working on atmospheric composition ARD to present to the next meeting of the Oversight Group.

CEOS Ocean Coordination Group

- 12 persons have registered for the first meeting of the CEOS Ocean Coordination Group that will be held on 9 March. This small group, whose creation has been decided during the last CEOS Plenary, is in charge of proposing recommendations for improving the

coordination and communication of the full range of CEOS ocean-related activities and groups.

Upcoming meetings or events

- SIT-37 is 29th - 31st March 2022. The meeting format is virtual. A draft agenda has been shared with CEOS SEC for this week's meeting.
- SIT TW we hope will allow the first in-person CEOS meeting in more than 2.5 years. Currently we are planning for that outcome. (Tue 13 - Thu 15 Sept).

CEOS SEC-290 Report

Entity: CEO

Prepared By: Marie-Claire Greening

2022-2024 CEOS Work Plan

The final draft (v0.3) of the 2022-24 CEOS Work Plan was sent out to Principals on 6th March with the aim for virtual endorsement by 21st March. This final draft version of the Work Plan contains all contributor final edits and updates. In parallel, the CEOS deliverables (as more fully detailed in the CEOS deliverables tracking tool: <http://deliverables.ceos.org/>) have all also been fully reviewed and updated. The following is the schedule for Principal review and endorsement:

- 6th March 2022: Final version of Work Plan sent out to CEOS Principals seeking their virtual endorsement ahead of SIT Plenary
- 21st March 2022: Virtual endorsement of 2022-2024 CEOS Work Plan
- 28th March 2022: SIT Plenary week

Upcoming meetings or events

- AC-VC 18th Meeting (14 – 18 March)
- WGDisasters-17 (15 – 17 March)
- GEO Executive Committee Meeting #57 (15 – 16 March)
- WGClimate-17 (22 – 24 March)
- WGCV-50 (22 – 25 March)
- WGISS-53 (22 – 24 March)
- SIT-37 (29 – 31 March)

Attachments

An updated calendar of CEOS meetings / events, and some key external events that the community may find of relevance, is attached below. If any key meetings or events are missing from the calendar, or if any dates have changed since publication, please contact Marie-Claire.

CEOS SEC Report

Entity: WGDIs

Prepared By: L FRULLA (CONAE) – H de BOISSEZON (CNES) - A EDDY (AG) - P FERRIER (CNES)

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)

- Input to CEOS Workplan completed
- New cross-cutting action looking at lessons learned in Pilots and Demonstrators implementation, to contribute to reflection on sustainability and partnerships with commercial sector (due Q3 2023)
- Participation to the Kick off meeting of the new GSNL governance 2022-2025 (March 14)
- Contribution to EO Risk Toolkit (GEO DRR WG) with Recovery Observatory use case
- Seismic Demonstrator Report (action DIS-19-03) delayed to Q2 2022.
- Flood Pilot with GEO-LEO-SAR for areas of intensive flood risk. Report expected by the of March 2022 (DIS-20-06)
- Participation of the WGD to next EGU General Assembly 2022 (3–8 April 2022, in Hybrid mode)
- WG Disasters to host special session at ISPRS in June 2022 – Innovative Applications of Satellite Data for Risk Management and Disasters (highlighting selected WGD activities)

Upcoming meetings or events

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

- WGD 17 to be held 15, 16, and 17 March via Zoom

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: WGClimate

Prepared By: Albrecht von Bargaen (DLR)

**Updates on issues raised during the last CEOS SEC teleconference
(Dot points)**

Issues requiring discussion during current CEOS SEC teleconference

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)

- Continuous update of Use Cases; review process ongoing and finalized for around 15 cases; website publication by NOAA/NCEI ongoing
- Preparation of Gap analysis workshop related to Carbon Cycle started; built-up of Organization committee; format definition making use of mini-workshops at different time zones allowing higher attendance; Workshop on May 18-20 in advance to Living Planet Symposium allowing hybrid format
- GCOS science conference (17-19 Oct 2022, Darmstadt, Germany, in person) [2nd Climate Observation Conference \(eventsforce.net\)](https://eventsforce.net)
Opening of registration (deadline September 23rd) and abstract submission (until June 1st);
- GCOS implementation plan will be submitted to WGClimate in Mid-March for pre-review; public review will be during May 2022

Upcoming meetings or events

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

- 18-20 May 2022: WGClimate gap analysis workshop wrt Carbon Cycle ECVs [Agencies invited to nominate experts](#)
- 2nd GCOS Science Conference (17-19 October 2022)
- WGClimate meeting on March 22, 10 pm UTC and March 24, 11 am UTC
- WGClimate projected for June, virtually, and for October in person

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: WGISS

Prepared By: Makoto NATSUISAKA (JAXA), Tom Sohre (USGS)

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)

