

# CEOS SDG AHT Information Note to CEOS Principals for 34<sup>th</sup> CEOS Plenary

*14 October 2020*

*Prepared by the CEOS Ad-Hoc Team on Sustainable Development Goals*

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## For CEOS Principals Decision

The CEOS SDG AHT invites the CEOS Principals at the 34th CEOS Plenary:

- **to approve an extension of the CEOS Ad-Hoc Team on SDGs for another year, with the objective to transfer all SDG AHT activities into a permanent structure, inside or outside of CEOS, by the end of 2021. This request for extension includes a 2021 transition roadmap with decision-taking milestones, which is proposed by the SDG AHT to enable a smooth transfer of activities into another operating structure and its readiness to take over the SDG AHT work on SDGs.**
- **to express their support to the SDG AHT to continue and further develop the work done by the 4 SDG AHT sub-teams (related to SDG indicators on water, urban, coastal pollution, and land degradation).**
- **to confirm the availability of CEOS Agencies' resources to contribute to the SDG AHT activities (including availability of sub-teams leads and contributors) needed to complete the satellite data analysis on the 4 primary SDG indicators and undertake further activities planned in the SDG AHT workplan 2020-2021.**
- **to consider and propose the nomination of new co-leads of the SDG AHT for the upcoming year, in agreement with the leadership rotation of the SDG AHT Terms of Reference.**

This extension of the CEOS Ad-Hoc Team on SDGs will allow CEOS to continue its collaboration with GEO on the SDGs, while preparing the transfer of its activities into a permanent structure that will be proposed for approval at the 35th CEOS Plenary, in October 2021.

## CEOS Role in the SDGs

The 30th CEOS Plenary (2016) established a CEOS Ad-hoc team on Sustainable Development Goals (SDG AHT) with the objective to coordinate the efforts of the CEOS agencies in supporting the Group on Earth Observations (GEO) to advance the uptake of Earth Observation in the implementation of the 2030 Agenda on sustainable development.

Through its SDG AHT, CEOS role is to act as a “Space Enabler” and Space Arm of GEO and to facilitate access and use of satellite data in the SDGs.

## The SDG journey in CEOS:

“Coordinating space community efforts”



The SDG AHT has provided internal CEOS coordination activities, and external engagement with a large and complex ecosystem of multiple SDG stakeholders. External engagement has been done essentially through CEOS support to the Group on Earth Observations (GEO) in its mandate to help the UN system and countries embracing EO technology in the global and national processes on SDGs. All SDG AHT activities are conducted in close collaboration with the GEO EO4SDG (“Earth Observation for Sustainable Development Goals”) initiative and other relevant GEO Work Programme activities (flagships, initiatives and communities) related to SDGs.

In 2020, the SDG AHT streamlined its activities along the unique role that CEOS should play as a coordination body of the Space Agencies and to a level that is commensurate with the resources available in CEOS. This restructure also aimed at maximizing impact by matching the CEOS activities on SDGs with the needs and expectations of GEO, including a clarification of CEOS and GEOS’ roles, optimizing the collective resources available and avoiding efforts’ duplication.

All SDG AHT activities have been embedded within the GEO “Federated Approach” on SDGs which aims at coordinating and harmonising the GEO community efforts on SDGs. The SDG AHT activities will in particular contribute to the development of the SDG EO Toolkits led by GEO EO4SDG for the provision of practical guidance on EO approaches for SDGs, for an easier appropriation by countries.

## SDG AHT organization

The SDG AHT has developed its 2020-2021 work plan essentially along 4 SDG indicators that are the most ready to integrate EO in their processes but for which there are still some methodological and data availability issues:

- **SDG indicator 6.6.1 on water-related ecosystems:** "*Change in the extent of water-related ecosystems over*", led by UN Environment Programme (UNEP) and the Ramsar Convention on Wetlands as co-custodian agencies.
- **SDG indicator 11.3.1 on sustainable urbanization:** "*Ratio of land consumption rate to population growth rate*", led by UN Habitat as custodian agency.
- **SDG indicator 14.1.1 on coastal pollution:** "*Index of coastal eutrophication and floating plastic debris density*", led UN Environment Programme (UNEP) as custodian agency.
- **SDG indicator 15.3.1 on land degradation:** "*Proportion of land that is degraded over total land area*", led by UN Convention to Combat Desertification (UNCCD) as custodian agency.

