



40th CEOS Strategic Implementation Team Meeting (SIT-40)

Objectives & Agenda

8 – 10 April 2025 | Chaired and Hosted by JAXA

Daimyo Conference, Fukuoka Daimyo Garden City Tower, Fourth Floor

2-6-50 Daimyo, Chuo-ku, Fukuoka, 810-0041, Japan

**** ATTENDANCE AS PART OF OFFICIAL CEOS AGENCY DELEGATION ONLY ****

CEOS Strategic Implementation Team (SIT) meetings focus on strategic guidance with regard to governance, stakeholders, and the accomplishment of deliverables and societal benefit contributions of the VCs and WGs. Specific objectives for SIT-40 include:

1. EO Data Impact

- a. CEOS Principal discussion and potential endorsement of the **Global Stocktake Lessons Learned** paper coordinated by the CEOS Working Group on Climate (WGClimate).
- b. Discuss the GST Lessons Learned recommendation regarding greater emphasis and coordination of CEOS country engagement activities for use of EO datasets in support of national inventories and reporting, including feedback from the WGClimate-22 meeting with national inventory compilers.
- c. Consider an approach to **revise the CEOS Global Stocktake Strategy** and reach consensus on the fundamental substance of the revision.
- d. Provide CEOS Principal guidance to OCR-VC on the **Aquatic Carbon Roadmap** and clarify the timeline for completion of this third pillar of the CEOS Carbon Roadmaps activity (with the GHG and AFOLU Roadmaps). Address team needs for the Roadmap completion.
- e. Discuss the **CEOS AFOLU Roadmap actions** and the practicalities of their implementation and stewardship, including resourcing and composition of the LSI-VC Forests and Biomass Subgroup.
- f. Discuss the opportunities for increased CEOS engagement with the Intergovernmental Panel on Climate Change (IPCC) Technical Support Unit (TSU) for Task Force on National Greenhouse Gas Inventories (TFI) and representation of satellite Earth observation data and products in their Emissions Factor Database (EFDB).

2. Greenhouse Gas Observation Coordination

- a. Discuss the draft document, Best Practices for Remote Sensing-based Estimates of Facility-scale Emissions (methane best practices). Clarify the audience and context, and debate approaches to uptake by end users, including through an update to the Global Methane Pledge, as is being proposed by the UKSA CEOS Chair. Consider actions needed to deploy the best practices and prepare for UNFCCC COP 30.
- b. Consider the opportunities for **CEOS and International Methane Emissions Observatory (IMEO)** cooperation in the year ahead, as compiled by the GHG Task Team, the SIT Chair and CEOS Chair. Discuss CEOS agency perspectives and contributions.
- c. Report on the implementation status of the **CEOS Greenhouse Gas (GHG) Roadmap** and discuss nearterm activities.
- d. Discuss the status of the WMO Global Greenhouse Gas Watch (G3W) and CEOS engagement.

3. Working Group Topics

- a. Discuss the proposal from WGDisasters for a workshop between Early Warnings for All (EW4All) partners and CEOS.
- b. Review the draft **Interoperability Handbook developed by WGISS.** Discuss the draft recommendations across the five factors of the Handbook: Architecture, Interface, Vocabulary, Quality, and Policy.





c. Discuss and consider potential endorsement of the Space Agency Response to the 2022 Global Climate Observing System (GCOS) Implementation Plan.

