

## 12<sup>th</sup> Meeting of the CEOS Virtual Constellation for Land Surface Imaging (LSI-VC)

8-9 September 2022

ESA/ESRIN, Frascati, Italy

For the first time since late 2019, the LSI-VC will once again meet in person at ESA/ESRIN in Frascati, Italy. A lot has changed in the past few years, with great progress made on CEOS Analysis-Ready Data in particular. LSI-VC-12 will serve as an opportunity to assess progress on all areas of work and chart the next steps for a variety of topics. Specific objectives of the meeting are detailed below.

### Objectives

1. Reaffirm the high-level vision and objectives of the LSI-VC.
2. Consider endorsement of the following new CEOS-ARD for Land (CARD4L) Product Family Specifications (PFS):
  - a. Nighttime Lights Surface Radiance
  - b. Ocean Radar Backscatter
3. Confirm the PFS update process, drivers, requirements, cadence, versioning, and linkage to the template PFS work of the CEOS-ARD Oversight Group.
4. Discuss establishment of a broader team for CEOS-ARD assessments, for the purpose of redundancy. If endorsed, consider potential candidates and action a follow up with WGCV.
5. Discuss the need for, and specifics of, a CEOS Interoperability Framework. Refer to the [discussion paper](#) for details. Issue a recommendation from the LSI-VC perspective to CEOS leads, as input for the discussion at the 2022 SIT Technical Workshop.
6. Consider the latest on the CEOS Agriculture, Forestry and Other Land Use (AFOLU) Roadmap and LSI-VC's eventual response. Decide on mechanisms that need to be in place to effectively respond to these forthcoming requirements.
  - a. Discuss and agree any inputs that should be raised during the AFOLU Roadmap meeting on September 12.
7. Hear an update on GEOGLAM and the Essential Agricultural Variables (EAVs) and discuss how LSI-VC and CEOS Agencies can provide support. Formulate respective action items.
8. Discuss CEOS engagement with standards organisations. Refer to the [discussion paper](#) for details. Review and agree SIT Technical Workshop side meeting objectives as well as LSI-VC inputs to that discussion.
9. Hear updates on LSI-VC agencies' missions and datasets related to land surface imaging and analysis-ready data.
10. Review the [proposal for CEOS-ARD impact report/website](#) and brainstorm case studies and inputs. Identify contributors and set a deadline for initial outputs.
11. Discuss upcoming meetings of relevance and confirm CEOS representation and strategy for each.

## Meeting Papers

- [4.1: Demonstrating the Value of CEOS-ARD – Case Study Compendium](#)
- [7.1: CEOS Interoperability Framework Discussion Paper](#)
- [10.1: SIT TW 2022 Side Meeting on CEOS Engagement with Standards Organisations](#)

## Agenda

Thursday September 8

Session 1: Welcome and Introductions		
09:00	Welcome and Introductions <ul style="list-style-type: none"> <li>• Review of meeting objectives</li> <li>• Roundtable of introductions</li> </ul>	LSI-VC Leads
09:15	Action Review	M. Steventon
Session 2: CEOS-ARD for Land (CARD4L)		
09:30	New PFS: Nighttime Lights Surface Radiance <ul style="list-style-type: none"> <li>• Overview</li> <li>• NASA Black Marble dataset and assessment</li> <li>• <u>Decision</u>: endorsement of the new PFS</li> </ul>	B. Killough
09:50	New PFS: Ocean Radar Backscatter <ul style="list-style-type: none"> <li>• Overview</li> <li>• Motivation and applications</li> <li>• <u>Decision</u>: endorsement of the new PFS</li> </ul>	C. Albinet
10:10	CARD4L Assessments <ul style="list-style-type: none"> <li>• Overview of progress and outlook</li> <li>• <u>Discussion</u>: Increasing redundancy and speed for assessments</li> <li>• <u>Decision</u>: potential candidates and action a follow up with WGCV</li> </ul>	M. Thankappan
10:30	PFS update process <ul style="list-style-type: none"> <li>• Drivers, requirements (terminology, consistency across PFS), cadence, versioning, and linkage to the template PFS work of the CEOS-ARD Oversight Group.</li> <li>• <u>Decision</u>: confirm PFS update criteria and process.</li> </ul>	A. Siqueira
<b>10:50 – Break (20 mins)</b>		

