

MINUTES OF THE 2014 CEOS SIT TECHNICAL WORKSHOP

17th-18th September 2014

Hotel Oceania

Montpellier, France

Main SIT Workshop Discussion Points, Outcomes and Actions

1. Activities of the **CEOS 2014-2016 Work Plan** were reviewed, and the process for the March 2015 update (covering 2015-2017) was outlined.
2. The **VC/WG Day** should be repeated for the next SIT Technical Workshop (2015), focusing on “progress, not process”.
3. The VCs and WGs will nominate **points of contact to interact with WGCapD**, including via a new capacity building list server.
4. WGClimate will **invite inputs from the VCs** when reviewing the **CEOS response to the GCOS IP 2010**.
5. The creation of a **trial Common Data Licence** around disasters activities was agreed.
6. An analysis of options for **Land Surface Imaging activities** within CEOS was agreed, and the results of this analysis will inform the final inputs to CEOS Plenary.
7. **Opensearch** is now an OGC standard, and is now **leveraged by CWIC and FedEO**.
8. WGCV has been providing **support to SST-VC** on calibration issues.
9. **USGS will support Eric Wood as the WGCapD Chair** through CEOS Plenary 2015.
10. A staged **release of SRTM 30m data** was announced.
11. The implementation of **Climate Monitoring, Research, and Services** is proceeding, including the development of **version 1 of the ECV Inventory**.
12. Inputs for the **WCDRR 2015 and the HFA-2** are being developed, and are being demonstrated by the **disaster risk pilots** and **Supersites** activities.
13. Implementation of the **CEOS data strategy for GFOI** is progressing, including Global Coverage, Space Data Services, and R&D. **Pilot data services** are being developed.
14. The CEOS response to the **GEOSS Water Strategy** was reviewed with the CEOS CEO to provide first round of CEOS input in October. It was agreed to set up an *ad hoc* study team to prepare the CEOS response.
15. A proposed plan for **Implementation of the CEOS Carbon Strategy** recommendations was discussed. It was agreed that until there is a CEOS decision for another implementation framework and agencies to support it, the SIT Chair would assume responsibility for overall coordination.
16. **The nomination for NASA as Co-Lead** of the CEOS ad hoc Working Group on GEOGLAM was advanced for potential endorsement at Plenary. In addition, at least **one additional Co-Lead is being sought**.
17. The **CEOS Data Acquisition Strategy for GEOGLAM** will be presented for endorsement at Plenary.

18. The **leadership of GEO Task IN-01** was confirmed through the end of 2015, at which point this function will be the responsibility of the new SIT Chair.
19. Nominees for the **CEO/DCEO and CEOS SIT Vice Chair** roles were identified, and will be presented at Plenary for endorsement.

1 Welcome and Opening Remarks

Pascale Ultré-Guérard (SIT Chair) welcomed all participants attending the 2014 SIT Technical Workshop in person and via web-conferencing. She reviewed the objectives of SIT Workshop, noting that the key outcome is preparation for discussion at CEOS Plenary:

1. Advancement of the CEOS Virtual Constellations (VCs) and Working Groups (WGs)
2. Review progress and status across key thematic areas of the Expected Outcomes, in particular items due for decision or action at Plenary, and with respect to the CEOS Work Plan.
3. Support to Other Key Stakeholder Initiatives and Outreach to Key Stakeholders.
4. Discussion of any CEOS organizational issues that require coordination prior to CEOS Plenary.
5. Identification of main discussion points and anticipated outcomes of the 28th CEOS Plenary (e.g. preview of prospective Tromsø Statement).

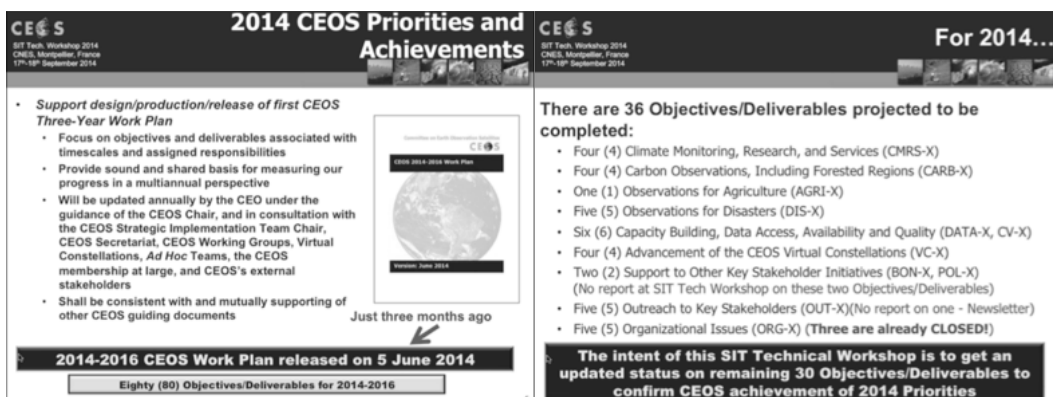
2 Review of Open Action Items

George Dyke (SIT Chair Team) reviewed the open actions from SIT-29 that were assigned a deadline of the SIT Workshop, as well as those due at the upcoming 28th CEOS Plenary. *An updated status table of the SIT-29 actions is included as an appendix to these minutes.*

3 CEOS Three-Year Work Plan Status Update and Priorities for 2014

Kerry Sawyer (CEOS Executive Officer, CEO) reviewed the status of the 2014 priorities and achievements. She referenced the CEOS statement from the Montreal Plenary:

“CEOS Agencies will continue and enhance their cooperation to respond effectively to Earth observation users needs in the areas of climate monitoring and research, carbon observations, food security, disaster risk management, capacity building, and data availability and access.”



2014 CEOS Priorities and Achievements

- Support design/production/release of first CEOS Three-Year Work Plan
 - Focus on objectives and deliverables associated with timescales and assigned responsibilities
 - Provide sound and shared basis for measuring our progress in a multiannual perspective
 - Will be updated annually by the CEO under the guidance of the CEOS Chair, and in consultation with the CEOS Strategic Implementation Team Chair, CEOS Secretariat, CEOS Working Groups, Virtual Constellations, Ad Hoc Teams, the CEOS membership at large, and CEOS's external stakeholders
 - Shall be consistent with and mutually supporting of other CEOS guiding documents

Just three months ago

2014-2016 CEOS Work Plan released on 5 June 2014

Eighty (80) Objectives/Deliverables for 2014-2016

For 2014...

There are 36 Objectives/Deliverables projected to be completed:

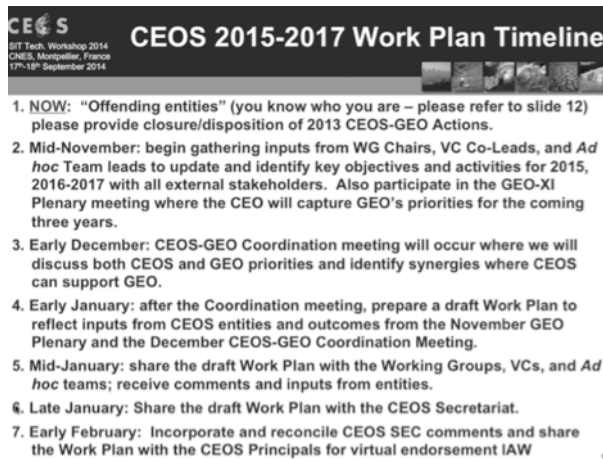
- Four (4) Climate Monitoring, Research, and Services (CMRS-X)
- Four (4) Carbon Observations, Including Forested Regions (CARB-X)
- One (1) Observations for Agriculture (AGRI-X)
- Five (5) Observations for Disasters (DIS-X)
- Six (6) Capacity Building, Data Access, Availability and Quality (DATA-X, CV-X)
- Four (4) Advancement of the CEOS Virtual Constellations (VC-X)
- Two (2) Support to Other Key Stakeholder Initiatives (BON-X, POL-X) (No report at SIT Tech Workshop on these two Objectives/Deliverables)
- Five (5) Outreach to Key Stakeholders (OUT-X) (No report on one - Newsletter)
- Five (5) Organizational Issues (ORG-X) (Three are already CLOSED!)

The intent of this SIT Technical Workshop is to get an updated status on remaining 30 Objectives/Deliverables to confirm CEOS achievement of 2014 Priorities

Kerry noted one of the main purposes of the SIT Workshop is to track progress against the CEOS Work Plan. There are 36 objectives and deliverables for 2014, of which 30 are to be addressed during the course of the workshop.

She noted that a number of the 2013 Actions have been closed. However, eleven 2013 actions have not been closed, and do not map to 2014 objectives/deliverables. These items need to be addressed. If a status update for these lingering 2013 items is not provided, they will be closed.

Kerry reviewed the timeline for the preparation of the CEOS 2015-2017 Work Plan, noting that the target for the next release is mid-February 2015.

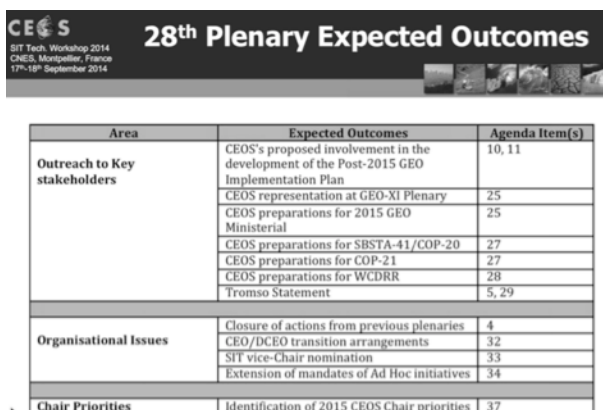


CEOS 2015-2017 Work Plan Timeline

- NOW:** "Offending entities" (you know who you are – please refer to slide 12) please provide closure/disposition of 2013 CEOS-GEO Actions.
- Mid-November:** begin gathering inputs from WG Chairs, VC Co-Leads, and Ad hoc Team leads to update and identify key objectives and activities for 2015, 2016-2017 with all external stakeholders. Also participate in the GEO-XI Plenary meeting where the CEO will capture GEO's priorities for the coming three years.
- Early December:** CEOS-GEO Coordination meeting will occur where we will discuss both CEOS and GEO priorities and identify synergies where CEOS can support GEO.
- Early January:** after the Coordination meeting, prepare a draft Work Plan to reflect inputs from CEOS entities and outcomes from the November GEO Plenary and the December CEOS-GEO Coordination Meeting.
- Mid-January:** share the draft Work Plan with the Working Groups, VCs, and Ad hoc teams; receive comments and inputs from entities.
- Late January:** Share the draft Work Plan with the CEOS Secretariat.
- Early February:** Incorporate and reconcile CEOS SEC comments and share the Work Plan with the CEOS Principals for virtual endorsement IAW

4 28th CEOS Plenary Preview

Paul Counet (CEOS Chair Team) reviewed the expected outcomes for the coming CEOS Plenary on Tromsø. He noted that an updated draft Plenary agenda will be circulated following the SIT Technical Workshop.



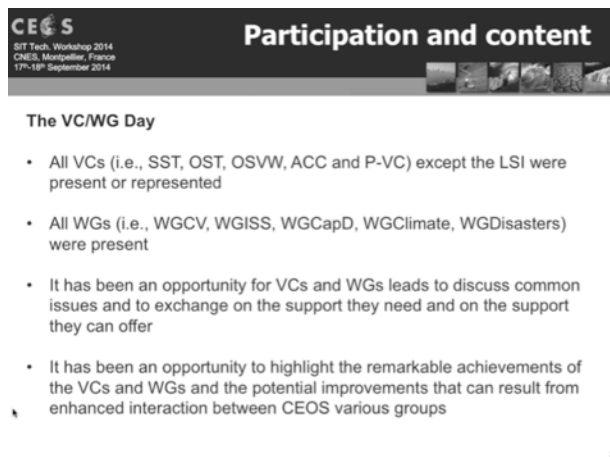
Area	Expected Outcomes	Agenda Item(s)
Outreach to Key stakeholders	CEOS's proposed involvement in the development of the Post-2015 GEO Implementation Plan	10, 11
	CEOS representation at GEO-XI Plenary	25
	CEOS preparations for 2015 GEO Ministerial	25
	CEOS preparations for SBSTA-41/COP-20	27
	CEOS preparations for COP-21	27
	CEOS preparations for WCDRR	28
	Tromsø Statement	5, 29
Organisational Issues	Closure of actions from previous plenaries	4
	CEO/DCEO transition arrangements	32
	SIT vice-Chair nomination	33
	Extension of mandates of Ad Hoc initiatives	34
Chair Priorities	Identification of 2015 CEOS Chair priorities	37

Paul noted that initially the CEOS Chair team had not envisioned a Tromsø Plenary statement, but are now planning a short statement that looks forward to key high-level meetings in 2015.

SITWS-2014-01	CEOS Chair to circulate an updated version of the CEOS-28 Plenary agenda for comment	SEC-193
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5 Synthesis Session: Report from the VC/WG Day

Jean-Louis Fellous (SIT Chair Team) summarised the outcomes and discussion from the VC and WG Day, which was held on Tuesday, September 16, 2014 prior to the SIT Technical Workshop.



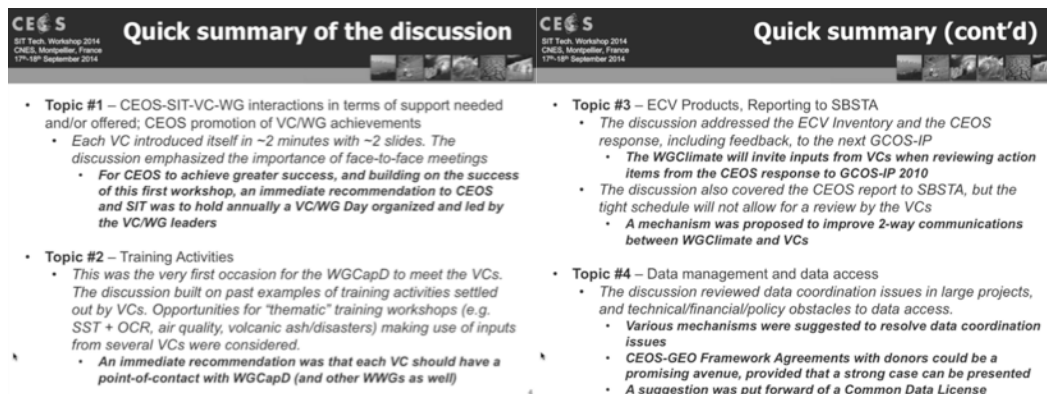
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Participation and content

The VC/WG Day

- All VCs (i.e., SST, OST, OSW, ACC and P-VC) except the LSI were present or represented
- All WGs (i.e., WGCV, WGISS, WGCapD, WGClimate, WGDisasters) were present
- It has been an opportunity for VCs and WGs leads to discuss common issues and to exchange on the support they need and on the support they can offer
- It has been an opportunity to highlight the remarkable achievements of the VCs and WGs and the potential improvements that can result from enhanced interaction between CEOS various groups

He reviewed the main discussion points for each of the four main topics covered: CEOS-SIT/VC-WG interactions; training activities; ECV products and reporting to SBSTA; and, data management and access.



