

**2018 CEOS Plenary & Side Meetings  
October 16<sup>th</sup> – 18<sup>th</sup>, 2018  
Brussels, Belgium**

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

CEOS Plenary focuses on decisions to be made by Principals to progress and direct the various initiatives underway within the numerous subsidiary groups that are active in support of CEOS objectives. The Plenary agenda is dictated by the priority business underway in these groups, and is informed by the discussions held at the preceding SIT Technical Workshop in September.

Specific objectives of the 32<sup>nd</sup> CEOS Plenary include:

1. Review the various **CEOS climate activities** and provide direction where required. Several topics are anticipated:
  - a. Space agency statement to SBSTA 49;
  - b. Statement of space agency contributions in support of each Article of the Paris Agreement;
  - c. Space Climate Observatory (SCO) and CEOS engagement.
2. Provide direction on, **CEOS carbon efforts**, namely:
  - a. The CEOS Chair Initiative on laying the foundation for an international effort on a CO<sub>2</sub> and greenhouse gas monitoring system;
  - b. The CEOS Carbon Strategy actions that have been taken forward by various CEOS groups, specifically:
    - i. Carbon data portal prototype;
    - ii. Cal/val and production of biomass products;
    - iii. Colombia Data Cube prototype;
  - c. The AC-VC greenhouse gas constellation white paper;
  - d. GFOI/SDCG;
  - e. The way forward organisationally on GHG observations coordination, including with CGMS as appropriate.
3. Confirm the way forward on the GEO-LEO initiative.
4. Confirm next steps for the **Future Data Architectures (FDA)** tasks taken forward in 2018 in the areas of: CEOS Analysis Ready Data (ARD); Interoperable Free and Open Tools; Data, Processing, and Architecture Interface Standards; Analytical Processing Capabilities; and User Metrics.
5. Evaluate and provide direction for the **CEOS Virtual Constellations and Working Groups** and their activities, and in particular consider new Working Group Vice-Chairs and refreshed Terms of Reference, where necessary.
6. Provide guidance on **CEOS support to other key stakeholder initiatives** where required, such as to the United Nations Sustainable Development Goals (SDGs) – and the way forward organisationally for the CEOS effort.

7. Consider CEOS organisational matters as necessary, potentially (depending on the outcomes from SIT Technical Workshop):
  - a. an updated CEOS Governance and Processes Document;
  - b. greater efficiency in CEOS work;
  - c. CEOS *Ad hoc* Team lifecycles;
  - d. organisation and resourcing of the CEOS contribution to GFOI Phase 2;
  - e. the operating principles and practices of VCs and WGs;
  - f. improvements to the annual CEOS Work Plan update process.
8. Provide an opportunity for agencies to speak about their plans and strategy in relation to CEOS, as well as the benefits and expectations of CEOS from their agency perspective. Agencies will be asked to comment on:
  - a. the policy, scientific, and societal challenges driving the strategy and requirements of their Agency for the next 10 to 15 years and the degree to which CEOS' thematic foci support these plans;
  - b. how CEOS as an organisation is supporting and prioritising engagement around the Agency's requirements; and,
  - c. how CEOS activities related to standardisation (metadata and interoperability), quality control (cal/val), and data dissemination influence implementations in their Agency.

## Week at a Glance

Tuesday October 16	Wednesday October 17	Thursday October 18
<p>Side Meetings (see below)</p> <p><u>Icebreaker around 6:00 pm</u></p>	<p>Core Plenary Business Climate (including WGClimate) Carbon Agency and Partner Presentations</p> <p><u>Hosted Dinner at 7:30 pm</u></p>	<p>Data Session (Chair Priority, FDA status and evolution, LSI-VC/ARD, WGISS) Organisational Issues (including the way forward on each AHT) Other WGs and VCs Other CEOS Business Wrap-up</p>

## Tuesday, October 16<sup>th</sup> – Side Meeting Schedule

Time	Studio 201 A/B	Studio 204	Studio 206
8:00			
8:30	Troika <i>(closed meeting)</i>		
9:00	CEOS SEC-242 <i>(closed meeting)</i>		
10:00	Space Climate Observatory (SCO) Meeting		
11:00		LSI-VC	
12:00	Lunch		
13:00		GEOGLAM Ad Hoc Working Group	
14:00			
15:00			
16:00			WGCV-SDCG Biomass Meeting
17:00			VNSC 2019 CEOS Chair Initiative
18:00	<u>Icebreaker after the sessions in the venue around 6:00 pm.</u>		

Note: CEOS Agency bilateral meetings are not shown here.

