Innovations

£30 million to lead global computing technology

A major new £30 million government investment was announced, 1 February 2013, by the Chancellor of the Exchequer, Rt. Hon George Osborne, as he visited the Science and Technology Facilities Council’s Daresbury Laboratory. The investment, part of the £600m announced in the 2012 Autumn Statement, is designed to firmly establish the UK as the world leader in energy efficient supercomputer software development to meet big data challenges. Economy-boosting partnerships between research and industry are just some of the benefits poised to come from investment that will confirm the UK as a leader in the development of energy efficient super-technologies and software.

£19 million of this investment has been allocated to Daresbury’s Laboratory’s Hartree Centre, the world’s largest centre dedicated to software development and home to the most powerful supercomputer in the UK. The investment will support the progress of power efficient computing technologies designed for a range of industrial and scientific applications, and particularly in the development of software that can handle the huge amounts of data created by large experimental research initiatives, such as the Square Kilometre Array (SKA) and CERN, the largest generators of scientific data in existence.
The Chancellor, Mr Osborne said: “Britain is in a global race and we are in a position to lead the way in science and technology. Projects like the Daresbury development are crucial to boosting the economy and putting the UK at the forefront of the big data revolution.”

The other £11m have been earmarked for the SKA, the world’s largest radio telescope, to develop the software capable handling the unprecedented amount of data it would produce. To put this into perspective, the data collected by the SKA in a single day would take nearly two million years to playback on an iPod.

Minister for Universities and Science David Willetts, who accompanied Mr Osborne today, said: “The next generation of scientific discovery will be data-driven. This £30 million investment will support one of the world’s leading high performance computing software centres. It will help ensure UK science and industry remains at the very forefront of research and development.”

Professor John Womersley, Chief Executive at STFC, said: “This investment will enable the development of new, more capable and more energy efficient computing for an immense range of applications. For industry this could mean extreme modelling for smart materials for industrial adhesives or coatings, or in the engineering and manufacturing for the car and aerospace industries. For the consumer, it could result in longer-life mobile communications for phones and tablet computers. With the government’s strong support and continued investment, we can convert world leading R&D into commercial opportunities, and provide UK businesses with the technology they need to be able to grow and compete on a global scale. We have already started to work with a number of major industrial partners and today’s announcement confirms how important science and technology are to the UK economy.”

The full announcement can be viewed on the HM Treasury website.
The Square Kilometre Array (SKA) - STFC Knowledge Exchange Workshop – Wednesday, 20th March 2013
University of Manchester Jodrell Bank Discovery Centre Macclesfield Cheshire

Event Details
The STFC Innovations Club jointly with STFC's Astronomy Programme group are hosting an event on The Square Kilometre Array to discuss current developments and future R&D needs in the key areas of SKA, the largest and most sensitive radio telescope in the world to be built in South Africa and Australia. The £1.2bn SKA’s huge fields of antennas will sweep the sky for answers to the major outstanding questions in astronomy. It is being planned and designed by a twenty-nation collaboration of engineers, astronomers, physicists, industrialists and policy makers.

The SKA will be an aperture synthesis instrument. Signals from separated antennas will be combined digitally to produce a telescope with a diameter equal to the largest antenna separation - more than 3000 km. The SKA will also have a very large field-of-view (FOV) which will enable multiple users to observe different pieces of the sky simultaneously and 10,000 times faster, than any imaging radio telescope array previously built.

SKA is currently in the detailed design stage (2012-2015) and new technology and progress in fundamental engineering science are both required. These breakthroughs can only happen with the R&D collaboration of academic and industrial partners offering expertise in fields such as information and communication technology, high performance computing and mass production manufacturing techniques.
Areas of particular relevance include:

- Low-cost collecting area/small to medium diameter dishes
- Low-noise, highly integrated, receivers
- Phased array antenna technology
- High-speed (terabits/s) digital fibre optic links
- Wideband optical fibre signal transport systems
- Fast, high resolution, analogue-to-digital converters
- High-speed digital signal processing engines (petabyte/s) and
- Ultrafast supercomputing (at exaflop rates).