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Quick summary of the discussion

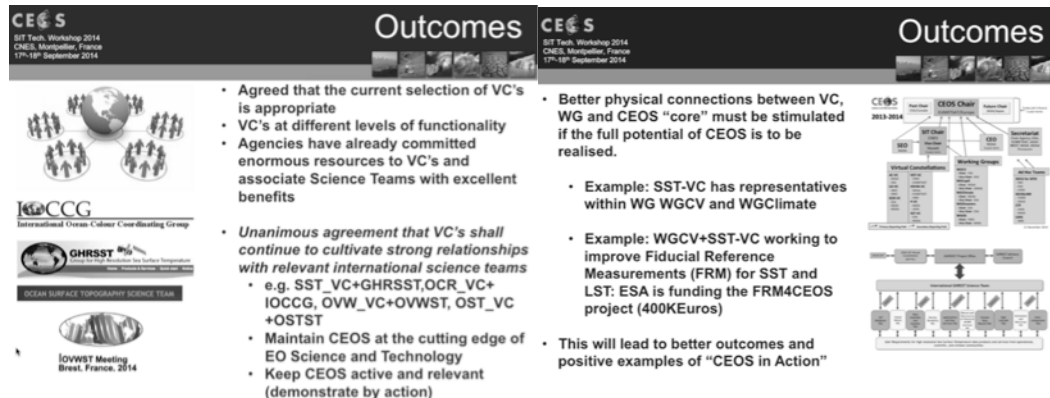
- **Topic #1** – CEOS-SIT-VC-WG interactions in terms of support needed and/or offered; CEOS promotion of VC/WG achievements
 - Each VC introduced itself in ~2 minutes with ~2 slides. The discussion emphasized the importance of face-to-face meetings
 - For CEOS to achieve greater success, and building on the success of this first workshop, an immediate recommendation to CEOS and SIT was to hold annually a VC/WG Day organized and led by the VC/WG leaders
- **Topic #2** – Training Activities
 - This was the very first occasion for the WGCapD to meet the VCs. The discussion built on past examples of training activities settled out by VCs. Opportunities for “thematic” training workshops (e.g. SST + OCR, air quality, volcanic ash/disasters) making use of inputs from several VCs were considered.
 - An immediate recommendation was that each VC should have a point-of-contact with WGCapD (and other WWGs as well)

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Quick summary (cont'd)

- **Topic #3** – ECV Products, Reporting to SBSTA
 - The discussion addressed the ECV Inventory and the CEOS response, including feedback, to the next GCOS-IP
 - The WGClimate will invite inputs from VCs when reviewing action items from the CEOS response to GCOS-IP 2010
 - The discussion also covered the CEOS report to SBSTA, but the tight schedule will not allow for a review by the VCs
 - A mechanism was proposed to improve 2-way communications between WGClimate and VCs
- **Topic #4** – Data management and data access
 - The discussion reviewed data coordination issues in large projects, and technical/financial/policy obstacles to data access.
 - Various mechanisms were suggested to resolve data coordination issues
 - CEOS-GEO Framework Agreements with donors could be a promising avenue, provided that a strong case can be presented
 - A suggestion was put forward of a Common Data License

CEOS-SIT/VC-WG Interaction - Craig Donlon (ESA) provided a summary of the discussion, suggesting that in order to realize the progress and promise of the VCs, a better “physical connection” between the VCs, WGs, and the CEOS leadership and core meetings (i.e. Plenary, SIT) is required. In some cases, this connection is relatively strong, but could be better articulated.



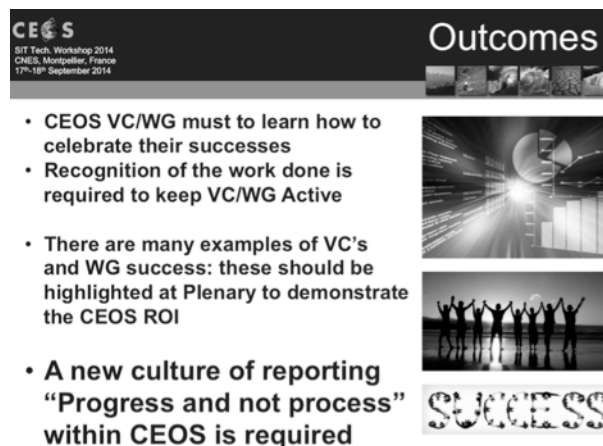
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Outcomes

- Agreed that the current selection of VC's is appropriate
- VC's at different levels of functionality
- Agencies have already committed enormous resources to VC's and associate Science Teams with excellent benefits
- *Unanimous agreement that VC's shall continue to cultivate strong relationships with relevant international science teams*
 - e.g. SST_VC+GHRSSST, OCR_VC+ IOCCG, OVW_VC+OVWST, OST_VC +OSTST
- Maintain CEOS at the cutting edge of EO Science and Technology
- Keep CEOS active and relevant (demonstrate by action)

- Better physical connections between VC, WG and CEOS "core" must be stimulated if the full potential of CEOS is to be realised.
 - Example: SST-VC has representatives within WG WGCV and WGClimate
 - Example: WGCV+SST-VC working to improve Fiducial Reference Measurements (FRM) for SST and LST: ESA is funding the FRM4CEOS project (400KEuros)
- This will lead to better outcomes and positive examples of "CEOS in Action"

Craig noted that in most cases, individuals contributing to CEOS do so outside of their “day job”, and this should be recognized. This includes many people who do not participate in CEOS meetings on a regular basis.



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Outcomes

- CEOS VC/WG must to learn how to celebrate their successes
- Recognition of the work done is required to keep VC/WG Active
- There are many examples of VC's and WG success: these should be highlighted at Plenary to demonstrate the CEOS ROI
- **A new culture of reporting “Progress and not process” within CEOS is required**

SUCCESS

A brief discussion followed Craig’s presentation:

- Marie-Josée Bourassa (CSA) thanked Craig for noting the human dimension of CEOS, and agreed that the contribution of individuals needs to be recognized.
- Kerry Sawyer (CEO) agreed that it is important for Plenary to recognize the issues Craig raised, and also to recognize that agencies are investing in CEOS and these processes.
- Tom Cecere (USGS) noted that the Land Surface Imaging process, discussion and paper tried to reflect the importance of agency contributions in enabling the VCs.
- Steven Hosford (SIT Chair Team) asked what kind of recognition might be appropriate. Craig suggested that this should be one of the topics for the regular VC telecons. He also suggested that CEOS could make better use of video conferencing for coordination meetings. He also suggested that recognition should be a focus of the next VC/WG Day, and that CEOS consider preparing an, “accomplishments in the VCs” document for Plenary.

Training Activities - Eric Wood (USGS) and Juliette Lambin (CNES) and presented a summary of the discussion. Juliette presented a summary of views from the OST-VC.

CEOS Views from a Virtual Constellation - OST
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- **Pre-existing cooperations**
 - When several agencies are cooperating on a given mission in the virtual constellation, it provides a de facto framework to establish training activities
 - Training activities are often carried on by the users organized in « Science Teams » (IOCCG, OSTST, OSWVST, GHRST...)

⇒ **VC's tend to be taking advantage of pre-existing projects and relationships.**

- CEOS «VC » title gives a wider audience and more weight, encourages new cooperations
- VC-to-VC interactions are easier within CEOS
 - Share some common issues, compare solutions etc
- VC activity more of a « bottom-up » approach
- Not much solicitation from VC towards WGs?

Eric reviewed the history of the WGCapD, including the reconstitution of WGCapD from the former WGEdu at the 2011 CEOS Plenary.

CEOS WGCapD Terms of Reference **CEOS Restructuring Delivery of Capacity Building Activities**
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- Exploit the cumulative capabilities of CEOS Agencies by establishing unified and unique capacity building activities.
- Partner with locally based and managed regional partners to increase effectiveness and decrease duplication of efforts.
- Use threads such as disaster response or climate change to build capacity through discussion of a focused subject.
- Conduct remote sensing workshops and seminars to foster the use of Earth Observations.
- Publish Earth Observation education and training materials.

1- Types of courses in terms of length and format:
 Long term (4 months), short term (1 month), workshops (1-5 days), webinars (1-3 hours)

2- Subject for the courses:
 RS introductory courses, GIS, GPS, combination of subjects including RS applications, tools, Data access etc.

3- Awareness Building
 CEOS Capacity Building Newsletter; CEOS Capacity Building Listserve; more proactive use of the WGCapD webpages in the "new" CEOS Website.

Eric noted WGCapD has a mandate to support all CEOS VCs and WGs, and that they are currently working towards restructuring their activities in three broad areas.

CEOS Proposed WGCapD Support to VC and WGs
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- **Monitoring and documenting Capacity/Awareness Building activities.**
- **Promote activities through CEOS WGCapD website pages, CB newsletter, CB listserve.**
- **Develop a CEOS webinar infrastructure.**
- **Archiving/ distribute VC/WG material (documents, videos) on new CEOS website**
- **Additional collaborative support for specific activities where appropriate and/or resources permit.***



Eric suggested that, with this restructuring, the WGCapD aims to be more proactive. To that end, WGCapD is seeking capacity building Points of Contact for each of the VCs and WGs. Once identified, these contacts would be included in a new capacity building list server.

A brief discussion followed:

- Pascale Ultré-Guérard (SIT Chair) asked about the nature of capacity building support that could be provided to the VCs. Eric noted they were considering this now, but that in general, the work of the VCs is often more scientific and less accessible.
- Craig noted that channels like Twitter could be employed to celebrate success and encourage dialogue. Kim Holloway (SEO, NASA) noted that this has been included in the Work Plan for the CEOS website, and that CEOS currently has Facebook and Twitter accounts.
- Kerry reminded all that outreach is not in the mandate of WGCapD. She also stressed that there needs to be some configuration and quality control of materials being shared on CEOS social media sites, and CEOS needs to consider how best to address this activity through a social media strategy. Kim Holloway (SEO) offered to put together some preliminary information on how to develop a strategy. Craig noted that you need to provide the positive messages, release them, and take the feedback as it comes.
- Jonathon Ross (GA) urged caution in the use of the list server, ensuring that they don't get used for purposes for which they were not intended.
- Tom thanked Eric for stepping up to take on the WGCapD Chair for another year.
- Brian Killough (SEO, NASA) agreed that there is strong potential in CEOS utilising formats such as webinars to promote capacity building.
- Kerry asked if WGCapD is getting sufficient support for its activities. Eric noted that this is just the beginning, and it was likely that WGCapD will require additional resources.
- Craig noted that a lot of effort is required to produce high quality content, and there is a need to focus on a few high quality "easy wins" to start with.

SITWS-2014-02	WGCapD to approach the VCs and WGs to identify capacity building Points of Contact, and to support the promotion of their activities. These points of contact are to be added to a new CEOS mailing list to be used for promotion and coordination.	CEOS-28
SITWS-2014-03	All entities within CEOS (CEOS Chair, SIT Chair, CEO, SEO, WGs, VCs, ad hoc teams) to provide a 2 minute video describing their activities and role. This content will be used in the first instance for internal awareness and as first inputs to a webinar infrastructure	SIT-30



ECV Products, Reporting to SBSTA - Pascal Lecomte (ESA) and Richard Eckman (NASA) presented a summary of the discussion. Richard noted that there has been a lot of discussion around the definition of some of the ECVs, and that the definitions are likely to continue to evolve. He noted, for example, that the Ozone ECV focused work by AC-VC is working to address specific issues and requirements from the likes of the Montreal Protocol.

 Outcomes	 Outcomes
<p>Essential Climate Variable (ECV) Generation</p> <ul style="list-style-type: none"> GCOS ECVs are the basis of discussion <ul style="list-style-type: none"> A recognition that these definitions are sometimes not ideal. Discussion between CEOS, GCOS and other agencies can lead to their evolution WGClimate is seeking VC input on ECV generation (an ECV inventory) Are we meeting GCOS requirements? Even if not, the ECVs produced can still be useful for other applications. WG/VC interaction: essential that VCs provide input to ECV inventory and updated CEOS response to GCOS IP <ul style="list-style-type: none"> Should there be VC representation on WGClimate to enhance awareness and “buy-in”? 	<p>SBSTA Reporting</p> <ul style="list-style-type: none"> In 2012, CEOS provided an update on progress by space programs. Will do the same this time, but schedule is aggressive. <ul style="list-style-type: none"> 20-page report due to FCC by 5 October. No time for widespread interaction with VCs, but VC chairs, minimally, will need to comment on draft Plans for quarterly WGClimate telecons with desire to involve VCs and SIT team to better communicate near-term activities

A brief discussion followed:


- Carolin Richter (GCOS) noted that GCOS is about to start a new cycle, and as a part of this will look at the ECV definitions and areas for improvement or refinement. She noted that by the end of 2016, GCOS will release a new implementation plan (not an update) reflecting any changes to the definitions.
- Pascal stressed that the process of updating the ECV definitions is very important, and that CEOS, the VCs in particular, as well as GCOS and other agencies should be involved in ECV evolution and updates.
- Craig fully supported VC participation in the update of the ECV definitions. He noted that the definition of the sea state-related ECVs requires work. Pascal noted that CEOS will also need to understand how it wants to address ECVs that are not related to a VC. He suggested that a VC for each variable would not be the best way forward.
- Chu Ishida (JAXA) asked about the schedule for the preparation of an ECV adequacy report, and Carolin noted that a second workshop would be held in a couple of weeks to confirm scheduling for the next 1.5 years.