## Agenda

Wednesday, October 17 <sup>th</sup>			
Plenary Day 1, Room: Hall 400			
08:00 — Registration			
Session 1: Core Business			
<b>1.1</b>	09:00	CEOS Chair Introduction - Welcome and Opening Remarks - <i>Tour de Table</i>	P. Brunet <i>CEOS Chair</i>
<b>1.2</b>	09:15	CEOS Membership Issues ( <i>For Discussion and Decision</i> ) - Review of Current CEOS Membership - Applications for <u>CEOS Member Status</u> : ○ National Institute of Environmental Research, Korea ○ United Arab Emirates Space Agency	CEOS Executive Officer, Agency Representatives & CEOS Chair
<b>1.3</b>	09:40	Action Status ( <i>For Information</i> ) - 31 <sup>st</sup> CEOS Plenary - 2018 SIT Technical Workshop - SIT-33	S. Hosford <i>CEO</i>
<b>1.4</b>	09:50	CEOS Three-Year Work Plan Annual Update Schedule & CEOS Work Plan Progress Report ( <i>For Information</i> ) - Improvements to the Annual CEOS Work Plan Update Process  <b>Action Ref:</b> <i>SITTW-2018-06, SITTW-2018-09</i>	S. Hosford <i>CEO</i>
Session 2: Climate			
<b>2.1</b>	10:00	CEOS-CGMS WGClimate - Space Agency Statement to COP-24/SBSTA 49 ( <i>For            Endorsement</i> ) - Statement of Space Agency Contributions in Support of Each Article of the Paris Agreement ( <i>For Information</i> )  <b>CEOS-WP:</b> <i>Section 3.1; Obj/Del: CMRS-13 – CMRS-21</i>  <b>Action Ref:</b> <i>SITTW-2018-01, CEOS-31-01</i>	J. Schulz  <i>Joint            CEOS-CGMS            WGClimate</i>
<b>2.2</b>	10:20	Space Climate Observatory Update and Discussion ( <i>For            Information</i> )  <b>Action Ref:</b> <i>SIT 33-07</i>	J. Lambin CNES

<b>2.3</b>	10:35	Global Climate Observing System (GCOS) Report ( <i>For Information</i> )	C. Richter WMO/GCOS
<b>10:50 — Break &amp; Photo</b>			

Session 3: Carbon			
<b>3.1</b>	11:15	CEOS Carbon Strategy Action Status ( <i>For Information</i> ) <i>CEOS-WP: Section 3.2, Obj/Del: CARB-12/15/16/17/18</i>	M. Dowell COM
<b>3.2</b>	11:25	JRC Carbon Workshop & CEOS Chair CO <sub>2</sub> Initiative Report ( <i>For Information</i> ) <i>CEOS-WP: Section 3.2; Obj/Del: CARB-12</i>	M. Dowell COM
<b>3.3</b>	11:35	CEOS AC-VC White Paper – Architecture for Monitoring Carbon Dioxide and Methane from Space ( <i>For Endorsement</i> ) <i>CEOS-WP: Section 3.2; Obj/Del: CARB-12</i>	D. Crisp / M. Dowell
<b>3.4</b>	11:45	2019 IPCC Guidelines for National Greenhouse Gas Inventories ( <i>For Information</i> ) <i>CEOS-WP: Section 3.2, Obj/Del: CARB-17</i> <i>Action Ref: SITTW-2018-03</i>	O. Ochiai JAXA
<b>3.5</b>	11:55	Update on CEOS Contributions to Forest Carbon Monitoring (GFOI/SDCG) ( <i>For Information</i> ) - Organisation and Space Agency Contributions to GFOI Phase 2 <i>CEOS-WP: Section 3.2, Obj/Del: CARB-4/5</i> <i>Action Ref: SITTW-2018-10</i>	O. Ochiai, S. Ward SDCG
<b>3.6</b>	12:05	Proposed Way Forward for CEOS on GHG Observations - Collaboration between CEOS and CGMS in the area of GHG observations and monitoring ( <i>For Discussion and Decision</i> ) <i>Action Ref: SIT 33-12</i>	M. Dowell COM

