

# News story: UK company delivers first Euclid flight hardware

e2v, in Chelmsford, has developed a new Charge Coupled Device (CCD) imaging sensor for the space telescope and the first four have now been delivered to the Mullard Space Science Laboratory (MSSL), in Surrey. The remaining CCDs for the Visible imager (VIS), will be delivered over the coming months.

The UK Space Agency is funding MSSL to lead the European instrument consortium that is developing and building Euclid's Visible imager, to be delivered to ESA. The mission, due for launch in 2020, should revolutionise cosmology by improving our understanding of the evolution of the very fabric of the Universe since its birth in the Big Bang, around 13.8 billion years ago.

During its 6 year mission, Euclid's 36 CCDs will be bombarded with charged particles from the space radiation environment, causing damage. Supported by the UK Space Agency, the Open University's Centre for Electronic Imaging is working with MSSL to simulate this environment and conduct experiments to understand the impact of charged particles on detector performance, so that radiation damage effects can be removed from the eventual science images.

The entire VIS instrument will generate 610 megapixel images – 25 times larger than a top-of-the-range digital camera and with much better image quality. The field of view of VIS is 0.78 degrees x 0.7 degrees – slightly larger than the area covered by a Full Moon – and the spacecraft will manoeuvre to conduct a survey over the course of the mission.

The second instrument on Euclid, the French-led Near-Infrared Spectrometer and Photometer (NISF), is also making progress, and its first detectors are expected to be delivered in the spring. Light gathered by Euclid's 1.2 metre diameter primary mirror will be split and sent to the two instruments. Together they will map the 3D distribution of several billion galaxies spread over the entire extra-galactic sky.

This will enable scientists to determine in unprecedented detail the properties of the mysterious dark energy and dark matter which are thought to make up most of the Universe.

The UK Space Agency is also contributing to the development of the scientific data processing capability for Euclid, with UK involvement being led from Edinburgh's Institute for Astronomy.

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## [Barbara Keeley responds to Panorama programme on Mental Health services in the Norfolk and Suffolk Mental Health Trusts](#)

Commenting

on the BBC Panorama programme on issues in Mental Health services in the Norfolk and Suffolk Mental Health Trusts, **Labour's Shadow Cabinet Member for Mental Health, Barbara Keeley MP said:**

"Despite years of Tory Government promises, funding for NHS Mental Health services has not increased but has actually fallen by £150 million.

"At the Norfolk and Suffolk Mental Health Trust, funding cuts led to frontline community teams being disbanded, loss of experienced staff and the cutting of 136 inpatient psychiatric beds. The Panorama programme showed what can go wrong when patients in crisis cannot be admitted to an inpatient bed.

"It is disturbing that while the Prime Minister and the Health Secretary talk about transforming mental health services, what families actually saw in Norfolk and Suffolk is an absence of support and no beds available during a crisis. It is time for action from Tory Ministers, not warm words which fail patients and their families."

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## [Speech: Sustainable cities: building a UK partnership case for Karnataka](#)

Ladies and gentlemen,

It gives me immense pleasure to be speaking here today at sustainable cities: building a UK partnership case for Karnataka.

I have been in Bengaluru for over a year now and I now know why it is called the start up city, innovation city and known by many other names.

In spite of the multiple names, the strength of a city is its people. I won't

cite statistics in a room full of experts. We are aware that cities are growing at much faster rate due to inflow of people in search of better jobs, amenities and a better standard of living. But at the same time, this inflow is putting pressure on the available resources and that is why urban planning becomes crucial.

The choices that are made today on building designs, waste management, water, energy and food systems, urban ecosystem management, transportation, infrastructure development and retrofitting will have critical implication for future urban habitats.

It is therefore vital to have an integrated and innovative approach as we try to future-proof our cities in the light of changing climate, rising energy prices, increasing demand for water and space.

The UK supports the 'Make in India' campaign, as does UK business. The UK is also committed to supporting India's goal of '100 Smart Cities'. Karnataka is developing Mangaluru, Shivamogga, Belagavi, Hubballi-Dharwad, Tumakuru, Davangere and also Bengaluru as smart cities.

UK companies are keen to support India across the entire span of the four-pillar smart city framework/sustainable urbanisation. We have expertise in infrastructure – from smart transport and mobility to water and waste management – in digital – particularly in fin tech and e-commerce – and in design, professional services, healthcare and e-governance.

