



Committee on Earth Observation Satellites

Technical Workshop

Closing Session

Adam Lewis (GA), Alex Held (CSIRO), SIT

Chairs

CEOS SIT Technical Workshop 2020

Session 6.2, Closing Session

Virtual Meeting

17 September 2020



- **Objectives**
 - *Provide a wrap-up for the Technical Workshop pitched to an audience of CEOS Agency Points of Contact preparing their Agencies and Principals for CEOS Plenary.*
 - *Finalise any outstanding points that weren't resolved or addressed during the other Workshop sessions.*
 - *As necessary, confirm CEOS statements/key messages for COP and GEO in the coming months.*
 - *Review actions coming out of the Workshop to Plenary.*
- **Somewhat experimental session trying to recreate what we'd do at a physical meeting - *please bear with us!***

- **2020 CEOS Chair Initiatives**
 - **GHG Roadmap**
 - **Agriculture, Forestry and Other Land Use (AFOLU) Roadmap**
 - **CEOS Biomass Protocol**
 - **UNFCCC Global Stocktake Process**
 - **CEOS-COAST: strategy and future**
 - **CEOS ARD Strategy**
 - **SDG AHT: progress and future**
 - **VCs and WGs: Vice Chairs, ToRs as necessary**
 - **CEOS Org. Matters: CEO, future Chair, Ex Rq Process Paper**
 - **Inputs to GEO and UNFCCC meetings**
- + *placeholder for COVID session***

Session Overview



CEOS



- **CEOS Plenary Objectives - Reminder (SIT Co-Chairs)**
- **Review of Workshop Outcomes by Session Chairs**
 - 2020 CEOS Chair Initiatives (10+10 minutes, CEOS Chair)
 - COVID and EO (A. Koch/COM)
 - CEOS-COAST (10+10 minutes, P. DiGiacomo/NOAA)
 - Sustainable Development Goals (10+10 minutes, M. Paganini/A.Held)
 - Working Teams (Jono), WGs (Raj), VCs (Jono) (10+10 minutes)
 - Carbon and Biomass (10+10 minutes, S. Ward/SIT Chair Team)
 - GEO (D. Cripe, GEO Secretariat 10+10 minutes)
 - ARD Beyond Land (10+10 minutes, E. Armstrong/GA/SIT Chair Team)
 - CEOS ARD Strategy (10+10 minutes, A. Siqueira/GA/SIT Chair Team)
- **Other CEOS Business: External Request and New Initiatives Process Papers (SEO)**
- **Review of Actions to Plenary (SIT Chair Team)**
- **CEOS Plenary Update (CEOS Chair)**
- **Closing Remarks (SIT Co-Chairs)**

2020 CEOS Chair Initiatives (Tue 8th Sep session)



- **CEOS Plenary desired outcomes**
 - For online processing tools for disaster, directions are required about how to proceed for requirements and formalize the same
 - Coordinated CEOS-CGMS team to discuss the user requirement and mission feasibility
- **Issues raised**
 - ISRO DataCube advantages for BIMSTEC, Next steps
 - JAXA has shown interest in the project for Rice monitoring
 - Discuss with BIMSTEC for a few applications
 - Collaborations with JAXA for Bangladesh region for rice crop monitoring
 - Solar energy discussions with GEO-VENER team pending
 - For Virtual constellation, discuss the user requirement and mission feasibility with CEOS and CGMS
- **Actions and Decisions recorded**
 - CEOS Chair to request for agency reports for posting, no oral presentations
 - In Agenda add, CEOS Chair 2021 presentation on Chair initiatives
- **Recap of key points for Plenary**
 - Principal engagement on...



- **CEOS Plenary desired outcomes**
 - Way forward on activities on EO related to COVID
- **Issues raised**
 - Several CEOS agencies organically collaborated to develop products and platforms using EO data for policy making
- **Actions and Decisions recorded**
 - Suggest to CEOS Chair to add a COVID session at the plenary
 - Suggest to publish a list to relevant websites of CEOS agencies
 - A report of this COVID session will be prepared under the leadership of ESA with NASA, JAXA and other presenters of the session
- **Recap of key points for Plenary**
 - Principal engagement on future of COVID-19 related activities with user communities (e.g. engagement with statistical agencies, engagement with health sector)