4. Virtual Constellation Topics

- a. Consider the recommendation from COAST-VC and SST-VC regarding priority coastal areas (5-6 regional masks) for **extended observation coverage for new ultra-high-resolution thermal infrared instruments to capture additional sea surface temperature data up to 100 km from coastlines.**
- b. Review the UN Ocean Decade progress by COAST-VC.
- c. Discuss the approach to a **CEOS response to the Essential Agriculture Variables (EAVs)**. Report on progress of the effort to bolster CEOS Agency participation in the GEOGLAM Subgroup of the Land Surface Imaging Virtual Constellation (LSI-VC), and identify CEOS agency agriculture activities and experts. Update CEOS on plans for the May 2025 EAV Workshop.
- 5. Review initial progress of the CEOS Biodiversity Study Team.
- 6. Conclude **Step-C of the External Request Process analysis of the UNCCD approach to CEOS**, specifically reviewing inputs from the SDG Coordination Group, LSI-VC, and Biodiversity Study Team.
- 7. Discuss the outcomes and recommendations of the Third International Workshop for Coordination of International Spaceborne SAR Missions.
- 8. Review outcomes from the **CEOS In Schools** virtual workshops and discuss options for long-term sustainment of this initiative in CEOS.
- 9. Solicit CEOS feedback on the WIGOS 2050 Vision development.
- 10. Overview of the Space4Ocean Alliance SIT-40 side meeting convened by CNES.





Week at a Glance

SIT-40 will take place over two days, April 9-10, and will be preceded by a side meeting day on April 8. A 'Week at a Glance' overview can be found below.

Tuesday, April 8	Wednesday, April 9	Thursday, April 10
 Side Meetings: CEOS Secretariat (SEC-334) (closed meeting) Greenhouse Gas Monitoring Activities CEOS Chair and SIT Chair Perspectives on the UNFCCC COP Delegation Experience Space4Ocean Alliance 	Welcome and Core Business Greenhouse Gas Observation Coordination Working Group Topics EO Data Impact	Working Group Topics (cont.) EO Data Impact – Country Engagement Virtual Constellation Topics Other Business Closing Session
	Social event (18:00-21:00)	

Documents

- 1.4: DRAFT CEOS 2025-2027 Work Plan [DOC] [PDF]
- 2.2: <u>DRAFT Common Practice for Quantifying, Reporting, Validating, and Assessing Facility</u> <u>Scale Methane Emissions using Remote Sensing</u>
- 2.4: Letter of support for G3W
- 3.2: DRAFT CEOS Interoperability Handbook V2.0 (GitHub | PDF)
- 3.3: <u>Space Agency Response to the 2022 Global Climate Observing System (GCOS)</u> <u>Implementation Plan</u> For Endorsement
- 4.3: UNFCCC Global Stocktake Lessons Learned Study For Endorsement
- 6.4: <u>CEOS Agriculture, Forestry and Other Land Use (AFOLU) Roadmap Actions</u>
- 7.1: <u>Revised Coastal Coverage Community Request</u>
- 8.1: <u>Recommendations from the Third International Workshop for Coordination of</u> <u>International Spaceborne SAR Missions</u>
- 8.2: <u>Sustainable Development paper</u>
- 8.4: <u>CEOS Communications Report March 2024 February 2025</u>
- 8.6: <u>Space4Ocean Alliance brief</u>





Side Meetings: Tuesday, April 8

Please refer to the map below for meeting room locations. Coffee and refreshments will be served in the 'Cross Lounge'. Lunch will be provided at a restaurant in the NISHITETSU Grand Hotel.

Time	Side Meeting Room #1	Side Meeting Room #2
09:30-10:00	CEOS SEC-334	
10:00-10:30	(closed meeting; 09:30-10:30)	
10:30-11:00	Carbon Roadmaps Coordination (10:30-11:00)	
11:00-11:30		
11:30-12:00	Greenhouse Gas Monitoring Activities (11:00-12:30)	
12:00-12:30		
12:30-13:00	Lur	nch
13:00-13:30	(12:30-	-13:30)
13:30-14:00		ROOM BOOKED
14:00-14:30	Greenhouse Gas Monitoring Activities	(13:30-14:30) POC: Matt Steventon
14:30-15:00	(13:30-15:30)	ROOM BOOKED
15:00-15:30		<i>(14:30-15:30)</i> POC: Yuko Nakamura
15:30-16:00		
16:00-16:30	CEOS Chair and SIT Chair Perspectives on the UNFCCC COP Delegation Experience (15:30-17:00)	Space4Ocean Alliance (15:30-17:00)
16:30-17:00		