This workshop aims to pull together the interest from both the academia and industry in order to facilitate knowledge exchange (KE) between STFC funded researchers (HEI's and labs) and industry with a view of exploiting technologies and advances being made through SKA. These technologies will have significant industry applications within the general ICT sector.

The workshop will further highlight funding opportunities to support KE relationships around the SKA project as well as provide an opportunity to hear a general update on the status of SKA from the Project Office and UK supporting activities from STFC.

Please note that there will be no wi-fi due to restrictions at the Observatory. Use of mobile phones is also restricted.

Parking is free to all attendees.

**Venue Details**

University of Manchester, Jodrell Bank Discovery Centre Macclesfield
Cheshire SK11 9DL [Venue Website](#).

**Downloads**

[Provisional Programme](#) (250KB).

Click here to register for this event.

For further information contact [Meeting Administrator](#).
RSE/STFC Enterprise Fellowships 2013

Applications are invited for potential entrepreneurs, who have the backing of a host institution, to commercialise the outcomes of their STFC funded research. The closing date is 17th May 2013.

Funded by STFC and delivered by the Royal Society of Edinburgh, this one year Enterprise Fellowship is designed to give the fellow both the time to develop the commercialisation idea and the training to develop their business skills. Fellows will be paired with a mentor giving them a valuable insight and connection to the business world. The aim of the scheme is to make both the technology and the fellow more competitive in business.

Applications will need to show that there is an STFC technology that has commercial potential and that the prospective fellow has the commitment to develop and utilise their business skills. Previous fellowships include using software that was initially designed to help control spacecraft systems, developed into revolutionary animation software leading to the spin out Ikinema, work on hydrogen storage that lead to the spin out Cella Energy and imaging technologies, which supported the spin out Symetrica.

For further information and application forms please follow the relevant links to the RSE and STFC and for any questions please contact Anne Fraser at the RSE afraser@royalsoced.org.uk or Phillip Tait at STFC phillip.tait@stfc.ac.uk
How we make a difference: STFC’s 2012 Impact Report

Today STFC publishes its impact report for 2012, showing how the work we do delivers real economic and societal benefits to the United Kingdom, and raises international recognition of the excellence of our research and our researchers. Our investment in scientific research is helping to tackle real-world challenges, such as making affordable healthcare available to everyone and improving air travel security, whilst helping to secure a more prosperous economic base for the future. The STFC Impact report shows that our research continues to inspire and deliver results that matter.

At an event in London Minister for Universities and Science, David Willetts, launched the impact report and celebrated the on-going success of UK science. For more information see the full RCUK press release.

Highlights from the STFC Impact Report 2012 include:

• STFC research inspires future generations to study STEM subjects. Research shows that the areas of physics that spark the most interest are those supported by STFC, and applications to university physics courses continue to rise. New discoveries attract strong public interest – an estimated 26 million people in the UK followed TV and radio coverage of CERN’s announcement of the discovery of a new Higgs-like particle.

• Technology originally developed for STFC science is being redeployed for economic and social benefit. For example: satellite technology has been used to create portable X-ray scanners for improving accident-scene emergency care;

• Knowledge arising from STFC research into particle accelerators was a key enabler for Magnetic Resonance Imaging (MRI). This powerful medical diagnostic tool created a significant sector in the UK, which now supports over 2,200 jobs and contributes £111 million annually to UK GDP.

• Research at STFC’s ISIS facility supported 5-year life extensions to two UK nuclear power stations, deferring the need for decommissioning and replacement at a cost of £3 billion.

• STFC spin-out Cobalt Light Systems Ltd secured approval for use of its INSIGHT100 bottle scanner at European airports, which can rapidly detect the presence of a dangerous liquid in a closed bottle. It is anticipated that this will enable a relaxation of the ban on liquids in air passengers’ hand luggage, and is being trialled at several major airports.

Commenting on the report, Professor John Womersley, STFC Chief Executive said: “STFC is committed to supporting excellent research and providing access to a full range of world-class research facilities. It is essential that we continue to demonstrate the benefits of this investment to the economy and to society. This report shows how STFC is responding to major challenges facing society, such as healthcare and security, by applying the science and technology we have developed through our curiosity-led research. Inspiring and shaping the next generation of scientists and innovators will help ensure that the UK has the skilled workforce that we will need if we are to continue to compete effectively in the global knowledge economy.”