- **CEOS Plenary desired outcomes**
 - Approval to be recognized/proceed as a CEOS Ad Hoc Team for 2 years
 - Identify Agency expressions of interest/support for Phase 2 (2021) activities
- **Issues raised**
 - Identify another agency co-lead with NOAA for the COAST AHT
 - Are there additional agencies interested in supporting Phase 2 activities
 - Polar regions are important, consider them for future pilot efforts
 - Coastal Carbon is also an important/pressing need from a climate perspective
 - Identify/distill user needs into formal observing requirements for Coastal areas
- **Actions and Decisions recorded**
 - JAXA request to join COAST - Ko Hamamoto and Osamu Ochiai
 - AEM (Guzman) and USGS (Stryker) projects might support COAST
- **Recap of key points for Plenary**
 - COAST has accomplished substantial work in a short period of time, with strong agency interest, partnerships & support, and a robust Phase 2 Plan
 - COAST actively seeks/welcomes participation from additional agencies



- **CEOS Plenary desired outcomes**
 - Approve Option 1 "*Renew the AHT for another year, and Plan a transition of SDG activities to internal (within CEOS) and/or external (GEO) entities by Plenary 2021*"
 - Recognise the AHT sub-teams organisation, accomplishments and increasing participation from Agencies (7 are co-leading sub-teams and overall 11 involved)
- **Issues raised**
 - The SDG satellite data analysis must be a joint CEOS-GEO effort that harnesses the respective EO expertise available in both organisations.
 - CEOS leading expertise recognised in satellite data analysis: satellite observation (incl. gaps), data availability (incl. ARD and platforms), and solution identification.
 - CEOS unique position to lead key contributions to the GEO SDG Toolkits.
- **Actions and Decisions recorded**
 - Option 1 (AHT renewal) preferred
 - When requesting its renewal, the AHT should submit a Roadmap for next year, highlighting its transition plan as well as unique CEOS role in supporting GEO
- **Recap of key points for Plenary**
 - Impressive work of sub-teams with stronger engagement from CEOS Agencies.
 - Important to keep the momentum and work on a smooth transition within CEOS if CEOS wants to play a central role in increasing satellite data uptake in the SDGs.



Working Teams (Thu 10th Sep session)



- **Recap of key Working Team points for Plenary**
- **Approach of promoting information flow from Working Teams outside of major meetings has worked well**
 - Continuing work of SIT Chairs (most recently NOAA) in having ~twice annual 'VC chats' - informal
 - Introduced 1 x VC report per CEOS SEC to provide profile and support information flow - second cycle to begin shortly
 - Have held two Working Team All Hands calls focused on cross-cutting topics nominated by WTs - third planned for November
- **Intend to continue and strengthen this approach in our second year as SIT Co-Chair**
- **Technical Workshop WT session a success**

Working Group Showcase Summary (Thur 10th Sep session)

CEOS Plenary Desired Outcomes:

- **WGCapD would like:**
 - Agreement to proceed with preparing CEOS Branded Webinar Toolkit
- **WGDisasters is seeking:**
 - Endorsement (Acknowledgement) of WGDisasters Strategy
 - Endorsement (Acknowledgement) of Recovery Observatory Demonstrator Implementation Plan
 - Endorsement (Acknowledgement) of the Geostationary (GEO)-Low Earth Orbit (LEO)-Synthetic Aperture Radar (SAR) Flood Pilot Implementation Plan
- **WGISS would like:**
 - Solicit interest in the ongoing joint WGISS-SEO Earth Analytics Interoperability Lab
- **WGCV**
 - Endorsement of Philippe Goryl/ESA as Vice Chair
- **WGClimate**
 - Endorsement of Jeff Privette/NOAA as Vice Chair

Issues Raised/Actions and Decisions Recorded/Recap of Key Points for Plenary

- Click / see reference slides: [WGCapD](#) \ [WGDisasters](#) \ [WGISS](#) \ [WGCV](#) \ [WGClimate](#)



Highlights for SIT Chair VC Report to Plenary

P-VC:

- Global Precipitation Measurement (GPM) is the realisation of the P-VC
- Future Missions: Ave. age of the P-VC satellites now exceeds 10 years

AC-VC:

- Remaining active despite COVID (AC-16 online had 186 participants)
- Topics: GHG (incl GHG TT), Ozone (tropo), AQ Trace Gasses and Aerosol (new), links to COVID and ARD

LSI-VC:

- CEOS ARD Strategy: Evaluating datasets against CARD4L PFS (with WGCV), new PFS under development - TW session on 'ARD Beyond Land'
- Forests and Biomass, GEOGLAM subgroups remain active (slowed)

SST-VC:

- Remains vibrant meeting alongside annual GHRSSST-online (June 2020)
- CEOS SST-VC white paper completed for publication
- 100+ standardized GHRSSST products, spanning ~8 million CF/ACDD netCDF data files, ~200 TB, from Sep 1981 – Aug 2020



Highlights for SIT Chair VC Report to Plenary

OST-VC:

- Strong inter-agency cooperation on current and future missions
- Copernicus Next Gen. Topography Constellation (NG-TC) Expert Team addressing continuity - OSV-VC to rescope VC-19-06 based on this
- **10 Nov launch of Sentinel-6 Michael Freilich**

OSVW-VC:

- Optimisation of orbits to improve temporal sampling (min. 6 hour req)
- Open and near real-time data access remains challenging

OCR-VC:

- Key drivers: Climate, Carbon, and Water Quality (new)
- Addressing the Aquatic Carbon aspects of the GHG Roadmap

COVERAGE:

- At conclusion of 1-year Phase B activity have a range of useful outcomes: prototype system, integrated/interagency data products
- Solid foundation built for a possible Phase C follow-on activity



- **CEOS Plenary desired outcomes**
 - None specified.
- **Issues raised**
 - CEOS could position **COVERAGE** as a cumulative contribution to Decade on Ocean Science, and CEOS Plenary should discuss ways to make this possible (e.g. via programmatic connectivity to GOOS).
- **Actions and Decisions recorded**
 - None specified.
- **Highlights for SIT Chair VC Report to Plenary**
 - *New thematic strategies page: ceos.org/observations*



- **CEOS Plenary desired outcomes**
 - UNFCCC ad-hoc coordination group to support Global Stocktake (GST): Confirm identified PoCs for CEOS that are David Crisp (NASA) for WGClimate GHG Task Team, Osamu Ochiai (JAXA) for AFOLU, Jörg Schulz (EUM) for WGClimate
- **Issues raised**
 - Information-rich presentation from UNFCCC SEC on engagement in GST for CEOS
 - Virtual Earth Information Day in November 2020
 - Should consider different dimensions like Adaptation, Loss & Damage to display our full capabilities in contributions to Earth Information Days
 - CEOS to focus on integrated inputs to GST1 and GST2
 - National Adaptation Plans are important to demonstrate usefulness of EO data via WGClimate Use Case Exercise
- **Actions and Decisions recorded**
 - WGClimate plan CEOS contribution to Virtual Earth Information Day 2020
- **Recap of key points for Plenary**
 - The opportunity and challenge of the Global Stocktake



GCOS Engagement (Tue 15th Sep session)



- **CEOS Plenary desired outcomes**

- Recognise and support plan of WGClimate to discuss requirements with GCOS

- **Issues raised**

- WGClimate sees application topology and more frequent requirements refresh for GCOS ECV requirements as essential for GCOS
- WGClimate contributions to GCOS Status Report is critical
- CEOS is asked to describe specific concerns and propose potential solutions to GCOS
- GCOS Study Group starting soon but cannot address many details

- **Actions and Decisions recorded**

- WGClimate and GCOS will start discussion on GCOS requirements
- Positive response to CEOS suggestions on more frequent requirements refresh as topic for Study Group

- **Recap of key points for Plenary**



- **CEOS Plenary desired outcomes**
 - Endorse leadership continuity
 - Endorse ECVI 3 gap analysis report and action plan
 - Endorse GHG Roadmap v2.4 (as CGMS-48 Plenary has)
- **Issues raised**
 - ECVI v3 published 30 July 2020 <https://climatemonitoring.info/ecvinventory>
 - Climate data records use case exercise started
 - ECVI Gap analysis process will be made more sustainable
- **Actions and Decisions recorded**
 - CEOS agencies are requested to organise submission of use cases for climate data records <https://climatemonitoring.info/use-cases>
- **Recap of key points for Plenary**

GHG Roadmap (Tue 15th Sep session)

- **CEOS Plenary desired outcomes**

- Endorse GHG Roadmap V2.4 (as CGMS-48 Plenary has)
- Commitment of resources for GHG Roadmap

