

Innovate

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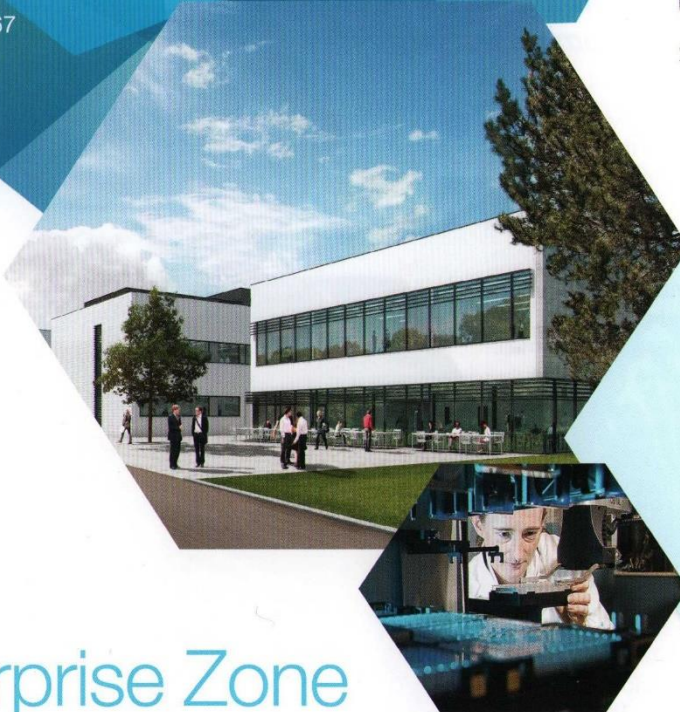
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HARWELL

O X F O R D

SCIENCE | TECHNOLOGY | BUSINESS



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Enterprise Zone at Harwell Oxford

Harwell Oxford, already a world-class location for science, technology and business, was named as part of one of the Government's new Enterprise Zones in August 2011.

This is a fantastic incentive for companies wanting to join the campus community, and will bring benefits including improved broadband and infrastructure for existing campus organisations.

The government has committed to providing:

- support to ensure superfast broadband is rolled out in the area;
- simplified planning rules;
- 100% business rate discount worth up to £275,000 over a five-year period for businesses moving into new build premises within the zone;
- all business rates growth in the zone for 25 years to the Oxfordshire local enterprise partnership (LEP) to be spent on projects across the region.

The successful bid is great news for Oxfordshire's Science Vale area and will deliver 200,000 square metres of development by the private sector by 2015. This is expected to bring in around 8,400 high-tech, high-value-adding jobs and generate up to £10.5m of additional business rates a year.

These funds can be directly reinvested into the Oxfordshire economy via the Local Enterprise Partnership.

Harwell Oxford Campus Director, Dr Sally Ann Forsyth, said: "This is just the boost that Science Vale UK needs to continue its legacy as one of the world's leading locations for research and the commercialisation of science. Enterprise Zone status will encourage new companies from around the world to co-locate at Harwell Oxford where they can engage with world leading scientists and businesspeople and have access to outstanding scientific facilities. This will help to speed the delivery of great UK science into local business and out to the global marketplace."

Science Vale UK, of which Harwell Oxford is a partner, has submitted an implementation plan for the zone to Government. The business rates discount for all the new Enterprise Zones starts from the 1st April 2012.

We are also actively pursuing discussions on planning, broadband and infrastructure to ensure that these progress as quickly as possible. Updates will be provided as the plans progress via the extranet at www.myharwell.com.

End of an era for Harwell's 'Tank Farm'

The RSRL Harwell's Liquid Effluent Treatment Plant (LETP), a complex of buildings that has been providing essential services for the RSRL Harwell site for decades, is approaching the last phase of its operational life, prior to final decommissioning.

Since the late 1940s the LETP, known locally as the 'Tank Farm', has been treating active and non-active effluent waste arising from the site, as well as processing and treating historic legacy waste. However, as the UK's civil nuclear programme on the site has wound down, the need for the LETP's facilities has diminished. RSRL is constructing a small, more energy efficient, replacement effluent treatment plant near its waste management facility, B462, to clean up the small amount of liquids that will be generated in the future.