STFC’s Impact Report 2012 (PDF - 31322kB) is available on the STFC website.
Launchpads – accelerating innovative R&D

The Science and Technology Facilities Council (STFC) is partnering with the Technology Strategy Board as a ‘cluster champion’ to deliver business support as part of its Launchpad competitions.

STFC is working with the TSB on two Launchpads which are concentrated around STFC’s national science and innovation campuses: the materials and manufacturing cluster at Sci-Tech Daresbury and space cluster at Harwell Oxford.

The Launchpads will see pre start-ups to medium-sized businesses throughout the UK benefit from a total of £3m funding to help accelerate innovative R&D. The competition aims to stimulate these industrial hotspots by enabling companies to go further and/or faster towards commercial success. The TSB wants to draw investment and people into the areas, and encourage networking to further strengthen the clusters.

The Launchpad competitions are open to SMEs that:

• are in one of the clusters.
• plan to start up in one of the clusters.
• move into one of the clusters.
• collaborate with a company already in one of the clusters.

STFC will deliver business support services to those applying for the competitions. As part of its support to these businesses STFC will:

• Deliver an investment readiness programme to ensure projects are ready to attract funding, culminating in a pitching event to investors.
• Work with applicants to look at what technology gaps they have and identify whether these can be filled via STFC or other research institutions.
• Identify what facilities they will need to access to take forward their concept to market.
• Provide training and mentoring on key business issues.
• Provide access to a comprehensive network of campus and innovation partners.

STFC has experience of supporting early stage businesses through its Innovations Technology Access Centre, as well as its management of the European Space Agency and CERN business incubation centres in the UK and its own innovation vouchers and funding schemes.

The materials and manufacturing and space Launchpads build on the success of TSB’s £1.25 million investment in London’s tech and digital hub Tech City in 2011, and plans for a series of digital and creative clusters across different parts of the UK, including Glasgow.

For stage one of the process interested applicants need to complete a short form and submit a two-minute video describing their project idea. As part of the scheme successful applicants will be required to secure match funding within a 12 month period to receive their grant from TSB, and they will be supported throughout this process by STFC.
Materials and Manufacturing North West Launchpad

The £2m materials and manufacturing northwest Launchpad is centred around Sci-Tech Daresbury science and innovation campus and Runcorn Heath Business and Technical Park in Cheshire and closes on 17 April 2013.

The competition for the materials and manufacturing North West Launchpad opens on 4 March.

For more information please visit the TSB’s website or contact Martin Morlidge on 01925 603 614.

Space Launchpad

The £1m space Launchpad aims to capitalise on the strong space cluster located around the Harwell Oxford national science and innovation campus in Didcot, Oxfordshire and will include business support and services from across the cluster including the Satellite Applications Catapult.

The space Launchpad competition is now open, and closes on 6 March 2013.

For more information please visit the TSB’s website or contact Ian Tracey on 01235 778 386.
Welcome to Pipeline: helping you find university technologies

Pipeline is the new searchable directory of technologies and other innovations produced by UK universities and research institutions.

By bringing these licensable developments directly onto the Technology Strategy Board’s _connect open innovation platform, Pipeline brings new and exciting research outputs within easy reach of tens of thousands of business users.

All innovations are captured and described in a standard format developed by Inngot and can be found using keywords, category searches or any combination of the two. This structured approach allows you to find the innovations relevant for your business according to their market applications, types of know-how, benefits, development stage, IP rights or any combination of these individual elements.

Results can be viewed instantly on-screen and saved as favourites or stored as PDF files for future reference. Pipeline also enables businesses to make direct contact with university technology transfer teams quickly and simply by clicking a link at the foot of each report.

**Pipeline is free to use, and free for universities to join. It already has over 150 technologies loaded and ready, with many more due to follow soon.**

To get started, [join this group](#). You’ll then be able to find technologies directly from the ‘Our Group’ menu.
New UK research offers breakthrough in understanding the electronic properties of super-material graphene

Research on the electronic properties of the super-material graphene could bring us one step closer to taking it from the laboratory to developing it for use in commercial products. Scientists at the SuperSTEM facility at the UK Science and Technology Facilities Council’s Daresbury Laboratory have, for the first time, been able to observe changes to the electronic structure of graphene as it is bonds with a foreign element added to it just one atom at a time. The results been published in the journal, Nano Letters.

