

## UK Based Companies Continue to Win Key ITER Contracts

### Jacobs Babtie Wins Contract to Provide Design Services for ITER

Following a competitive tender, involving companies from all across the European Union, Jacobs Babtie, a subsidiary of Jacobs Engineering Group, has won a major multi-million pound contract from the European Commission to provide Civil and General Plant Engineering support for the ITER Fusion Reactor Project to be built at Cadarache in France.

"Through teams based across the UK and in France (Paris), coordinated through a core team based at Cadarache, Jacobs will undertake civil and structural engineering and general plant design work. The contract is for an initial period of two years, with an option of a one-year extension. The contract includes:

- General layout and architectural design of all buildings, infrastructures and services
- Structural verifications of the buildings
- Design of heating, cascaded ventilation, air-conditioning and fire protection systems
- Design of electrical power supplies and distribution systems
- Design of water distribution and sewage
- Planning and budgeting for plant installation and buildings construction
- Planning for site preparation programme
- General engineering advice and support to ITER Project Team

"This is an extremely exciting project. Fusion energy has the potential to provide a long-term solution to the problem of global warming and we are privileged to have a role in such an important mission," said Phil Stassi, Jacobs Group Vice President.

For further information please visit [www.jacobsbaltie.com](http://www.jacobsbaltie.com)



### Phoenix Team Wins ITER Weld Inspection Contract

Phoenix Inspection Systems, based in Warrington, has been awarded a 320,000 Euro contract to develop a major weld inspection system for the ITER vacuum vessel. John Turner, Special Projects Manager heads the Phoenix team. "Inspecting narrow gap welding joints is particularly challenging. Our state-of-the-art inspection techniques have been developed over several years for the ITER project team and will give us the capability to provide an effective inspection method for this difficult welded joint."

For further information please visit [www.phoenixisl.co.uk](http://www.phoenixisl.co.uk)

**"We are delighted with the success of these UK based companies in winning ITER contracts. The Jacobs Babtie contract is especially gratifying as it was one of the companies we nominated as a potential supplier when contacted by EFDA. There are undoubtedly many more companies who we could nominate for supply to ITER, and include when circulating details of forthcoming contracts, if we are aware of them. Therefore I strongly urge companies considering supplying to ITER to register their details in our ITER suppliers database on the Fusion and Industry web site at [www.fusion.org.uk/industry](http://www.fusion.org.uk/industry)"**

**Dan Mistry, Fusion and Industry Manager, UKAEA Culham Division.**

**Don't miss the 'ITER Business Opportunities for UK Industry' event and the accompanying 'Technology and Innovation Exhibition 2006' on June 28th/ 29th. Full details of this event are in the enclosed leaflet. In addition a pdf programme of these events can be found on the Fusion and Industry website at [www.fusion.org.uk/industry](http://www.fusion.org.uk/industry). See page 3 for full details.**

### Inside This Issue:

ITER Leaders Visit Culham

2

Martech Win MAST Contract

3

Culham to Host ITER Industry Event

3

CIC 5th Anniversary

4

# ITER Nominee Director General Visits Culham Science Centre

On Friday 21st April, the nominee ITER Director-General Dr Kaname Ikeda and his assistant Dr Shunsuke Ide visited Culham. He gave a talk to staff about his new mission at ITER, met with senior staff from UKAEA Culham Division and EFDA-JET and toured the JET (Joint European Torus) Facilities. Our photo shows from l to r - Dr Frank Briscoe (UKAEA Culham Operations Director), Mr Robert Pearce (Head of Vacuum Systems & Machine Operations Group), Dr Jerome Pamela (EFDA Leader), Dr Ikeda and Dr Ide in the JET Torus Hall.



## Top Appointment for ITER Management Team

Dr Norbert Holtkamp has been appointed as nominee Principal Deputy Director-General and Project Construction Leader of the prospective ITER Organisation. This follows the previous appointment of Dr Kaname Ikeda as nominee Director-General in November 2005. Following a meeting in Tokyo recently the ITER parties stated that "the ITER Project is well on the way to becoming a reality with construction due to start soon at the agreed site of Cadarache in Southern France. The top management team will now press forward with building the international ITER team." The ITER international treaty will be initialled by Ministers on 24th May in Brussels. The seven ITER parties will then ratify it and it should come into force around the end of 2006.