Data management and data access - Ivan Petiteville (ESA) presented a summary of the discussion. He noted that despite CEOS support for a number of large scale activities and projects, there was seemingly little synergy across projects in terms of data supply.

 Topic # 4: Overall Data Coordination	 Topic # 4: Data access conditions
<p>Issue: CEOS supports some major international initiatives, by supplying large volume of EO satellite data. Potential conflicts in data provision between various Projects (e.g. GFOI, GEOGLAM, Disaster Pilots) and no real synergy</p> <p>Summary of discussions:</p> <ul style="list-style-type: none"> Recognizing the need for an improved data coordination cross-projects, various mechanisms were suggested to resolve data coordination issues such as: <ul style="list-style-type: none"> Some coordination is starting with GFOI SDCG assessing the data requirements from GEOGLAM Suggestion to give a coordination role to future LSI 	<p>Issues: Several technical and non-technical limiting factors to data access</p> <ul style="list-style-type: none"> Still issues in data interoperability between Agencies with impact on VCs. All projects are facing short and long-term difficulties linked to the data policies constraints and data costs ... Major issues common to several Projects that would benefit from actions at top CEOS level. The multiplication of license agreements do not facilitate the distribution of EO satellite data and the sharing of common datasets between different projects

He noted that progress was being made by WGISS, and agency staff, on issues relating to interoperability, and that technical solutions were being developed which could help coordination. Data licences often complicate the implementation of these solutions, and so the topic of a Common Data Licence was proposed. In addition, it was suggested that it may be pertinent for CEOS to engage in a generic way with potential facilitating entities such as

the World Bank. In this way, rather than CEOS contacting such facilitators individually for several distinct projects, a high level discussion could be initiated.



Topic # 4: Data access conditions (cont')

Summary of discussions:

- **WGISS and Agencies staff are progressing on Data Interoperability with concrete technical solutions.**
- **To cover the data (and project) costs, need for CEOS to identify both potential financial support from Donors and political support from major stakeholders through contacts to be held at highest level.**
- **CEOS-GEO Framework Agreements with Donors could be a promising avenue, provided that a strong case can be presented.**
- **A suggestion was put forward of a Common Data License**

A brief discussion followed:

- Tom asked what the goal of a Common Data Licence would be. Steven Hosford noted that there tends to be a common 90-95% across existing data licences. However, user feedback indicates that the overhead involved in validating multiple licenses is significant. By streamlining the licences and seeking to consolidate this common content, the overall administrative and legal workload could be alleviated, especially when smaller projects use many data sources. Steven also stressed that the idea was to explore the possibility, rather than presume that a good solution would be found. He also noted that there is precedent in schemes like Creative Commons, which suggest that an EO analogue might be useful.
- Espen Volden (GEOSEC) suggested involving the GEO data sharing group, and noted that they may have had similar discussions.
- Brent Smith (NOAA) suggested polling CEOS Agencies that do have restricted data, and have distributed it, to explore the potential. Brian Killough (SEO, NASA) agreed, noting that the conclusion may be that a common licence is too difficult, but it could be worth exploring.
- Steven Hosford noted that some of the first discussion was in the disasters community last week, and the first reaction was that the idea was worth exploring.
- Stephen Briggs (ESA) suggested that, given the current work load of CEOS, we shouldn't be looking to take on problems for which we don't have good solution paths. He indicated that a common approach to facilitating entities such as the World Bank was difficult because each distinct CEOS project had its own decision-maker within such organisations and a generic approach from CEOS could well fall between these responsibilities. He noted also that common licences could be really challenging, and suggested that our time and effort should be focused on a real case requiring a solution.
- It was agreed that the WGDisasters case would be a good specific example on which to focus.
- It was noted that GEO has a role here, to support groups like CEOS.

SITWS-2014-04	WGDisasters, in coordination with WGISS, and the GEO Data Sharing Working Group to explore the possibility of developing a “common” data licence – with a test case for data sharing issues faced by WGDisasters.	CEOS-28
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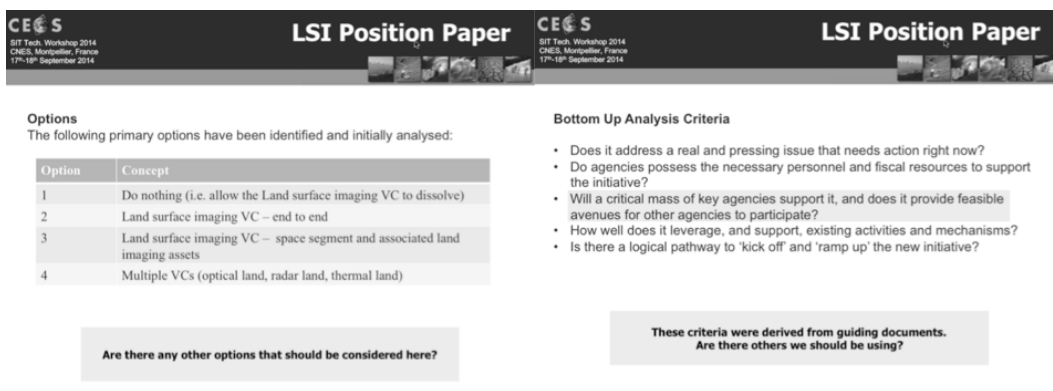
- Pascale referred to action SIT-29-7, noting that VC/WG membership and leadership is a part of the ongoing business of CEOS, and the SIT and CEOS Chairs. She noted that the SIT Chair Team aims to address these issues in their regular telecons with the VCs and WGs.
- Craig noted that the SST-VC copied the Troika structure used by CEOS, and that they also allowed and encouraged current leadership to be re-elected if appropriate and agreed.
- Albrecht von Barga (DLR) noted that WGCV would like to consult with SIT Chair on leadership and membership issues.

6 Coordination of CEOS Land Surface Imaging Activities

Steven Hosford (SIT Chair Team) recalled that a process was put in place a last year to determine how to take forward LSI-VC under the current structure challenged by a lack of leadership. This would be done by retooling of the old concept about what land surface imaging responsibility should be while not creating a structure to dictate but one that captures requirements for land surface imaging and pass those along to agencies responsible for doing the monitoring and distributing.

Most recently, a paper was developed and circulated in early June / July for comment. This generated a good response, and good discussion which was reflected in several further iterations and a proposal to asses four options on how to proceed.

Tom Cecere (USGS) noted that land surface imaging is very diverse, and encompasses many areas like forests, agriculture, carbon, terrestrial ECVs. He stressed the desire not to duplicate existing coordination efforts in these areas, but that an LSI-VC should try to leverage ongoing activities. Several options are considered in the paper.



The image shows two slides from the 'LSI Position Paper' presentation. The left slide (slide 13) is titled 'Options' and lists four primary options for the Land Surface Imaging VC. The right slide (slide 15) is titled 'Bottom Up Analysis Criteria' and lists five criteria for evaluating the options.

Options
The following primary options have been identified and initially analysed:

Option	Concept
1	Do nothing (i.e. allow the Land surface imaging VC to dissolve)
2	Land surface imaging VC – end to end
3	Land surface imaging VC – space segment and associated land imaging assets
4	Multiple VCs (optical land, radar land, thermal land)

Are there any other options that should be considered here?

Bottom Up Analysis Criteria

- Does it address a real and pressing issue that needs action right now?
- Do agencies possess the necessary personnel and fiscal resources to support the initiative?
- Will a critical mass of key agencies support it, and does it provide feasible avenues for other agencies to participate?
- How well does it leverage, and support, existing activities and mechanisms?
- Is there a logical pathway to 'kick off' and 'ramp up' the new initiative?

These criteria were derived from guiding documents. Are there others we should be using?

Jonathon Ross (GA) noted that the study team has performed a preliminary “bottom up” analysis of the options considered, based on a narrow range of inputs. He noted the desire to broaden the range of inputs to try and increase the robustness of the analysis.

A brief discussion followed:


- Marie-Josée Bourassa (CSA) thanked the study group for their efforts.

- Brian Killough (SEO, NASA) noted that the coordination is going on in other forums, and he does not necessarily see the need for a dedicated VC.
- Tom noted that the SDCG for GFOI is an *ad hoc* group which will eventually need a home. He also noted that key to all of these activities is identifying the data requirements, and he supports leaving requirements definition to the various coordination groups. But he stressed that there is a coordination job to be done looking at the assets being used to address these requirements. The coordination job is pretty straight forward with just Landsat and Sentinel-2, but once you start to add in other missions and data types (i.e. radar) then the task becomes more of a challenge.
- Craig Donlon (ESA) noted that what is being discussed is almost a “CEOS within CEOS”. He noted that it might make more sense to focus on some grass roots issues, for example inter-calibration.
- Jean-Louis Fellous (SIT Chair Team) noted that it may be the case that some groups are solving their problems outside of CEOS, because CEOS is not responding to their needs. This should be a concern for CEOS, in particular when it comes to addressing its mandate.
- Stephen Briggs (ESA) noted that often when it comes to land surface imaging, the solution is tailored for the application, and varies significantly by project. The problems being addressed have similar questions, but the answers are often quite different, requiring a different discussion in each case. He also noted that, if the required coordination only involves 3-4 agencies, then perhaps there is no need for a coordination mechanism.
- Tom noted that the question is whether there is a gap, and if not, then perhaps the question of a land surface VC can be dropped for now.


SITWS-2014-05	Jonathon Ross and Tom Cecere to coordinate an evaluation team to perform the analysis of options for the future of LSI-VC proposed in the “Position Paper on Options for Future of Land Imaging Coordination within CEOS”, and present the results at CEOS Plenary	CEOS-28
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7 Working Group Issues and Topics for Plenary Preparation

WGISS Chair Richard Moreno (CNES) provided an update a number of WGISS activities, including the Recovery Observatory and technology exploration.



- Recovery Observatory Events
 - Q2 2014 – ITT by CNES
 - AKKA company was selected to develop/integrate RO
 - Sept 2014 : participation to WGDIsaster meeting in Paris
 - Sept 2014 : RO workshop during WGISS meeting
 - Oct 2014 : RO presentation during Plenary
 - April 2014 : RO presentation during SIT
 - May 2014 : RO workshop during WGISS meeting
 - Regular Interest Group Telecon



- Side meeting at the Plenary
 - WGISS is proposing to have a side meeting at the Plenary in Tromso called “Emerging Technologies”.
 - This meeting would highlight a few key emerging technologies that have been discussed during recent WGISS Tech Exploration sessions.
 - The goal would be to explain how these technologies have the potential to change the way agencies operate.
- White paper
 - The Technology Exploration Interest Group is developing a white paper summarizing the discussions held at past WGISS meeting Technology Exploration sessions on the topics of Big Data, Cloud Computing, Semantics and Virtualization.

Richard reviewed the status of OpenSearch, noting that this is now an OGC open standard, and is being leveraged by CWIC and FedEO.



FedEO – Last 6 months activities

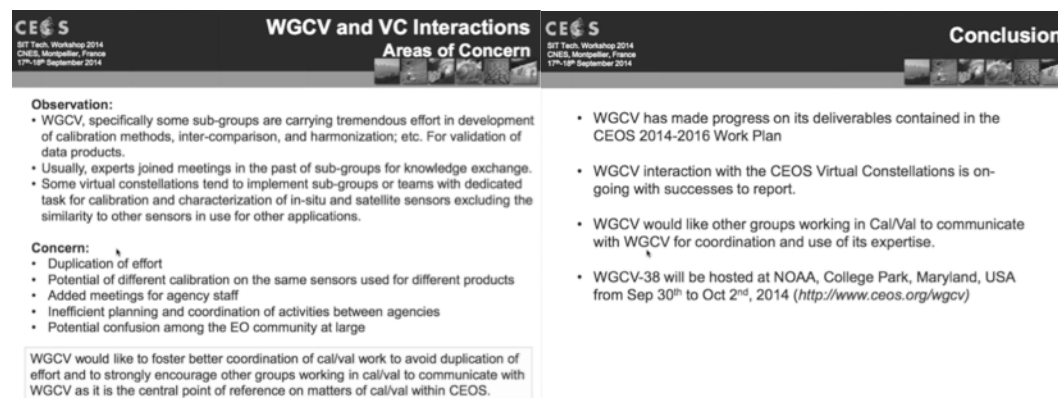
- FedEO infrastructure being consolidated.
- Opensearch interface from/to FedEO implemented according to CEOS Opensearch.
- Opensearch gateway available at:
<http://geo.spacebel.be/opensearch/readme.html>
- M2M External access with GEO Discovery and Access Broker (DAB) implemented: data discovery/access on GEOSS Portal.
- Further catalogues interfacing progressing within dedicated ESA project.
- Drafted FedEO Partners and Clients Guide.

A brief discussion followed:

- It was agreed that WGISS had several “success stories” which should be reported in a concise form to CEOS Plenary, focusing in particular on the fact that WGISS is responding to a Plenary action.
- Christine Bognar (NASA) suggested framing OpenSearch as an example of international collaboration where CEOS is doing the coordination that is yielding final products.
- Ken Casey (NOAA) noted the SST-VC is already serving over 80 Terabytes of GHRSSST/SST-VC (including all 62 current products within GHRSSST) through the CWIC system and the IDN. He further noted that the wise choices by the CWIC team to rely on existing international standards (CSW and OpenSearch are the two main choices) that it was straightforward for GHRSSST and the SST-VC to connect their existing data management systems (operated by NOAA at the US NODC) to CWIC.

WGCV Chair Satish Srivastava (CSA) highlighted the successful interaction between WGCV and the SST-VC, noting that experts from both groups have come together to define the scope and range of calibration activities.

He also highlighted a couple of areas of concern for WGCV, in particular around the duplication of effort – which may be adding unnecessary duplication of effort, and confusion.



WGCV and VC Interactions Areas of Concern

Observation:

- WGCV, specifically some sub-groups are carrying tremendous effort in development of calibration methods, inter-comparison, and harmonization; etc. For validation of data products.
- Usually, experts joined meetings in the past of sub-groups for knowledge exchange.
- Some virtual constellations tend to implement sub-groups or teams with dedicated task for calibration and characterization of in-situ and satellite sensors excluding the similarity to other sensors in use for other applications.

Concern:

- Duplication of effort
- Potential of different calibration on the same sensors used for different products
- Added meetings for agency staff
- Inefficient planning and coordination of activities between agencies
- Potential confusion among the EO community at large

WGCV would like to foster better coordination of cal/val work to avoid duplication of effort and to strongly encourage other groups working in cal/val to communicate with WGCV as it is the central point of reference on matters of cal/val within CEOS.

