



**Statement from the
Committee on Earth Observation Satellites (CEOS) for the
Scientific and Technical Subcommittee of the (STSC) Committee on the
Peaceful Uses of Outer Space (COPUOS), 60th Session,
6 - 17 February 2023, Vienna, Austria**

The Committee on Earth Observation Satellites (CEOS), an Observer Organisation to the Committee on the Peaceful Uses of Outer Space (COPUOS) since 2002, is honoured to provide to this 60th session of the Scientific and Technical Subcommittee (STSC) an overview of its work to support the United Nations' Sustainable Development Goals (SDGs).

CEOS was established in 1984 to ensure international coordination of civil space-based Earth observation programmes and to promote exchange of data to optimise societal benefit and inform decision making for a prosperous and sustainable future for humankind. For well over three decades, CEOS, which today consists of more than 60 Members and Associates, has substantively advanced space-based Earth observation endeavours that no one country can do alone. As the challenges affecting the planet become more pronounced, more frequent, and more acute, international cooperation is even more decisive: CEOS continues to elevate societal benefit at multiple scales thanks to its actions in support of the Sendai Framework for Disaster Risk Reduction 2015-2030, the 2030 Agenda for Sustainable Development, and the 2015 Paris Climate Agreement, in line with the UN Space2030 Agenda and its overarching objectives. CEOS undertakes numerous activities related to disaster reduction and even more in relation to climate change, but this statement will focus only on CEOS support to the UN SDGs.

In adopting the 2030 Agenda for Sustainable Development, world leaders agreed that a global Indicator framework was necessary to measure, monitor and report progress towards the 17 transformational SDGs and 169 associated targets. From the inception of the SDGs, CEOS has promoted transparent and accountable scaling-up of the use of Earth observation (EO) and geospatial information to significantly reduce the costs of monitoring the aspirations reflected in the goals and targets and make SDG monitoring and reporting viable within the limited resources available to governments. Recognising the growing importance of SDGs in national agendas and in each country's needs to access and leverage all available data, CEOS created an initial team in 2016. This team was established to take stock, to coordinate and to improve the contributions from the satellite EO community to the global framework, including to help countries in their national reporting and to support the Group on Earth Observations (GEO) in achieving one of its four strategic priorities, which is to support relevant international treaties. Since its creation, the team, which became a permanent 'SDG Coordination Group' in 2021, has proudly supported the SDGs Global Framework and their stakeholders by raising awareness together with GEO around the use of satellite EO data. CEOS has developed EO Support Sheets for stakeholders to better understand, assess and use EO data from space by producing insightful communication materials (<https://ceos.org/sdg>), a fully dedicated EO Handbook on SDGs (<http://www.eohandbook.com/>), and by providing ongoing expertise to the community through international research papers, and conference and event participation. Today, the

group provides strategic direction and coordination on SDGs for CEOS, and ensures that existing CEOS expertise delivers technical reporting for four SDG Indicators:

- 6.6.1 (Water),
- 11.3.1 (Urbanization),
- 14.1.1 (Coastal pollution), and
- 15.3.1 (Land degradation).

To highlight the potential role of EO in support to the global Indicator framework for SDGs, CEOS has been working closely with GEO especially playing a key role in its EO4SDG Initiative. CEOS provided its expertise in the “*Earth Observations in Support of the 2030 Agenda for Sustainable Development*” report (<http://eo42030agenda.com>), and more recently in the EO Toolkit for Sustainable Cities and Human Settlements (<https://eotoolkit.unhabitat.org/>) . A successful sustainable development agenda requires effective partnerships for implementation, and this report describes how GEO and CEOS Agencies will work with governments, academia, scientists and the private sector to develop such partnerships for implementation of the SDGs.

In addition to contributions of satellite data expertise to specific Indicators, CEOS has other initiatives that support the SDGs, including the provision of Analysis Ready Data (ARD) products according to CEOS specifications (<https://ceos.org/ard/>), and building capability around the easier use of satellite data for better, safer and continuous information to improve decision making. A key priority for CEOS across all its work is the provision of satellite EO data that is free, open and easily accessible to user communities worldwide. CEOS Analysis Ready Data (CEOS-ARD) products, which are satellite data that have been processed to a minimum set of requirements and organised into a form that allows immediate analysis with a minimum of additional user effort and interoperability both through time and with other datasets, aids us to promote full and successful utilisation of space-based data to all, possibly in combination to other sources of data, for example *in situ* data, modelled information, etc. Work on enabling infrastructures, such as enabling the use of Jupyter notebooks for the CEOS Open DataCube and ensuring the universal application and acceptance of CEOS-approved EO quality standards, is also within the remit of our work.