Session 4: Agency and Partner Updates ( <i>For Information</i> )			
<b>4.1</b>	12:30	GEO Update ( <i>For Information</i> )	G. Câmara GEO

4.2	12:45	<p>CEOS GEO Reporting and GEO-XV Plenary Preparations</p> <ul style="list-style-type: none"> <li>- GEO Programme Board Report (<i>For Information</i>)</li> <li>- GEO ExCom Report (<i>For Information</i>)</li> <li>- CEOS Statement to the GEO-XV Plenary (<i>For Information</i>)</li> <li>- Discussion</li> </ul> <p><i>CEOS-WP: Section 3.10, Obj/Del: OUT-1</i></p> <p><i>Action Ref: SITTW-2018-13</i></p>	K. Sawyer, A. Held, S. Hosford
<b>13:00 — Lunch</b>			
4.3	14:00	<p>Agency and Partner Updates (<i>For Information</i>)</p> <ul style="list-style-type: none"> <li>- UNOOSA (L. St-Pierre)</li> <li>- GGOS (R. Gross)</li> <li>- WIGOS Vision 2040 (F. Belda, WMO)</li> <li>- FAO (D. Muchoney)</li> <li>- USGS (J. Lacey)</li> <li>- NOAA (S. Volz)</li> <li>- CSA (É. Laliberté)</li> <li>- NASA (M. Freilich)</li> <li>- NRSCC / NSMC-CMA / CRESDA (S. Zhang)</li> <li>- ISRO (R. Kumar)</li> <li>- JAXA (N. Matsuura)</li> <li>- KMA (Geun Hyeok Ryu)</li> <li>- Australian EO and Space Initiatives (A. Held)</li> <li>- EUMETSAT (A. Ratier)</li> <li>- ESA (J. Aschbacher)</li> <li>- DLR (K. Schmidt)</li> <li>- CNES (J. Lambin)</li> <li>- COM (P. Brunet)</li> <li>- NSO (J. Carpay)</li> <li>- UKSA (B. Greenaway)</li> <li>- SANSa (A. Mlisa)</li> <li>- ROSCOSMOS (A. Chunosov)</li> </ul>	
<b>15:30 — Break</b>			
4.3	15:45	Agency and Partner Updates (Continued...)	
<b>18:00 — Adjourn</b>			