Conclusion

- WGCV has made progress on its deliverables contained in the CEOS 2014-2016 Work Plan
- WGCV interaction with the CEOS Virtual Constellations is ongoing with successes to report.
- WGCV would like other groups working in Cal/Val to communicate with WGCV for coordination and use of its expertise.
- WGCV-38 will be hosted at NOAA, College Park, Maryland, USA from Sep 30th to Oct 2nd, 2014 (<http://www.ceos.org/wgcv>)

A brief discussion followed:

- Craig noted that some duplication is almost inevitable, and the question should be ensuring proper organisation of the community. Steven Neeck (NASA) agreed with Craig, noting that precipitation formed a cross calibration working group for microwave due to the absence of capabilities including within WGCV.
- Satish noted that WGCV is mainly seeking to understand, and to optimise the expertise available. Albrecht stressed the need for understanding of activities across communities in order to ensure an optimal solution.

WGCapD Chair Eric Wood (USGS) presented an update of the status of the SIT-29 actions relating to WGCapD, noting that both are in progress. He also reported on recent discussion surrounding the release of SRTM 30m data – noting in particular that this would be a welcome advance for data democracy efforts.

CEOS SIT Tech. Workshop 2014 CEOS, Montpellier, France 17 th -18 th September 2014 SIT Actions	CEOS SIT Tech. Workshop 2014 CEOS, Montpellier, France 17 th -18 th September 2014 SRTM 30m Elevation Data Release
<p>“VCs to consider developing training activities in their field, following the example of the OSW-VC, involving the corresponding science groups, in collaboration with WGCapD and possibly with external partners (e.g., COSPAR, GxOS, WCRP)” SIT 29-2</p> <p>“WGISS and WGCapD to liaise with SEO and SilvaCarbon respectively to review the GFOI Space Data Services plans and to provide guidance, review and support of its progress.” SIT 29-13</p>	<p>Support All Four Data Democracy Pillars:</p> <ul style="list-style-type: none"> • Access: Removal of restrictions to global SRTM-2 (and other high res DEMs) • Dissemination: ensure targeted users in developing countries obtain SRTM-2 (and other high res DEMs) • Software & Tools: Regional workshops • Training & Education: Regional workshops

Eric noted that USGS has agreed to continue its support of him as the WGCapD Chair through the 2015 CEOS Plenary.

WGClimate Chair John Bates (NOAA) presented a summary of recent activities, noting that the main activities are related to the development of Climate Monitoring, Research and Services (CMRS).

CEOS SIT Tech. Workshop 2014 CEOS, Montpellier, France 17 th -18 th September 2014 WGClimate Work Plan	CEOS SIT Tech. Workshop 2014 CEOS, Montpellier, France 17 th -18 th September 2014 WGClimate Work Plan
<p>Background</p> <ul style="list-style-type: none"> •WGClimate was the trial Working Group for the new form of the CEOS-CGMS 3-year Work Plan •Work Plan elements implement WGClimate objectives in sequential order •Activities include Climate Monitoring, Research, and Services (CMRS) <ul style="list-style-type: none"> • Coordinate development of Climate Data Records (CDRs) and related datasets addressing Essential Climate Variables (ECVs) established by the Global Climate Observing System (GCOS) • Continue cooperation with Group on Earth Observations (GEO), Global Climate Observing System (GCOS), and the World Meteorological Organization (WMO), in the development of a space-based system to support climate information and adaptation. 	<p>The first 3 CMRS activities form an iterative cycle, acknowledged in the last CMRS activity</p> <ul style="list-style-type: none"> • CMRS-1: ECV inventory (first version) – ECV inventory status reviewed and Version 1 (V1) status identified <ul style="list-style-type: none"> • Status – Delayed one quarter - Issue identified need to fix ECV/CDR pairs and establish version control – Complete, however, took more time than anticipated • CMRS-2: Gap analysis (first version) – Define reference process for gap analysis and necessary tools to support this <ul style="list-style-type: none"> • Status - Delayed one quarter - Reference process for assessment has been discussed at WGClimate meeting and SST VC CDR assessment report. Assessment of process metrics (i.e., documentation, access, etc.) is moving forward with WGClimate members evaluating CORE-CLIMAX system maturity matrix • Fitness for purpose for scientific objective/societal benefit metrics are much more difficult and no consensus exists. WGClimate is working with WCRP Data Advisory Committee and US National Academies on approaches

John noted that the process for gap analysis, also referred to as continuity analysis, is currently being discussed within the WGClimate. He reflected on some of the ECV-related challenges that WGClimate is currently considering.



Final thoughts on challenges

- ECV Inventory needs additional inputs both from Space Agencies and beyond to include individual Scientific Investigators
 - Consider working with WCRP and GCOS to invite contributions as an outcome of the 2014 Climate Symposium
- ECV Inventory maintenance and updating will require ongoing involvement of WGClimate members and CEOS core support
 - Thanks to NASA and ESA for supporting current development
- WGClimate membership does not have a consensus on accepting future oversight of Strategy for Carbon Observations from Space
 - Continue to work with the Ad Hoc CEOS Carbon Strategy Implementation Study Team (CSIST) to define appropriate CEOS entities and processes for disposition and tracking of actions
 - Hopefully CSIST results will clarify actions so that WGClimate burden for future leadership of CEOS Carbon activities will be viewed as more realistic by a majority of WGClimate members

John noted that he is been working with the Carbon Strategy Implementation Study Team (CSIST), and that the work of this team since SIT-29 will alleviate some of the concerns of WGClimate members. Based on the CSIST outcomes, WGClimate **does not have a consensus on accepting future oversight of Strategy for Carbon Observations from Space** but members may be more open to accepting the future leadership CEOS carbon activities. In any case this could only be confirmed at WGClimate’s next meeting in March 2015.

A brief discussion followed:

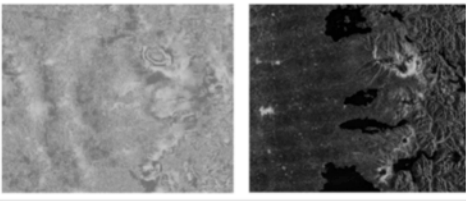
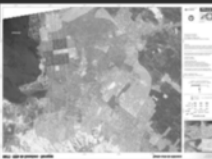

- Carolin Richter (GCOS) noted that the science objectives and applications for ECVs is part of the core business of GCOS, and there is a danger that the ECVs may also comprise model data which is not the intention of GCOS. The ECVs records should be based on observations, and there is a need to work on coordination and collaboration with WCRP.
- John noted that the intent is to work with GCOS to help better define the mapping between the science objectives and the ECVs, and then provide that feedback to GCOS.
- Espen Volden (GEOSEC) noted that the GFCS office has asked for information on programs that would be relevant for the implementation of GFCS, and John agreed to share any relevant information he has.

SITWS-2014-06	John Bates to follow-up with Espen Volden on potential inputs on GFCS-relevant projects and programs to the upcoming GFCS implementation coordination meeting.	SEC-193
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WGDisasters Chair Ivan Petiteville (ESA) presented a status of the four SIT-29 actions WGDisasters is involved with. He also provided an update on WGDisasters support for the 2015 WCDRR conference, and space agency inputs to HFA-2.

<p>CEOS SIT Tech. Workshop 2014 CEOS, Montpellier, France 17th-18th September 2014</p> <p>For Information, status of the 4 SIT Actions :</p> <p>WGDisasters [SIT-29-17, SIT-29-18]</p> <ul style="list-style-type: none"> • SIT-29-17: data supply to 3 supersites approved @ SIT-29 • SIT-29-18: data supply to 3 pilots (flood, seismic, volcano) <p>World Conference on Disaster Risk Reduction [SIT-29-19 and SIT-29-20]</p> <ul style="list-style-type: none"> • <to be covered by Chu in session 4, item # 16> <p>For Plenary Decision: new Permanent Supersites to be approved:</p> <ul style="list-style-type: none"> • Ecuador and New Zealand (Volcanoes) 	<p>CEOS SIT Tech. Workshop 2014 CEOS, Montpellier, France 17th-18th September 2014</p> <p style="text-align: right;">Overall Status (3/4)</p> <p>WCDRR & HFA2: (More details in Chu's presentation –item 18)</p> <ul style="list-style-type: none"> • Participation in several WCDRR preparatory meetings (e.g. Ministerial Regional Platform meetings, Preparatory Committee meetings) • Preparation of CEOS active participation in WCDRR (Request for Accreditation, Working session in Sendai with 14 co-organisers, CEOS booth, CEOS EO HB Special WCDRR edition,...) • Coordinated action with GEO, UNOOSA, UNITAR for improving draft HFA2. Support from governments beina souat
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Simona Zoffoli (ASI) presented on the volcanoes disaster risk pilot, noting that they are already receiving RADARSAT-2 for volcanoes in Latin America. Stuart Frye (NASA) presented on the flood pilot for Haiti, and has also been provided with RADARSAT-2 data, as well as ALOS-2 and Sentinel-1A data.

<p>CEOS SIT Tech. Workshop 2014 CEOS, Montpellier, France 17th-18th September 2014</p> <p>Volcanoes: Objective "A" results</p>  <p>RADARSAT-2 interferogram from Cordon Caulle volcano, Chile, spanning December 12, 2012 – March 27, 2013 (left: phase difference; right: phase difference overlain on amplitude image). The volcano erupted in 2011-2012. This interferogram shows post-eruptive inflation which would not otherwise have been known without the CEOS pilot program.</p> <p>Figure and ... comment !: courtesy of Matt Pritchard (Cornell University)</p>	<p>CEOS SIT Tech. Workshop 2014 CEOS, Montpellier, France 17th-18th September 2014</p> <p>Floods: HAITI</p> <ul style="list-style-type: none"> • Lead: RASOR/Athens Global/CIMA • Risks: Seismic, landslide and hydro-met event • Importance: model for poor in-situ data and high development interest • Deliverables: multi-hazard risk assessment, integration with operational warning, national risk assessment and prevention products; Work with regional partner CIMH allows roll-out of RASOR to other national civil protection agencies and geospatial organisations • EO Data: optical and SAR • NIGS, CIMH, Haiti Civil   <p>SPOT World Heritage Archive: 2008 Haiti images for historical flood record; 2009 Central American images</p>
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Ivan reviewed the status of the seismic pilot, as well as the Supersites initiative.

CEOS
SIT Tech. Workshop 2014
CEOS, Montpellier, France
17th-18th September 2014

Supersites

Relevant for Seismic Risks and Volcanoes Pilots objectives

Recent Event supersites (earthquakes and eruptions):

- Sinabung eruption, 2014 approved by CEOS – EO data (ASI, CSA)
- Earthquakes in Ludian (China), Napa Valley (both in 2014) being assessed by DCT

- Selection process for Event Supersites is being revised / improved
- New focus for coming months: involvements of end-users and decision makers in GSNL

A brief discussion followed:

- Tom noted that the Sentinel-1A interferometry data from the recent Napa Valley earthquake was impressive.

- Espen noted that disasters is an area where CEOS-GEO collaboration is important in approaching stakeholders, and this is currently working well. However, the process would benefit from a new Disaster Task Coordinator from CEOS.

8 VCs and WGs Session Wrap-up

Jean-Louis Fellous (SIT Chair Team) closed the VC and WG session by reviewing the main outcomes.

There was a brief discussion about cross-representation between all VCs and WGs. It was agreed that this cross-representation should be strongly recommended, but that the numbers involved mean that it will not be specified as a requirement.

It was agreed that the VC and WG day was a success, and another should be planned for the SIT-30 or SIT WS 2015 timeframe. It was agreed that the formulation of the VC and WG day should be driven by the groups themselves, supported by the SIT Chair Team, and several actions were agreed to support these efforts.

A final action was agreed for WGCapD to review the outcomes of the VC and WG day in formulating their inputs for the 2015-2017 CEOS Work Plan.

SITWS-2014-07	VC and WG Leads to organise a VC/WG Working Day, in conjunction with the 2015 SIT Workshop	Initial details to be presented at SIT-30
SITWS-2014-08	SIT Chair Team to work with the VC and WG leads in preparing for the 2015 VC/WG Working Day, taking into account the outcomes from the 2014 Working Day.	Initial details to be presented at SIT-30
SITWS-2014-09	Jean-Louis Fellous to work with Craig Donlon to review options to improve reporting, focused on progress and not process for the 2015 VC/WG workshop	Initial details to be presented at SIT-30
SITWS-2014-10	For WGCapD to take into account the outputs of Topic #2 of the VC/WG Day in the development of their 2015-2017 CEOS Work Plan objectives/deliverables	SIT-30

9 Update on CEOS Support to GFOI

Stephen Briggs (CEOS GFOI Lead, ESA) provided a brief update on implementation of the CEOS Strategy for Space Data Coverage and Continuity in Support of GFOI. The strategy comprises three elements, including a global baseline coverage strategy, nationally targeted space data services, and an R&D element.