- **Issues raised**

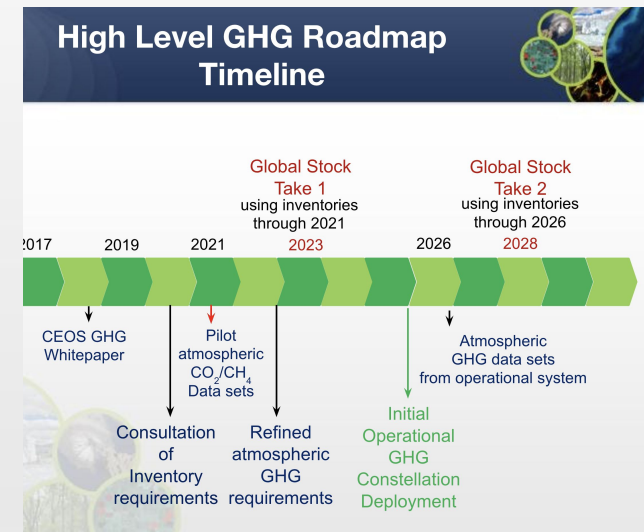
- Still targeting delivery of pilot datasets of CO₂ and CH₄ for first GST
- Roadmap considered a living document wrt the work plan
- Significant manpower and travel resource needed

- **Actions and Decisions recorded**

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- **Recap of key points for Plenary**

- Endorsement and resources





AFOLU Roadmap (Tue 15th Sep session)



- **CEOS Plenary desired outcomes**
 - Recognition of this significant opportunity to support UNFCCC process
 - Agreement to launch AFOLU Roadmap development as pointed out in White Paper and commitment of human resources to realise this
 - Align AFOLU Roadmap development with GHG Roadmap for synergy and impact
- **Issues raised**
 - Space agencies have a significant opportunity through the Global Stocktake (GST)
 - Given importance of land sector, we should add a focal point with UNFCCC on this for GST process
 - GEO keen to engage initiatives like Wetlands and LDN
 - Agencies encouraged to consider representation prior to Plenary
- **Actions and Decisions recorded**
 - DLR to provide a team nominee
- **Recap of key points for Plenary**
 - Agree to launch AFOLU Roadmap development and commit resources
 - Resources and human capacity top priority
 - Alignment and synergy between GHG and AFOLU roadmap for bigger impact



- **CEOS Plenary desired outcomes**
 - Endorse the CEOS Biomass Protocol developed by WGCV LPV
- **Issues raised**
 - WGCV LPV work on Biomass Protocol and its purpose was explained
 - Coordination of planned biomass activities to follow protocol encouraged
- **Actions and Decisions recorded**
- **Recap of key points for Plenary**
 - Endorse the Protocol
 - Agencies will be asked to review the protocol and accept action to consider how planned biomass-relevant activities could be augmented to follow protocol recommendations

- **CEOS Plenary desired outcomes**
 - Debate the Forest Biomass Reference Network concept and consider partnerships for funding and implementation
- **Issues raised**
 - Cost-benefit of a ground reference system explained
 - May need to suggest phasing/prioritising to be financially viable
 - Donors could be diverse, climate funds etc
 - Much might be met by existing facilities
- **Actions and Decisions recorded**
 - SIT Chair Team follow up with GEO SEC and GFOI Leads on collaboration and funding ideas for the Reference Network concept
- **Recap of key points for Plenary**
 - Consider the Reference Network and partners - offer ideas!



GEO Session (Wed 16th Sep session)



- **CEOS Plenary desired outcomes**

- To highlight the strengths of CEOS-GEO relationship including CEOS stepping up to key roles across the new GEO working groups
- CEOS Principals to reflect on a way forward to facilitate discovery and access to ARD on the cloud (e.g. STAC)
- CEOS Principals to consider having the Open Earth Alliance (OEA) Community Activity as the coordination mechanism for datacube projects

- **Issues raised**

- Full support from GEO Secretariat for further development of sandbox approach (Digital EA; SDGs on AWS, Google)
- The GEO community sees a need for ARD on the Cloud and is calling for appropriate production, coordination and documentation, and the use of key technologies such as STAC.
- The GEO Secretariat appreciates the work of the AdHoc teams on SDGs and CEOS-COASTS, also the Biomass protocol and AFOLU and is hoping to continue the dialogue with CEOS to translate the needs from the user communities into satellites observations requirements.
- Emerging requests for CEOS from Cloud Service Providers (AWS, GEE and Microsoft) on harmonized index for data on the cloud, best practice guidance for the use of commercial cloud to scale and operationalise projects (WGCapD) and the public-sector EO data providers consider to provide data in cloud-optimized formats.
- Possible links between GKH to CEOS.

- **Actions and Decisions recorded**

- GEO Secretariat to work with CEO to identify and reflect full extent of CEOS support to activities of the GWP.
- GEO Secretariat to liaise with WGISS to organize a teleconference with commercial cloud service providers.