First isolated in 2004 at The University of Manchester, ‘miracle’ material graphene is the lightest, strongest and most conductive material known to man, with great commercialisation potential due to its mechanical strength and unmatched electronic properties. It is 200 times stronger than steel but, at just one atom thick and therefore two-dimensional, it is extremely difficult to manipulate to make use of these advantages, or to bond it with other materials to develop marketable products.

Commercially it has the potential to have applications ranging from telecommunications to energy technology and electronics. It is also able to conduct electricity a million times better than copper and is stronger than other existing conductors.

One important issue that must be addressed before graphene can be applied to a commercial product is that it lacks a feature called a ‘band gap’, which means that, in practice, it would be almost impossible to ‘switch off’ an electronic transistor based on pure graphene. One of the promising ways to engineer a band gap in graphene and overcome this limitation is through chemical modification, known as doping.

However, as a two-dimensional material, graphene is all surface and is therefore completely exposed to its environment and strongly affected by its surroundings. The minutest of structural variations can have tremendous effects on its properties.

Led by SuperSTEM’s Professor Quentin Ramasse, along with researchers from the Universities of Leeds and Manchester, the team has now been able to observe the minutest of variations that occur when a sheet of graphene is doped with a single atom of silicon.

Professor Quentin Ramasse, Scientific Director at SuperSTEM, said: “What we have shown here is not about what particular atom graphene should be doped with to harness its electrical properties, but that we have the capability to see, in the minutest detail, exactly how a single foreign atom integrates within the graphene - whether it slots in seamlessly, or whether it is distorting the graphene lattice by as little as 10 trillionths of a metre, and importantly how the distortions and precise bonding arrangement influence the electronic structure of that atom and of its environment. Such minute changes in bonding of these elements can in turn significantly affect the macroscopic behaviour of the graphene sheet, and particularly its electrical response, so it is essential to be able to quite literally fingerprint the bonding of these materials, one atom at a time. This could pave the way for research to identify which atoms will bond with graphene most appropriately. You might say that this marks the start of experimental physical chemistry at the single atom level.”

The precise characterisation of the bonding of single atoms is essential for the development of practical applications of two-dimensional materials, such as graphene. In December the Chancellor, George Osborne, announced £21.5m in funding via the EPSRC to the most promising graphene-related research projects in UK universities, in plans to boost the ‘manufacturability’ of graphene.

SuperSTEM is funded by the EPSRC and sits within the Sci-Tech Daresbury national science and innovation campus.

SuperSTEM2, there are only six of these exceptionally sensitive instruments worldwide. Credit: SuperSTEM Consortium
Renewable Energy Technology Showcase Event
Wednesday, 27 February 2013
Ambassador’s Bloomsbury, London

The Electronics, Sensors, Photonics KTN in collaboration with the Science and Technology Facilities Council (STFC) will be holding Renewable Energy Technology Showcase Event on the 27th of February 2013.

Renewable energy technologies development and adoption are important for the UK's ambitious plans to reduce carbon emissions. The aim of this event is to maximise the positive impact of knowledge, skills and technology associated with STFC-funded research on the UK economy. It will demonstrate successful application of technology, originally developed for use in fundamental physics experiments, to the renewable energy sector.

STFC is looking to support technologies towards commercialisation to the renewable energy area further through collaborative projects between academics and industry. Projects could be hosted either at STFC funded universities or Rutherford Appleton and Daresbury Labs where micro-fabrication, vacuum and computational facilities will be available to facilitate collaborative research.

STFC offers support for collaborative projects through its family of funding schemes, which include the Innovations Partnership Scheme and an annual challenge led CLASP call.