Four sub-teams were then created with an active engagement from CEOS agencies, to help GEO analyzing the EO data needs (including data gaps), and facilitate satellite data availability, accessibility and use:

- **Water sub-team** on SDG 6.6.1, currently led by CNES and ESA
- **Urban sub-team** on SDG 11.3.1, currently led by NASA and SANSa
- **Coastal sub-team** on SDG 14.1.1, currently led by NOAA (direct contribution to the "Land to Sea impact" pilot project of the COAST Study Team).
- **Land degradation sub-team** on SDG 15.3.1, currently led by CSIRO and DLR

**The CEOS SDG AHT invites CEOS Principals to express their support to the SDG AHT to continue and further develop the work done by the 4 SDG AHT sub-teams (related to SDG indicators on water, urban, coastal pollution and land degradation).**

## SDG AHT workplan 2020-2021

In 2020, the SDG AHT has made progress and some key impacts or developments are worth noting:

- **Increased CEOS Agencies' engagement**, with sub-team leaders representing 7 Space Agencies (NASA, SANSa, CSIRO, DLR, ESA, CNES and NOAA);
- **Increased collaboration with GEO**, with direct involvement and contribution of experts from various GEO Work Program activities including EO4SDG, LDN, HPI, GUOI, WETLANDS, AQUAWATCH, GLOWS, BLUEPLANET;
- **Increased engagement with other CEOS groups:** WGCapD (webinars on EO for the SDGs) and SEO (ODC algorithms for SDGs), COAST (SDG indicator 14.1.1);
- **Ongoing and collaborative satellite data supply analysis from CEOS core missions** (global, free and open, calibrated and sustained) for each indicator;
- **Coordinated CEOS response to GEO EO4SDG activities** such as the development of a "*GEO Federated Approach on SDGs*" to harness available expertise and resources inside and outside of GEO work program (including CEOS) in order to maximise impact; and of "*SDG EO Toolkits*", online EO knowledge Hubs that provide guidance for countries to integrate EO data and tools into national SDG systems and practices.

In 2021, the SDG AHT will complete its work on the 4 primary SDG indicators, with

- comprehensive satellite data analyses (including observation gaps) from past, current and future CEOS missions,
- an inventory of EO assets (datasets, tools and platforms) developed by CEOS Agencies, with short guidance on their relevance and applicability for the subject indicators,
- the SEO-led development of ODC algorithms and their deployment on CEOS data cubes,
- Some learning and capacity development activities, in close cooperation with WGCapD.

**By approving an extension of the SDG AHT for another year, CEOS Principals are also invited to confirm the availability of CEOS Agencies’ resources to contribute to the SDG AHT activities (including availability of sub-teams leads and contributors) needed to complete the satellite data analysis on the 4 primary SDG indicators and undertake the activities planned in the SDG AHT workplan 2020-2021.**

### Options to be considered for CEOS 34th Plenary

For 2021, the SDG AHT proposes the following 2 options:

**OPTION 1:** *Extend the SDG AHT for another year, and plan a transition of SDG activities to internal (within CEOS) and/or external entities by Plenary 2021.*

**OPTION 2:** *Disband the SDG AHT.*

**The CEOS SDG AHT recommends OPTION 1.**

### 2021 Transition Roadmap to a permanent structure

Upon approval from the CEOS principals to extend the AHT for another year, the SDG AHT plans a series of actions to allow a seamless transition of CEOS activities on SDGs into existing permanent bodies inside and/or outside of CEOS.

The Transition Roadmap also includes a number of milestones where decisions will be taken based on discussions with CEOS agencies, GEO secretariat, GEO EO4SDG and relevant GEO work program activities (i.e. flagships, initiatives and communities).

The following table provides a summary of the activities and decision-making milestones planned in 2021, starting from CEOS Plenary 34:

Quarter	Month	Activities	Involved CEOS and GEO entities
2020 Q4	OCT	<b>34<sup>th</sup> CEOS Plenary:</b> Approval of SDG AHT renewal (with 2021 Transition Roadmap) by CEOS Principals.	SDG-AHT Co-leads
	NOV DEC	Production of a synthesis paper with a substantive analysis of the pros and cons of the different future options (at least 4 options will be considered), recalling the results of the AHT survey done for the 2019 CEOS SIT Technical Workshop.	SDH AHT Co-leads (with the support of the SDG AHT members and GEO EO4SDG)