The decommissioning team will get an early start on decommissioning by working around sections of the facility needed to process water until the replacement plant comes on line in 2013. Decommissioning of the buildings will be followed by removal of underground structures and cleanup of soil, as necessary. Radioactivity levels in the clean area will be verified to meet the standard to release the area from Harwell's nuclear site licence and the land will be handed over to the Harwell Oxford campus for reuse.

"We are on the cusp of commencing final decommissioning of the LETP, prior to final remediation of the whole area," explained Simon Petty, RSRL Harwell Project Controls Manager. "But in the meantime, and in parallel with its decommissioning objectives, the plant still has an important operational role to fulfil, in terms of sampling, analysing and treating effluent arising from the main site, processing and encapsulating legacy waste, and maintaining key facilities across the Harwell license site."



The 'Tank Farm' in 1960 and in 2009



Campus Business Mentors Scheme

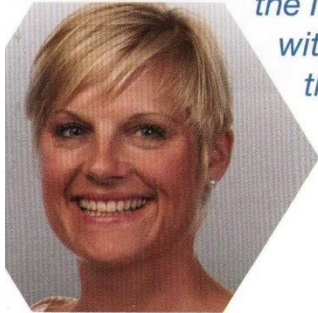
Are you a small business or an entrepreneurial individual based at Harwell Oxford? Could you use some advice, support or coaching from a more experienced businessperson?

If so, you might be interested in our new Campus Business Mentors scheme. You could get at least four hours of coaching for free from a range of experienced coaches and businesspeople. For more information and to participate in the scheme as either a mentor or a mentee, visit www.myharwell.com/record/page/mentors



Welcome to Jo!

Welcome to Jo Absolom, who joined the campus team in October. As Research Coordinator for the HealthLinks at Harwell project, Jo will be supporting the Innovation Manager with campus events, the extranet and our growing Healthcare Technologies cluster.



Jo has a professional background in marketing, event management and business administration including experience at Vodafone UK. In her spare time, she is a skilled beautician and enjoys running and yoga, as well as spending time with her daughter Summer-Rose.

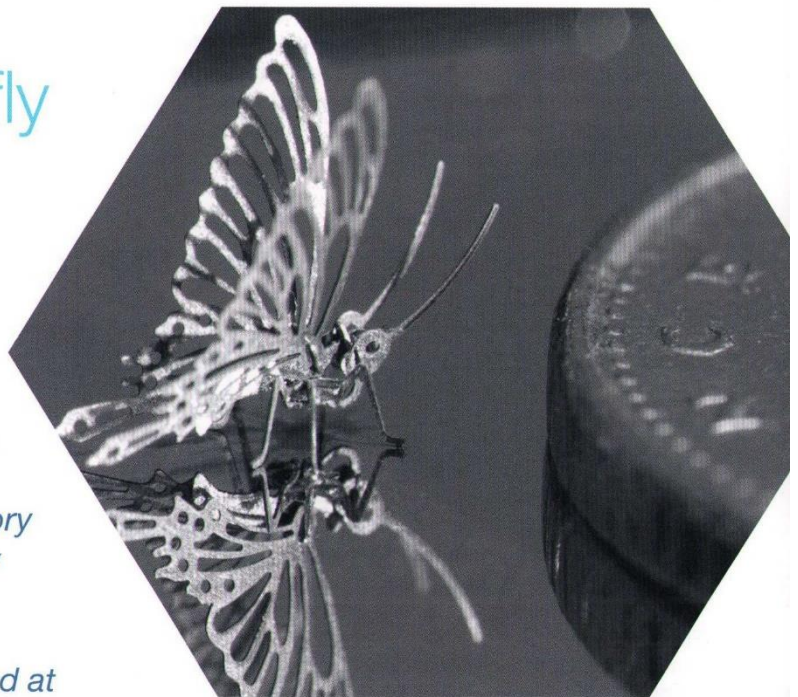
The HealthLinks at Harwell project is funded through a grant from the Intellectual Property office won through the Fast Forward Competition. The winning bid was led by Megan Morys from Harwell Oxford and Paul Potter from MRC Harwell, with consortium members from AEA Group and STFC. The project is administered through MRC Harwell and guided by the Campus Technology Forum.

6mm long butterfly machined on campus

Micronanics Laser Solution Centre, the target fabrication group based in the Central Laser Facility (CLF) and its 'Spin Out' company Scitech Precision Limited, all based on the STFC Rutherford Appleton Laboratory at Harwell Oxford, have successfully collaborated to produce precision components for high power laser experiments both on the campus and at a number of other facilities worldwide.