AGENDA

CEOS SIT-40 Meeting

Day 1: Wednesday, April 9

Welc	al / Teleconference Open ome coffee for in-person participants will be hosted between the SIT-40 Room .ink Room 2/3 and the meeting teleconference connection will be open for ng.	08:30	30 min
	on 1: Welcome and Core Business (09:00 – 09:50) erator: Hironori Maejima (JAXA, SIT Chair)		
1.1	 Welcome and Opening Remarks [for information] <i>Hironori Maejima (JAXA, SIT Chair)</i> [presentation] Reminder of SIT Chair Themes Tour de table introductions (by CEOS Agency Principals for their delegations) 	09:00	15 min
1.2	EarthCARE Mission Update [for information] <i>Takuji Kubota (JAXA)</i> [presentation]	09:15	15 min
1.3	 SIT-40 Objectives and Action Review [for information] Osamu Ochiai and Matt Steventon (JAXA, SIT Chair Team) [presentation] Review of agenda sessions and headline objectives Review of select actions from the 2024 CEOS Plenary, 2024 SIT Technical Workshop, and SIT-39 meetings 	09:30	15 min
1.4	CEOS 2025-2027 Work Plan [DOC][PDF] [for information] Steven Ramage (CEOS Executive Officer) [presentation]	09:45	15 min
1.5	 UKSA CEOS Chair Themes Update [for discussion] Beth Greenaway (UKSA, CEOS Chair Team) [presentation] Report from the February and March CEOS In Schools workshops Plans for the first "CEOS Youth Event" alongside the 2025 CEOS Plenary Continuity of the CEOS In Schools programme 	10:00	15 min





	Session 2: Coordination on Greenhouse Gas Observation Moderator: Hiroshi Suto (JAXA)			
2.1	 CEOS Greenhouse Gas Roadmap Actions and Progress [for information] Yasjka Meijer (ESA, CEOS Greenhouse Gas Task Team Lead) [presentation] Update on Greenhouse Gas Roadmap actions Observation campaigns database proposal Impact of the UNFCCC Global Stocktake Lessons Learned on the Greenhouse Gas Task Team 	10:15	20 min	
2.2	 Best Practices for Remote Sensing-based Estimates of Facility-scale Methane Emissions Paul Green (NPL) [presentation] CEOS_CommunityPractices_FacilityScaleEmissions v0.2 Status and latest timeline [for information] User engagement and uptake (including via the Global Methane Pledge) [for discussion] 	10:35	20 min	
Grou	p Photo + Break	10:55	25 min	
2.3	 CEOS Engagement with the International Methane Emissions Observatory (IMEO) [for discussion] Stephen Ward (SIT Chair Team) and Yasjka Meijer (ESA, CEOS Greenhouse Gas Task Team Lead) [presentation] Use Case Working Group reboot Roadmap Working Group to work alongside and set priorities on tackling the identified use cases Second IMEO-CEOS meeting (Northern Hemisphere fall 2025) as follow-on of the 2023 Harvard Workshop. 	11:20	15 min	
2.4	 CEOS Engagement with the WMO Global Greenhouse Gas Watch (G3W) [for information] Vincent-Henri Peuch (ECMWF, WGClimate Vice Chair) and Natalia Donaho (WMO) [presentation] G3W Data Task Team update Draft letter of support Matters of relevance to CEOS 	11:35	15 min	





