



Introduction to CEOI

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CEOI Director

What is the CEOI?



- NERC and TSB initiative 'to boost UK capability and remain at the forefront of EO technology for space'.
- Intended 5 year programme, with parallel industry investment, totalling approx £1.5M pa:
- CEOI programme focus on:
 - development of new EO instrumentation and technologies
 - horizon scanning and knowledge exchange
 - building highly capable academia/industry partnerships
 - training for next generation scientists and technologists
- Partnership led by Astrium with QinetiQ, STFC/RAL and University of Leicester
- Management Board set up under NERC guidelines



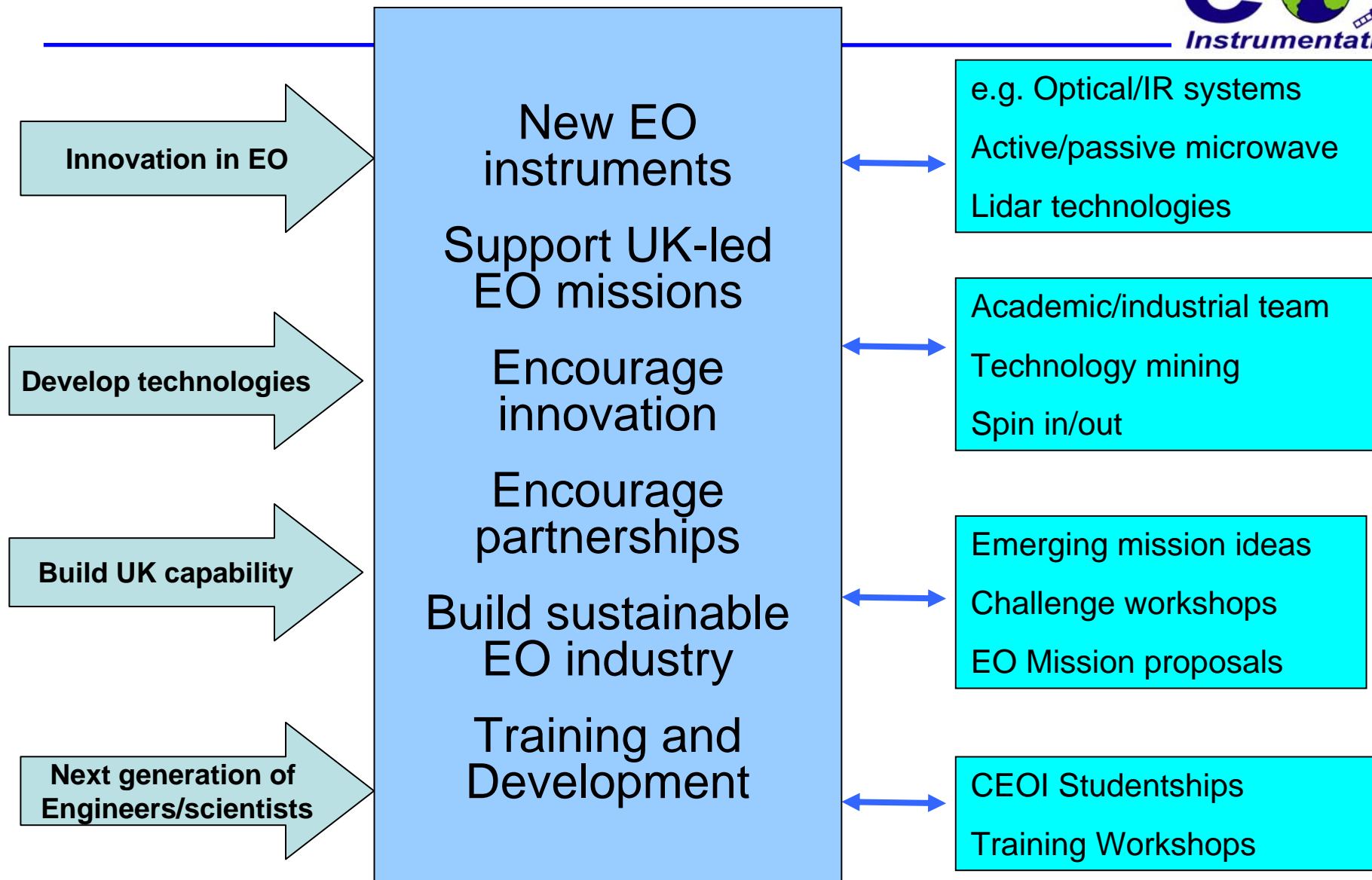
Science & Technology Facilities Council
Rutherford Appleton Laboratory



