



Daresbury Science
& Innovation
Campus

Advanced Engineering
& Instrumentation

Shaping the Future of Science & Innovation

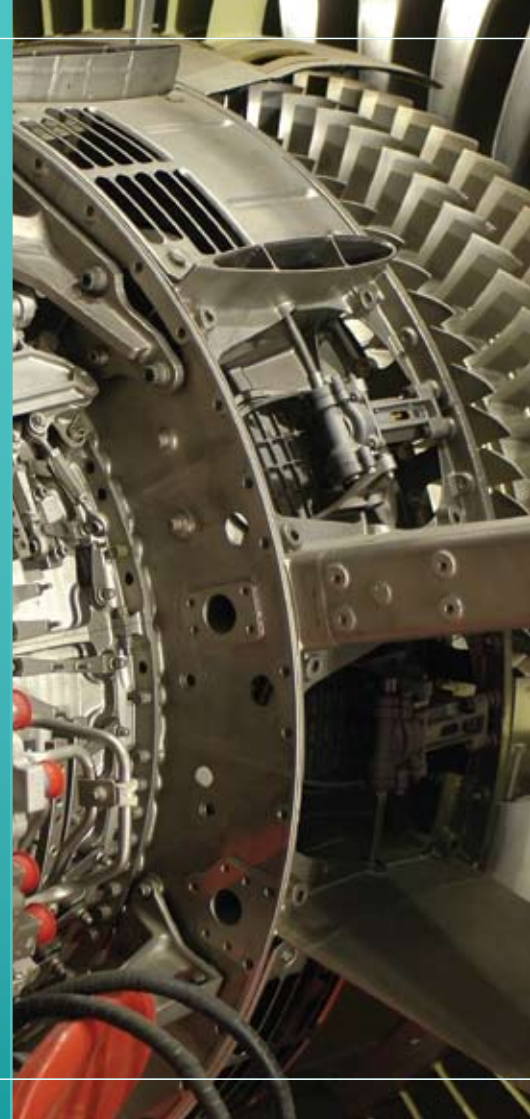
Daresbury Science & Innovation Campus (Daresbury SIC) is an internationally recognised location for hi-tech businesses and leading-edge science. It represents a fundamentally new approach to driving UK competitiveness in global science and innovation. Daresbury SIC was formed by the Northwest Regional Development Agency (NWDA), the Science & Technology Facilities Council (STFC), Halton Borough Council and the research intensive universities of Lancaster, Liverpool and Manchester.

The Campus provides a unique environment for innovation and business growth with knowledge sharing, collaboration and networking, and offers major opportunities to the advanced engineering and instrumentation sector for knowledge exchange and the development of collaborative activities.

STFC manages a number of leading edge facilities which are of key importance to the sector. It provides this capability through its large scientific facilities at Daresbury and its sister campus at Harwell in Oxfordshire.



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A National Technology Pool

Daresbury SIC is one of two national Science & Innovation Campuses, the other being Harwell SIC. This pairing, known as the 'dipole', enables any organisation accessing one Campus Laboratory, to engage with the facilities and expertise of both, whether they are resident on Campus or simply a member of the wider Campus network.

Through STFC's Technology Department, its dedicated detector and instrumentation scientists and engineers support and drive the advancement of leading UK scientific programmes, often working at the leading edge of current worldwide scientific capability and across numerous technology sectors.



Critical Mass

This critical mass of expertise acts as a magnet to organisations active in the sector, drawn to Daresbury SIC by its vast pool of knowledge and collaborative research and development opportunities. Around one fifth of all Campus companies are active in the advanced engineering sector with the sector also well represented in the wider network. Daresbury SIC's focus for future development is the Detector Systems Gateway Centre, which will act as a focus for collaborative detector systems development with universities and industry.

www.daresburysic.co.uk/sectors/instrumentation

Technology Exchange

The facilities and services of STFC, managed by its leading research groups active in a number of engineering related areas, can be accessed through its knowledge transfer organisation STFC Innovations Ltd, which progresses individual projects through various business models to the point of implementation as commercial licences or spin-out companies.



**Science & Technology
Facilities Council**

STFC Innovations Ltd

A Leading Location

Daresbury SIC occupies a key strategic position in the North West of England, where a number of internationally competitive industrial sectors have their home; here advanced engineering spans the aerospace, automotive, chemicals and materials sectors.