This event is designed for both industry and STFC academics that have interests in renewable energy technologies. Delegates will benefit from attending this event in the following ways: Meeting with STFC researchersTechnical presentations about technologies developed through STFC fundingUnderstanding opportunities for collaborative R&D and support schemes from STFC such as IPS and Mini-IPSMeet with STFC and ESP KTN managers to learn about knowledge exchange opportunities

Programme

09:00-10:00 Registration and coffee
10:00-10:10 Welcome and Introduction
10:10-10:40 Challenges for the UK to meet its 2020 targets in reduction of emitted carbon dioxide - Dr Ian Llewellyn, DECC
10:40-11:00 The role of energy storage in adoption of renewable energy technologies - Dr Emma Kendrick, Sharp Labs Europe
11:00-11.20 Overview of facilities for collaborative R&D projects at Rutherford Appleton and Daresbury Laboratories - Dr Ric Allott, STFC

Coffee
11:40-12.00 The UK Energy Research Centre and the resources it can make available to academia and industry - Dr Jim Halliday, STFC
12.00-12.20 Use of Getter Coatings in Evacuable Flat Solar Energy Collector at CERN - Dr Oleg Malyshev, ASTeC, Daresbury Lab
12.20-12.40 Solar Thermal Electricity with Storage - A Mini-IPS Project - Dr Dave Melotte, UK Astronomy Technology Centre

Lunch
13:40-14.00 IPS and Mini-IPS Funding Schemes Overview - Dr Vlad Skarda, STFC
14.00-14.20 Printed Solar Cells - Dr Zlatka Stoeva, DZP Technologies Ltd
14.30-14.50 Hydrogen Energy Storage - Dr Arthur Lovell, Cella Energy Ltd
14.50-15.10 Collaborative R&D Funding Opportunities and Support from Knowledge Transfer Networks - Alex Efimov, Electronics, Sensors, Photonics KTN
15.10-15.30 Technology Pitch Talks
15.30-16.00 Tea & Networking
16.00 Close

Click here to register
The Centre for Earth Observation Instrumentation (CEOI) will be holding its next Challenge Workshop – Future Platforms for Earth Observation on Thursday 28th February 2013 at the University of Leicester.

This Workshop seeks to explore the potential of a range of future platforms for Earth Observation. In order to do this, the CEOI is keen to work with the community to help identify future platform needs and utility. Areas for consideration will include EO and remote sending from balloons, high altitude platforms, airborne demonstrators, sounding rockets, techdemo-SAT/CAT-SAT type platforms and the international space station.

Active participation from the community will be encouraged in order to provide future direction.

Further information on this Workshop is available on the CEOI website via the following Link

Details about the venue location can be found on the University page - http://www2.le.ac.uk/maps

If you wish to attend, please register interest with Chris Goddard (cg38@le.ac.uk)
Research Council report highlights key partnership with Technology Strategy Board

A new report published today hails the Technology Strategy Board’s business links as key to innovation and improved research.

The Research Council UK’s 2012 Impact report highlights its positive work with the Research Councils in a number of agreed priority areas including Regenerative Medicine; Agri-Food and Space. Technology Strategy Board and the Research Councils have worked together to provide support at each stage from research discovery to business innovation, leading not only to better research-business relationships but also improved research and economic growth.

RCUK and Technology Strategy Board are also working together to develop Knowledge Transfer Partnerships – offering a bridge between expertise in higher education and businesses who are looking to perform better and become more competitive and productive.

For more information, visit the RCUK website: www.rcuk.ac.uk/Publications/reports/Pages/Together.aspx.

You can download a copy of the report here
Welcome to the STFC CERN BIC – Creating innovative new products, services and business opportunities from high energy physics technologies

scheme draws on the world-leading capabilities of the Science and Technology Facilities Council (STFC) and the European Organisation for Nuclear Research (CERN), home of the Large Hadron Collider.

The BIC combines the incubation experience of STFC with the unique opportunity to access STFC and CERN intellectual property (IP), technologies and expertise. It will help businesses to grow from technical concept to market reality, from small start-ups into thriving high-tech companies.

You do not have to have any previous relationship with either STFC or CERN to apply to join the BIC.

There is an open call for applicants to join the scheme and the deadline for expressions of interest is 31st March 2013.