- **Recap of key points for Plenary**

- The relationship between GEO and CEOS is strong and in good shape. CEOS is integral to GEO and is well represented in new GEO WGs.
- The GEO community sees a need for ARD on the Cloud and is calling for appropriate production, coordination and documentation, and the use of key technologies such as STAC
- Consideration by CEOS Principals to have the Open Earth Alliance (OEA) Community Activity as the coordination mechanism for data cube projects.



- **CEOS Plenary desired outcomes**
 - Form ad hoc team to study extending CARD4L Framework to account for other environmental parameters in the ocean, atmosphere, inland waters and coastal domains.
- **Issues raised**
 - Other constellations are progressing ARD for their domains but are not included in the CEOS ARD 4 Land (CARD4L).
 - Ongoing ARD self assessment and survey activities in SST and AC VCs.
- **Actions and Decisions recorded**
 - **SIT-TW-2020-04:** SIT Chair to work with Ed Armstrong on a proposal to Plenary for Principals to support a small team to review the ARD framework and consider making it amenable to additional PFS for other domains.
- **Recap of key points for Plenary**
 - ARD assessments and implementation for non-land datasets ongoing (ocean/atmosphere/coasts/inland waters)
 - Strong support from agencies to develop ARD beyond land, however some work is needed to expand the existing CARD4L Framework

CEOS ARD Strategy (Wed 16th Sep session)

- **CEOS Plenary desired outcomes**
 - The endorsement of the CEOS Paper on the Interplay of Industry and CEOS
 - The endorsement of CEOS Interoperability Terminology report
 - “Green light” from CEOS Principals to form a team to review the CEOS ARD framework to include other domains (ARD Beyond Land session).
- **Issues raised**
 - Survey and user needs challenges which may be necessary for Agencies to commit to CEOS ARD production
- **Actions and Decisions recorded**
 - Work with GEO to follow up on the questions raised in the workshop around access to CARD
 - Actions & decisions relating to ARD Beyond Land session
- **Recap of key points for Plenary**
 - Papers endorsement and the “go ahead” to form a team to review CEOS ARD framework
 - Progress on the CEOS ARD Strategy is good, particularly in relation to private sector engagement and extension beyond land.
 - CEOS is no longer only land, we have seen very high interest interest from other domains
 - Private sector has been demonstrating a very high interest in the CEOS ARD, and is getting actively involved in the development of new CEOS ARD PFSs such as the Aquatic Reflectance PFS.



CEO Continuity

(Thur 17th Sep session)



- **CEOS Plenary desired outcomes**
 - None
- **Issues raised**
 - Small revision of the draft ToR to be implemented by Kerry before sharing for virtual endorsement.
- **Actions and Decisions recorded**
 - Kerry Sawyer (CEO) to draft an email for CEOS Chair to send requesting virtual endorsement of the updated CEO Terms of Reference by 28th September.
- **Recap of key points for Plenary**
 - CEO Terms of Reference have been updated to accommodate a contractor filling the role (with agency oversight) in the event that no agency person can be identified to fill the position.



- **CEOS Plenary desired outcomes**
 - A
 - B
- **Issues raised**
 - A
 - B
- **Actions and Decisions recorded**
 - A
 - B
- **Recap of key points for Plenary**
 - Principal engagement on...



- Document: [CEOS SIT Technical Workshop 2020 Decisions and Actions DRAFT](#)





Issues Raised Actions and Decisions Recorded Recap of Key Points for Plenary

- Promote the CEOS thematic observation areas and develop a webinar toolkit
- Poll WGCapD members to understand who is conducting webinars and who could benefit from hosting webinars but isn't – help those agencies conduct webinars using the best practices as a guide
- Work with other working teams to support CEOS webinars with branding, quality checks, best practices, and communication

Why and How to Brand Webinars?

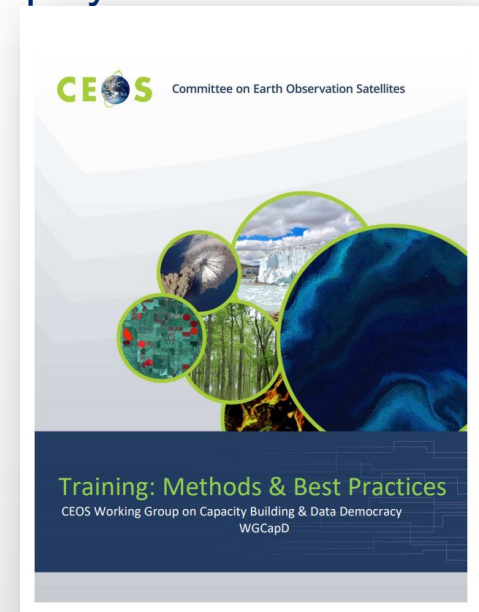
Why? The world is living online more than ever with workshops and trainings being replaced by webinars and e-Learning. From mid-March to mid-April 2020, Google searches for online courses increased by over 100%. And, CEOS WGs and VCs are offering more webinars so we have an opportunity to amplify efforts.