- The WGISS part of the CEOS work plan 2022-2024 was submitted.
- Coordination of WGISS-53 agenda has been done. The highlights of the meeting are as follows.
 - Presentations from GEO, EUMETSAT, WGDIsaster are invited. Discussions on the collaboration will be discussed.
 - Hyperspectral Data Storage and Format on Cloud, STAC for Federated Search, Service Discovery OpenSearch Best Practices will be introduced and discussed.
 - Planning of “CEOS Jupyter Notebooks Best Practice” will be shared and discussed.
 - Progress on ISO 19124-1 and the New Joint ISO-OGC Standard Initiative on Analysis-Ready Data and Internet of Things: Monitoring High Quality Geographical Products for Environment and Sustainability were presented.
 - The updated version of “CEOS WGISS Data Management and Stewardship Maturity Matrix” will be introduced.
 - The session on “Data Integrity and Authenticity on Cloud” is planned.
 - Follow-on discussions on the CEOS Common Online Dictionary is planned.
- Attended to the CEOS ARD Oversight Group #2 meeting on Mar. 7.

Upcoming meetings or events

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

- WGISS-53 will be virtually held on Mar. 22-24, 2022. Presentations from other WGs, VCs, AHTs would be very welcomed. Pre-registration is needed.

<https://ceos.org/meetings/wgiss-53/>

Attachments

CEOS SEC Report

(two pages max.)

Entity: WGCapD

Prepared By: Jorge Del Rio Vera (United Nations Office for Outer Space Affairs)

Updates on issues raised during the last CEOS SEC teleconference

(Dot points)

- ACTION 289-03: Document explaining different aspects concerning COPUOS has been prepared (attached)

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)

WGCapD-11 (all material is available [WGCapD 11 - Meeting - Google Drive](#), a webpage has been set up under the CEOS WGCapD website under CEOS and all the material will be made available through that website)

- Regional meetings (Africa, Americas, Asia-Pacific and Europe) were organized to gather needs, barriers and cooperation dynamics in the region.
- WGCapD plenary:
 - o The objective of the meeting was to define success stories and roadmaps to materialize them.
 - o Invitation was extended to non CEOS space agencies, representatives from Kenya Space Agency, Venezuela Space Agency, Rwanda Space Agency, Peru Space Agency, Paraguay Space Agency attended the meeting.
 - o EOTEC DevNet, GEO and CEOS on priorities were presented to set up the tone of the meeting.
 - o CEOS CEO presented the workplan.
 - o Different members presented their capacity building programmes and activities (Day 2, one slide per member)
 - o Three success stories were put forward:
 - Repository for e-learning material
 - Face to face capacity-building for schools
 - Dedicated capacity-building for ARD
- Members are discussing on how to materialize them.

Upcoming meetings or events

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

- WGCapD annual (WGCapD-11) meeting to take place 23-25 February (13:00-16:00 UTC) virtually. Regional meetings to take place the day before:
 - Asia Pacific (5:00 UTC)
 - Americas (20:00 UTC)
 - Africa (13:00 UTC)
 - Europe (11:00 UTC)

Attachments

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

Group pictures are available in the google drive folder.

BRIEF INFORMATION ABOUT COPUOS (not comprehensive, for additional information: [COPUOS: Committee and Subcommittees \(unoosa.org\)](https://www.unoosa.org/))

The Committee on the Peaceful Uses of Outer Space (COPUOS) was set up by the General Assembly in 1959. Since its establishment, the [Committee's membership](#) has continued to expand. **COPUOS is the only committee of the General Assembly dealing exclusively with international cooperation in the peaceful uses of outer space**, and its role as a forum to monitor and discuss developments related to the exploration and use of outer space has evolved alongside with the technical advancements in space exploration, geopolitical changes, and the evolving use of space science and technology for sustainable development.

The overall mandate of the Committee and its two Subcommittees aims at strengthening the international legal regime governing outer space, resulting in improved conditions for expanding international cooperation in the peaceful uses of outer space. The mandate also specifies that the Committee should support efforts at the national, regional and global levels, including those of entities of the United Nations system and international space-related entities, to **maximize the benefits of the use of space science and technology and their applications. Overall, the Committee aims to increase coherence and synergy in international cooperation in space activities at all levels.**

MEMBER STATES

Albania, Algeria, Angola, Argentina, Armenia, Australia, Austria, Azerbaijan, Bahrain, Bangladesh, Belarus, Belgium, Benin, Bolivia, Brazil, Bulgaria, Burkina Faso, Cameroon, Canada, Chad, Chile, China, Colombia, Costa Rica, Cuba, Cyprus, Czech Republic, Denmark, Dominican Republic, Ecuador, Egypt, El Salvador, Ethiopia, Finland, France, Germany, Ghana, Greece, Hungary, India, Indonesia, Iran, Iraq, Israel, Italy, Japan, Jordan, Kazakhstan, Kenya, Kuwait, Lebanon, Libya, Luxembourg, Malaysia, Mauritius, Mexico, Mongolia, Morocco, Netherlands, New Zealand, Nicaragua, Niger, Nigeria, Norway, Oman, Pakistan, Panama, Paraguay, Peru, Philippines, Poland, Portugal, Qatar, Republic of Korea, Romania, Russian Federation, Rwanda, Saudi Arabia, Senegal, Sierra Leone, Singapore, Slovakia, Slovenia, South Africa, Spain, Sri Lanka, Sudan, Sweden, Switzerland, Syrian Arab Republic, Thailand, Tunisia, Turkey, Ukraine, United Arab Emirates, United Kingdom of Great Britain and Northern Ireland, United States of America, Uruguay, Venezuela & Viet Nam.