For all the latest news, information and opportunities at the STFC CERN BIC, follow us on twitter @STFC_B2B

If you’re an entrepreneur looking for your next challenge or a small high-tech company looking for a technical solution that will help you bring a new product to market, imagine being able to access the IP or tap into the expertise at CERN, home to the Large Hadron Collider, and one of the world’s leading laboratories.

The STFC CERN Business Incubation Centre (BIC) offers funding, business support and technical assistance to entrepreneurs and small high-tech companies seeking to accelerate their innovative business concepts.

Focused on developing new products and services using technologies originally developed for use in high energy physics research, this pilot
Industry Day – Save the date: 28th February 2013 - 9.30am - 4.30pm, Bute Hall

Our world class research: how can it help you?
This is your opportunity to
• hear from academics working in wide-ranging research fields
• meet key researchers who may have the answer to a technology challenge
• know more about the specialised research facilities we operate
• listen to case studies from existing industry partners
• learn how you can get involved in our current PhD projects.

Don’t miss this event! We will be showcasing novel technologies and expertise relevant to businesses in our key research areas.

Arrange a meeting with an expert
Find out more about the academics working within our key research areas. You can arrange one-to-one meetings in advance by contacting lynne.brown@glasgow.ac.uk or Sara.diegoli@glasgow.ac.uk

• Aerospace, Defence & Security
• Electronics & Photonics
• Energy & Sustainability
• Healthcare & Diagnostics
• Imaging
• Materials & Nanotechnology
• Modelling & Simulation
• Sensor Systems
• Space
• Synthetic Biology

This informal and interactive exhibition will provide you with the chance to explore with our researchers how we can work together to mutual benefit.

Visit our event page and register now
What Industry wants from UK Academia - 7-8 May 2013
GSK, Stevenage

About this workshop

This workshop is a must for all technology transfer, knowledge transfer and research support offices. More than two dozen high profile companies, from a range of sectors, will describe their R&D efforts and how academic research fits into this. Delegates will leave with a more rounded understanding of how their university or research institution should engage with industry, who to work with, and why.

Hear direct from companies how they currently work with the research base – and how they want to work with the research base in the future. There will be examples of best practice in industry-academic interaction including collaboration, consultancy and licensing IPR. Delegates will also have an exceptional opportunity to increase their network of business contacts from multiple sectors.

The companies attending represent a range of sectors including automotive, chemicals, consumer goods, electronics, energy, engineering, healthcare, media, pharma and telecoms.

About the sessions

Companies will describe their corporate R&D and business interests, explaining what they are looking for in the research base. They will reflect on what makes for successful collaboration and share examples.

Companies will pitch for 15 minutes each followed by Q&A and speed networking post-session.

Keynote speakers

- Iain Gray (Chief Executive, Technology Strategy Board)
- Professor Sir John O’Reilly (incoming Director General of Knowledge and Innovation at the Department for Business, Innovation and Skills)
- David Docherty (Chief Executive, Council for Industry and Higher Education and National Centre for Universities and Business)
- Rosa Wilkinson (Director of Innovation, Intellectual Property Office)

Confirmed industry participants

Companies will describe their corporate R&D and business interests, explaining what they are looking for in the research base. They will reflect on what makes for successful collaboration and share examples.

Astra Zeneca
BAE Systems
BAT
BBC
Chugai
EDF Energy
Eisai
GSK
GSK Consumer Healthcare
IBM
Jaguar Landrover
Johnson Matthey
Lilly
MedImmune
MSD
Novartis
Oxford Instruments
P&G
Pfizer
Reckitt Benckiser
Research in Motion
Rolls Royce
Sanofi
Thales
UCB
Unilever
What Industry wants from UK Academia

Who should attend?
This event will appeal to all those working in technology transfer, knowledge transfer, knowledge exchange and business development – in whatever capacity. It will also be of interest to SMEs looking to develop their own research and interested in working at the intersection of academic and corporate research. As there are parallel sessions, offices may wish to send more than one representative.

Discounted fees
Make a 20% saving, on workshop fees, by registering five or more delegates from your organisation for this event.

There is also a discount for students wishing to attend. Students should enter the code STU0513 on the booking form in order to claim the discounted rate of £95.

Delegates attending this event and the PraxisUnico Annual Conference in June 2013 will receive a £100 discount on the conference fee if they attend both events.