1: Global Baseline Acquisition Strategy for GFOI



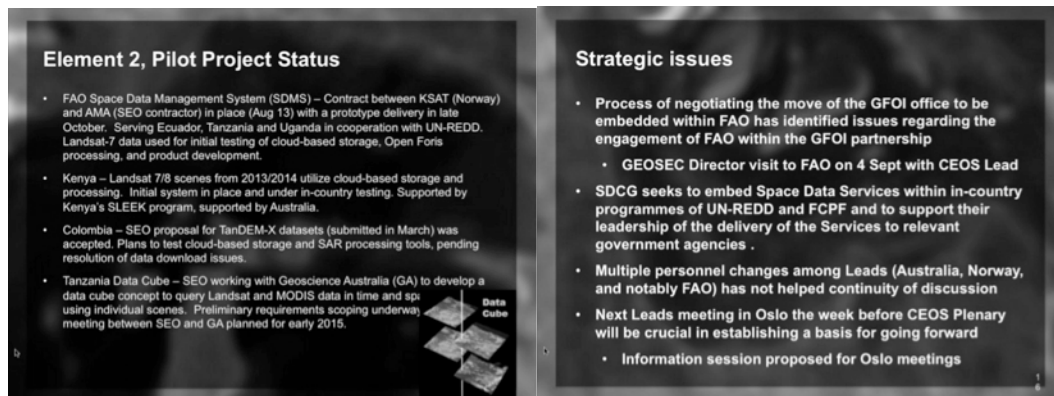
- Absolute minimum requirement is the successful acquisitions of at least one annual national cloud-free optical coverage over each target country.
- Objective to assure the availability of temporally and spatially consistent time-series of optical and Synthetic Aperture Radar (SAR) satellite data over global forest cover.
- Initial priority on tropical forest countries developing national MRV systems for REDD+
- Element 1 focus on publicly open ("core") satellite data
- Phased implementation with aim at full global coverage by 2016

2: Space Data Services Strategy for GFOI



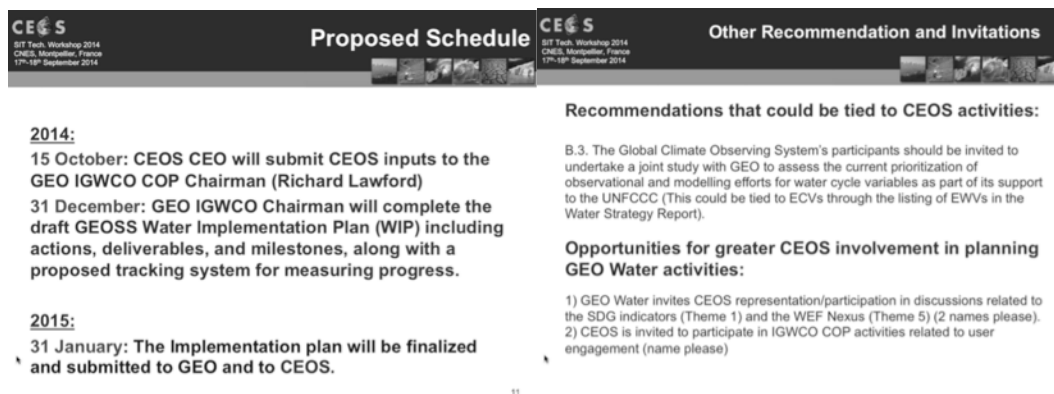
- A coordinated strategy for national data acquisitions.
- Accommodate countries' specific technical requirements, heritage, or experience with a particular EO data source or type.
- Accommodate any intergovernmental arrangements.
- Wider range of satellite data sources, including commercial.
- A collection of six services.

Brian Killough (SEO, NASA) provided an update on several element 2 pilot projects. He noted that the SEO is working on the delivery of a Space Data Management Service (SDMS) for FAO for three pilot countries, and this is expected to be in place by the end of the year.



10 CEOS Response to the GEOSS Water Strategy

Chu Ishida (JAXA) presented the schedule for the development of the GEOSS Water Strategy, noting that several sets of CEOS inputs are being requested.



A brief discussion followed:

- Carolyn Richter (GCOS) noted that the concept of “essential variables” has been quite successful, and that we now have Essential Ocean, Biodiversity, and Water Variables in addition to Essential Climate Variables. She noted that these could be synchronised. She also noted that for reporting purposes (e.g. to UNFCCC) there is a need to avoid overlap and confusion.
- Chu noted the need to manage the overlap with between the GEOSS Water Strategy and water-related ECVs to ensure consistency. He hopes that GCOS can help to ensure this coordination.
- Stephen Briggs (ESA) noted that the “essential” variables need to be managed in order to avoid diluting them. He stressed the importance they play in providing a single point of reference for climate reporting, in particular to UNFCCC.
- Kerry Sawyer (CEO) asked which CEOS entity might coordinate a CEOS response to the GEOSS Water Strategy.

- John Bates (NOAA) noted that the WCRP has a global energy and water cycle group, which is also very active providing satellite data, which he suggested including under existing mechanisms that could be leveraged in future.
- It was agreed that a small Water Strategy implementation study team be established and tasked to report back to SIT-30.

SITWS-2014-11	CEOS agencies to send nominations for members of a Water Strategy implementation study team to Kerry Sawyer. Study team to report back at SIT-30	26 September
SITWS-2014-12	SIT Chair team to include a report from the Water Strategy implementation study team on the SIT-30 agenda	SIT-30

11 Carbon Strategy Implementation Study Team

Stephen Briggs (ESA) reviewed the history and background of the CEOS Strategy for Carbon Observations from Space, as well as the establishment of the CEOS Carbon Strategy Implementation Study Team (CSIST).

CEOS SIT Tech. Workshop 2014 CNES, Montpellier, France 17 th -18 th September 2014	Title	CEOS SIT Tech. Workshop 2014 CNES, Montpellier, France 17 th -18 th September 2014	Title
	<p>1. History and Background</p> <ul style="list-style-type: none"> • GEO Carbon Report developed in June 2010 by team led by Ciais et al. (GCP). • <i>CEOS Strategy for Carbon Observations from Space</i> – written in response to above, completed in March 2014 – Wickland et al. • Proposed results presented to SIT Workshop and CEOS Plenary in 2013. • 42 Actions identified in the report for specific response including Action for Carbon Team to manage response via CEOS/CGMS Working Group Climate – first discussed at SIT Technical Workshop in September 2013 <ul style="list-style-type: none"> • Issue remained open until April 2014, • At SIT-29: <ul style="list-style-type: none"> • The <i>CEOS Strategy for Carbon Observations from Space</i> was endorsed during Plenary session • Proposed establishment of a study team to take forward the Actions and also identify formal CEOS mechanism to manage Actions. 		<p>2. Establishment of CEOS Carbon Strategy Implementation Study Team (CSIST)</p> <ul style="list-style-type: none"> • SIT-29 suggested further study of report to elucidate concrete way forward because of expressed concern about the nature and wording of the recommended actions, noting that several of the more substantive ones were well beyond the scope of what CEOS can or should do. • CSIST set up in May 2014: S Briggs (ESA), K Sawyer (CEO), J Bates (WGClimate/NOAA), C Ishida/M Nakajima (JAXA), A von Bergen (WGCV/DLR), Z Zhu (USGS), D Wickland/C Bogner (NASA), J Ometto (INPE), C Deniel (CNES) • ToR established by CEOS Chair / SIT Chair. Objective to analyse recommendations of Carbon report and propose concrete way forward. • Team led by S Briggs, K Sawyer met 28 July 2014 at ESA Office, Washington DC. • Produced draft spreadsheet of outcomes distributed before SIT Workshop. Documents distributed: ToR, report of progress, spreadsheet. • Not intended to go through all spreadsheet actions individually here.

The CSIST has analysed each of the 42 actions in the Carbon Strategy looking at the type of action, its time scale, CEOS lead and contributing entities, resources and estimated effort, and linkages and partnerships.

CEOS SIT Tech. Workshop 2014 CNES, Montpellier, France 17 th -18 th September 2014	Title	CEOS SIT Tech. Workshop 2014 CNES, Montpellier, France 17 th -18 th September 2014	Title
	<p>4. Status as of SIT Workshop</p> <ul style="list-style-type: none"> • Draft spreadsheet completed at meeting of 28th July and subsequent revisions by email among CSIST • Identified 12 Actions that will require further discussion to implement • Discussions with some Carbon team members • Current spreadsheet circulated by CEO to SIT Workshop participants and CEOS SEC, along with report (KAS) and ToR of group • Several additional comments received 10 Sept from D Wickland, responded to separately by SAB but not included in current version (but comments and outcomes are manageable) • Further quick comments invited on content of spreadsheet • Discussion on way forward to Plenary. 		<p>5. Discussion and way forward</p> <ul style="list-style-type: none"> • Comments invited on spreadsheet content at/after Workshop • Incorporate comments of D Wickland and any further comments before Plenary (not problematical(?)) • Need to propose way forward in terms of overall management/governance: <ul style="list-style-type: none"> • Separate carbon group, • WGClimate, • SIT Chair • Other? • Agree proposed way forward at Workshop • Make proposal to Plenary 2014 for Progress. • Thank CSIST members for efforts to respond to task rapidly and effectively

Stephen noted that John Bates is planning to revisit the question of support to Carbon Strategy implementation with his WGClimate colleagues, and will report back on whether WGClimate is more willing to take on the coordination of the Carbon Strategy implementation.

Stephen recommended that if WGClimate is unable to take on the coordination role, then this is a duty that should fall to the SIT Chair and/or Vice Chair.

A brief discussion followed:

- Carolin Richter (GCOS) asked if the role of GTOS was discussed, and Stephen noted that this was discussed at the last SIT Workshop, but that the status wasn't clear.
- Kerry Sawyer (CEO) noted that GTOS was identified as an external entity in one of the actions, and GCOS was also a contributing member on one of the actions.
- Brent Smith (NOAA) asked who would represent CEOS at the next GEO Carbon COP meeting. Kerry noted that one point of the CSIST was to identify the interface point of contact. Diane Wickland and Masakatsu Nakajima were working with Antonio Bombelli, but there is a need to identify someone new who will be the contact.
- Chu Ishida (JAXA) noted that because of the links between climate and carbon, WGClimate would be a natural home, but that for the time being, JAXA supports Stephen's proposal that the SIT Chair be the POC.
- Stephen Briggs noted that the objective is that the actions that are to be carried out by other entities will be embedded in their work plan, and that the CEOS lead entity will continue to coordinate.
- Kerry noted that this process was modelled on the CEOS response to the GCOS IP.
- Brian Killough (SEO, NASA) noted that we should be clear on what we are asking Plenary to do – to endorse the list of the actions, and make a decision on which CEOS entity would lead.
- Pascal Lecomte (ESA) said he did not think the WGClimate could cover the whole implementation role, and that CGMS members in the group opposed this role in March.
- Paul Counet (CEOS Chair) noted that it was clear from the discussion that WGClimate should not take on the coordination role.
- Ivan Petiteville (ESA) asked what the main issues were, and Pascal noted the main concern was the amount of work required, and that the CGMS members did not agree that this was a priority activity given the other priority actions that WGClimate is currently engaged in accomplishing.
- Brent noted that CEOS needs to articulate a position on the coordination of carbon observations, and hoped that Plenary can come up with a solution instead of deferring. CEOS is busy, but this topic warrants a response.
- Stephen Briggs noted that it should be clear that the responsibility sits with the SIT Chair, and there is a need to ensure that an expert team advises and carries out the work for the SIT Chair. He also noted that 75% of the actions fall to CEOS internal entities, like the WGs and VCs. Steven Hosford noted that WGClimate will revisit the issue of the coordination role, and this should be taken into account - an action was set on WGClimate to provide a response promptly, well in advance of Plenary.
- Marie-Josée Bourassa noted that CEOS may need to identify what tasks might need to be dropped in order to take on a role in coordinating carbon observations. Kerry Sawyer noted that the task spreadsheet developed by the CSIST identified expected resources, and it did look at resource constraints.

- Jane Olwoch (SANSa) noted that there are many other groups involved in Carbon (e.g. the IPCC Task Team on Carbon), and asked if CEOS has identified something specific that needs to be addressed. Stephen Briggs noted that the focus is setting up a CEOS-based response to the other activities that are taking place in the community.
- Ivan Petiteville (ESA) noted that WGClimate has responsibility for only seven of the 42 actions, and for the remaining actions the role would be supervisory.
- Pascal noted that the group was okay with the seven actions, but the open question was about someone to take the supervisory role. He suggested giving WGClimate a final chance to confirm their capacity by early October. If the response is still negative, then the SIT Chair should take responsibility.
- Stephen Briggs encouraged CEOS Principals to consider their agency’s participation in the CEOS Carbon Strategy Implementation.


SITWS-2014-13	SIT Workshop participants to send comments on the Carbon Strategy Implementation Study Team action item analysis table to Kerry Sawyer and Stephen Briggs	26 September
SITWS-2014-14	John Bates to report on WGClimate’s willingness to coordinate the implementation of the CEOS Carbon Strategy actions	7 October

12 CEOS Acquisition Strategy for GEOGLAM

Brian Killough (NASA) presented an update on the activities of the CEOS *ad hoc* Working Group on GEOGLAM.

CEOS-GEOGLAM Leadership

- Brad Doorn (NASA) has volunteered to be a Co-Lead for the CEOS GEOGLAM Ad Hoc Team. This leadership role will be endorsed at the Plenary.
- NASA has accepted this role with the understanding that another co-lead will be identified to share the responsibilities of this role. This request has been carried as a CEOS SEC action for several months.
- GEOGLAM is developing a Steering Committee. CEOS has requested to be part of this committee.



CEOS GEOGLAM Acquisition Strategy

Summary of major updates (August 2014, Version 2.0)

- **Section 2.5: New CEOS Phasing**
CEOS would like to use a simplified approach with 2 phases: Development and “Operation”. The Development Phase would cover GEOGLAM Phases 1,2,3 (on right). This will reduce confusion and allow annual reporting of progress and annual planning without a need for connection to phases.
- **Section 2.5: Progress in 2014** ... A full progress report is due at CEOS Plenary. CEOS is successfully supplying a large of amount of space-based data to support Croplands Projects (9 countries), JECAM (19 countries), and Asia-Rice (10 countries).
- **Section 2.5: Plans for 2015** ... Expand existing pilot projects (more countries, products, sampling), integrate new datasets, initiate a new JECAM Data Services Pilot Project, investigate common data sharing policies.

Brian noted Brad Doorn is the NASA nominee for the role of co-lead of the *ad hoc* Group, and will attend Plenary. The nomination is being proposed for Plenary endorsement. If a second Co-Lead for the Group cannot be identified by Plenary, the ad hoc Group would like to see a Plenary action carried forward to identify an agency Co-Lead.

CEOS GEOGLAM Acquisition Strategy
Continued ...

Section 3.5: Archive Data

- The accuracy of baseline crop type and crop calendars could be improved through the use of fine to moderate resolution (<100-meter) archive data.
 - After initial archive data use, updates produced from recent data are needed every 1-3 years.
- Obtain direct access to archive metadata (prefer through COVE tool) for ALOS, Terrasar-X, ResourceSat, RapidEye. Already have COVE links to Landsat, Radarsat and SPOT.
- Analyze the data archives to assess which comprise a sufficient record to develop crop type and crop calendar products.
- Benefits the evaluation of new data streams and the supports future data acquisition planning.
- Identified datasets would need the support of CEOS to obtain the datasets and then store on a cloud-based server for dissemination & product development.




Way Forward

- Complete updates to the CEOS Acquisition Strategy for GEOGLAM and provide a final version for endorsement at the CEOS Plenary.