	Additional discussion / buffer time	11:50	10 min
	on 3: Working Group Topics erator: Yuko Nakamura (JAXA, SIT Chair Team)		
3.1	 Biodiversity Study Team Progress [for discussion] Gary Geller (JPL, Biodiversity Study Team Co-Lead) [presentation] Initial stakeholder assessment Plan leading up to CEOS Plenary 2025 	12:00	20 min
3.2	 WGISS Interoperability Handbook Issue 2 [for discussion] <i>Tom Sohre (USGS, WGISS Chair) and Nitant Dube (ISRO, WGISS Vice Chair)</i> [presentation] Review and discuss the draft recommendations across the five factors of the Handbook: <i>Architecture, Interface, Vocabulary, Quality, Policy.</i> <u>GitHub Repository</u> <u>PDF</u> Plan for community review Discussion 	12:20	20 min
3.3	 WGClimate Report Wenying Su (NASA, WGClimate Chair) [presentation] Space Agency Response to the 2022 Global Climate Observing System (GCOS) Implementation Plan [Document] [for endorsement] Climate Data Record (CDR) inventory and plans to expand the utility of the Essential Climate Variable (ECV) inventory 	12:40	20 min
	Additional discussion / buffer time	13:00	10 min
Luncl	h	13:10	60 min
	on 4: EO Data Impact erator: Osamu Ochiai (JAXA, SIT Chair Team)		
4.1	Session Overview [for information] Osamu Ochiai (JAXA, SIT Chair Team) [<u>presentation</u>]	14:10	10 min
4.2	CEOS Engagement with the Intergovernmental Panel on Climate Change (IPCC) [for discussion] Rob Sturgiss (IPCC TSU) PPT, Joana Melo (JRC)	14:20	20 min





	 [presentation] [presentation] Increased engagement with the IPCC Task Force on National Greenhouse Gas Inventories (TFI) Systematic representation of satellite Earth observation data and products in the IPCC TFI Emissions Factor Database (EFDB) Reconciliation/translation of EO datasets into country definitions using IPCC guidance - how to improve Agriculture, Forestry and Other Land Use (AFOLU) consistency for IPCC Assessment Report 7 Regional satellite data experts proposal from WGClimate-22 		
4.3	Lessons Learned and Recommendations from Space Agencies' Support for the First Global Stocktake [Document] [for endorsement] WGClimate [presentation] • UNFCCC Global Stocktake Lessons Learned Study • WGClimate study and other perspectives • SIT Chair's proposed prioritisation of recommendations/actions	14:40	20 min
4.4	 Updating the <u>CEOS Global Stocktake Strategy (2021)</u> [for discussion] Osamu Ochiai (JAXA, SIT Chair Team) [presentation] Timeline for potential endorsement at the 2025 CEOS Plenary Call for participation in the drafting team 	15:00	10 min
4.5	 UNFCCC / COP / EID engagement Mark Dowell (European Commission) and Vincent-Henri Peuch (ECMWF) [presentation] UNFCCC COP Tiger Team under WGClimate Coordinated Research and Systematic Observations (RSO) prep for COPs UNFCCC SEC secondment/engagement uptick COP-30 specifics 	15:10	20 min
Brea	k	15:30	20 min
4.6	 CEOS Aquatic Carbon Roadmap [for information] Marie-Helene Rio (ESA, OCR-VC Co-Lead; presenting remotely from Europe) [presentation] Status of draft document Timeline and schedule for completion 	15:50	15 min





4.7	 Coordination among the CEOS AFOLU, GHG, and Aquatic Carbon Roadmaps [for discussion] Osamu Ochiai (JAXA, SIT Chair Team) [presentation] Coordination to date, forward plan, and recommendations from CEOS Principals. 	16:05	15 min
4.8	Unlocking EO for Public Service – SIT TW Side Event Overview [for information] Beth Greenaway (UKSA, CEOS Chair Team) [presentation]	16:20	10 min
Session 5: Working Group Topics (cont.) Moderator: Mariko Harada (JAXA, SIT Chair Team)			
5.1	 Match-up Database (WGCV) [for discussion] <i>Nigel Fox (NPL, WGCV IVOS Subgroup Chair)</i> [presentation] Relation to New Space Task Team recommendations and CEOS commercial sector engagement. Overview of concept and practicalities to date, including data hosting arrangement, access, etc. Proposal for CEOS Agency contributions to the database and application to commercial data assessment and quality assurance. 	16:30	15 min
	Additional discussion / buffer time	16:45	15 min
Adjo	urnment of Day 1	17:00	