Please visit the CEOS website at <https://ceos.org/> for in-depth information on our organisation, activities, and the resources we make available to data users worldwide.

Thank you for your attention.

CEOS Members and Associates

- Agence Gabonaise d'Études et d'Observations Spatiales (AGEOS), Gabon
- Agencia Espacial Mexicana (AEM), Mexico
- Agenzia Spaziale Italiana (ASI), Italy
- Australian Bureau of Meteorology (BoM), Australia
- Belgian Federal Science Policy Office (BELSPO), Belgium
- Canada Centre for Mapping and Earth Observation (CCMEO), Canada
- Canadian Space Agency (CSA), Canada
- Centre National d'Études Spatiales (CNES), France
- Centro para Desarrollo Tecnológico Industrial (CDTI), Spain
- China Center for Resources Satellite Data and Applications (CRESDA), China
- Chinese Academy of Space Technology (CAST), China
- Comisión Nacional de Actividades Espaciales (CONAE), Argentina
- Commonwealth Scientific and Industrial Research Organisation (CSIRO), Australia
- Deutsches Zentrum für Luft- und Raumfahrt (DLR), Germany
- Earth System Science Organisation (ESSO), India
- European Commission (EC)
- European Centre for Medium-range Weather Forecasts (ECMWF)
- European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT)
- European Space Agency (ESA)
- Food and Agriculture Organization of the United Nations (FAO)
- Geo-Informatics and Space Technology Development Agency (GISTDA), Thailand
- Geoscience Australia (GA), Australia
- Global Climate Observing System (GCOS)
- Global Geodetic Observing System (GGOS)
- Global Ocean Observing System (GOOS)
- Global Terrestrial Observing System (GTOS)
- International Science Council (ISC)
- Indian Space Research Organisation (ISRO), India
- Instituto Nacional de Pesquisas Espaciais (INPE), Brazil
- Intergovernmental Oceanographic Commission (IOC)
- International Ocean Colour Coordinating Group (IOCCG)
- International Society of Photogrammetry and Remote Sensing (ISPRS)
- Korea Aerospace Research Institute (KARI), Republic of Korea
- Korea Meteorological Administration (KMA), Republic of Korea
- Japan Aerospace Exploration Agency / Ministry of Education, Culture, Sports, Science and Technology (JAXA/MEXT)
- Malaysian Space Agency (MYSA), Malaysia
- National Aeronautics and Space Administration (NASA), USA
- National Institute of Environmental Research (NIER), Republic of Korea
- National Oceanic and Atmospheric Administration (NOAA), USA
- National Remote Sensing Center of China (NRSCC), China
- National Satellite Meteorological Center / China Meteorological Administration (NSMC/CMA), China
- National Space Research Agency of Nigeria (NASRDA), Nigeria
- Netherlands Space Office (NSO), Netherlands
- Norwegian Space Centre (NSC), Norway
- Polska Agencja Kosmiczna (POLSA), Poland
- Portuguese Space Agency (PTSpace), Portugal
- Russian Federal Service for Hydrometeorology and Environmental Monitoring (ROSHYDROMET), Russia
- Roscosmos State Cooperation for Space Activities (ROSCOSMOS), Russia
- Scientific and Technological Research Council of Turkey (TÜBİTAK-Uzay), Turkey
- South African Council for Scientific and Industrial Research (CSIR), South Africa
- South African National Space Agency (SANSA), South Africa
- State Space Agency of Ukraine (SSAU), Ukraine
- Swedish National Space Agency (SNSA), Sweden
- United Arab Emirates Space Agency (UAESA), UAE
- United Kingdom Space Agency (UKSA), UK
- United Nations Economic and Social Commission for Asia and the Pacific (ESCAP)
- United Nations Educational, Scientific and Cultural Organization (UNESCO)
- United Nations Environment Programme (UNEP)
- United Nations Office for Outer Space Affairs (UNOOSA)
- United States Geological Survey (USGS), USA
- Vietnam Academy of Science and Technology (VAST), Vietnam
- World Climate Research Programme (WCRP)
- World Meteorological Organization (WMO)