Networking opportunities
There are plenty of opportunities for informal networking during the workshop programme, plus after each session ‘speed networking’ will provide further opportunity to accelerate contacts.

Evening networking
Delegates can select a preferred restaurant during the workshop. Please note: dinner is not included in the workshop cost. Delegates will self-pay.

Registered Technology Transfer Professional (RTTP) Status
Demonstrate your dedication and expertise in the academic technology transfer profession by becoming a Registered Technology Transfer Professional (RTTP). All PraxisUnico training courses are eligible for continuing education (CE) credits, which support your registration application. For more information about the registration process and requirements, visit the Alliance of Technology Transfer Professionals website at www.attp.info
Event Showcases Innovations in Remote Sensing


Over 70 delegates from a wide variety of industries, institutions and government attended the CEOI Innovations in Remote Sensing Showcase in London on 23rd January 2013. Supported by the Satellite Applications Catapult, the event provided a great opportunity to catch up with the latest Earth observation (EO) instrumentation technologies and highlighted potential areas for licensing, collaboration and supply.

The CEOI programme supports mainstream projects and smaller ‘seedcorn’ projects, both selected through Open Calls to the community. Created in 2007 and jointly funded by the UK Space Agency and industry, the CEOI has a vision to develop and strengthen UK expertise and capabilities in EO. It also works to position the UK to win leading roles in future international space programmes.

As well as affording an overview of current UK Space policy, future technology challenges and collaborative opportunities, there were technology presentations covering:

• Remote sensing techniques for urban air quality monitoring
• The study of a future geosynchronous radar mission
• Lightweight optics, bonded mirror structures
• Innovative satellite on-board data handling techniques
• Infrared sensors with avalanche gain for radical improvement in sensitivity in space borne instruments
• Mid-infrared laser heterodyne systems – from EO to security and defence

Although the technical drive has been to produce instruments for space, in many cases the resulting technologies have non-space applications. A number of sectors which could be beneficiaries of such technologies include healthcare, defence and security, analytical instrumentation, marine industries and environmental. This was reflected in the mix of industrial delegates, representing numerous technology areas and industries.

The showcase element of the event began at lunch time and included around a dozen exhibitors. Presentations and further information about the CEOI and its technologies can be found via the following Link.
Venture prize 2013 competition

Entries are now being accepted for the 2013 Venture Prize for Materials Science.

The prize is awarded in the form of an investment into an enterprise to support the early commercialisation of very promising research in Materials Science. Entries are judged on a competitive basis by a committee of commercial, financial and scientific experts. The committee is looking for innovative technologies in Materials Science with clear commercial potential.

Whilst it is likely that the majority of applicants will be closely linked to the major UK university departments engaged in materials research, applications are also welcomed and positively encouraged from those materials scientists working in the industrial and commercial sectors.

Although there can be only one winner, all applicants benefit by entering a competition process which has been designed specifically to encourage and support participating materials scientists who have new and exciting ideas with commercial development potential.

It is axiomatic that there is little point in taking new technical ideas into an open competition unless the intellectual property involved is protected.

If this is for you, please apply. Applications should be submitted using the Venture Prize Application Form available from our website.

If you wish to publicise this prize in your organisation please download our Venture Prize 2013 A4 Poster and our Venture Prize 2013 A5 Information Leaflet also available from our website (print doublesided on A4 paper, then fold).

Application forms, posters and leaflets can also be requested by:

• emailing charities@armourershall.co.uk
• telephoning 020 7374 4000 option 4
• writing to: The Charities Administrator, Armourers’ Hall, 81 Coleman Street, London EC2R 5BJ

Competition Timetable:

• 31st March 2013 - deadline for applications
• April 2013 - Review of detailed submissions to produce a shortlist of 5
• May 2013 - Shortlisted applicants give presentations to the Venture Prize Committee
• 19th June 2013 - Prize presentation at the Armourers & Brasiers Materials Science Forum in Cambridge. (The winner will have the opportunity to give a presentation on their work to this prestigious gathering.)

For more information about the purpose of Venture Prize please look at our Venture Prize page.

For information about previous winners please go to Venture Prize Winners.