Day 2: Thursday, April 10

Welc Roon	al / Teleconference Open ome coffee for in-person participants will be hosted between the SIT-40 and Link Room 2/3 and the meeting teleconference connection will be open sting.	08:30	30 min
	on 5: Working Group Topics (cont.) erator: Mariko Harada (JAXA, SIT Chair Team)		
5.2	 CEOS Support for the UN's Early Warnings for All (EW4All) Initiative [for discussion] Laura Frulla (CONAE, WGDisasters Chair) [presentation] Update on the WGDisasters EW4All subgroup Consultation with EW4All pillar leads (UNDRR, WMO, ITU, IFRC) Proposal for a joint workshop between CEOS and pillar leads 	09:00	15 min
5.3	WMO Activities and Perspectives on the UN's Early Warnings for All (EW4All) Initiative [for information] Natalia Donoho (WMO) [presentation]	09:15	15 min
	on 6: EO Data Impact – Country Engagement erator: Stephen Ward (JAXA SIT Chair Team)		
6.0	SIT Chair Team session intro [<u>presentation</u>]	09:30	10 min
6.1	Report on the WGClimate-22 National Emission Estimates Trial Session [for discussion] <i>Wenying Su (NASA, WGClimate Chair)</i> [presentation] [presentation] • Review feedback from national inventory compilers	09:40	15 min
	 Discuss opportunities and challenges for the use of space-based observations to inform carbon fluxes 		





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	 Improved coordination and CEOS corporate memory through a 'Methods and Guidance Documentation' style approach 		
6.3	Cambodia National Case Study [for information] <i>Takeo Tadono (JAXA)</i> [<u>presentation</u>]	10:15	15 min
6.4	CEOS Agriculture, Forestry and Other Land Use (AFOLU) Roadmap Actions [for information] <u>Roadmap actions</u> Ben Poulter (CEOS AFOLU Roadmap Co-Lead; presenting remotely from USA) [presentation]	10:30	20 min
	Additional discussion / buffer time	10:50	10 min
Breal	۲ ۲	11:00	20 min
	on 7: Virtual Constellation Topics erator: Yuko Nakamura (JAXA, SIT Chair Team)		
7.1	 Priority Coastal Areas for Thermal Infrared Measurements [for discussion] <i>Misako Kachi (SST-VC Co-Lead)</i> [presentation] [document] Recommendation from COAST-VC and SST-VC regarding extended observation coverage from new ultra-high-resolution thermal infrared instruments 	11:20	15 min
7.2	UN Decade of Ocean Science for Sustainable Development (2021-2030) Steven Ramage (CEOS Executive Officer) on behalf of the COAST-VC Co- Leads [presentation]	11:35	15 min
7.3	 JAXA Space Applications for Environment CH4Rice Project (rice paddy field methane) [for information] Shin-ichi Sobue (JAXA) [presentation] CH4Rice project background in the Asia-Pacific Regional Space Agency Forum (APRSAF) and Asia-Oceania GEO (AOGEO) TG5 Current activities in cooperation with the private sector, especially around satellite data usage in standard guidelines for carbon trading (voluntary credits, Joint Crediting Mechanism (JCM)) and the IPCC / 	11:50	10 min