<b>2021 Q1</b>	<b>JAN</b>	<b>SDG-AHT Future Workshop (3h Min):</b> Review and discuss the future possibilities on the table and reduce the number of future options to 2 scenarios (including variants if needed).	SDG AHT (all members), CEO, SEO, SIT Chair team, GEO Secretariat, GEO EO4SDG.
	<b>FEB</b>	Production of a second version of the synthesis paper with compelling justifications for the selection of the 2 best scenarios, including the possibility to have variants in the scenarios.	SDG AHT co-leads (with the support of the SDG AHT members and GEO EO4SDG)
	<b>FEB - MAR</b>	Bilateral discussions with relevant CEOS entities on the 2 scenarios. CEOS entities to be consulted include SIT Chair Team, SEO, WGISS, WGCapD, WGCV, LSI-VC.	SDG AHT Co-leads
	<b>FEB - MAR</b>	Multi-lateral discussions with relevant GEO entities on the 2 scenarios. GEO entities to be consulted include GEO secretariat (including the new GEO SDG coordinator), GEO EO4SDG and GEO WP activities	SDG AHT Co-leads
	<b>FEB- MAR</b>	Develop the 2 future scenarios in the synthesis paper, identifying required CEOS resources (when needed) and reaching out to CEOS Agencies to verify resource availability within CEOS.	SDG AHT (all to contribute)
	<b>MAR</b>	<b>CEOS SIT 36:</b> <b>SDG AHT side meeting (3 h) including, in addition to the review of SDG AHT 2021 activities:</b> <ul style="list-style-type: none"> <li>- discuss thoroughly the 2 future scenarios (and their variants),</li> <li>- take stock of the CEOS processes for the 2 options,</li> <li>- agree on the "best" permanent mechanism,</li> <li>- initiate the official call for CEOS resources (if required by the selected permanent mechanism)</li> </ul> <b>SIT-36 SDG session:</b> <ul style="list-style-type: none"> <li>- Present the conclusions to the CEOS Principals and ask for their "in-principle" support of the selected option.</li> </ul>	<b>SDG AHT Co-leads</b> <b>SDG AHT Sub Teams Leads</b> <b>CEO, SEO, SIT Chair Team,</b> <b>CEOS Agencies, WGs and VCs</b> <b>GEO Secretariat (including</b> <b>GEO SDG coordinator)</b> <b>GEO EO4SDG</b>

<b>2021 Q2</b>	<b>APR - MAY</b>	Work on the agreed "best" option for the permanent structure, drafting the required documentation (including long term vision, ToR and workplan when required) and reaching out (when relevant) to the CEOS entities and Agencies, and/or to GEO.	SDG-AHT Co-leads
	<b>MAY - JUNE</b>	Reach out to AHT members with a V1 documentation on the new permanent structure, for comments and inputs.	SDG-AHT (all to contribute)
	<b>JUN - JUL</b>	Reach out (when relevant) to CEOS entities and/or to GEO for final arrangements.	SDG-AHT Co-leads
<b>2021 Q3</b>	<b>JULY</b>	Develop a v2 documentation on the new permanent structure.	SDG-AHT Co-leads
	<b>AUG</b>	Last round for comments from SDG-AHT members	SDG-AHT (all to contribute)
	<b>SEPT</b>	<b>CEOS SIT Technical Workshop: Present and discuss the details of the selected option, with the required documentation and implementation plan (if CEOS entities involved).</b>	<b>SDG AHT Co-leads SDG AHT Sub Teams Leads CEO, SEO, SIT Chair Team, CEOS Agencies, WGs and VCs GEO Secretariat GEO EO4SDG</b>
<b>2021 Q4</b>	<b>OCT</b>	<b>CEOS Plenary: Seek endorsement by CEOS Principals of the proposed transfer to the new permanent mechanism on SDGs.</b>	SDG AHT New Co-leads
	<b>NOV - DEC</b>	Start implementing the SDG AHT transfer into the new permanent structure.	SDG AHT Co-leads

*SDG-AHT 2021 Transition Roadmap  
Transition plan towards a permanent mechanism*

***By approving the SDG AHT extension, CEOS Principals are also invited to review and agree with this 2021 transition roadmap.***

### **CEOS SDG AHT Leadership in 2021**

The Terms of Reference of the SDG-AHT contains a rotation of its co-leads at the end of each year. The SDG-AHT co-leads (ESA, CSIRO) invite CEOS Principals to consider the possibility to designate new co-leads for the upcoming year, with a preference to have co-leads from the 3 parts of the world (Americas, Europe+Africa and Asia+Australia). In case there is no candidate to substitute or complement the current leadership of the Ad-Hoc Team, the current co-leads agree to continue to coordinate the AHT activities on a best effort basis in 2021.

***The CEOS SDG AHT invites CEOS Principals to consider the possibility to designate new co-leads of the SDG AHT for the upcoming year, in agreement with the leadership rotation of the SDG AHT Terms of Reference.***