To demonstrate the capabilities of these groups, Micronanics Ltd machined a multi-component 'insect' in Tantalum, which was then assembled by the technicians in the Target Fabrication Group. The assembly (pictured) is 6mm long and has 14 components that are precisely assembled and bonded into place.

The expertise held by Micronanics Ltd in high precision laser micromachining enables the fabrication of a number of complex features in a range of materials that are cannot be conventionally machined due to their fragile nature. Laser micro-machining with its non-contact machining capability is ideally suited for processing of thin foils that are components of high power laser targets. These foils are then delivered to the CLF Target Fabrication Group where they are processed. The group



A Tantalum Butterfly located next to a 5 pence piece

has over 25 years of experience in micro-fabrication and this enables the assembly of some extremely novel and complex structures.

The team can produce extremely complex target geometries and the co-location of Micronanics Ltd, the CLF Target Fabrication Group and Scitech Precision Ltd at Harwell Oxford enables this capability to be supplied to a wide range of customers across the world.

Micronanics Limited – www.micronanics.com
Central Laser Facility – www.stfc.ac.uk
Scitech Precision Limited – www.scitechprecision.com



New arrivals!

Over the past few months we've had a number of new arrivals on the campus. Here are a few of the latest:

Netwatch currently employs 90 staff worldwide and monitors security for more than 1,500 blue-chip businesses as well as a significant proportion of the world's premium residential properties.

Originzone offer bespoke design and print services and web design, providing collateral for Marketing Plans, Training Courses, Exhibitions, to name just a few. It does this through Creative Designs, Precise Printing, Target Marketing Solutions, Exhibition Displays, Website & Electronic Marketing.

Radius Diagnostics Ltd is a spin-in to the Rutherford Appleton Laboratory at Harwell Oxford and the University of California Los Angeles that uses patented technology to create an "X-ray source on a chip" that will transform the economics and mobility of medical, security and industrial imaging.

Nixey Computer Solutions Ltd is a new partnership offering courses in

- Microsoft Technical Training
- Applications Training
- Business Development and Skills Training

High Q Systems is a start-up company engaged in technology development and commercialisation, both developing its own technology - potentially originating in the Science and Technology Facilities Council - and in advising other companies on assessing the commercial potential of new technologies; sources of funding; marketing and sales, and finding new customers across a range of market sectors.

For more information about these or any other campus companies, visit our Business Directory at www.myharwell.com/record/page/campusorganisation



National award win for work preparing soldiers for in Afghanistan

A small campus company is helping to save lives in Afghanistan through their training programs. Learning and development expert Explosive Learning Solutions (ELS) based at Harwell Oxford was named winner of the Best Training Partnership Award at this year's Training Journal Awards as a result of their work with the MOD on Improvised Explosive Devices (IEDs).

ELS Operations Director Cath Convery was presented with the award at a glittering Gala Dinner on 17th November held at London's exclusive 8 Northumberland Avenue staterooms. She says: "The TJ Awards are considered to be the most prestigious in the learning and development industry and we are thrilled to have been recognised by our peers."

ELS prides itself on the ability to form close partnerships when designing innovative programmes for clients across the project, change, training design and risk management fields. Working to aggressive timescales and concentrating on setting clear and precise learning objectives, the company is meticulous in ensuring problems are solved and business objectives delivered on budget and within deadlines. The specific partnership project which ELS was nominated for in the TJ Awards was its work with the MOD to help their personnel have a greater understanding of the threat of Improvised Explosive Devices (IEDs), to give them

the skills required to identify and respond to potential attacks and avoid casualties.

Cath Convery explains: "During late 2008 and early 2009 the number of roadside bomb casualties sustained by the British Army in Afghanistan increased at an alarming and unacceptable rate. As a soldier about to return to Afghanistan said: "If we'd had this training before my last tour we'd have a lot more blokes still around," a sentiment echoed by all of his colleagues.

ELS is the first civilian training consultancy to be engaged by the British Army to help it examine an area of core army operational training and was extremely well received by the MOD. The company rolled out the course within two months of winning the contract and showed 100% achievement of the learning objectives, both key reasons for the nomination." The MOD could have gone with a larger, more established, training provider but, after a rigorous selection process, recognised that ELS' relative size was actually a strength (giving the MOD the necessary levels of personal and professional engagement), that it was well organised with a robust Project Management process, and that its relative youth (founded in 2005) made for a high energy, committed, working relationship.