*Dr Holtkamp at the control of the JET remote handling boom on a recent visit to Culham*

### Fact File - Norbert Holtkamp (1961)

Graduated in Physics from the University of Darmstadt in 1990. Since 2001 he has been Director of the Accelerator Systems Division of the Spallation Neutron Source being constructed at Oak Ridge National Laboratory in Tennessee, USA. This first operated in April 2006, two months ahead of schedule.

## Update on JET

On April 26th, following a long shutdown, JET started a new experimental campaign devoted to studies of plasmas with ITER-like configurations. One of the campaign's aims is to test a new type of divertor, the region to which the magnetic field deflects the exhaust particles that have escaped from the core of the hot plasma. In both JET and ITER this divertor region is positioned at the bottom of the vacuum vessel.

During the shutdown period, new plasma facing components (carbon fibre composite tiles) were installed in the divertor so that JET can operate high-power experiments with ITER-like plasma configurations. Over the next months seven JET Task Forces will lead further experiments on topics such as the Edge Localised Modes (ELMs), magnetohydrodynamic (MHD) stability issues, plasma heating, transport, diagnostic and exhaust, and the Hybrid scenario as a high fusion gain long pulse regime.

# ITER Business Opportunities for UK Industry

An event to highlight opportunities and challenges facing UK companies interested in competing for ITER business is being held at Culham Science Centre on June 28-29th.

The event will be the first opportunity for UKAEA scientists and engineers, together with key representatives from ITER and the European Fusion Development Agreement (EFDA) to brief UK industry on the status of ITER, EU procurement opportunities and project timetable. In addition, there will be a presentation on the opportunities arising from other large research facilities such as CERN, European Southern Observatory, Diamond Light Source Project etc. and the support available from UK Trade & Investment, Regional Development Agencies and the Welsh, Scottish and Northern Ireland Devolved Assemblies.

UKAEA through its Fusion and Industry Programme will confirm its commitment to helping UK industry win international supply contracts especially from ITER.

“UK industry has much to offer the ITER project,” said Dan Mistry, UKAEA's Fusion and Industry Manager. “Many companies are already supplying goods and services to the UKAEA fusion research programme, the JET experiment here at Culham and other European Fusion Laboratories.”

The ‘ITER business opportunities for UK industry’ event will mark the beginning of a 10 year programme covering business opportunities arising from the construction and commissioning of ITER at Cadarache in France. For more details on the ‘ITER business opportunities for UK industry’ event and the accompanying Technology and Innovation Exhibition contact Denise Willis on 01235 466608, e-mail [deniese.willis@ukaea.org.uk](mailto:deniese.willis@ukaea.org.uk) or visit [www.fusion.org.uk/industry](http://www.fusion.org.uk/industry).

**“UK Companies willing to compete for ITER work packages should attend this event. We want to give a clear message to ITER management, and indeed to the international community, that UK companies would like to play a pivotal role in the construction of ITER. Besides, the event will provide an ideal opportunity to network with other companies and indeed with potential customers”**

Dan Mistry, UKAEA Fusion & Industry Manager

## Martech Systems Awarded OMAHA Amplifier Contract

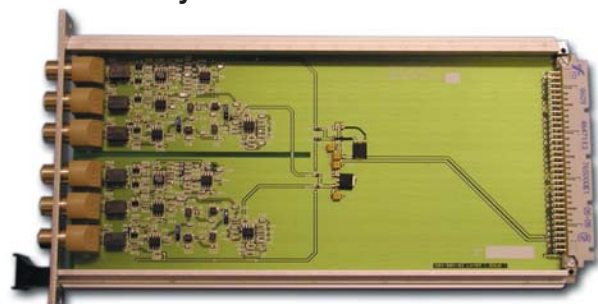
The team at Martech Systems based in Weymouth, Dorset, has recently been awarded a contract by the Plasma Edge, Data and Electronics Group Department at UKAEA Culham for the design and manufacture of 20 bandwidth limited high frequency amplifiers for the OMAHA system for the MAST experiment. OMAHA is designed to study the high frequency magnetic fluctuations, which are seen in a fusion plasma when fast ions are present. This type of fluctuation will occur in ITER reactor plasma where it will be excited by the energetic particles produced by the fusion process.