QinetiQ

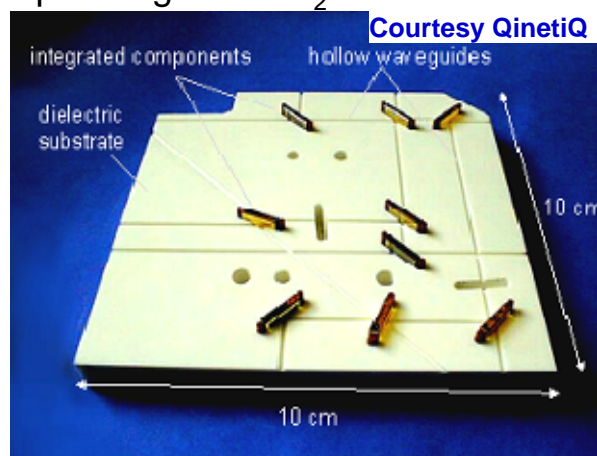


Science Driven <--> Project Based



CEOI Technology developments

LIDAR technologies in 1.5-2.5 μm range for CO_2 measurement



Courtesy QinetiQ

Integrated Optics
Hollow Waveguide

QinetiQ with Uni. Of
Leicester and CTCD

Courtesy SSTL



Spectrometers and detectors
in UV/Vis/NIR for atmospheric
composition measurement

STFC/RAL
with Astrium

Univ. of
Leicester
with SSTL
and Astrium

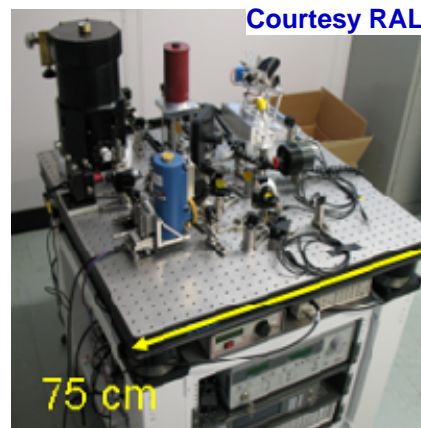
Millimetre wave radiometric
sounding of the atmosphere
STFC/RAL with Astrium and QUB



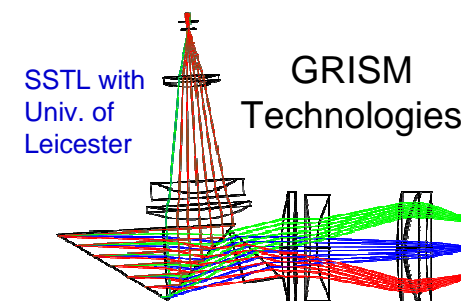
Courtesy RAL

SHIRM 360 GHz image
separator mixer using Schottky
diode technology

Courtesy RAL



Laser heterodyne sounding
in 4-150 μm range



SSTL with
Univ. of
Leicester

GRISM
Technologies

Courtesy Univ. of Edinburgh

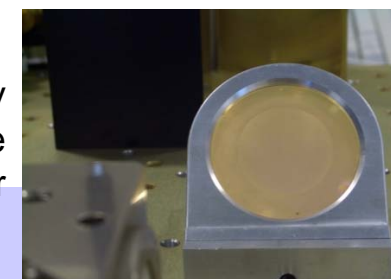


Univ. of Edinburgh
with Selex Galileo

Multispectral
Canopy
LiDAR

Queens University
Belfast

Frequency
Selective
Surface Filter



Future Activities

Sep – Nov 2009	Open Call #3	Issued in 2nd half September , with 8 week response.
13 th Nov 2009	Operational EO Missions Challenge Workshop	Leamington Spa
30 th Nov 2009	Earth Observation Satellites Conference	Joint IET/CEOI Conference, London
1 st Dec 2009	Call for CEOI PhD Studentships	Three additional studentships allocated
Jan/Feb 2010	KO 3rd Open Call Projects	KO date dependent on project teams and contracts
15 th March 2010	Training Workshop #2	“Designing and Delivering an EO Instrument Concept”
22/23 April 2010	CEOI Conference 2010	Warwick University Conference Centre
10 th June 2010	Knowledge Exchange Conference	Hamilton House, London
October 2010 tbc	Detector Technologies Challenge Workshop	Venue tbd.
Date tbd	10 th Challenge Workshop	Subject to be selected following CEOI Conference