

New Space & Future CEOS Session at SIT-37

Background Paper for CEOS Agencies

SIT Chair Team, 25 Feb 2022

By any measure, the context in which the public EO programmes of CEOS agencies operate is changing extremely rapidly in 2022:

- The number of commercial EO missions being launched is increasing exponentially and the proportion of public missions within the total of active EO satellites is rapidly decreasing accordingly. *The UCS Satellite Database shows 191 EO missions launched in 2021, of which 11 are identified in the MIM as from CEOS agencies - the remainder being commercial (123) or other government, academia or military.*
- Investment in new commercial EO ventures is increasing, with up to \$US2Bn of capital raised in 2021 - from \$14.5Bn invested across space industry broadly, up 50% in just one year. For comparison, the ESA Earth Observation budget for 2021 was \$US1.6Bn.
- Some CEOS agencies are incorporating new arrangements with industry into their planning of new and ongoing data streams, including through outsourcing of entire constellations or integration of commercial satellite data streams into their data programmes.
- Space infrastructure and data, EO included, is becoming increasingly integrated into many sectors of our economy and society - including in the agriculture, banking, insurance and infrastructure sectors - and in entirely new sectors.
- Analysts foresee rapid growth in global EO market revenues in the years ahead, spanning all aspects from hardware development through to data and services.

Many CEOS agencies are already emphasising support for the industrial opportunities and economic growth resulting from this new phase of activity and wish to find new ways to support their national and regional companies and to find new ways to work and co-exist together. We would like to explore this subject during our SIT Chair Term, and explore ways of combining the strengths of each sector - public and commercial - to improve existing services and enable new ones, focusing on the benefits to end users and society. The ultimate goal is to realise maximum benefit from the entire suite of Earth observation space hardware, data archives, and service delivery mechanisms irrespective of their provenance or funding mechanism - for the full range of public sector, not-for-profit or commercial customer categories.

We can be sure that the nature and role of public satellite EO programmes will not be the same in a decade as today and that the future will involve new geometries and partnerships between space agencies and space companies across all aspects of our endeavours, including: space segment; data segment; and applications, analytics and services.

The ESA SIT Chair Team would like to allocate time during the upcoming online SIT-37 meeting to reflect on the nature of the changes and trends, to hear experience and plans from individual agencies, and to consider the implications for the objectives and activities of CEOS, as the peak coordination body for the public EO programmes of the world's space agencies. This session will be a first opportunity for collective consideration within CEOS of the trends impacting the EO sector, to exchange views and ideas on how individual agencies are addressing them, and to establish directions for further investigation as to how CEOS activities may need to adapt to changes in our operating environment.

CEOS agencies with an interest in this topic, and who may have pertinent examples and ideas to contribute to the SIT-37 session, are invited to get in touch with the SIT Chair Team to help shape the agenda topics, by email initially to: sit-chair@lists.ceos.org.