Session 3: Agency Updates on Land Surface Imaging and Analysis-Ready Data		
11:10	JAXA	T. Tadono
11:25	AEM	A. Guzman
11:40	USGS	S. Labahn
11:55	ESA	F. Gascon
12:10	EC	P. Strobl
12:25	GA	A. Siqueira
12:40	NASA	M. Carroll
12:55	NOAA	K. Gallo
13:10	<i>Buffer time</i>	
<b>13:20 – Lunch (40 mins)</b>		
14:10	ISRO	Haripriya S.
14:25	GISTDA	S. Moukomla
Session 4: CEOS-ARD Impact Report / Website		
14:40	Proposal: Demonstrating the Value of CEOS-ARD – Case Study Compendium <ul style="list-style-type: none"> <li>● <a href="#">Discussion paper</a></li> <li>● Mockup demonstration</li> </ul>	M. Steventon
14:55	<u>Discussion:</u> Brainstorm case studies and inputs for a CEOS-ARD impact report / website. Identify contributors and set a deadline for initial outputs.	All
Session 5: Commercial (New Space) Engagement Strategy		
15:10	<u>Discussion:</u> Commercial (New Space) Engagement Strategy	S. Labahn / T. Stryker / A. Siqueira
<b>15:40 – Break (20 mins)</b>		
16:00	<ul style="list-style-type: none"> <li>● Additional discussion time</li> <li>● Day 1 wrap-up</li> <li>● Review of actions</li> </ul>	All

17:00 – Adjourn

## Friday September 9

Session 6: LSI-VC Vision and Objectives		
09:00	Review Existing LSI-VC Direction, Tasks, Achievements <ul style="list-style-type: none"> <li>• Terms of Reference</li> <li>• CEOS Work Plan</li> <li>• CEOS-ARD Strategy v2.0</li> </ul>	LSI-VC Leads & Sec
09:15	Forward LSI-VC Vision and Objectives <ul style="list-style-type: none"> <li>• <u>Discussion and decision</u>: Overall vision</li> <li>• <u>Discussion and decision</u>: High-level objectives</li> <li>• <u>Discussion and decision</u>: LSI-VC main threads of work</li> <li>• <u>Decision</u>: Actions to update LSI-VC Terms of Reference and CEOS Work Plan tasks?</li> </ul>	LSI-VC Leads & Sec
10:20 – Break (20 mins)		
Session 7: Interoperability Work Thread: CEOS Interoperability Framework		
10:40	Introduction: Proposed CEOS Land Surface Imaging Interoperability Framework <ul style="list-style-type: none"> <li>• <a href="#">Discussion Paper</a></li> </ul>	P. Strobl
10:55	Discussion <ul style="list-style-type: none"> <li>• <a href="#">Questions from the discussion paper</a></li> <li>• <u>Decision</u>: Issue a recommendation from the LSI-VC perspective to CEOS leads, as input for the discussion at SIT Technical Workshop.</li> </ul>	All
Session 8: Requirements Work Thread: Forests, Biomass, AFOLU Roadmap		
12:00	Forests & Biomass Subgroup Updates	F.M. Seifert
12:15	AFOLU Roadmap Update	O. Ochiai or S. Ward
12:30	Discussion <ul style="list-style-type: none"> <li>• Future LSI-VC response to the AFOLU Roadmap</li> <li>• Discuss LSI-VC mechanisms that need to be in place to effectively respond to these forthcoming requirements</li> </ul>	All

	<ul style="list-style-type: none"> <li>● <u>Decision</u>: agree any inputs that should be raised during the AFOLU Roadmap meeting on September 12</li> <li>● GFOI Data Component: Terms of Reference and leadership</li> </ul>	
<b>13:20 – Lunch (40 mins)</b>		
<b>Session 9: Requirements Work Thread: GEOGLAM and EAVs</b>		
<b>14:10</b>	GEOGLAM Subgroup Updates <ul style="list-style-type: none"> <li>● Capacity development</li> <li>● In situ</li> <li>● Product validation workshop</li> <li>● New operational activities</li> </ul>	A. Whitcraft
<b>14:15</b>	Essential Agricultural Variables (EAVs)	A. Whitcraft
<b>14:25</b>	Discussion <ul style="list-style-type: none"> <li>● CEOS and LSI-VC response to the EAVs and any other GEOGLAM observation requirements</li> <li>● Formulate respective action items</li> </ul>	All
<b>15:00 – Break (10 mins)</b>		
<b>Session 10: CEOS Engagement with Standards Organisations</b>		
<b>15:10</b>	Discussion on CEOS Engagement with Standards Organisations <ul style="list-style-type: none"> <li>● <a href="#">Discussion paper</a></li> <li>● <u>Decision</u>: Review and agree SIT Technical Workshop side meeting objectives as well as LSI-VC inputs to that discussion</li> </ul>	All
<b>Session 11: Closing</b>		
<b>16:00</b>	Upcoming meetings of relevance <ul style="list-style-type: none"> <li>● <u>Decision</u>: confirm CEOS representation and objectives</li> </ul>	All
<b>16:15</b>	Review of Actions	LSI-VC Sec
<b>16:30</b>	Wrap-up, Meeting Adjournment	LSI-VC Leads
<b>17:00 – Adjourn</b>		