



#### 31<sup>st</sup> Strategic Implementation Team Meeting MEETING THEMES & OBJECTIVES, and DRAFT AGENDA DRAFT VERSION 1.2 (13 April 2016) 19<sup>th</sup>-20<sup>th</sup> April 2016 ESA/ESRIN, Frascati, Italy

During its 2016-2017 CEOS SIT Chair term, ESA seeks to:

- Ensure the successful advancement of ongoing CEOS commitments and deliverables, identifying and addressing issues and obstacles impacting each priority initiative;
- Ensure full access to, and exploitation of **Copernicus Sentinel** data;
- Further develop, with the joint CEOS-GCMS WGClimate and through GCOS, the relationships with IPCC and UNFCCC required to support **observation of climate indicators** in the post-COP-21 context;
- Maintain and improve effectiveness of our strategic partnerships, including with UN agencies, Development Banks, international programmes and agencies; the effective functioning of GEO, and CEOS within it, is a high priority in this; and,
- Support for the initiatives proposed by the CEOS Chairs in 2016 and 2017.

In order to inform and direct the two-year term of SIT, the SIT Chair Team proposes that the SIT-31 agenda include substantial time to assess the status and directions of the many and varied CEOS initiatives. It is clear that the role of government-sponsored civil Earth observation (EO) programmes has changed significantly since the establishment of CEOS in 1984, and that the pace of said change is likely to accelerate in the future - and with it, changes to the nature of what space agencies require of CEOS. CEOS Principals/Designees are asked to come prepared to discuss the following topics and questions under the SIT Chair themes:

#### **Strategic Partnerships**

- How the changing nature of CEOS business may impact the nature of our most productive relationships, and what lessons might be learned from the examples of the present and past (e.g., GCOS, others?).
- The scope of the CEOS-GEO relationship and how CEOS can both complement and leverage the strengths of GEO. SIT-31 will reflect on the recent changes in GEO strategic priorities, governance and structure, and report CEOS progress in influencing and supporting the GEO 2016-2025 framework.
- The UN System and agencies are often central to international coordination of governments in domains that are emerging as priorities for government EO programmes. The context can be complex and varies by topic/agency. Can CEOS, and/or GEO, establish more strategic and high-level modus operandi for productive partnerships in these areas?
- The role for International Funding Agencies such as Development Banks.





### Success of Ongoing CEOS Business

- Success of ongoing CEOS business requires adequate capacity to execute business at hand. How can we move forward in managing the multitude of thematic observational strategies that CEOS finds itself presented with – in relation to carbon, water, forests, agriculture, disasters – consistent with the capacity available within CEOS and agencies, whilst recognising the opportunities that they represent?
- How should CEOS deal with new requirements coming from GEO or other quarters?
- Do tools and processes exist within CEOS agencies that might provide a more structured approach to implementing and managing multiple sets of requirements and observing assets? The same tools might assist LSI-VC as it starts its work.
- Specific requests of SIT from the existing CEOS priorities, such as GFOI & GEOGLAM to help address strategic obstacles and opportunities for success.
- Whether we need to consider new priorities and resources for key areas relevant to multiple CEOS initiatives.

#### **CEOS Climate Observations**

- Impact assessment and opportunities arising from COP21 and the necessary evolution of the key relationships: CEOS-GCOS-UNFCCC.
- Report on the next phase of the CEOS-GCOS documentation and the Essential Climate Variable (ECV) inventory and Climate Architecture.
- Agreement on the way forward for the CEOS Carbon Strategy in the context of the above.

# **Copernicus Sentinel Data Uptake**

- Report on the latest ground and space infrastructure developments.
- Opportunity for CEOS VCs/WGs/initiatives with an interest in exploitation of Sentinel data to report on their experience and any issues and recommendations to optimise access and exploitation of the data.

# Evolution of large-scale data management

- Address increasing holding and distribution of large data sets by internet giants
- Approach to use of cloud data storage by agencies
- Development of analysis ready data architectures in support of specific CEOS projects (relevant to 2016 Chair initiative below)

# 2016 Initiatives

Side meetings are planned in support of the UN Sustainable Development Goal (UN SDG) engagement, and in support of the Future Data Architectures and Non-meteorological Applications Ad-hoc Teams established by CEOS Chair, and SIT agenda time will be dedicated to updates on these topics.

Some of these topics and questions can be answered in short order, whilst others will require long term attention and effort – to the end of the SIT Chair Term and beyond. SIT-31 will contribute to these next steps, and that the dialogue will continue across the 2016 SIT Technical Workshop, the 2016 CEOS Plenary, CEOS SIT-32, the 2017 SIT Technical Workshop, and the 2017 CEOS Plenary.