Objectives:

- Increase awareness of CEOS, its activities, and resources available
- Harness the work done by SIT Chair on branding the CEOS thematic observation strategies (TOS)
- Increase recognition of CEOS-sponsored activities and resources through standardization
- Bring WGCapD lessons learned on webinar good practices to CEOS working teams

How: Create a “CEOS Webinar Toolkit”

Bottom-line: Looking for feedback and agreement on an approach to future webinars (those organized by CEOS entities) using these guidelines.



Issues Raised

Actions and Decisions Recorded

Recap of Key Points for Plenary

- Endorse or Acknowledge CEOS WGDisasters Strategy at Plenary
- Endorse or Acknowledge Recovery Observatory Demonstrator Implementation Plan
- Endorse or Acknowledge GEO-LEO-SAR Flood Pilot Implementation Plan



Endorsement or Acknowledgement



Strategic paper *Promoting Space Data for Disaster Risk Management*

- Increase data access, use and utility
- Supports outcomes of WG Pilot and demonstration projects
- Aligns with GEO, Sendai and SDGs
- Facilitates engagement with users and decision makers
- Informs gap-filling observations, background missions; data and information systems design; ARD

Implementation Plan *Generic Recovery Observatory*

- Based on successful national Haiti Recovery Observatory Pilot
- Demonstrates reproducibility and global extension for disaster recovery
- Increased access to data for communities and areas highly impacted (data plan)
- Timely data use to inform early action and intervention, guide humanitarian relief, disaster assistance and reconstruction for early and sustained recover
- Support capacity and resilience development

Implementation Plan *Geostationary/Low Earth Orbit/ Synthetic Aperture Radar Flood Risk Pilot*

- Collaborative project with regional case studies
- Examine the feasibility of sharing and integrating optical, SAR and geostationary methodologies (CEOS, CGMS, and private sector)



Issues Raised Actions and Decisions Recorded Recap of Key Points for Plenary

- WGISS and SEO to proceed with deploying the Earth Analytics Interoperability Lab
- CEOS COAST et al: inventory of data, analytics, etc
- Define joint interop experiments for capabilities needed by these projects
- Demonstrate and validate jointly in the Lab(s) and prepare Cookbook of Jupyter notebook examples
- WGISS would document best practices learned from the Lab experiments to support CEOS Agencies in implementing them at scale across CEOS

Why Does CEOS Need an Interoperability Lab?



The [interoperability] work is relevant to all of CEOS and connected to LSI-VC, WGISS, WGCapD, and the SEO. Plus specific projects (CEOS-COAST, Asia Rice, WGDisasters Flood Pilot), and collaborators (GEO GLAM, GEO AquaWatch)

- A significant number of CEOS activities are now engaged in the CEOS ARD and FDA strategies and in integrated EO data analysis = strong linkages
- All recognize the broader implications - ARD relates to Discovery and Access, Analytics and Cloud Data Formats
- Many are looking for advice or implementations
- Validating interoperability between multiple CEOS organizations and Working Groups is complex

The first Lab node is hosted by CSIRO and jointly operated by WGISS and SEO to provide:

- Examples of FDA components in active use
- A shared candidate ARD storage and access capability
- Connection to existing and emergent services for Discoverability and Access
- Collaboration on Analytics tools for integrated analysis using Jupyter Notebooks
- Jointly develop CEOS Best Practices via interop experiments



