Organisation for GHG monitoring in WGClima
following Discussion at Plenaries
CGMS-46 and CEOS-32

Jörg Schulz, EUMETSAT
Chair Joint CEOS/CGMS Working Group on Climate
The WGClimaite noted that they are also looking at the implementation options with a view to understand the implications on workload and activities of having a sub-group established reporting to WGClimaite. The CGMS plenary then decided on the following action:

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<tr>
<th>Action</th>
<th>AGN Item</th>
<th>Action #</th>
<th>Description</th>
<th>Deadline</th>
<th>Status</th>
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<tbody>
<tr>
<td>CEOS- CGMS WGClimaite</td>
<td>K</td>
<td>A46.18</td>
<td><strong>On greenhouse gas monitoring:</strong> WGClimaite to complete their analysis of the feasibility of establishing a subgroup on CO₂/GHG in the WGClimaite</td>
<td>Nov 2018</td>
<td>OPEN</td>
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Finally, whilst research and network activities and structures for greenhouse gas monitoring exist, they are not suitable to take on board the coordination activities and reporting required for a joint CGMS-CEOS working group. In conclusion, CGMS plenary therefore supported option 2) and placed the following recommendation:

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<tr>
<td>European Commission (EC)</td>
<td>K</td>
<td>R46.13</td>
<td><strong>On greenhouse gas monitoring:</strong> CGMS to recommend to the CEOS Chair the establishment of a subgroup within WGClimaite for the coordination of greenhouse gas monitoring activities.</td>
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On GHG Monitoring it was proposed:

• Create a well-identified task within WGClimate addressing GHG monitoring (action WGClimate to decide how this would be implemented, by SIT-34).
• WGClimate to detail a roadmap based on activities from the AC-VC white paper and the outputs from the JRC GHG workshop (draft by SIT-34).
• WGClimate to establish appropriate links and cross-representation with AC-VC and the WGCVC Atmospheric Composition subgroup.
• Relevant CEOS Agencies to dedicate appropriate resources.
• The task would also include the existing coordination layer for the CEOS Carbon Strategy.
• Update the WGClimate terms of reference (to also be confirmed by CGMS).
CEOS-32 Plenary

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<tr>
<th>Decision 04</th>
<th>CEOS Plenary endorsed the report ‘A Constellation Architecture for Monitoring Carbon Dioxide and Methane from Space.’ It is emphasised that the three-step plan to implement the architecture contained in the paper, as well as the identified activities in the way forward, should be interpreted as recommendations to CEOS Agencies, for their consideration.</th>
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<tr>
<td>Decision 05</td>
<td>Plenary confirmed CEOS interest in continuing collaboration with CGMS through a specific task in WGClimate on GHG monitoring, with dedicated resources and activities based on the mapping table of the actions identified in the Way Forward chapter of the report ‘A Constellation Architecture for Monitoring Carbon Dioxide and Methane from Space.’ Plenary also endorsed the revision of the Terms of Reference of the WGClimate to accommodate these changes.</td>
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<tr>
<td>CEOS-32-05</td>
<td>WGClimate to report on internal implementation for the way forward on CEOS-CGMS coordination on GHG monitoring, including a roadmap based on the mapping of the GHG report recommendations and the JRC workshop conclusions.</td>
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TOR of WGClimate

Terms of Reference as agreed at 32\textsuperscript{nd} CEOS Plenary:

• Coordinate activities of CEOS and CGMS defining and implementing an integrated global carbon observing system including a targeted observing system for monitoring the column concentrations of CO\textsubscript{2}, CH\textsubscript{4} and other greenhouse gases from space as well as ensuring that these activities are integrated into a broader approach on greenhouse gas monitoring, i.e. WMO IG\textsuperscript{3}IS, GCOS, and GEO-C;

• Oversee the implementation of the CEOS Carbon strategy.
Rationale for Organisation

• CEOS has a coordination structure (WGClimate, WGCV, AC VC, ...) that has successfully been used to write the GHG Monitoring Constellation White paper;
• CGMS has well established coordination structures to define products (WG II) and to develop interoperability (GSICS);
• WGClimate needs to:
  – Develop and maintain the roadmap, i.e., the overall distributed workplan;
  – Coordinate CEOS and CGMS bodies in executing the distributed workplan;
  – Provide links to UNFCCC, GCOS, WCRP, GEO, IG3IS and perform communication of results;
  – Oversee the implementation of the CEOS carbon strategy (remaining actions).
• Organisation in WGClimate shall not duplicate activities of contributing coordination structures;
• Involved bodies will have some extra efforts ensuring the coordination;
• Need a structure that is able to execute the coordination work and ensures balanced representation of involved bodies and needed skills.
Implementation I

- Establish a task team as requested by CEOS Plenary;
- The Task Team consists of a leader and a deputy with nominal terms of 2 years;
- The task team leader is proposed by the WGClimate Chair to the WGClimate after consultation with contributing bodies. The deputy should be the ViceChair of the WGClimate;
- Representation of bodies is achieved by identifying PoCs for tasks in the contributing CEOS and CGMS bodies;
- Need a “white smoke” initial meeting involving the contributors to develop the spreadsheet (including temporal dimension) and then to put tasks into VC/WG work plans;
- WGClimate reviews progress at every WGClimate meeting. At those meetings we shall reserve a day for GHG so that status review of tasks is ensured including the PoCs’ reporting (so not only through coordinators);
- This shall allow other agencies to share via WGClimate meetings the activities (transparency) in terms of reporting.
Implementation II

• Links to bodies outside of CEOS and CGMS:
  – UNFCCC – WGClimate Chair
  – GCOS – WGClimate Chair
  – WCRP – WGClimate Chair via WDAC (if still existing after WCRP reorganisation)
  – GEO – The GEO-C activity is inactive at the moment, but if revived task team
  – IPCC (Inventory and guidelines) – Task team
  – IG3IS – Task team