SIT 28-34 The ad hoc team on GEOGLAM to continue their efforts towards a better understanding of the resources required to support GEOGLAM requirements – and report to CEOS Plenary, including any proposed next steps	28 th CEOS Plenary
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- Identify another CEOS Agency co-lead for CEOS-GEOGLAM leadership
- CEOS will be expected to identify a candidate for the GEOGLAM Steering Committee (late 2014)
- Test new Data Services Prototypes and report progress and lessons learned at the CEOS Plenary.
- Track the progress of JECAM requests to CEOS Agencies
- Finalize and Common Data Sharing strategy for JECAM
- Report on the progress of new missions (Sentinel) and new programs (SIGMA) and the impact to GEOGLAM.


Brian reviewed the JECAM requests to CEOS Agencies, noting that they have received a significant number of datasets from CEOS Agencies and has made great progress toward understanding the use of satellite data for agriculture monitoring.

Brian noted that the updated CEOS Data Acquisition Strategy for GEOGLAM will be presented for endorsement at CEOS Plenary, and will be circulated ahead of the meeting.

Michel Deshayes (GEOGLAM Project Office) presented a brief update on overall GEOGLAM activities.

Crop Monitor for AMIS (2/2)

- From June 2014 : New presentation of results (2/2)
 - 4 synthetic pie-charts
 - sectors proportional to countries average share of world production
 - sectors with colors according to local crop conditions
 - symbols to explain reasons for bad conditions



- Upcoming 1 year Crop Monitor review
- Discussion on expanded partnership with AMIS
- Exploring possibility for Countries at Risk Crop Monitor

New activities & Funded Projects (2/3)

- RAPP – Rangeland and Pasture Productivity Monitoring**
 - Main / Important food source in large regions of the world
 - 48% world biomass consumed by grazing animals (Herrero, 2013)
 - Action under Australian leadership (CSIRO)
 - 2nd Workshop held in Paris, 23-24 July – Objectives: Develop community, identify pilot areas, identify key EO data sets, discuss interface global pasture monitoring system
 - 3rd workshop to be held in the next 6 months
- Countries at Risk Monitoring**
 - Ongoing projects : FEWS-NET, GIEWS, JRC-FS, CropWatch-FS
 - Initial prototyping by FEWSNET of Crop Monitor for Countries at Risk
 - 1st meeting: Frascati (Feb.), next meeting: Addis (Oct.)

A brief discussion followed:

- Barbara Ryan (GEOSEC) suggested that the COVE tool be made interoperable with the GCI. She also thanked the CEOS community for the recent letter on GEOGLAM governance.
- Stephen Briggs noted that there are significant Envisat archive datasets over rice grown areas which may be of interest, and that ESA had a rice project in South-East Asia from 2002-2006, which has been carried forward by the Swiss government.
- Stephen also suggested that the name of the *ad hoc* Working Group could be changed to clarify that the group is focused on data coordination, rather than managing GEOGLAM. It should be clear that this effort is lead by GEO, supported by CEOS. He suggested considering a name change for the group. Brian agreed that a name change should be considered, and the name *Space Data Coordination Group for GEOGLAM* was discussed, modelled after the SDCG for GFOI. Any name change for the group would be proposed and confirmed at Plenary.

SITWS-2014-15	Brian Killough to work with the CEOS ad hoc Working Group on GEOGLAM on some options for the renaming of the group	7 October
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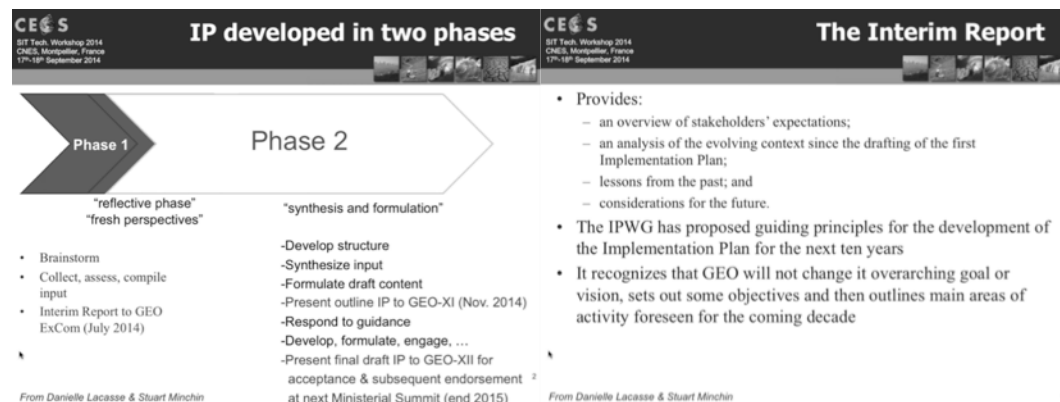
13 GEO Updates

IN-01 Task Leadership - Brian Killough (NASA) noted that he will continue to lead this Task on behalf of CEOS SIT Chair through the end of 2015. He noted that the Task consists of four sub-tasks, including the space component which is led by CEOS. Other sub-tasks include *in situ* coordination and radio frequency coordination.

Brian noted that GEO often categorizes the status of the task as ‘yellow’ (as opposed to the optimal ‘green’) because of the status of the *in situ* sub-task. Craig Donlon (ESA) noted that the EC often sees *in situ* as being associated with cost. He suggested that using the FRM (Fiducial Reference Measurements) concept may help to improve traceability, and agreed to share some further information with Brian.

SITWS-2014-16	Craig Donlon to share information on FRMs (Fiducial Reference Measurements) with Brian Killough, with reference to Brian’s role as Task Coordinator of the GEO Infrastructure-01 Earth Observing Systems (IN-01) task.	COMPLETE
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GEO Post-2015 IPWG - Espen Volden (GEOSEC) provided a brief update on the Implementation Plan Working Group (IPWG).



IP developed in two phases

Phase 1: "reflective phase" "fresh perspectives"

- Brainstorm
- Collect, assess, compile input
- Interim Report to GEO ExCom (July 2014)

Phase 2: "synthesis and formulation"

- Develop structure
- Synthesize input
- Formulate draft content
- Present outline IP to GEO-XI (Nov. 2014)
- Respond to guidance
- Develop, formulate, engage, ...
- Present final draft IP to GEO-XII for acceptance & subsequent endorsement² at next Ministerial Summit (end 2015)

From Danielle Lacasse & Stuart Minchin

The Interim Report

- Provides:
 - an overview of stakeholders’ expectations;
 - an analysis of the evolving context since the drafting of the first Implementation Plan;
 - lessons from the past; and
 - considerations for the future.
- The IPWG has proposed guiding principles for the development of the Implementation Plan for the next ten years
- It recognizes that GEO will not change its overarching goal or vision, sets out some objectives and then outlines main areas of activity foreseen for the coming decade

From Danielle Lacasse & Stuart Minchin

A brief discussion followed:

- Paul Counet (CEOS Chair) noted that a letter from Barbara Ryan was circulated to CEOS Secretariat, and that no formal mechanism for CEOS contributions to the IPWG was proposed. Therefore, CEOS should to decide how to respond.
- Brent Smith (NOAA) noted that Barbara plans to come to the CEOS Plenary, and that she recognises that CEOS is both leading and participating in a number of GEO Tasks.
- Barbara Ryan (GEOSEC) encouraged CEOS engagement with the GEO ExCom, and noted that the letter Paul mentioned addressed engagement with IPWG process. She noted an adjacent effort relating to the development of a communications and stakeholder engagement strategy for GEO. She also noted that commercial sector engagement will also be considered.
- Barbara noted that CEOS is one of the few GEO Participating Organisations that has aligned its Work Plan with GEO objectives, and so this puts CEOS in a unique position



to provide feedback on the GEO Work Plan. She encouraged CEOS representation at the Participating Organisation Town Hall planned for GEO Plenary. She believes that the recommendations coming out of the IPWG will be inclusive, rather than exclusive. She also noted that the question about whether GEO is primarily governmental will also be addressed.

Representation at GEO-XI Plenary - Paul Counet noted that CEOS representation at GEO-XI Plenary needs to be addressed as the CEOS Chair does not intend to be represented. Kerry noted that the CEOS delegation list is due by 26th September, and that she has asked for inputs by the 19th. Currently she has Pascale Ulte-Guerard, Marie-Josée Bourassa, Jonathon Ross, Brent Smith, and herself on the CEOS delegation while Steven Hosford, Stephen Briggs, Ivan Petiteville are on other delegation lists. She noted that online registration opens 14th October.

A brief discussion followed:

- Chu Ishida (JAXA) noted that he will be a part of the CEOS delegation.
- Kerry noted that CEOS will need to agree on the head of the delegation.
- Barbara noted that GEOSEC is taking advice from the WHO and UN medical services with respect to the ongoing Ebola outbreak in West Africa. As of today, there are no recommendations against travel to Gabon, and GEOSEC is in contact on a weekly basis about precautions. As of now, the schedule is holding for 13th-14th November, with exhibits and side meetings earlier in the week. Kerry asked if there was a threshold for number of participants for the meeting to go ahead, and Barbara noted that GEOSEC does not have a number they were working towards – this direction would have to come from the organisers in Gabon.
- Brent asked about the timing of the Town Hall meeting on the IPWG, and whether it would conflict with an all-day capacity building event being organised by the GEO Secretariat (including WGCapD) on the 12th. Espen Volden (GEOSEC) confirmed that the Town Hall would take place 11:00-13:00 on the 12th.

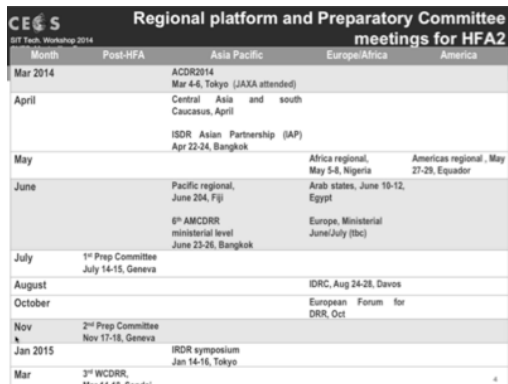
GEOSS Evaluation - Kerry presented, noting that the final (6th) Evaluation of GEOSS Implementation is going to assess the overall success of GEO for the first 10 years.

 <p>Summative Evaluation for GEOSS Implementation</p> <ul style="list-style-type: none"> • The Sixth (Summative) Evaluation is underway to assess the extent of GEO's success during its first 10 years of implementing GEOSS (2005-2015) • General objectives are to evaluate: <ul style="list-style-type: none"> - The extent Strategic Targets have been achieved - GEO's added value to individual members & participating organizations - Identifiable factors that have contributed to or hindered success • Scope: <ul style="list-style-type: none"> - All Societal Benefit Areas: Agriculture, Biodiversity, Ecosystems, Disasters, Energy, Health, Water, Weather, & Climate - All GEOSS Building Blocks: Architecture, Data management, Capacity building, Science & technology, & User engagement 	 <p>Participate in the Summative Evaluation</p> <ul style="list-style-type: none"> • How to contribute: <ul style="list-style-type: none"> - Complete the Evaluation's survey - Participate in an interview with a member of the Evaluation Team - Suggest potential interviewees - Submit or identify relevant documents - Provide any information relevant to GEOSS progress and added benefit to the earth observation community • <u>Planning to interview CEOS members at CEOS Plenary (October 28-30)</u> • Contact information: <ul style="list-style-type: none"> - Evaluation Team co-chairs - Lars Ingolf Eide (l-ingo-e@online.no) and Matthew Druckenmiller (mdruckenmiller@usaid.gov) - Evaluation Team's representative to CEOS - Yukio Haruyama (haruyama_yukio@restec.or.jp)
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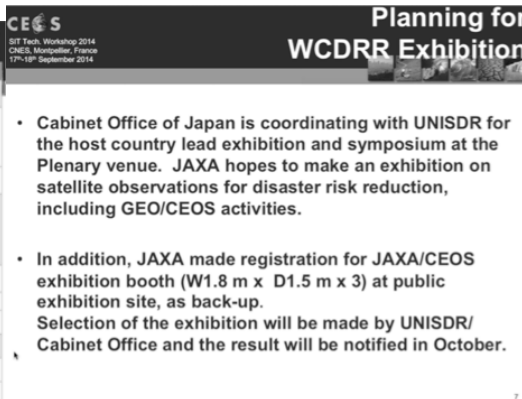
Yukio Haruyama (JAXA) noted that they would like to use CEOS Plenary as an opportunity for a side meeting with the evaluation team. He noted that the survey team is being led by NSC so this would be a good opportunity, and that he hoped the meeting would be scheduled by the end of September.

14 World Conference on Disaster Risk Reduction (WCDRR)

Chu Ishida (JAXA) presented a brief summary of CEOS preparations for the 2015 WCDRR.

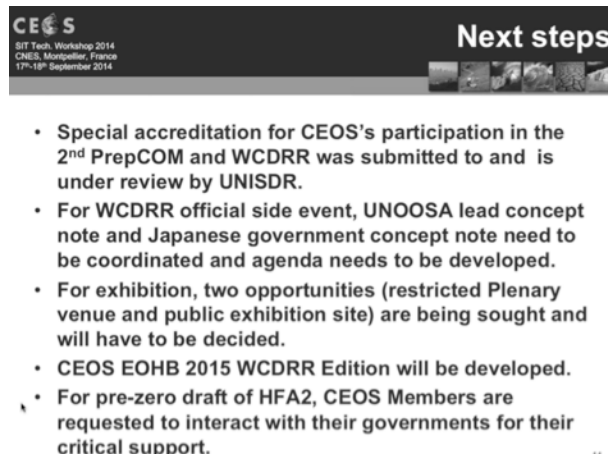


Month	Post-HFA	Asia Pacific	Europe/Africa	America
Mar 2014		ACDR2014 Mar 4-6, Tokyo (JAXA attended)		
April		Central Asia and south Caucasus, April		
		ISDR Asian Partnership (IAP) Apr 22-24, Bangkok		
May			Africa regional, May 24, Nigeria	Americas regional, May 27-29, Ecuador
June		Pacific regional, June 204, Fiji		Arab states, June 10-12, Egypt
		6 th AMCDRR ministerial level June 23-26, Bangkok		Europe, Ministerial June/July (Ibc)
July	1 st Prep Committee July 14-15, Geneva			
August			IDRC, Aug 24-26, Davos	
October			European Forum for DRR, Oct	
Nov	2 nd Prep Committee Nov 17-18, Geneva			
Jan 2015		IRDR symposium Jan 14-16, Tokyo		
Mar	3 rd WCDRR, Mar 14-18, Sendai			



- Cabinet Office of Japan is coordinating with UNISDR for the host country lead exhibition and symposium at the Plenary venue. JAXA hopes to make an exhibition on satellite observations for disaster risk reduction, including GEO/CEOS activities.
- In addition, JAXA made registration for JAXA/CEOS exhibition booth (W1.8 m x D1.5 m x 3) at public exhibition site, as back-up. Selection of the exhibition will be made by UNISDR/ Cabinet Office and the result will be notified in October.