	 Publications and research activity Essential Agriculture Variable (EAV) proposal to GEOGLAM 		
7.4	 CEOS Response to the Essential Agriculture Variables (EAVs) [for discussion] <i>Alyssa Whitcraft (LSI-VC GEOGLAM Subgroup)</i> [presentation] <u>DRAFT for CEOS SIT-40: Terms of Reference for CEOS LSI-VC Subgroup on</u> <u>GEOGLAM</u> Agency participation in the GEOGLAM Subgroup of LSI-VC Identifying relevant CEOS agency agriculture activities, experts, and relationships with the broader agricultural community Plans for the GEOGLAM EAV and ExCom Meetings (13-16 May 2025, European Commission Joint Research Centre in Ispra, Italy) 	12:00	15 min
7.5	New Missions for Global Precipitation Measurement [for information] <i>Takuji Kubota (JAXA, P-VC Co-Lead)</i> [<u>presentation</u>]	12:15	15 min
7.6	 Land Surface Imaging Virtual Constellation (LSI-VC) Report <i>Takeo Tadono (JAXA, LSI-VC Co-Lead)</i> [presentation] CEOS-ARD updates [for information] AFOLU Roadmap 	12:30	15 min
7.7	 Virtual Constellation Synthesis Report [for information] Matt Steventon (SIT Chair Team) [presentation] Other items arising from the biannual SIT Chair consultations with Virtual Constellation Co-Leads Ocean Surface Topography (OST-VC) 2050 Strategy Ocean Surface Vector Wind (OSVW-VC) measurement extremes issues LSI-VC PolInSAR Team Action (SIT-39-09) [for discussion] 	12:45	15 min
	Additional discussion / buffer time	13:00	20 min
Lunch		13:20	60 min
	on 8: Other Business erator: Hironori Maejima (JAXA, SIT Chair)		
8.1	Report on the Third International Workshop for Coordination of International Spaceborne SAR Missions [for information]	14:20	15 min





	 Shin-ichi Sobue (JAXA, International Coordination Group for Spaceborne SAR (ICGS-SAR)) [presentation] Report and recommendations from the workshop held in November 2024 Proposal of increased cooperation and linkage with CEOS via, e.g., a SAR Virtual Constellation 		
8.2	 Sustainable Development Goals (SDG) Coordination Group Report [for discussion] <u>Sustainable Development paper</u> SDG Coordination Group [presentation] Status of EO support sheets and custodian agency engagement Progress update with Global Geospatial Information Management (UN-GGIM) towards integration of EO 	14:35	15 min
8.3	 Concluding Step-C of the External Request Process of the United Nations Convention to Combat Desertification (UNCCD) Approach to CEOS [for discussion] Satoshi Uenuma (SIT Chair Team) [presentation] Reviewing inputs from the SDG Coordination Group, LSI-VC, and Biodiversity Study Team Next steps and guidance from CEOS Principals 	14:50	15 min
8.4	 CEOS Systems Engineering Office (SEO) Report [for information] David Borges (SEO) [presentation] CEOS Analytics Lab CEOS Organisational GitHub and licensing Systemic commercial engagement Progress towards the CEOS Communications Strategy 	15:05	15 min
	Additional discussion / buffer time	15:20	10 min
Break	(15:30	20 min
8.5	 WMO Integrated Global Observing System (WIGOS) 2050 Vision Update and CEOS Participation [for information] Osamu Ochiai (JAXA, CEOS representative to the expert group) [presentation] Overview description of the WIGOS 2050 vision drafting effort to 	15:50	15 min





	increase awareness and engage the CEOS community for thoughts and feedback.		
8.6	Space4Ocean Alliance [<u>Concept note</u>] Selma Cherchali (CNES) [<u>presentation</u>]	16:05	15 min
	on 9: Closing Session erator: Hironori Maejima (SIT Chair, JAXA)		
9.0	Any Other Business (AOB) All [<u>presentation</u>]	16:20	10 min
9.1	Review of SIT-40 Draft Actions and Decisions [for discussion] SIT Chair Team	16:30	15 min
9.2	Closing Remarks Hironori Maejima (JAXA, SIT Chair) Update on the 2025 SIT Technical Workshop EUMETSAT [presentation] Update on the 2025 CEOS Plenary UKSA CEOS Chair Team [presentation]	16:45	15 min
Adjou	urnment of Day 2	17:00	