Committee on Earth Observation Satellites (CEOS)
Analysis Ready Data Oversight Group (ARD-OG)
Terms of Reference v1.0
15 March 2022

CEOS ensures international coordination of civil space-based Earth observation programs and promotes exchange of data to optimise societal benefit and inform decision making for securing a prosperous and sustainable future for humankind.

The rapidly evolving domain of information technology has led to greatly enhanced computational capability and much increased expectations of a broadened user community familiar with Big Data systems and the benefits of cloud storage and computing, machine learning, and artificial intelligence. Satellite data is now just one of many sources of information available to results-driven users and data hungry, automated systems.

To support simplified data handling, CEOS has developed the concept of CEOS Analysis Ready Data (CEOS-ARD) – which involves data suppliers removing many of the fundamental data correction and processing tasks from the users, so that more users and more uses of the data are possible.

The generic term 'ARD' is inherently subjective. There are many possible interpretations of what constitutes 'analysis-ready' and this has been seen as the idea has spread across the community. CEOS-ARD is now well defined and plays an important role by taking the first steps towards formally agreeing specific parameters and bounds on the concept.

In 2021 at its 35th plenary meeting, CEOS agreed to broaden its efforts on CEOS-ARD beyond the land domain, which was the initial focus for its development by the CEOS Land Surface Imaging Virtual Constellation (LSI-VC). This increased scope naturally requires input from more areas of CEOS and the CEOS-ARD Oversight Group (ARD-OG) was established in response.

Mission Statement

The CEOS-ARD Oversight Group has been created to provide an overarching coordination and management function for all matters related to CEOS-ARD. It serves as a forum where all of the CEOS entities with a role in CEOS-ARD can assemble to discuss common topics related to CEOS-ARD, including governance, specifications, accessibility and utilisation, outreach, pilot activities, etc.

Scope of Activities

Some specific tasks foreseen for the CEOS-ARD Oversight Group are:

- Provide a coordination and management layer for all CEOS common activities on ARD

- Chart the overall CEOS strategy for ARD

- Provide support and guidance for those seeking to incorporate the provision of CEOS-ARD into their product planning processes

- Coordination of the portfolio of CEOS-ARD Product Family Specifications (PFS), which themselves are sponsored by thematic leads within CEOS (typically the Virtual Constellations)

    - This will prevent overlaps and duplication of work, particularly where a geophysical measurement might not fit neatly within the remit of a specific VC.

- The maintenance of a [shared template PFS](#) as the basis for all CEOS-ARD PFS

- Discuss technical topics that relate to PFS and CEOS-ARD products, but are not domain specific (these discussions will instead take place in the thematic groups developing the PFS, e.g., VCs)

- Discuss technical topics related to the accessibility and utilisation of CEOS-ARD (e.g., data discovery mechanisms, data and metadata formats, STAC), including exploration of pilots and other efforts to gather feedback on CEOS-ARD

- To provide the coordination needed to ensure CEOS-ARD is coherently represented in the broader (rapidly moving) community, including coordination of outreach activities such as CEOS-ARD webinars, conference representation, and maintenance of related promotion and information resources including the CEOS-ARD website, presentations, flyers/brochures, etc.

- Maintenance of the CEOS-ARD Strategy and CEOS-ARD Governance Framework (available at ceos.org/ard), including biennial updates of both documents for CEOS Principal approval

- Championing the ARD concept and providing guidance for the community

- Act as the primary external focal point for CEOS on matters related to ARD

- Represent CEOS on matters related to the further standardisation of ARD in the wider community

Membership and Leadership

The Oversight Group operates under and reports to the SIT Chair and is led by a representative of the SIT Chair, or at the discretion of the SIT Chair, by another member of the Oversight Group.

The membership of the Oversight Group consists of nominated representatives from each of the CEOS Virtual Constellations, the Working Group on Calibration and Validation (WGCV), the Working Group on Information Systems and Services (WGISS), and the Working Group on Capacity Building & Data Democracy (WGCapD).

Representatives from the CEOS Virtual Constellations are integral to CEOS-ARD, as these are the CEOS entities with the technical expertise to recommend, develop and maintain Product Family Specifications.

Where CEOS Principal endorsement is required for anything emerging from the group, the Oversight Group Lead or relevant VC(s) will elevate the matter through the SIT Chair in accordance with existing reporting arrangements.

Meetings

The CEOS-ARD Oversight Group will meet via teleconference approximately once every one to two months to ensure continuity of activities, follow up on actions, coordinate upcoming events and milestones and to maintain awareness on key issues. CEOS-ARD coordination meetings will also be held in the wings of the annual SIT and SIT Technical Workshop meetings.