**Hosted dinner is planned in the Panoramic Room of the meeting venue at 7:30pm.**

**Thursday, October 18<sup>th</sup>**

Plenary Day 2, Room: Hall 400

**Session 5: EO Data Access, Delivery, and Interoperability**

<b>5.1</b>	09:00	CEOS Future Data Architectures (FDA) Strategy and Activity Continuity ( <i>For Information</i> ) <i>CEOS-WP: Section 3.6, Obj/Del: FDA-8/11</i>	N. Hanowski / A. Held / S. Labahn <i>FDA-AHT</i>
<b>5.2</b>	09:20	WGISS – Activity Status Report ( <i>For Information</i> ) <i>CEOS-WP: Section 3.2, 3.6, 3.7; Obj/Del: CARB-15, FDA-5/8/9/10/11/13, DATA-2/8/9/11/12/13</i>	M. Albani <i>WGISS Chair</i>
<b>5.3</b>	09:35	CEOS Analysis Ready Data for Land (CARD4L) Status Report ( <i>For Information</i> ) <i>CEOS-WP: Section 3.6, 3.8; Obj/Del: FDA-7, VC-31/32/33/34</i>	S. Labahn <i>LSI-VC</i>
<b>5.4</b>	09:45	Broader CEOS ARD Strategy ( <i>For Discussion</i> ) <i>Action Ref: SITTW-2018-05</i>	A. Held <i>SIT Vice Chair</i>
<b>5.5</b>	10:05	Data Cube and FDA Pilot Status Report ( <i>For Information</i> ) <i>CEOS-WP: Section 3.2, 3.3, 3.6; Obj/Del: CARB-18, AGRI-8/9, FDA-2</i>	B. Killough <i>SEO</i>
<b>5.6</b>	10:20	Proposed Way Forward on the GEO-LEO Initiative ( <i>For Information</i> ) - Final proposal in response to SIT 33-14 - Flood mapping project progress <i>Action Ref: SIT 33-14, SIT 33-15, SITTW-2018-14/15</i>	C. Wooldridge <i>SIT Chair Team</i>

**10:35 — Break**

**Session 6: Working Groups, Virtual Constellations and Ad Hoc Teams**

<b>6.1</b>	10:55	WGCV Report - Activities and progress on CEOS Work Plan items ( <i>For Information</i> ) - JAXA Nominee for WGCV Vice Chair ( <i>For Endorsement</i> ) - WGCV Chair Handover <i>CEOS-WP: Section 3.6, 3.7; Obj/Del: FDA-12, CV-1/3/9/13/14/15/16/17/18/19</i>	K. Thome <i>WGCV Chair</i>
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<b>6.2</b>	11:10	<p>WGCapD Report</p> <ul style="list-style-type: none"> <li>- CEOS Agency Support for the Proposed Implementation of the Training Calendar also used by VLab and WMO Global Campus (<i>For Endorsement</i>)</li> </ul> <p><b>CEOS-WP:</b> Section 3.6, 3.7; Obj/Del: FDA-5; CB-19/20/21/26/27/28/29/30/31/32</p>	P. Chauhan <i>WGCapD Chair</i>
<b>6.3</b>	11:25	<p>WGDisasters Report</p> <ul style="list-style-type: none"> <li>- CEOS disaster risk management initiatives (<i>For Information</i>)</li> <li>- Contributions to GEO Initiatives: GSNL and GEODARMA (<i>For Information</i>)</li> </ul> <p><b>CEOS-WP:</b> Section 3.4; Obj/Del: DIS-10/12/15/16</p>	S. Zoffoli <i>WGDisasters Chair</i>
<b>6.4</b>	11:40	<p>CEOS <i>Ad Hoc</i> Working Group on GEOGLAM Status Update (<i>For Information</i>)</p> <p><b>CEOS-WP:</b> Section 3.3; Obj/Del: AGRI-4/8/9</p>	B. Doorn <i>CEOS-GEOGLAM ad hoc WG Co-Lead</i>
<b>6.5</b>	11:55	<p>Sustainable Development Goals (SDG) <i>Ad Hoc</i> Team Report</p> <ul style="list-style-type: none"> <li>- Proposed Way Forward for CEOS in regard to SDGs (<i>For Information</i>)</li> </ul> <p><b>CEOS-WP:</b> Section 3.9; Obj/Del: SDG-2/3/4</p>	A. Held <i>SDG-AHT</i>
<b>6.6</b>	12:15	<p>Virtual Constellation Issues, Discussion Points, and Decision Processes (<i>For Discussion</i>)</p>	S. Volz <i>SIT Chair</i>
<b>12:45 — Lunch</b>			
<b>6.7</b>	13:45	<p><i>Ad Hoc</i> Team Life Cycles and the Proposed Way Forward for the Existing <i>Ad Hoc</i> Teams (<i>For Information</i>)</p> <p>Operating Principles and Practices of VCs and WGs (<i>For Information</i>)</p> <p><b>Action Ref:</b> SIT 33-11</p>	S. Volz <i>SIT Chair</i>
<b>6.8</b>	14:00	<p>Recommendation Resulting from the 2018 Annual Joint Meeting – Proposed Way Forward for LSI-VC, SDCG for GFOI, and CEOS-GEOGLAM (<i>For Information</i>)</p> <p><b>Action Ref:</b> SITTW-2018-11</p>	LSI-VC / SDCG / CEOS-GEOGLAM Leads