2012 London Olympics is a good example of developing East London on the principles of sustainable urbanisation where the Olympic Park was created on once contaminated industrial land. 240 electric and hybrid cars were used, food packaging used was compostable, sourcing of materials for various structures was sustainable, and water harvesting, natural lighting lightweight building materials were used. Post the games the waste generated was waste was diverted from landfill, with 62% of that waste being reused, recycled or composted.

- UK's capabilities lie in urban design, planning and architecture
- UK construction and civil engineering firms lead major urban infrastructure developments worldwide
- there are now over 3,384 low carbon emission buses in the UK. 1,500 hybrid electric buses and 15 pure electric buses also run on London roads. Around 3,000 buses are expected to run on biodiesel, renewable biodiesel from waste products, including cooking oil and tallow from the meat processing trade
- 3.6 GW is generated from off-shore wind, more than anywhere else in the world
- UK is the first developed economy to commit to phase out unabated coal by 2025
- UK remains committed to tackling climate change at home and supporting developing nations to deliver their own climate change goals

Sustainability requires holistic consideration of social, economic and environmental dimensions of urban challenges to develop solutions that meet

future needs.

I look forward to hearing your views on sustainable solutions to developing sustainable cities in India.

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## **[Press release: Preferred candidate for Chair of Office for Students announced](#)**

The Department for Education has today (7 February 2017) announced that Sir Michael Barber is the preferred candidate to become Chair of the Office for Students (OfS).

Sir Michael was selected for the role following an open and transparent recruitment process, overseen by the office of [The Commissioner for Public Appointments](#).

The Office for Students is a new public body being established in law by the [Higher Education and Research Bill](#). It will combine the existing regulatory functions of the [Higher Education Funding Council for England](#) (HEFCE) and the [Office for Fair Access](#) (OFFA), and will create and oversee a regulatory environment in higher education which puts the interests of students at the heart of the system, focusing on choice and competition.

Sir Michael Barber is a leading thinker and practitioner on public service delivery and has been at the forefront of global thinking in education for the past 20 years including in higher education, for example as a member of the [Browne Review of higher education funding](#).

Justine Greening, Secretary of State for Education, said:

I am delighted to confirm Sir Michael as the government's preferred candidate for this vital role as Chair of the Office for Students (OfS).

Sir Michael is a globally respected figure both in the sector and in government with an impressive record in leading and supporting public sector delivery.

The OfS will play a vital role in this government's ambitions for higher education by replacing a regulatory system from a bygone era with framework that can truly respond to the challenges of the 21st century. I welcome Sir Michael's commitment to the opportunities for higher education through the creation of this new body.

Minister for Universities Jo Johnson said:

I am delighted Sir Michael is taking up this crucial role. With his deep understanding of education systems, Sir Michael has a world-class background in delivering HE reform and is the right person to lead the creation of the Office for Students.

The OfS will play a pivotal role in reforming one of our nation's greatest assets – the higher education sector. This new body will drive a focus on choice and competition and rightfully put the interests of students at the heart of regulation.

Sir Michael Barber said:

I am delighted to take on this role and deeply conscious of the degree of responsibility it involves. The higher education sector in England, with its welcome diversity, is a jewel in this country's crown. It has a major role to play in a global Britain and a fairer Britain.

The challenge will be to combine the traditions that make our universities great with the innovation that the decades ahead demand.

Above all the Office for Students will aim to create a framework in which universities are enabled to provide for students both high academic standards and employability for the 21st century.

I look forward to working with everyone to sustain and develop world-leading higher education in this country.

The Rt Hon the Lord Mandelson said:

Michael Barber is an excellent choice. His commitment to education and public service is strong and he knows the importance of university independence.

The Rt Hon Baroness Gillian Shepherd said:

Sir Michael Barber will bring to this post an outstanding intellect, a proven track record in education and business, and a strongly strategic approach.

Professor Sir Steve Smith, Vice Chancellor, University of Exeter said:

Sir Michael Barber is one of the most thoughtful and impressive educationalists I have worked with. His educational expertise has been sought by the Obama administration and the Pakistan government.

In all his work he has consistently put students first, striving to improve their education whatever their background. He is a tireless advocate for adding value educationally and sees education as a continuum from school to university. I can think of no one better qualified to act in this incredibly important role.

The appointment will be subject to a pre-scrutiny hearing by the [Education Select Committee](#). If appointed, Sir Michael will serve a term of 4 years.