

# **DISCUSSION: CEOI: THE NEXT GENERATION. NEEDS, OPPORTUNITIES, CHALLENGES, DIVERSITY**

Emerging Technologies Workshop

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# UKSA continues to evolve

- New Head Office 'hub' at the Harwell Space Campus; 'spoke' offices in Edinburgh, Wales, Leicester, Swindon and London.
- We continue our transformation to focus on delivery, with the Department for Science, Innovation and Technology leading strategy and high-level policy.
- We will make the case for continued national support for EO technology under the Space Industrial Plan.



# CEOI: More funding, less flexibility

- We are making an unprecedented investment in national EO technology, a 3x increase in the size of the programme over the current 3-year Spending Review period.
- Following peer review we have been able to fund a total of 12 projects from the 16<sup>th</sup> Call, totalling just over £9,000,000 in grant funding.
- However, we are now fully constrained by public accounting practices: we no longer have any ability to carry budget between Financial Years.
- We are therefore unable to accommodate any delays to CEOI projects which would cause them to span across financial years.



# EO Mission Capability Review 2023

- 35 responses from 18 different industrial and academic organisations.
- Used to design the 16<sup>th</sup> CEOI Call.
- Enabled us to make the case for an Atlantic Constellation pathfinder mission.
- Underlines that there are many advanced mission ideas which are beyond the scope of CEOI support.

| Domains                          |    | Technologies             |   |
|----------------------------------|----|--------------------------|---|
| Atmosphere: meteorology          | 9  | SAR                      | 5 |
| Atmosphere: chemistry            | 5  | SAR interferometry       | 3 |
| Upper atmosphere & magnetosphere | 3  | Other radar              | 3 |
| Aerosols                         | 1  | Passive microwave & RF   | 8 |
| Ocean & Coastal                  | 8  | THz radiometry           | 1 |
| Inland water                     | 4  | Optical high-res imaging | 5 |
| Land use                         | 16 | Hyperspectral            | 4 |
| Cryosphere                       | 6  | Multispectral imaging    | 5 |
| Climate                          | 11 | Spectroscopy (imaging)   | 4 |
| Water cycle                      | 5  | Magnetometers            | 1 |
| Maritime ops & surveillance      | 8  | Langmuir probes          | 1 |
| Air Quality                      | 2  | IR spectroscopy          | 5 |
| Forestry & Biomass               | 6  | MWIR and TIR imaging     | 6 |
| Soil moisture/inundation         | 2  | SWIR multispectral       | 1 |
| Urban                            | 7  | Gradiometer / cold atom  | 1 |
| Dual Use                         | 8  | LIDAR                    | 1 |
|                                  |    | Polarimetry              | 3 |



# Knowledge Exchange

- The CEOI knowledge exchange programme continues with several events and workshops (such as this!) over the coming year.
- We hope to trial a 3- to 6-month secondment scheme.
- And we aim fund up to 3 people to attend ESA's upcoming Space Optics course.



# Monitoring and Evaluation / Comms

- A separate **Monitoring and Evaluation** project is underway, led by Billy Bryan and Theodora Ogden et al. of Rand Europe, in partnership with Alyssa Frayling and Greg Sadlier et al. of Know.Space.
- The team recently published the Evaluation Plan online. We aim to publish an Interim Report in the summer.
- We are also looking to champion **success stories** where possible, to help demonstrate impact.
- This work will be key to making the case for further national support for EO technology beyond March 25; please do feed in if you have an opportunity.





# DISCUSSION: CEOI: THE NEXT GENERATION. NEEDS, OPPORTUNITIES, CHALLENGES, DIVERSITY

- What's working well?
- What could CEOI do differently?
- Could CEOI do anything more to improve diversity in the sector?
- Is there anything currently out of scope which we should support?
- Should CEOI more highly weight evidence of engagement with end-users?
- How should CEOI balance ambition and risk with financial year fiscal constraints?
- What would be the ballpark limit of match funding per annum the sector could provide?
- What should be the maximum number of events each year?
- Should CEOI provide any other events or services to support the community?



Thank you