<b>6.9</b>	14:10	<p><i>Ad Hoc</i> Team Continuity Discussions and Decisions</p> <ul style="list-style-type: none"> <li>- SDCG-GFOI (<i>Ref: 6.8</i>)</li> <li>- <i>Ad Hoc</i> Working Group on GEOGLAM (<i>Ref: 6.8</i>)</li> <li>- SDG-AHT (<i>Ref: 6.5</i>)</li> <li>- FDA-AHT (<i>Ref: 5.1</i>)</li> </ul>	S. Hosford CEO
<b>6.10</b>	14:30	<p>CEOS Organisational Matters (<i>For Discussion</i>)</p> <ul style="list-style-type: none"> <li>- Proposal to Update the CEOS Governance and Processes Document</li> <li>- Suggestions for Greater Efficiency in How CEOS Functions</li> </ul> <p><b>Action Ref:</b> SIT 33-01, SIT 33-05</p>	S. Volz SIT Chair

### Session 7: Other CEOS Business

<b>7.1</b>	14:45	<p>CEOS Missions, Instruments, and Measurements (MIM) Database Report (<i>For Information</i>)</p> <p><b>CEOS-WP:</b> Section 3.7, Obj/Del: CB-10</p>	I. Petiteville ESA
<b>7.2</b>	14:55	<p>CEOS Systems Engineering Office (SEO) Report (<i>For Information</i>)</p>	B. Killough SEO

### Session 8: Closing Business

<b>8.1</b>	15:10	<p>Overview of CEOS Leadership (<i>For Discussion</i>)</p> <ul style="list-style-type: none"> <li>- Future CEOS Chairs</li> <li>- CEOS Executive Officer (CEO)</li> <li>- CEOS Deputy Executive Officer (DCEO)</li> </ul> <p><b>Action Ref:</b> SIT 33-18</p>	COM CEOS Chair
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### 15:30 – Break

<b>8.2</b>	15:50	CEOS Chair Handover	COM 2018 CEOS Chair VAST-VNSC 2019 CEOS Chair
<b>8.3</b>	16:00	Presentation by the 2019 CEOS Chair, VAST-VNSC [ <a href="#">2019 CEOS Chair Initiatives Paper</a> ]	VAST-VNSC 2019 CEOS Chair
<b>8.4</b>	16:15	Review of the 2018 CEOS Plenary Decisions and Actions	COM 2018 CEOS Chair
<b>8.5</b>	16:30	Closing Remarks	COM 2018 CEOS Chair

### 16:40 – Adjourn

<b>Closed Meetings</b>		
17:00	243 <sup>rd</sup> CEOS Secretariat Meeting (SEC-243)	Chaired by VAST-VNSC
17:30	CEOS Troika #2	Chaired by VAST-VNSC
<b>18:00 — Adjourn</b>		

