

Moving ITER up UK Industry's Agenda

Representatives from Regional Development Agencies (RDA), Manufacturing Advisory Services (MAS) and UK Trade and Investment (UKTI) visited Culham Science Centre recently for an overview of the UK fusion programme and ITER, and to establish how they can help take the message about business opportunities to companies based in their respective regions.



Martin Cox, Head of Machine Operations at Culham, updated delegates on the current situation on ITER site negotiations and said that this might be resolved by July 2005. Martin Cox stressed the importance of the ITER programme in the eventual realisation of fusion as an energy source for the future and the contribution that JET has to make during the years leading up to the first ITER plasma.

Dan Mistry, Fusion and Industry Manager, introduced the ITER

project and provided an overview of the types of technologies and skills that will be needed for its construction. He also talked about how UKAEA hopes to work with Government Business Support Agencies as well as industry. Dan stated that 'some of the ITER work packages will involve technologies still being developed, areas where Culham hopes to use its expertise and take a lead to deliver these goods with the support of UK industry. We are keen to exploit every opportunity to ensure UK industry plays a pivotal role in the ITER programme and we are also seeking an 'Industry champion' in government.'

Miriam Mason, Fusion and Industry Technology Transfer Manager also gave a short presentation on UKAEA's technology transfer activities and how fusion expertise is being used to provide technology and engineering assistance to SMEs.

A key part of the ITER awareness day was the opportunity to hear

"If ITER is based in France, there could be over 2 Billion Euros of business for European Industries over a period of 10 years. Therefore, I am urging potential suppliers to register their interest on our database at www.fusion.org.uk/industry"

Dan Mistry,
Fusion & Industry Manager.



from delegates about how they could help UKAEA to broaden the scope of UK industry involvement in ITER. The discussion highlighted the need for a structured approach to involving Government Business Support agencies and Industry.

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Technology Exhibition 2005

Technology 2005 proved to be a great success at Culham this year. 30 companies exhibited offering a wide range of engineering and nuclear services.

Dan Mistry, Fusion and Industry Manager opened the event with a short presentation on the forthcoming ITER project. He told exhibitors that a decision on the location of ITER is expected to be made in July and it is the aim of the UKAEA Fusion & Industry team to help UK industry win international supply contracts in this high technology field. He advised any interested companies to register their details on the Fusion and Industry website.

Many exhibitors at the Technology Exhibition were aware of the opportunities ITER has to offer UK Industry. Steve Sparkes, Marketing



Manager from Swagelok said, "Swagelok Europe is looking to play a leading role in the ITER project as fluid system components suppliers of choice. We are looking to recruit a Sales Manager specifically for the ITER project."

There were a number of new companies exhibiting at Culham this year who specifically wanted to target engineers and scientists on the Culham site.

Neil Barnett from Ocean Optics, plasma specialists, said, "This show was recommended to us. We are looking to extend our work on optical plasma applications at Culham." Another first time exhibitor was Peter Appleby from Strata Technology Ltd who told Fusion Business, "We are currently building a laboratory scale test rig at Harwell and would like to get involved in inspection and calibration work on JET. We are also very interested in the opportunities the ITER project has to offer in terms of the design of research and development equipment and have already registered as a potential ITER supplier."

Deniese Willis, Fusion & Industry Events Manager said, "This year's exhibition attracted the target audience of our exhibitors who clearly value the opportunities Culham has to offer their companies." This view was backed up by regular exhibitor Richard Frost, a Senior Sales Engineer at Alcatel Vacuum Technology who said, "Attending the Technology exhibition gave Alcatel two excellent leads making it well worth my while to exhibit at Culham."

"My message to UK industry is to get involved in Fusion and ITER. The road to winning the first contract will be hard but the long term business benefits could be great for your organisation."
Dan Mistry,
Fusion & Industry Manager.



There have been further negotiations between Europe and Japan on the choice of site for ITER, which will be either Cadarache in France or Rokkasho in Japan. It is expected that a decision will be made by July.

Technical Problems?

Talk to People with *Answers* at our Innovation Workshops!

The Fusion & Industry team is planning to hold a number of themed technology workshops with the aim of bringing together industrialists and scientists to find innovative solutions to technical challenges.

Themes will be chosen according to the types of problems identified and the skills associated with fusion research, and we welcome the help of

Fusion Business readers in selecting appropriate topics. If you have a suggestion for a technical theme or problem relevant to your business, please contact Miriam Mason on 01235 466609 or e-mail: miriam.mason@ukaea.org.uk

Details of the workshops will be publicised in future issues of Fusion Business and on our website at www.fusion.org.uk/industry.

TESSELLA AND JET CELEBRATE 20 YEARS OF WORKING TOGETHER

Tessella who specialise in the application of innovative software solutions to scientific, technical and engineering problems, and recently celebrated 20 years of working with JET and UKAEA Culham. Tessella is a key part of the team responsible for the management of the processed data within the 17 TB store of experimental data for JET.

Scientists can read data from decades ago, and perform the same analysis as could have been performed at the time that the initial experiment was undertaken. The experience at JET helped Tessella develop world-leading expertise in long-term digital preservation, feeding in to projects for the UK National Archives, the Dutch Nationaal Archief, and most recently the US National Archives and Records Administration (NARA).