# Monday 18<sup>th</sup> April – Side Meetings

*Security Information:* All participants are asked to ensure the have their passport in order to gain access to the ESRIN.

Meeting	Time	Contact	Location
ESRIN Facilities Tour	09:00 - 10:00	RSVP to Carmen.Comparetto	o@esa.int
Future Data Architectures	09:00 - 12:30	Tom Cecere (USGS) & Rob Woodcock (CSIRO)	Magellan
CEOS and UN SDGs	10:00 - 12:00	A Held (CSIRO)	Cook
GEO Global Agriculture Monitoring	13:00 - 17:00	B Doorn (NASA)	Room D
Non-meteorological Applications for Next Generation Geostationary Satellites	13:30 - 17:00	Caroline Bruce (CSIRO)	Magellan
Water constellation Feasibility Study	14:00 - 16:00	C Ishida (JAXA)	Cook
CEOS SEC	17:00 - 18:00	A Held (CSIRO)	Magellan

#### SIT-31 Social events:

# 18th April evening: Welcome cocktail at ESRIN

**19<sup>th</sup> April evening:** Wine tasting followed by a hosted dinner at Casale Marchese (Frascati) (<u>www.casalemarchese.it/en/</u>)

# **Transport**:

- Busses will run Monday-Wednesday from Frascati (Piazza Marconi) to ESRIN, departing at 08:00.
- A bus will run Monday from ESRIN to Frascati (Piazza Marconi), departing 19:00 following the welcome cocktail.
- A bus will run Tuesday from ESRIN to the social at Casale Marchese, departing ESRIN at 18:30, returning to Frascati (Piazza Marconi) at 22:30.
- No bus will return to Frascati at the close of Wednesday as many participants will be heading to the airport, and all should make their own arrangements.
- If you need to book a taxi from or to the airport, you can contact the local taxi company that works with ESA, by sending an email in English to <u>info@cast-limousine.com</u>. The cost of the transfer is Euro 75 per car (Euro 85 after 10PM).

A map of the Frascati bus pickup location at Piazza Marconi can be found as an appendix.





### Tuesday 19<sup>th</sup> April – SIT-31 Day 1

**Security Information:** All participants are asked to ensure they have their passport in order to gain access to ESRIN. Security is now a little tighter than in the past and time should be allowed for this.

Day 1 WebEx: See Appendix.

Coffee and	Registration	08:30 – 09:00 <i>30m</i>
#	Item / Presenter	<b>Time</b> Duration
Session 1: Introduction		
1	<ul> <li>Welcome (V Liebig, ESA Director EO Programmes.)</li> <li>Logistics (S Briggs)</li> <li><i>Tour de table</i> (S Briggs)</li> </ul>	09:00 – 09:10 <i>10m</i>
2	<ul> <li>SIT Chair Term Themes and SIT-31 Objectives (S Briggs)</li> <li>SIT Chair Objectives</li> <li>Agenda overview</li> </ul>	09:10 -09:30 20m
Session 2: CEOS Plenary Session		
3	CEOS SIT Vice-Chair Nominations and Call for Endorsement (CEOS Chair)	09:30 – 09:45 15m
<b>Session 3: Strategic Directions and Partnerships - Introduction</b> <i>Key Questions:</i> <i>Do CEOS agencies agree on the trends identified in CEOS activities and relationships?</i> <i>Should we emphasise particular partnerships and (or explore new ones?</i>		

Should we emphasise particular partnerships and/or explore new ones? Are their strategic directions CEOS should chart to serve members in the coming 10 years?





Earth Observation Satellites			
#	Item / Presenter	<b>Time</b> Duration	
4	Strategic Partnerships Session – Introduction (SIT Chair)	09:45 - 10:15	
	<ul> <li>Changing context and nature of CEOS Work and evolution of role and partnerships</li> <li>2015 status (GEO, UN System, others)</li> <li>2015 - 2025: directions and partnership</li> <li>Partnership with International Finance Institutions</li> </ul>	30m	
Session 4:	GEO and GEO Initiatives		
Updates on GEO Status and future, and specifically on flagships GFOI and GEOGLAM. Strategic assessment of outlook and impact for CEOS and agencies. Highlight opportunities and challenges. Identify actions specific to each to direct and progress. Consider new priorities and resources in areas of common importance (internal timings approximate).			
5	GEO Framework Update and Outlook (B Ryan) (45m)	10:15 - 11:45	
	GFOI Status and Issues (CEOS Lead/SDCG EXEC) (15m)	1h30m	
	GEOGLAM Status and Issues (S Cherchali, B Doorn) (15m)		
	Blue Planet Update (P DiGiacomo) (5m)		
	Other CEOS actions in GEO WP (CEO/DCEO) (10m)		
	(Discussion & Actions in each item)		
Break (Group Photo)		11:45 – 12:00 <i>15m</i>	
Session 5: UN Framework Initiatives			
Updates on UN-WCDRR and UN-SDG processes Outlook and impact for CEOS and agencies Agreement on objectives and next steps			