## 2018-2020 CEOS Work Plan – 32<sup>nd</sup> CEOS Plenary Agenda Item Cross Reference

Agenda Item	Topic	CEOS Work Plan Section	CEOS Work Plan Objective/Deliverable
2.1	CEOS-CGMS WGClimate	3.1	CMRS-13 – CMRS-21
3.1	CEOS Carbon Strategy Action Status	3.2	CARB-12/15/16/17/18
3.2	JRC Carbon Workshop & CEOS Chair CO <sub>2</sub> Initiative Report	3.2	CARB-12
3.3	AC-VC White Paper	3.2	CARB-12
3.4	2019 IPCC Guidelines for National Greenhouse Gas Inventories	3.2	CARB-17
3.5	Update on CEOS Contributions to Forest Carbon Monitoring (GFOI/SDCG)	3.2	CARB-4/5
4.2	CEOS GEO Reporting & GEO-XV Plenary Preparations	3.10	OUT-1
5.1	CEOS FDA Strategy and FDA-AHT Continuity	3.6	FDA-8/11
5.2	WGISS Activities Status Update	3.2, 3.6, 3.7	CARB-15, FDA-5/8/9/10/11/13, DATA-2/8/9/11/12/13
5.3	CEOS Analysis Ready Data for Land (CARD4L) Status Update	3.6, 3.8	FDA-7, VC-31/32/33/34
5.5	Data Cube & FDA Pilot Status	3.2, 3.3, 3.6	CARB-18, AGRI-8/9, FDA-2
6.1	WGCV	3.6, 3.7	FDA-12, CV-1/3/9/13/14/15/16/17/18/19
6.2	WGCapD	3.6, 3.7	FDA-5; CB-19/20/21/26/27/28/29/30/31/32
6.3	WGDIsasters	3.4	DIS-10/12/15/16
6.4	CEOS <i>Ad Hoc</i> Working Group on GEOGLAM Status Update	3.3	AGRI-4/8/9
6.5	SDG-AHT	3.9	SDG-2/3/4
7.1	Missions, Instruments, and Measurements (MIM) Database Report	3.7	CB-10

CMRS: Climate Monitoring, Research, and Services	CARB: Carbon Observations, Including Forested Regions	AGRI: Observations for Agriculture	DIS: Observations for Disasters	WAT: Observations for Water
CMRS-13: 2.1	CARB-4: 3.5	AGRI-4: 6.4	DIS-10: 6.3	WAT-4: –
CMRS-15: 2.1	CARB-5: 3.5	AGRI-8: 5.5, 6.4	DIS-12: 6.3	WAT-6: –
CMRS-16: 2.1	CARB-12: 3.1, 3.2, 3.3	AGRI-9: 5.5, 6.4	DIS-15: 6.3	
CMRS-17: 2.1	CARB-15: 3.1, 5.2		DIS-16: 6.3	
CMRS-19: 2.1	CARB-16: 3.1		DIS-17: –	
CMRS-20: 2.1	CARB-17: 3.1, 3.4			
CMRS-21: 2.1	CARB-18: 3.1, 5.5			

FDA: Future Data Architectures	CB: Capacity Building	DATA, CV: Data Access, Availability and Quality	VC: Advancement of the CEOS Virtual Constellations	SDG, BP, BON, POL, COV: Support to Other Key Stakeholders OUT, ORG: Outreach and Organisational
FDA-2: 5.5	CB-10: 7.1	DATA-2: 5.2	VC-2: –	SDG-2: 6.5
FDA-5: 5.2, 6.2	CB-19: 6.2	DATA-8: 5.2	VC-3: –	SDG-3: 6.5
FDA-7: 5.3	CB-20: 6.2	DATA-9: 5.2	VC-9: –	SDG-4: 6.5
FDA-8: 5.1, 5.2	CB-21: 6.2	DATA-11: 5.2	VC-14: –	BP-4: –
FDA-9: 5.2	CB-26: 6.2	DATA-12: 5.2	VC-15: –	BON-4: –
FDA-10: 5.2	CB-27: 6.2	DATA-13: 5.2	VC-17: –	BON-5: –
FDA-11: 5.1, 5.2	CB-28: 6.2	CV-1: 6.1	VC-18: –	POL-1: –
FDA-12: 6.1	CB-29: 6.2	CV-3: 6.1	VC-19: –	COV-2: –
FDA-13: 5.2	CB-30: 6.2	CV-9: 6.1	VC-30: –	COV-3: –
	CB-31: 6.2	CV-13: 6.1	VC-31: 5.3	COV-4: –
	CB-32: 6.2	CV-14: 6.1	VC-32: 5.3	COV-5: –
		CV-15: 6.1	VC-33: 5.3	COV-6: –
		CV-16: 6.1	VC-34: 5.3	OUT-1: 4.2
		CV-17: 6.1	VC-35: –	OUT-2: –
		CV-18: 6.1	VC-36: –	ORG-7: –
		CV-19: 6.1	VC-37: –	