Over the years Tessella's team of science-literate IT consultants has

been involved with many key systems including:

- Developing and supporting PC-based data acquisition systems.
- Developing a web-based EFDA Fusion Materials database with UKAEA Culham
- Developing a web-based database of profile data extracted from fusion devices worldwide.
- Supporting and enhancing major computing platforms from mainframes to Linux clusters
- Supporting generations of architectures that manage the processed JET pulse data
- Optimising the between-pulse processing workflow on the Linux cluster
- Producing data visualisation and statistical analysis systems using various mathematical packages
- Producing advanced user interfaces to allow worldwide access to JET data, systems and models
- Developing highly complex plasma behaviour models

Tessella currently has a team of nine working for UKAEA Culham on JET operations and other work.

For more information please visit www.tessella.com or e-mail info@tessella.com

"With fusion now firmly on the international science agenda, JET's contribution to a future with clean and plentiful energy supply will be seen as pivotal. Tessella is proud to have played a significant part in this success."

Kevin Gell, Managing Director,
Tessella Support Services plc

Technology Transfer Event, 26 April 2005

In April the UKAEA Fusion & Industry team held a Technology Transfer workshop at Culham Science Centre to raise awareness of its activities, promote an entrepreneurial outlook and explore ways of working with industry.

Julian Hawes, an electronic design engineer from Culham's Heating & Fuelling Department, encouraged staff to come forward with ideas for technologies with commercial potential. Julian has already received pathfinder funding from the Rainbow Seed Fund, a government fund established to aid the commercialisation of public sector research, to develop his own optical keyboard invention which is currently attracting market interest.

The event was also supported by members of Culham's team of 'Fusion & Industry Champions' and representatives of the Rainbow Seed Fund, the Southern Oxfordshire Enterprise Hub and the Oxfordshire Investment Opportunity Network. "We shall be considering the discussion outcomes and looking at ways of addressing the key issues over the coming months. Learning from this event will be useful in shaping our future technology transfer strategy," said Miriam Mason, Technology Transfer Manager.





Culham Innovation Centre

For more information about Culham Innovation Centre and its companies please telephone 01865 408300. The CIC is run by Oxford Innovation at Culham Science Centre, Abingdon, Oxfordshire OX14 3DB.

Oxford Innovation launches 'ICE' at Culham

Oxford Innovation has launched 'ICE', a unique Innovation Centre Extranet facility that allows companies at Culham Innovation Centre to link up to do business and share experience.

Over 300 Companies in a variety of sectors based at 12 Oxford Innovation Centres can use 'ICE' to browse through other company entries by sector, publish profiles, add news and highlight business opportunities, or post questions in the 'Ask the Experts' section. They can also access business support and practical advice on issues ranging from raising finance to legal matters, accounts and marketing from professional firms.

Dr David Kingham, Chief Executive of Oxford Innovation, said: "We believe we are unique among innovation centre operators in offering this facility. As well as facilitating collaborations between the entrepreneurs and innovators, ICE has been specially designed to provide access to professional advisors and contacts who can help them develop their businesses. There is also information about networking events in their local area."



RM Refreshes its Engineers at the CIC

RM, the UK's leading provider of ICT software, infrastructure and services to UK education, is using the Culham Innovation Centre to train its national team of engineers. Over 3 months the company will have refreshed the product knowledge and skills of 70 field-based engineers.

Ensuring its engineers continue to develop their IT installation and

support skills is a high priority for RM with its commitment to excellence in customer service. "We work with groups of 8 engineers at a time over a



week to bring them up-to-date on new products as well as testing their skills and, where necessary, giving advanced training," says RM Project Manager, Andrew Comfort.

Until this year RM used its offices in Abingdon to hold the engineer training courses but this year other commitments meant they had to look elsewhere. "Culham Innovation Centre was the ideal location for us. The facilities are good as well as close to our offices and competitively priced," noted Andrew.

CULHAM PROVIDES TECHNICAL SUPPORT TO SCIENCE PARK COMPANIES

As a member of the UK Science Parks Association (UKSPA), Culham is taking the lead in offering the opportunity of technical assistance to UKSPA's high-tech client companies by means of UKAEA Fusion & Industry's Technical Support Package.

The package is already available to suitably qualified companies in Culham Innovation Centre, and over the past year discussions have been held with the management of a number of UK science parks with a view to identifying appropriate partners and rolling out the scheme more widely. In March 2005 discussions took place with Aston Science Park management and representatives of Aston's photonics cluster to explore the ways in which Culham and Aston might work together to promote technology transfer. The areas identified included significant interest from the photonics membership in the Technical Support Package.

Miriam Mason, the Fusion & Industry Technology Transfer Manager, said, "We were delighted with the enthusiasm of Aston's response to our proposals and look forward to the possibility of working with some of their client companies and members of the photonics cluster. This will be an excellent working model of the kind of support Culham is able to offer industry, and we hope it will generate interest amongst other companies in our services."



From l to r:- Matthew Hilderley and Geoff Archenhold of Aston Science Park with UKAEA's Julian Hawes and Miriam Mason from Culham.

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