He noted that regional coordination meetings are currently underway, and that these would be a good opportunity for CEOS agencies to have their programs reflected in the HYA-2 preparations, via their national delegations. He also noted that ESA is planning a publication for WCDRR, with a format along the lines of the EO Handbook. He briefly reviewed next steps.



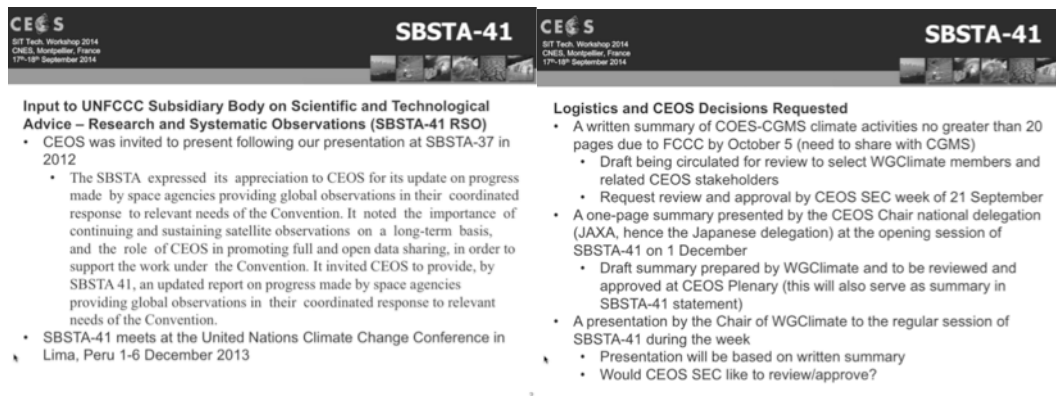
- Special accreditation for CEOS's participation in the 2nd PrepCOM and WCDRR was submitted to and is under review by UNISDR.
- For WCDRR official side event, UNOOSA lead concept note and Japanese government concept note need to be coordinated and agenda needs to be developed.
- For exhibition, two opportunities (restricted Plenary venue and public exhibition site) are being sought and will have to be decided.
- CEOS EOHB 2015 WCDRR Edition will be developed.
- For pre-zero draft of HFA2, CEOS Members are requested to interact with their governments for their critical support.

A brief discussion followed:

- Ivan Petiteville (ESA) noted that part of the objectives for WCDRR was to present space agency activities outside of CEOS, for example Sentinel Asia, and the Disasters Charter.
- Ivan thanked GEO secretariat members' great contribution to the WCDRR/HFA-2 preparation activities.
- Ivan also stressed Chu's point that support of governments is required, and that CEOS should communicate with their national WCDRR delegations. He noted that the HFA-2 document is currently being developed, and referred to SIT-29-20 calling for, "CEOS Agencies to interact with their relevant government participants in WCDRR ...".
- Barbara Ryan (GEOSEC) noted that if CEOS is not granted special observer status, CEOS can be a part of the GEO delegation because GEO has been granted observer status for Sendai.

COP-20, 1st-12th December, Lima, Peru - Paul Counet (CEOS Chair) noted that COP-20 will be discussed on the Plenary agenda. Chu Ishida (JAXA) noted that the issue of who will attend and read the CEOS statement at SBSTA needed to be addressed, but he did not think that JAXA as CEOS Chair would be present.

SBSTA-41 - Pascale Leconte (WGClimate) presented a brief summary of preparations for SBSTA-41.



A brief discussion followed:

- Kerry asked about the process for developing the statement, and about plans for a CEOS review in parallel with the CGMS review. John Bates (WGClimate) asked about the process for the last statement, and Kerry noted that there wasn't much feedback from CEOS leadership last time.
- John noted that two of the three items in the report have already been reviewed and approved by CEOS.
- Pascale Ultré-Guérard (SIT Chair) suggested a brief review comment cycle with CEOS SEC, and this was agreed. Pascal Lecomte suggested that the same process should take place within CGMS.
- John suggested removing the section on the delta update as a full update will be provided next year.

SITWS-2014-17	Kerry to circulate the updated draft written summary of CEOS-CGMS climate activities provided by John Bates to CEOS SEC for comment	Comment from SEC by 26 September
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COP-21, 2015 Paris - Pascale noted that CNES is planning to organise a presence during COP-21, likely a booth, and CEOS contributions would be welcome. She noted that a scientific symposium is being organised for 7th July 2015, that CNES will be on the program committee, and will organise a dedicated session on the role of satellites. She called for expressions of interest for participation in these activities.

15 CEOS Office Holder Updates

CEOS Executive Officer (CEO) and Deputy CEO (DCEO) - Paul Counet (CEOS Chair) presented a brief update on the status of CEO and DCEO office holders.



- The main features of the proposal are:
 - On 1 December 2014:
 - Mrs Marie-Josée Bourassa (CSA) will take over the position CEO
 - Mr Jonathon Ross (GA) will become DCEO for GA
 - Ms Kerry Ann Sawyer (NOAA) will act as "assistant to the CEO and DCEO" to ensure a smooth transition until the end of the SIT-30 Meeting in April 2015.
 - At CEOS Plenary 2015, when JAXA will finish its CEOS Chair term and CSIRO take over the CEOS chairmanship:
 - Mr Jonathon Ross (GA) will become CEO
 - Mrs Marie-Josée Bourassa (CSA) will become DCEO
 - This arrangement will last until CEOS Plenary 2016.
- For the post-Plenary 2016 timeframe, GA has indicated the possibility to continue to support the position of CEO until Plenary 2017, but this will have to be confirmed in due time.
 - Further discussions on the detailed transitions arrangements have been held during this workshop
 - The overall package will be presented to the 2014 Plenary next month

Pascale Ultré-Guérard (SIT Chair) thanked CEOS Chair EUMETSAT, NOAA, CSA and GA for their work to addressing this issue, and for ensuring continuity.

SIT Vice-Chair Pascale reported that there has been a proposal from ESA to take up the SIT Vice Chair position as of Plenary, and then assume the SIT Chair at the Plenary 2015. This will be proposed for formal acceptance at Plenary in Tromsø.

Stephen Briggs (ESA) confirmed ESA's offer.

16 28th Plenary Preparations

Paul Counet (CEOS Chair) reviewed the preparations for Plenary.



- A Tromsø statement will be developed:
 - Summarising CEOS's past contributions
 - Looking forward to CEOS's potential contributions to significant events in 2015, such as:
 - WCDRR
 - COP-21
 - GEO Ministerial
 - A first draft of the statement will be presented at the start of the Plenary and a final draft, for endorsement, will be presented at the end of the Plenary
- Plenary agenda is structured around 8 main topics:
 - Welcome and Opening
 - GEO Matters
 - WGs and VCs
 - Ad Hoc Initiatives
 - Coordination and Outreach
 - Organisational Issues
 - Agency Reporting
 - Future Vision and Handover

He also reviewed the meeting logistics and key dates.

CEOS
SIT Tech. Workshop 2014
CEOS, Montpellier, France
17th-18th September 2014

28th Plenary - Logistics and Key Dates

MEETING VENUE - Rica Ishavshotel, Tromsø, Norway
<http://ceosplenary2014.info/Participation.aspx#venue>

ACCOMMODATION - Rica Ishavshotel, Tromsø, Norway
<http://ceosplenary2014.info/Participation.aspx#accommodation>
Deadline to benefit from the block booking: **22 September 2014**
(Tromsø is a very popular conference town, hence the early deadline).

The deadline for registration is 7th October, and the website is <http://ceosplenary2014.info/Register.aspx>. Questions should be sent to ceosplenary2014@eumetsat.int.

Brent Smith (NOAA) asked about side events, and Paul confirmed they would be scheduled for Tuesday 28th by request. Christine Bognar (NASA) asked if there would be a Troika meeting, and Paul confirmed this was planned.

Paul noted that a Radio Occultation Working Group Meeting will be announced at Plenary.

SITWS-2014-18	Interested agencies to provide a requests for agency reports and side meetings to the CEOS Chair Team	SEC-193
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17 CEOS Information Management

Kim Holloway (SEO, NASA) reviewed the progress towards the new CEOS website, noting that it would be live for Plenary.

CEOS
SIT Tech. Workshop 2014
CEOS, Montpellier, France
17th-18th September 2014

CEOS Website – New

Over the next month:

- Implementing new architecture
- Finalizing aesthetics
- Moving content

Plenary = Showtime

CEOS
SIT Tech. Workshop 2014
CEOS, Montpellier, France
17th-18th September 2014

Document Management System

Ideal Capabilities:

- Part of the website
- Log-in for access
- File up/download
- Document search
- Version tracking
- Collaborative editing
- Document publication procedure compliance

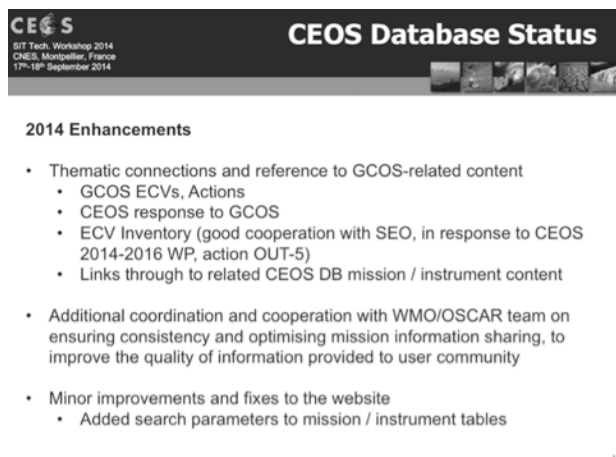
A brief discussion followed:

- Eric Wood (USGS) asked about flexibility within the Working Group pages for tool development, and Kim confirmed this would be possible.
- Andrew Mitchell (NASA) asked when best to apply updates to VC/WG pages, in light of the transition to the new site. Kim noted they are likely going to have to migrate the contents manually, and suggested updating as much content as possible on the site.

- There was a discussion regarding a CEOS social media strategy, and an action was agreed for Kim to coordinate the development of one.

SITWS-2014-19	Kim Holloway to coordinate the CEOS update website group in developing a social media strategy for CEOS	SIT-30
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CEOS Database - Ivan Petiteville (ESA) provided a brief summary of the outcomes of the 2014 CEOS Database (a.k.a. CEOS MIM) update survey.



18 Closing Remarks

Jane Olwoch (SANSa) suggested the possibility for CEOS to support emerging space agencies, in particular in the case of SANSa with expert review during the satellite design process. It was agreed there could be a potential role there, and an action was agreed to follow-up.

SITWS-2014-20	CEO and CEOS SIT Chair to work with Jane Olwoch on the possible scoping for CEOS support for emerging space agencies	CEOS-28
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Pascale Ultré-Guérard (SIT Chair) thanked all participants for their various contributions. She noted that the VC/WG day was very effective and that the feedback was quite positive.

She stressed the importance of people’s contributions to CEOS, and suggested we should think about ways to better recognise this importance.

Pascale reported that SIT-30 will be held in Paris Wednesday-Thursday 1st-2nd April 2015, with side meetings planned for Tuesday 30th March.

2014 SIT Technical Workshop Participants

Organisation	Participant	Organisation	Participant
ASI	Simona Zoffoli	Geoscience Australia	Adam Lewis (GTM)
ASI	Anna Rita Pisani	Geoscience Australia	Jonathon Ross
CNES	Pascale Ultré-Guérard	INPE	Hilcécia Ferreira (GTM)
CNES	Jean-Louis Fellous	IRD	Alexandra Wiefels
CNES	Steven Hosford	JAXA	Chu Ishida
CNES	Richard Moreno	JAXA	Fujimoto Nobuyoshi
CNES	Juliette Lambin	JAXA	Yukio Haruyama
CNES	Mireille Paulin	NASA	Christine Bognar
CNES	Danielle Barrere	NASA	Richard Eckman
CNES	Daniel Martinez	NASA	Stuart Frye
CNES	Cécile Vignolles	NASA	Shelley Stover
CNES	Patrice Henry	NASA	Steven Neeck
CNES	George Dyke	NASA	Yonsook Enloe
CSA	Marie-Josée Bourassa	NASA	Andrew Mitchell
CSA	Satish Srivastava	NASA/SEO	Brian Killough
DLR	Albrecht von Bargaen	NASA/SEO	Kim Holloway
ESA	Stephen Briggs	NOAA	Brent Smith
ESA	Pascal Lecomte	NOAA	Kenneth S. Casey
ESA	Craig Donlon	NOAA	John Bates (GTM)
ESA	Ivan Petiteville	NOAA/CEO	Kerry Sawyer
EUMETSAT	Paul Counet	SANSA	Jane Olwoch
EUMETSAT	Julia Figa Saldana	UMD	Alyssa Whitcraft
EUMETSAT	Robert Husband (GTM)	USGS	Tom Cecere
GCOS	Carolin Richter	USGS	Eric Wood
GEO Secretariat	Barbara Ryan (GTM)		
GEO Secretariat	Espen Volden		
GEO Secretariat	Michel Deshayes		

(GTM) indicates remote participation via GoToMeeting.

Theia Presentation: Pierre Maurel (GEOSUD), Jean-Philippe (TETIS), Jean-François Faure (IRD, UMR), Laurence (GEOSUD-Guyane), Laurent Durieux (IRD), Jean-Christophe Desconnets (IRD), Alexandre Wiefels (IRD).