Guatemala and Uzbekistan attended the session of the Scientific and Technical Subcommittee as observers.

OBSERVERS (full list: [COPUOS Observers \(unoosa.org\)](https://www.unoosa.org/))

CEOS became an observer in 2002.

Other observers:

AOCRS: African Organization of Cartography and Remote Sensing

CRTEAN: Centre Regional de teledetection des Etats de l'Afrique du Nord

ARSCAW: Association of Remote Sensing Centres in the Arab World

AARSE: African Association of Remote Sensing of the Environment

ISPRS: International Society for Photogrammetry and Remote Sensing

UNISPACE CONFERENCES

Recognising the immense potential of space technology for socioeconomic development, the United Nations organized three unique global Conferences on the Exploration and Peaceful Uses of Outer Space - UNISPACE Conferences - to engage States and international organizations to further their cooperation in the peaceful uses of outer space.

UNISPACE Conferences provided a platform for a global dialogue on key issues related to space exploration and exploitation that have yielded tremendous scientific as well as economic and societal benefits for humankind.

Two additional conferences UNISPACE III+5 and UNISPACE+50 have also been held.

SOME EXAMPLES

International Charter of Space and Major Disasters: Following the **UNISPACE III** conference held in Vienna, Austria, in July 1999, the European Space Agency (ESA), France's space agency (CNES) and the Canadian Space Agency (CSA) founded the Disasters Charter on October 20, 2000. Their goal was to provide data from their satellites free of charge to aid disaster monitoring and response activities.

Space2030: [A/76/L.3 - E - A/76/L.3 -Desktop \(undocs.org\)](#)

- **Overarching objective 1:** Enhance space-derived economic benefits and strengthen the role of the space sector as a major driver of sustainable development
- **Overarching objective 2:** Harness the potential of space to solve everyday challenges and leverage space-related innovation to improve the quality of life
- **Overarching objective 3:** Improve access to space for all and ensure that all countries can benefit socioeconomically from space science and technology applications and space-based data, information and products, thereby supporting the achievement of the Sustainable Development Goals
- **Overarching objective 4:** Build partnerships and strengthen international cooperation in the peaceful uses of outer space and in the global governance of outer space activities

Some of the implementation mechanisms (para 24):

d) The Charter on Cooperation to Achieve the Coordinated Use of Space Facilities in the Event of Natural or Technological Disasters (also called the **International Charter on Space and Major Disasters**), as a worldwide collaboration among space agencies and space system operators, through which satellite-derived information and products are made available to support disaster response efforts;

(e) The **Recovery Observatory of the Committee on Earth Observation Satellites**, as a means to increase the contribution of satellite data to recovery from natural disasters;

(f) The international **Space Climate Observatory**, whose main goal is to study and monitor the impacts of climate change, especially at local scales, using satellite-based Earth-observation tools in combination with field data and models, thus providing a tool for decision-making on preparedness, adaptation and resilience to climate change and its impacts, in particular at the local level;

(g) The World Meteorological Organization Integrated Global Observing System, which provides observation data useful for weather analyses, forecasts, advisories and warnings, as well as for climate monitoring and environmental activities;

CEOS SEC Report

(two pages max.)

Entity: WGCV

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

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)

- One potential nomination for the WGCV Vice Chair (October 2022 to October 2024). Presentation by candidates in March (WGCV-50), final vote and selection in October (WGCV-51).
- CEOS WP and deliverables update including CNES priority (TIR CAL/VAL)

Upcoming meetings or events

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

- WGCV-50: March 22-25, 2 hours each day, 12:00 UTC (virtual) Finalizing the agenda
- WGCV-51: October 2022, in Tokyo. The joint meeting with WGISS (proposing).

CEOS SEC-290 Report – March 2022

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

- None

Other highlights, activities, actions, projects, collaborations

- The SEO has been working with the SDG Coordination Team on progressing our planned deliverables and addressing two strategic topics that will be presented at the upcoming SIT meeting. One is a definition of "***What CEOS can do to support UN Custodian Agencies***" and the other is the definition of "***CEOS expectations for GEO interactions with UN Custodian Agencies***".
- The SEO has been collaborating with Gary Geller (NASA JPL, GEOBON) and Ernst & Young (EY) on the 2022 Data Challenge, which was **released on March 1**. This project will use CEOS satellite data products (Sentinel-2, Copernicus DEM) from the MS Planetary Computer to develop machine learning species distribution models for frogs in Australia, Costa Rica and Africa. This project is a great example of our data supporting the topic of **biodiversity**.