

Centre for EO Instrumentation

**Emerging Technologies Challenge
Workshop**

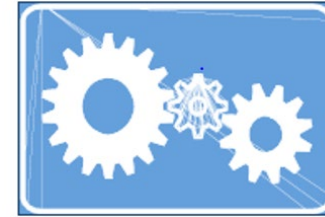
21st & 22nd April 2021

Workshop Sessions



Wednesday

- 1: Welcome & Introductions
- 2: Detector Technology
- 3: Advanced Optics & Deployables
- 4: New Payloads & Missions
- 5: AI Techniques



Thursday

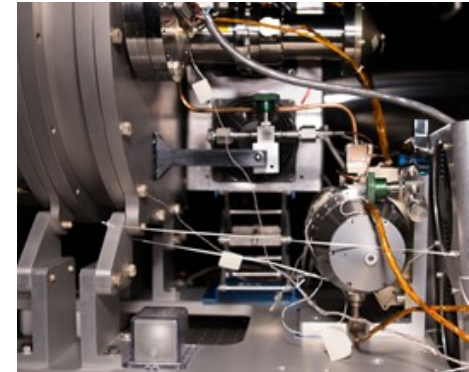
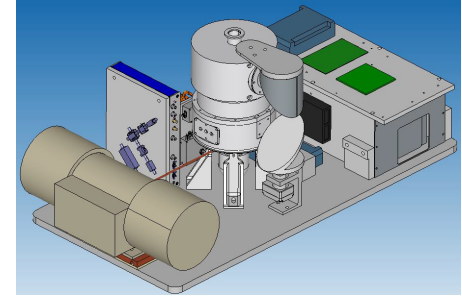
- 6: International/ESA
- 7: Challenges
- 8: Advances In Lidar For Eo
- 9: New & Emerging Techniques



CEOI: 14 Years of Technology Development



- UK Space Agency initiative to strengthen UK EO technology capability, with enhanced breadth and depth
 - Funds innovative technologies for global EO mission opportunities
 - Supports developments for commercial exploitation opportunities
 - Create new UK jobs and economic growth through leverage of investment in EO
 - Parallel industry investment, total approx £2-3M pa
- Partnership led by Airbus with QinetiQ, STFC/RAL and University of Leicester



- One Flagship project funded initially:
 - CASPA Accelerometer: Development of a Cold Atom Accelerometer for Atmospheric Drag Measurement
- Two additional projects funded in Feb 2021
 - MAP: Multi Angle Polarimeter instrument Airborne Demonstrator (TAS UK Ltd)
 - NIMCAM: Near Infrared Multispectral Camera for Atmospheric Methane (University of Edinburgh)

- The CEOI is pleased to announce it will be holding another Technology Showcase of recently funded EO technology projects.
- This Webinar event will occur on 23/24 June 2021 and will cover projects from:

Call	Projects Funded
10 th EO Call	2 Flagships, 7 Fast Track, 9 Pathfinders
11 th EO Call	7 Flagships
12 th EO Call	1 Flagship, 7 Fast Track, 2 Pathfinder.
13 th EO Call	2 Flagship, 1 Fast Track

- Presentations will be invited from complete and active projects, and will describe the project's objectives, the technology development undertaken and main achievements.
- Projects which were presented at the Emerging Technologies Workshop in April 2021 will not be presented again.

NATIONAL EO WEEK 2021

6th-10th September 2021

- On-line virtual conference, single registration, multiple sessions
- Covers EO research, technology, products and services
- Plenary sessions and keynote speakers
- Individual RSPSoc, NCEO and CEOI sessions
- Annual National EO Conference postponed to 2022

CEOI Team



- CEOI Director
 - Mick Johnson
- CEOI Technical Director
 - Chris Brownsword
- CEOI Team
 - Jolyon Reburn (EO Science/Technology)
 - Kevin Smith (EO Science/Technology; Website)
 - Rob Scott (ETCW, EO Technology)
 - Josh Vande Hey (EO Science, KE Programme, Conference)
 - Charlotte Moretti (Contracts, Website, Co-ordinator)

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- CEOI Co-Directors:
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Discussion Questions



- What TRL will CEOI projects make the most impact?
- From a UK perspective, would we prefer the ESA Earth Explorer missions to be:
 - Every c. 3 years, with current budget limit (450 ME/ 250 ME ind.cost)
 - Less frequent (every 5 yrs?) but with higher mission budget
- What new technologies relevant to Earth Observation should we be examining?
- Do you see any gaps and/or opportunities i.e., what technology will need to be developed in the near future?
- What should be the focus of a future revision of the EO Technology Strategy?

Feedback



- Did you find the meeting useful? Any aspects in particular?
- Do you have comments on the agenda, or any of the presentations?
- Do you have any feedback on the structure and format of the meeting?
- Any suggestions for future meetings (which we hope will be physical!)
- Will virtual meetings also have a place post-pandemic?