CEOS SIT-29 Actions

V1.0 – 2014 SIT Workshop Status Updates in red

No.	Action	Due date
SIT 29-1	CEOS and SIT Chairs to write to GEO Co-Chairs to: a) provide the CEOS view on the future of GEO b) offer our service to GEO and to interact with the IPWG on the development of the IP, and c) to request Observer status at EXCOM	End May 2014 COMPLETE Letter sent, and response from GEO EXCOM being coordinated. SIT Workshop agenda item #15
SIT Workshop Status: – COMPLETE - Discussed under WS Agenda Item #15		
SIT 29-2	VCs to consider developing training activities in their field, following the example of the OSVW-VC, involving the corresponding science groups, in collaboration with WGCapD and possibly with external partners (e.g., COSPAR, GxOS, WCRP)	Initial ideas – SIT Chair tag up telecons (June 2014) COMPLETE Plans – SIT Technical Workshop (September 2014) In Progress Dedicated session at the VC/WG Day prior to the SIT Workshop SIT Workshop agenda items #5 and #6
SIT Workshop Status: – COMPLETE – Discussed WS Agenda Item #6 – Follow-up action SITWS-2014-02 opened		
SIT 29-3	OCR-VC to provide a detailed account of the implementation and coordination issues submitted to SIT-29 (with appropriate references) with a view to resolving them prior to SIT Technical Workshop	SIT Chair tag up telecons (June 2014) COMPLETE Discussed the coordination issues on the June telecon, with follow-up during the WG Day prior to the SIT Workshop SIT Workshop agenda items #5 and #6
SIT Workshop Status: – COMPLETE – Discussed under WS Agenda Item #6		
SIT 29-4	SIT Chair Team to work with volunteer CEOS Agencies to present a position paper at the SIT Technical Workshop on how to address CEOS contributions to Land Surface Imaging Agencies	SIT Technical Workshop (September 2014) COMPLETE Position paper drafted, to be discussed under Workshop agenda item #7
SIT Workshop Status: – COMPLETE – Discussed under WS Agenda Item #7 – Follow-up action SITWS-2014-05 opened		
SIT 29-5	SIT Chair to prepare a SIT Technical Workshop agenda item regarding the relationship between VCs & WGs and the respective	SIT Chair tag up telecons (June 2014)

	science groups, to be coordinated during the next series of SIT Chair tag-up telecons – and including gaps and bottlenecks which could be acted upon	SIT Technical Workshop (September 2014) Open Discussed during June tagups, but no VC/WG Day or SIT Workshop agenda item assigned
SIT Workshop Status: <ul style="list-style-type: none"> – COMPLETE – Discussed under WS Agenda Item #6 – To be followed-up as on going business on SIT Chair – VC tagups 		
SIT 29-6	VCs & WGs to ensure that their respective websites are updated with current information	SIT Technical Workshop (September 2014) COMPLETE Addressed on the June VC/WG telecons
SIT Workshop Status: <ul style="list-style-type: none"> – COMPLETE – Discussed under WS Agenda Item #6 – To be followed-up as on going business on SIT Chair – VC 		
SIT 29-7	VCs & WGs to review their membership and leadership with a view to encourage broader participation by CEOS Agencies	SIT Technical Workshop (September 2014) COMPLETE Addressed on the June VC/WG telecons
SIT Workshop Status: <ul style="list-style-type: none"> – COMPLETE – Discussed under WS Agenda Item #6 – To be followed-up as on going business on SIT Chair – VC 		
SIT 29-8	SIT and CEOS Chair to approach CEOS Agencies and potential new Members with a view to broaden participation in and leadership of CEOS activities	CEOS-29 In Progress
SIT Workshop Status: <ul style="list-style-type: none"> – COMPLETE – Discussed under WS Agenda Item #6 – To be followed-up as on going business on SIT Chair – VC 		
SIT 29-9	CEOS Agencies invited to nominate volunteers for the new CEOS website study group (end April); and SEO to implement the new CEOS website, including document management system	CEOS-28 COMPLETE CEOS SEO to provide an update under SIT Workshop agenda item #18
SIT Workshop Status: <ul style="list-style-type: none"> – COMPLETE - Discussed under WS Agenda Item #20 		
SIT 29-10	Core data stream providers (USGS, ESA, INPE/CRESDA, CSA, CONAE) to work with SDCG to implement the global baseline data acquisition strategy for GFOI in 2014	End 2014 In Progress A status update to be given under SIT Workshop agenda item #10
SIT Workshop Status: <ul style="list-style-type: none"> – In progress – discussed under WS Agenda Item #10 		
SIT 29-11	SDCG to work with the SEO, contributing Agencies, and FAO to	CEOS-28

	develop prototypes of the Space Data Services for GFOI and report on the outcomes of pilot projects with several countries	In Progress A status update to be given under SIT Workshop agenda item #10
SIT Workshop Status: – In progress – discussed under WS Agenda Item #10		
SIT 29-12	SDCG to define and develop the third Element of the CEOS Data Strategy for GFOI (acquisitions for R&D) for presentation and endorsement at SIT-30	SIT-30 In Progress A status update to be given under SIT Workshop agenda item #10
SIT Workshop Status: – In progress – discussed under WS Agenda Item #10		
SIT 29-13	WGISS and WGCapD to liaise with SEO and SilvaCarbon respectively to review the GFOI Space Data Services plans and to provide guidance, review and support of its progress	CEOS-28 WGISS – Open WGCapD – Reported activity during SEC-192 telecon Updates from WGs under SIT Workshop agenda item #8
SIT Workshop Status: – In progress – discussed under WS Agenda Item #8		
SIT 29-14	CEOS Chair to prepare Draft ToRs for the <i>ad hoc</i> Carbon Strategy Implementation Study Team for approval at CEOS SEC-189	CEOS SEC-189 COMPLETE SIT Workshop agenda item #13
SIT Workshop Status: – COMPLETE – discussed under WS Agenda Item #13 – Follow-up actions SITWS-2014-13, SITWS-2014-14 opened		
SIT 29-15	CEOS Principals to provide nominations for participation in the <i>ad hoc</i> Carbon Strategy Implementation Study Team	COB 18 th April COMPLETE SIT Workshop agenda item #13
SIT Workshop Status: – COMPLETE – discussed under WS Agenda Item #13		
SIT 29-16	CEOS <i>ad hoc</i> Working Group on GEOGLAM to work with the GEOGLAM community to develop an update to the CEOS Acquisition Strategy for GEOGLAM for endorsement	CEOS-28 In Progress The status of the updated Strategy to be given under SIT Workshop agenda item #14
SIT Workshop Status: – In progress – discussed under WS Agenda Item #14 – Related action SITWS-2014-15 opened (on group naming)		
SIT 29-17	WGDisasters to proceed with the three new supersites and relevant CEOS Agencies encouraged to support data supply	Ongoing In Progress A status update to be given under SIT Workshop agenda item #8
SIT Workshop Status:		

<ul style="list-style-type: none"> – COMPLETE – discussed under WS Agenda Item #8 – Data provided to supersites (19 images to date) 		
SIT 29-18	WGDisasters to implement the strategic data acquisition plan in support of the flood, seismic hazard, and volcano DRM pilot and Recovery Observatory requirements	<p>Ongoing In Progress</p> <p>A status update to be given under SIT Workshop agenda item #8</p>
<p>SIT Workshop Status:</p> <ul style="list-style-type: none"> – COMPLETE – discussed under WS Agenda Item #8 – Products delivered to the three pilots – data provision to continue through 2016 		
SIT 29-19	WCDRR Task Team to implement the CEOS plan for engagement in WCDRR. CEOS Agencies to comment on the two supporting documents (Strategic Messages and Voluntary Commitments)	<p>March 2015</p> <p>Comments on documents by end April 2014</p> <p>In Progress</p> <p>A status update to be given under SIT Workshop agenda item #16</p>
<p>SIT Workshop Status:</p> <ul style="list-style-type: none"> – In progress – discussed under WS Agenda Item #16 		
SIT 29-20	CEOS Agencies to interact with their relevant government participants in WCDRR to ensure representation of the CEOS key messages at the regional platforms and Preparatory Committee meetings	<p>Through to March 2015</p> <p>In Progress</p> <p>A status update to be given under SIT Workshop agenda item #16</p>
<p>SIT Workshop Status:</p> <ul style="list-style-type: none"> – In progress – discussed under WS Agenda Item #16 		
SIT 29-21	CEOS Chair and Incoming Chair, supported by WGClimate and other stakeholders, to prepare the CEOS representation and report for SBSTA-41 in late 2014. The report will be confirmed at CEOS Plenary	<p>CEOS-28</p> <p>To be discussed under SIT Workshop agenda item #8 and #17</p>
<p>SIT Workshop Status:</p> <ul style="list-style-type: none"> – In progress – discussed under WS Agenda Item #8 and #17 – Related action SITWS-2014-17 opened 		
SIT 29-22	SIT and CEOS Chairs to work with stakeholders to develop a strategy to prepare for COP-21 in late 2015 in Paris	<p>Report to CEOS-28</p> <p>To be discussed under SIT Workshop agenda item #17</p>
<p>SIT Workshop Status:</p> <ul style="list-style-type: none"> – In progress – discussed under WS Agenda Item #16 		

27th CEOS Plenary Action Items
v1.0 – 2014 SIT Workshop Status Updates in red

No.	Action	Actionee	Due Date
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No.	Action	Actionee	Due Date
27-1	Ensure addition of Vietnam's EO satellite programmes to the CEOS Database (aka the MIM).	ESA CEOS MIM team	January 2014 COMPLETE
27-2	Develop the 1 st version of the new 3-year CEOS Work Plan.	CEO	mid-March 2014 COMPLETE
27-3	Update the CEOS website to reflect the new terms of reference and governance decisions of CEOS Plenary.	SEO, in consultation with CEOS SEC	December 2013 COMPLETE
27-4	Prepare a process paper(s), with the support of a writing team, for: (a) CEOS Working Groups; and, (b) for guidance on proposals for new CEOS initiatives. (Interest expressed by Mark Dowell, Marie-Josée Bourssa, Ivan Petiteville, Brian Killough, and Steven Hosford.)	CEO, in consultation with CEOS SEC	SIT-29 COMPLETE The New Initiatives and Working Group papers were finalised in the follow-up from SIT-29
27-5	Develop and present a recommendation for a CEOS document configuration management system.	SEO, in consultation with CEOS SEC and CEO	SIT-29 In Progress To be discussed under SIT Workshop agenda item #20
27-6	Deliver to CEOS SEC: (a) the consistent set of TORs for the 7 CEOS VCs; and (b) the 2015 statement of deliverables for the GEOSS.	Outgoing NASA SIT Team	23 rd December 2013 COMPLETE
27-7	Inform CEOS Chair as to the decision on the Sentinels Data Policy by the European Parliament – noting the dependence of several key CEOS initiatives on a free and open data policy.	EC	December 2013 COMPLETE
27-8	Conclude and submit via SIT and CEOS Chairs the CEOS response to GEO re draft Ministerial Declaration and Draft Vision for GEO 2025 document.	Post-2015 GEO ad-hoc Team	COMPLETE (sent on 15 Dec 2013) COMPLETE as noted
27-9	Develop the full Recovery Observatory proposal for the approval.	WGDisasters	SIT-29 COMPLETE Proposal endorsed at SIT-29

No.	Action	Actionee	Due Date
27-10	Propose a way forward for the 2015 World Conference on Disaster Risk Reduction (WCDRR).	JAXA	SIT-29 COMPLETE Approach agreed at SIT-29. To be discussed under SIT Workshop agenda item #16
27-11	Prepare for approval the strategic data acquisition plan in response to the floods, seismic risk, and volcanoes pilots' EO requirements.	WGDisasters	SIT-29 COMPLETE Proposal endorsed at SIT-29. To be discussed under the WGDisasters report, SIT Workshop agenda item #8
27-12	Prepare the structure of the new CEOS Working Group on Disasters (WGDisasters), encompassing the current work on Supersites coordination, Disaster Risk Management (three pilots, acquisition strategy), the Recovery Observatory proposal, the Disasters SBA, and other CEOS disasters-related activities.	WGDisasters	SIT-29 COMPLETE WGDisasters to report under SIT Workshop agenda item #8
27-13	Conclude the CEOS Strategy for Carbon Observations from Space in time for its promotion (as a draft) at GEO Plenary.	Carbon Task Force	GEO-X COMPLETE CEOS Strategy for Carbon Observations from space endorsed at SIT-29, with follow-up actions defined and to be reported under SIT Workshop agenda item #13

No.	Action	Actionee	Due Date
27-14	Ensure a focused, comprehensive preparation of the discussion on implementation of the CEOS Carbon Strategy at SIT-29.	CEOS SEC	SIT-29 COMPLETE Implementation options to be discussed under SIT Workshop agenda item #13
27-15	To develop a list of implementation options for the CEOS Carbon Strategy, including a recommended option.	Carbon Task Force, in consultation with WGClimate, and other stakeholders	SIT-29 COMPLETE Implementation options to be discussed under SIT Workshop agenda item #13
27-16	Prepare: (a) the Global Baseline Strategy (Element 1) 2013 implementation results summary; (b) Global Baseline Strategy Implementation Plan for 2014; and, (c) the GFOI Space Data Services (Element 2) Strategy and Implementation Plan for endorsement by SIT-29.	<i>Ad hoc</i> SDCG for GFOI	SIT-29 COMPLETE GFOI/SDCG update to be provided under SIT Workshop agenda item #10
27-17	Coordinate implementation of the CEOS Acquisition Strategy for GEOGLAM Phase 1, provide a progress report on implementation, and recommended a way forward.	<i>Ad hoc</i> Working Group on GEOGLAM	SIT-29 In Progress Implementation options to be discussed under SIT Workshop agenda item #13
27-18	Make a recommendation on the optimal process within CEOS for approval of new Supersites.	WGDisasters	SIT-29 COMPLETE New Supersites selection process
27-19	Confirm to CGMS the establishment of the CEOS-CGMS Joint Working Group on Climate and the adoption of the proposed Terms of Reference to CGMS.	CEOS Chair	December 2013 COMPLETE
27-20	Review automated IDN dataset reports and follow-up to address any issues identified.	CEOS Agencies	COMPLETE

No.	Action	Actionee	Due Date
27-21	Develop and recommend detailed plans for the way forward on the SST Comparison Campaign and SST Operational Validation Project.	WGCV	mid-March 2014 In Progress
27-22	Provide feedback to WGCapD on its promotional video (http://www.ceos.org/images/WGCapD_Video_2.pptx).	CEOS Agencies	January 2014 COMPLETE
27-23	Produce a glossy print version of the Montreal Statement for distribution by CEOS at GEO Plenary and Ministerial and in connection with other outreach opportunities.	SEO	December 2013 COMPLETE