Robert Stephen, Senior Electronics Design Engineer, told Fusion Business, “We were delighted to be able to award this contract to Martech Systems. We met them for the first time six years ago and were impressed with

their work but did not have any suitable contracts at that time. It is hoped that this will be the first of many contracts for their services over the next few years.”

Lawrence Short, Director at Martech Systems said, “We are proud to have received this order from such a prestigious customer. UKAEA Culham is a perfect example of the type of customer who benefits from our turnkey service offering electronic, software and mechanical design and manufacturing services. We look forward to a long and fruitful relationship with Robert and the team.”

For further information please visit [www.martechsystems.co.uk](http://www.martechsystems.co.uk)



*The OMAHA Amplifier*



# 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.

## Culham Innovation Centre Celebrates Five Successful Years

To celebrate five years of innovative success, Culham Innovation Centre (CIC) held a networking event on 5th April, in partnership with Southern Oxfordshire Enterprise Hub and sponsored by UKAEA. The event showcased the various support services available to technology businesses in the area.



Alan Bond (left) MD Reaction Engines, with Deniese Willis (right) UKAEA's Fusion and Industry Events Manager

Speakers included David Palmer, Southern Oxfordshire Enterprise Hub Director, Joanna Sobek of Oxford Early Investments and Deniese Willis, UKAEA's Fusion and Industry Events Manager. Deniese explained the advantages of the UKAEA's Technical Support Package that allows companies to benefit from the fusion research programme.

Alan Bond, MD of Reaction Engines, now one of the Centre's largest tenants said, "We have benefited greatly from being located in a world class science and Technology Centre, in particular by taking advantage of the Technical Support Package offered by UKAEA and from the regular coffee mornings that give us an opportunity to learn from the knowledge and experiences of businesses facing similar challenges."

For further information please visit [www.oxin.co.uk/Culham](http://www.oxin.co.uk/Culham)

## Indeva factors in Technical Support Package

Software house, Indeva is developing the next generation of strategic business planning tools using the UKAEA Technical Support Package (TSP).

Drawing on its experience as a supplier of modelling software for the oil and gas industry, Indeva is now focussing on strategic business modelling for organisations. "Enterprise decision management is a complex and dynamic process. Too many companies plan and set targets as though the process, once completed, is set in stone. Our approach reflects the reality facing companies. Plans can change daily so it's important to maintain a 'live' model, enabling invest decisions to be made at the right time and avoid over committing resources," says Indeva Managing Director, Mike Whiteside.

The software is aimed at large, global organisations who wish to maintain a 'dynamic business model that is continually updated. It can then be used to undertake 'what if' scenarios and 'just-in-time' decision making where the most recent information is available. "The TSP will be an important part of our testing programme. By running the software across a distributed computer network, we are able to test the software's functionality and resilience in a controlled environment," added Mike Whiteside.

For further information please visit [www.indeva.com](http://www.indeva.com)



## AMail arrives at the CIC

The research end of Amail, the higher education database of WegenerDM UK, a Dutch-owned direct marketing company, is the latest company to establish an office at the Culham Innovation Centre. Amail supplies direct marketing data to academic publishers, conference and seminar organisers targeting academics in schools and universities in UK and across Europe.

AMail moved to the Culham Innovation Centre from offices in nearby Abingdon. "Before we came to Culham we were in an office that was hidden away so we felt isolated. Here we feel like we are part of a community, the people are friendly and the café and restaurant facilities on the site are excellent," says Amail research manager Pat Harris.

For further information please visit [www.wegenerdm.co.uk](http://www.wegenerdm.co.uk)

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