



## 2025 CEOS Chair Theme

October 2024

# Unlocking Earth Observation Data for Society

This paper communicates the theme of the 2025 UK Space Agency CEOS Chair team to the CEOS community, serving as a focus for discussion leading to the 39<sup>th</sup> CEOS Plenary. In addition to these proposed headlines, the incoming CEOS Chair team will work closely with the JAXA SIT Chair team to ensure that ongoing CEOS Work Plan objectives are supported and continue – particularly those of the SIT Chair and 2024 CEOS Chair, CSA.

Vast and rapidly growing collections of global satellite Earth observation (EO) data offer immense societal value. However, bridging the gap to use such data to transform public services and grow data-fuelled businesses is an ongoing challenge faced by many countries.

The UK Government is undertaking its own national efforts to encourage better use of satellite EO data by the public sector, primarily through strategic initiatives such as the UK Space Agency's Unlocking Space for Government programme.

This is a common priority across CEOS agencies, as demonstrated by the CEOS New Space White Paper, as well as initiatives such as Connect by CNES; ESA's Business Incubation Centres; JAXA's Consortium for Satellite Earth Observation (CONSEO); among others, which are all examples of CEOS Agency efforts to boost economic, societal and environmental development through the application of satellite EO.

NASA's recent Earth Science to Action Strategy recognises that "we have more data and information available to us than ever before – so much so that decision makers cannot access or act on it fast enough, creating a gap between what's available and what people can do with it". One such example is found in the suboptimal use of satellite-based global maps for forest reference levels submitted to the UNFCCC (reference).

The UK Space Agency will use its CEOS Chair year to explore strategies to bridge the gap between satellite EO data and services, seeking to learn from the experiences of CEOS Agencies and identify what we might do better together as an international community to maximise the uptake of EO data for societal impact.

The UK Space Agency will support the JAXA SIT Chair's ongoing efforts to address the climate policy impact of EO data (GST lessons learned study; updated CEOS GST Strategy) and will also accelerate and elevate CEOS work on best practices for measuring methane emissions from space – as another means for unlocking the potential of satellite EO for society.

The UK Space Agency also recognises that, if exposed to the benefits of EO, the next generation will further drive uptake of the technology for service and applications. The 'CEOS In Schools' pilot seeks to inspire the next generation and provide students with a deeper understanding of the applications of EO and international collaboration, and hopefully inspire careers in Science, Technology, Engineering and Mathematics (STEM) fields. It is hoped this programme will become a fixture within CEOS, to be taken on by future CEOS Chairs.

There are four headline areas of activity proposed for the UK Space Agency's term as CEOS Chair:

### **#1: Unlocking EO for Public Service**

The UK Space Agency will promote discussions with CEOS Agencies on their national strategies to drive uptake, transform public services, and grow data-fuelled businesses with EO data. This will culminate with a dedicated side meeting workshop at the 2025 SIT Technical Workshop (September 2025) during which agencies can share their activities and discuss what more CEOS might do as an international community to bridge the gap between data and services for the public sector.

A short paper presenting findings on initiatives from across the CEOS community will be presented for CEOS Principal awareness at CEOS Plenary 2025.

### **#2: Unlocking EO for the UNFCCC Global Stocktakes**

The UNFCCC Global Stocktakes (GST) are an important opportunity to unlock EO information for the benefit of society, but we recognise more can be done to maximise the impact of satellite-based GHG measurements for the GST. Understanding and building upon CEOS efforts is a headline priority for the JAXA SIT Chair team, which is working with WGClimate on a GST Lessons Learned Study. We have a few critical years to learn lessons from GST1 to inform CEOS' approach to the next GST process and ensure that EO data is sufficiently exploited in 2028.

The UK Space Agency will use its position as CEOS Chair to encourage sustained action on the recommendations of the CEOS GST Lessons Learned Study. The CEOS Chair will ensure there is sufficient opportunity for discussion throughout 2025 in preparation for UNFCCC COP30. This will include side meetings around WGClimate-22 (February 11-13, 2025; Harwell, UK), at the ESA Living Planet Symposium (June 23-27, 2025; Vienna, Austria) and influencing the COP30 agendas.

### **#3: Unlocking EO for the Global Methane Pledge**

The CEOS Greenhouse Gas Task Team (GHG TT) is preparing best practices for facility-scale space-based methane measurements. This activity is of high priority to the UK Government, and the need for these standards have been recognised across many agencies. The UK's National Physical Laboratory (NPL) is co-leading the effort with NASA JPL, and the UK Space Agency will use their year as Chair to maintain momentum of this work.

Such best practices, if appropriately promoted, are a key means to drive uptake of EO data. The UK Space Agency CEOS Chair, with UK government partners, will push for these best practices to be included as a measurement standard in the framework of the Global Methane Pledge (which was launched at COP26 in Glasgow, and aims for a 30% Global reduction in Methane emissions) at COP30 in 2025, and will identify links into other relevant global initiatives.

The UK Space Agency hope to encourage other Agencies to engage their COP negotiators and national delegates to promote the uptake of these best-practices.

### #4: CEOS In Schools and Youth Summit

The UK Space Agency will pilot a CEOS mechanism to inspire global youth collaboration. The goal is to demonstrate to students (approximately 14–16-year-olds) how satellite EO can be used for the benefit of society – to solve global issues on climate, the environment, and disasters, and to highlight the power of international collaboration. Several CEOS Agencies have already expressed interest in participating.

Across two online international workshops, students will learn about EO applications for built and natural environments. To provide continuity with the 2024 CEOS Chair's theme, EO for biodiversity has been chosen as one of the focus areas.

The UK Space Agency team is working with colleagues in the education sector to adapt existing materials, while ensuring focus is placed on international engagement and collaboration, which is unique among existing EO education programmes.

The programme will conclude with the first CEOS Youth Summit, which will be held ahead of the 2025 CEOS Plenary in Bath, UK. Students will have the opportunity to present and discuss their work with CEOS Principals. This is to give youth a voice and to inspire the Principals of CEOS to consider the next generation in its work plans.

An additional activity will involve maintaining an informal working group of participating CEOS members to explore how this strand of activity might be improved and continued by future CEOS Chairs.

The UK Space Agency looks forward to discussing these plans with the CEOS community at CEOS Plenary.