Earth Observation	Item / Presenter	<b>Time</b> Duration
6	UN Framework Initiatives Session UN-WCDRR – Process Update (S Chalifoux) – CEOS Way Forward (I Petiteville) UN-SDG – Process Update (M-J Bourassa) – CEOS Way Forward (A Held)	12:00 – 13:15 <i>1h15m</i>
Lunch (ESRIN cafeteria)		13:15 – 14:15 <i>60m</i>
Session 6: Coordination of Climate Observations Impact assessment and opportunities arising from COP21. Evolution of the key relationships: CEOS-GCOS-UNFCCC Next phase of CEOS-GCOS documentation, GCOS IP16 satellite supplement Scope for Carbon supplement ECV inventory and Climate Architecture directions & schedule		
7	<ul> <li>Coordination of Climate Observations</li> <li>GCOS Status and Outlook (C Richter)</li> <li>COP21 Outcomes and Impacts for EO/CEOS (P Lecomte)</li> <li>Delhi Declaration ( P. Ultre-Guerard) (10min)</li> <li>2016 Implementation Plan, Satellite Supplement, and CEOS-CGMS Responses (WGClimate/GCOS)</li> </ul>	14:15 – 15:30 <i>75m</i>
8	ECV Inventory and Climate Architecture (WGClimate)	15:30 – 16:15 <i>45m</i>
Break		16:15 – 16:30 <i>15m</i>



Item / Presenter



**Time** Duration

#### Session 7: Data architectures and enhanced exploitation

What are agencies' views on whole dataset holdings of commercial operators? How can agencies benefit from this development? What are the opportunities offered through cloud architectures? What other new data exploitation approaches are on offer?

9	<ul> <li>Data archives, access and exploitation (SIT Chair, SEO, GA/CSIRO))</li> <li>Cloud storage – current status and future opportunities</li> <li>Google Earth and other complete archive holdings – opportunities</li> <li>New data holding exploitation models – Analysis Ready Data/Data Cubes example</li> </ul>	16:30 – 17:30 60m
_	Discussion	
10	SIT-31 Day 1 Closing Remarks (S Briggs)	17:30 - 17:45 15m
Adjourn		17:45

**Social event:** Wine tasting followed by a hosted dinner at Casale Marchese (Frascati) (www.casalemarchese.it/en/). Transportation bus from ESRIN to Casale Marchese and after dinner, from Casale Marchese to Frascati downtown.

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#	Item (Presenter)	<b>Time</b> Duration
12	<ul> <li>VC Leads and WG Chairs Issue Reports</li> <li>Synthesis report on VC and WG achievements and plans (JL Fellous)</li> <li>SST-VC: passive microwave redundant continuity issue (A O'Carroll/K Casey via WebEx) - refer to position paper (20 minutes)</li> <li>OST-VC new generation of altimetry constellation (P Escudier/H Bonekamp) (20 minutes)</li> </ul>	11:30 – 13:00 <i>1h30m</i>
Lunch (ESRIN cafeteria)		13:00 – 14:00 60m
Session 10: Copernicus Sentinel Data Uptake and Application		
13	Sentinels Space and Ground Segment Status (EC/ESA/EUM)	14:00 – 14:45 45m
14	<ul> <li>Discussion:</li> <li>Inputs from CEOS Initiatives (VCs, WGs, AHTs etc.) on Access and Uptake of Sentinel Data in CEOS Actions</li> </ul>	14:45 – 15:30 45m
Session 11: SIT-31 AOB, Actions, and Closing		
15	<ul> <li>AOB: Including:</li> <li>GOOS G-7 initiative report (10 m) – A Fischer</li> <li>2016 SIT Technical Workshop (5 m) – SIT Chair</li> <li>30<sup>th</sup> CEOS Plenary (5 m) – CEOS Chair</li> </ul>	15:30 – 16:00 <i>30m</i>
16	Review of Actions (SIT Chair Team)	16:00 – 16:15 <i>15m</i>
17	SIT-31 Closing Remarks	16:15 – 16:45 <i>30m</i>
Adjourn		16:45