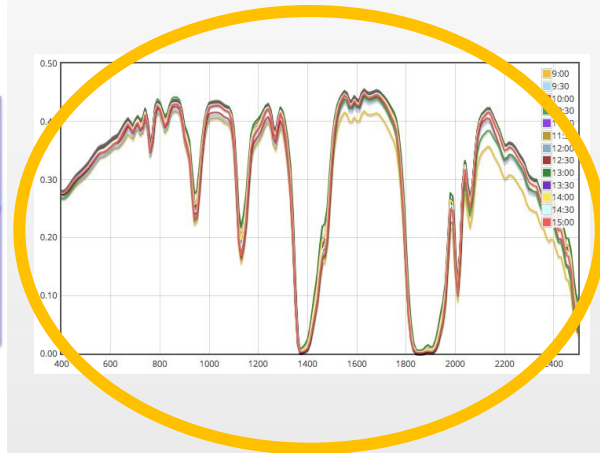
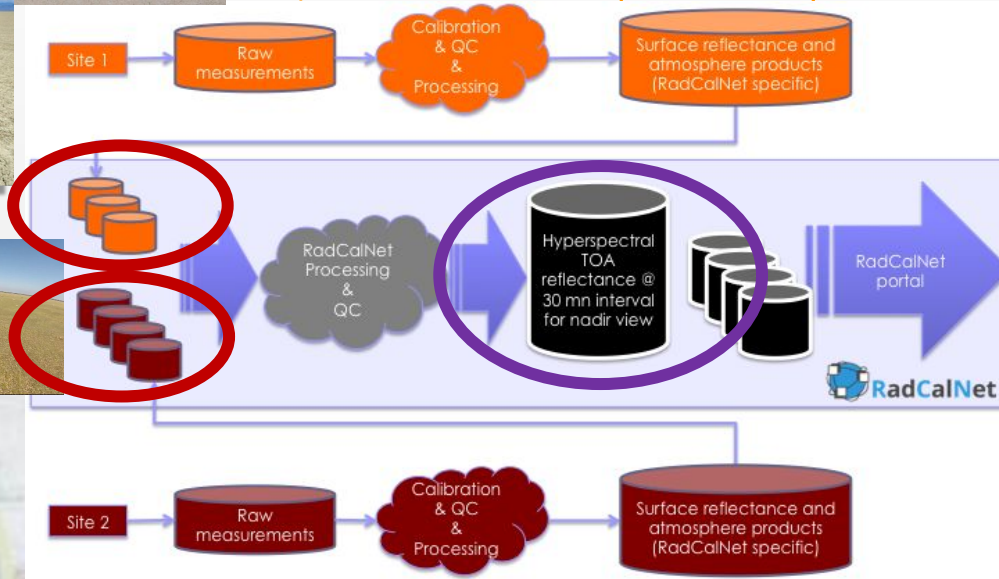
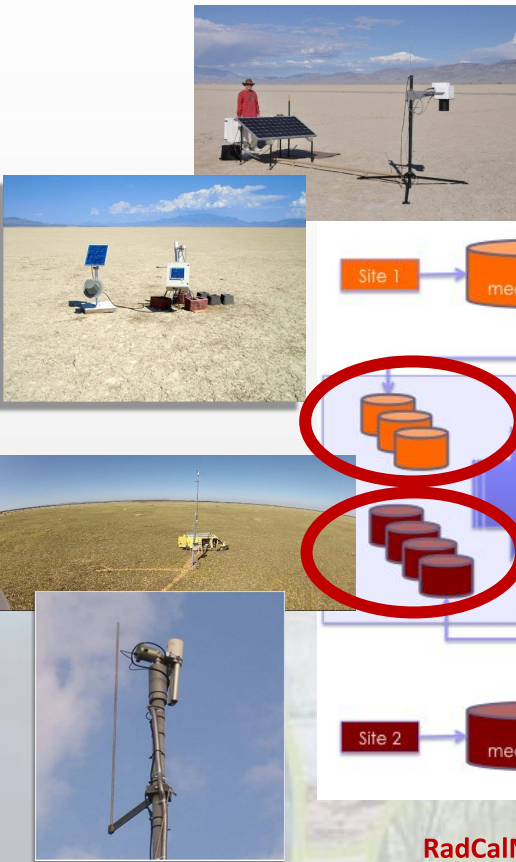
Issues Raised Actions and Decisions Recorded Recap of Key Points for Plenary