It is ideally positioned to engage with partners active in engineering-related sectors. In addition to the expertise accessible through STFC, Campus stakeholder, NWDA invests heavily in the sector to develop higher value activity, increase business formation, improve productivity and identify future growth opportunities from converging markets and technologies.

Working in Partnership

Central to the Campus' mission is to be a location for new science, engineering and technology initiatives and a focus for science linked projects and innovation activities. Its location provides a hub for universities, research councils, charities and small businesses to exchange knowledge and explore opportunities for innovation in a commercially focused arena.

Did you know?

STFC scientists helped construct the world's largest data rate detector at CERN's Large Hadron Collider.



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The ISIS facility is located at Harwell SIC

World Class Facilities

STFC's Technology Department comprises a diverse range of innovation, prototyping and project management capabilities spanning power systems, vacuum engineering, optics, micro and nano technology, microelectronics and chip design. It also draws on the Campus' world class computational modelling capabilities.

The Technology Department makes significant contributions to major international research facilities such as the Large Hadron Collider at CERN, whilst key amongst its UK outputs has been work carried out on ISIS, the world's leading pulsed neutron and muon source.

Through activities such as these, STFC has built a global network of leading scientists, innovators and facilities which, through the Campus model opens up major opportunities at the local level.

Collaboration and Commercialisation

STFC has formally engaged with industrial partners on a wide range of projects ranging from designing temperature and humidity controlled environmental cells for data collection on its synchrotron facilities, through to the building and

launching of satellites. It also actively seeks to find wider commercial applications from its detector and sensor technology, currently being explored through a spin-out company Quantum Detectors, based in the Daresbury Innovation Centre.



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The Business of Advanced Engineering

The unique collaborative approach at Daresbury SIC has enabled over three quarters of Campus companies to collaborate with each other or the Campus' higher education stakeholders, and to secure over £20 million of private sector investment since the Campus was launched.

One example of the benefits of this is TipChip – a Daresbury Innovation Centre based project to develop a credit card sized, point of care analyser capable of diagnosing liver failure, stomach ulcers, and fat malabsorption. The engineering instrumentation required to allow stable

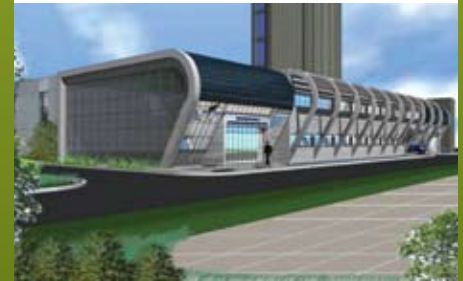
and accurate repeat measurements requires a step change in technology – which is where the Campus model operates best. With Campus funding, a proof of concept study is now being undertaken and the individual components have been successfully demonstrated.



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The Future for Daresbury SIC

The Detector Gateway Centre will bring academic and industrial collaborators together with STFC's world-class detector capabilities and knowledge base. It will develop and commercialise sensors and integrated detector solutions for both Research Council and industrially applicable markets such as security and biomedical imaging. The centre will have a presence on both the Daresbury and Harwell campuses.



Architects' visual of
Detector Gateway Centre

Business at the Heart of Science

The Campus is home to nearly 100 hi-tech businesses, ranging from small start-ups to strategic units of large multi-national corporations, and offers high quality office space alongside its multidisciplinary laboratory facilities. It delivers a range of services to the sector including, as part of the 'Northwest Business Pitch' series, a dedicated advanced engineering networking event.

Business support facilities within the Daresbury Innovation Centre include the permanent presence of Business Link Northwest and UK Trade & Investment (UKTI). Business Link Northwest provides relevant and up to date information for businesses, offering dedicated broker support and weekly drop-in 'clinics'. UKTI adds an international dimension, enabling Campus businesses to rise to the exciting opportunities and challenges that globalisation offers.



Accommodation within the Daresbury Innovation Centre includes:

- A recognised research & development focused environment with an STFC account manager and links to a wide network of research intensive universities
- Opportunities for technological and commercial collaboration
- Excellent transportation links
- Tailored business support and connections to major funding streams
- A spacious rural location in Cheshire

For further information please contact

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Putting Business at the Heart of Science