- Gratitude to WGCV for executing successful RadCalNet program and CARD4L Review



Architecture developed has three main parts

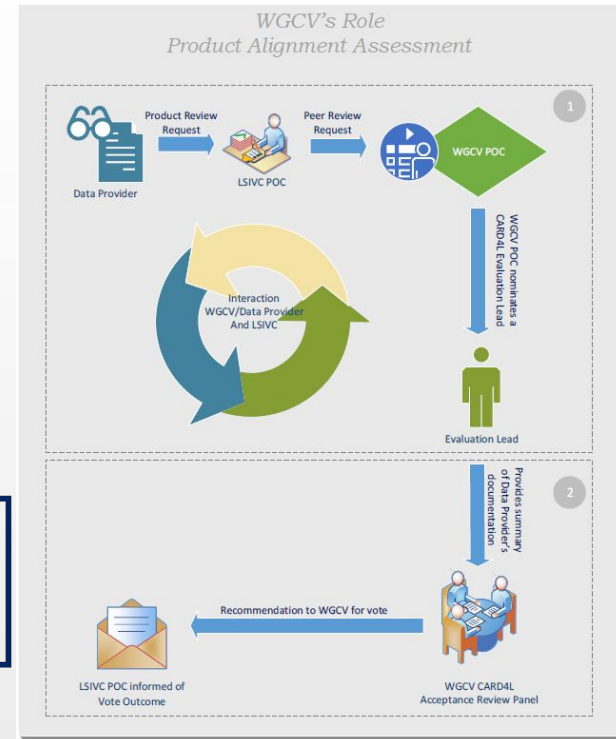
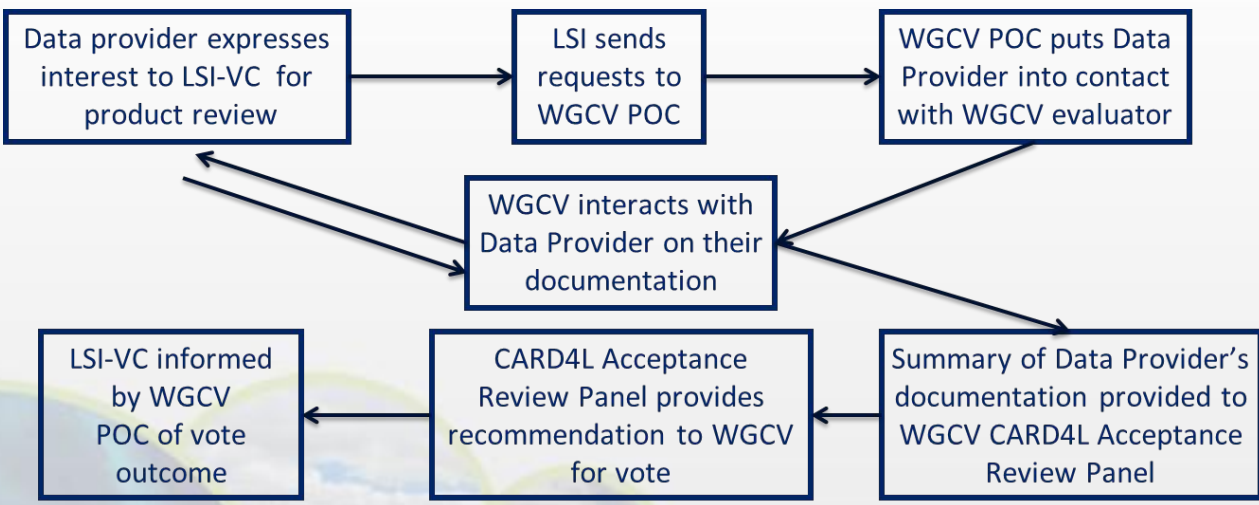
- 1) Test sites provide data to RadCalNet
- 2) Centralized processing of data
- 3) Distribution of top-of-atmosphere reflectance



RadCalNet - Radiometric Calibration Network



CARD4L Peer Reviews: WGCV Role



Out of a total of five CARD4L peer-review submissions to the WGCV so far, reviews for two products have been completed



Issues Raised

Actions and Decisions Recorded

Recap of Key Points for Plenary

- Encourage Agencies to submit CDR use cases



Use Cases for Climate Data Records



- WGClimate#12 in May 2020 decided to start a new routine activity on collecting use cases for climate data records.
- Use Case gathering tool, developed by WMO Space Programme Office, has been integrated into climate “Use Cases” web page (<https://climatemonitoring.info/use-cases>), which was opened on July 27, 2020 for submission with widespread distribution on social media.
- Objectives:
 - Demonstrate the value of climate data records for decision/policy making, e.g., usage of satellite data in a use case with UNFCCC Parties to support the Global Stocktakes
 - Understand the application needs to provide feedbacks towards quality improvements for the ECV requirements defined by GCOS
 - Validate the top-down architecture for climate monitoring from space with a down-top approach ensuring traceability from usage to space-based observing system
 - Optimize the use of climate data records in applications relevant for climate services and science
 - Support capacity building by providing/receiving use cases for/from training activities, e.g., for developing countries (link to CGMS and CEOS capacity)
- Two Use Cases Received:
 - Coastal Risk Information Service (C_RISe)
 - Parametric insurance for agricultural communities using weather and climate information
- Use cases will be published on the web and selected use cases will become part of a special