Recruitment drive

Many campus companies are growing! Check out the campus vacancies page at www.myharwell.com/record/page/vacancies or upload your CV onto the extranet. New jobs are being added all the time so make sure you check back frequently.

If you're recruiting for new staff, as well as uploading a vacancy you can find details of student placement schemes and CVs of candidates looking for work on the campus.

It's not just the smaller or newer companies who are taking on staff: take a look at the note below from Nuvia one of the larger and longest-serving members of the campus community.

Spotlight on Nuvia

Staff numbers at Nuvia Limited, based at The Library, Eighth Street are growing due to an active recruitment drive. Nuvia, a nuclear engineering specialist operating across the complete lifecycle has a vision: to be recognised as the world-class provider of whole life solutions to the nuclear industry's most complex technical challenges, from

new build, through operations to decommissioning. Due to significant project wins in the region, there is now a requirement to increase staff numbers across Mechanical and Lead Mechanical Engineers, Mechanical Designers and Bid Management. We look forward to welcoming our new recruits to the campus.

Other campus companies and organisations currently recruiting include Magellium Ltd, Oxensis Ltd., RSRL, the Science and Technology Facilities Council (STFC) and Applied Microengineering Ltd.

We also have our very own recruitment specialist on campus, based at Harwell Innovation Centre:

Bluestream Recruitment

With a true 'Passion for Excellence' Bluestream Recruitment are dedicated to providing a quality service within Permanent, Contract and Temporary employment from graduate level through to senior management, including multilingual opportunities in:

Admin/Secretarial
Customer Service
Finance/Accounts

Sales & Marketing
Publishing
Human Resources

ActionCOACH moves to Harwell Oxford

Campus businesses will soon be able to benefit from business support from local ActionCOACH Jackie Fitzgerald, who has recently moved into the Harwell Innovation Centre.

Jackie will be running a number of free and low cost group coaching workshops at the Harwell Innovation Centre starting in the New Year.

On the 12th January 2012 Jackie will be launching the first ProfitCLUB in the area. ProfitCLUB is a fortnightly business building meeting where Jackie will help you to improve all aspects of running your business; from increasing sales to improving your finances and getting more out of your team. As you'll also be working closely with like-minded business people you will have the opportunity to develop great relationships which can really add value your business. There is no obligation to you. Simply come as a visitor, and if you can see the benefits for you and your business then you're welcome to join.

On 25th January 2012 Jackie will be delivering ActionCOACH's classic, fully funded masterclass - 6 Steps to a Better Business. If you're stuck for ideas, lacking motivation or just need some good advice on

how to make your business work better then this free seminar is for you. Over 3 hours, Jackie will help you to get the quality of life you started your business for, improve team effectiveness, get more done in less time, and increase sales and profit. You'll learn lots of great ideas you can apply to your business straightaway and walk away with energy, vision and focus.

Jackie is a certified Business Coach for ActionCOACH, the World's #1 Business Coaching Franchise (Entrepreneur Magazine, Jan. 2004 & 2005). She works on a one-to-one basis with small businesses to help them to focus on key areas such as sales; marketing and advertising; team building and recruitment; systems and business development; and, customer service; which enables them to drive their business and achieve their goals.



Oxfordshire science facilities lead the way in training the UK's engineers of tomorrow



Diamond Light Source and the Science and Technology Facilities Council (STFC) are arming the engineers of tomorrow with the vital skills and experience needed to succeed in the UK job market, as youth unemployment figures hit 1,000,000.

Run by STFC with a third of support from Diamond Light Source, the Advanced Engineering Apprenticeship scheme at STFC's Rutherford Appleton Laboratory (RAL) at Harwell Oxford has been running for 19 years and is one of the best apprenticeship schemes in the country.

As the Government announces new measures to ensure more young people benefit from an apprenticeship, the scheme at RAL celebrates the graduation of another five young engineers as they embark on careers in the technical and engineering sector. Their achievement was applauded during the scheme's annual awards ceremony in November, with special guest Phil Taylor, from the 2009 series of BBC's *The Apprentice*. Phil spoke to the current and graduating apprentices and new recruits about his own experience doing an engineering apprenticeship and the invaluable life skills he picked up along the way, before handing out the awards.

Eynsham resident 19 year-old Jamie Nutter, who has just completed his apprenticeship and now works at STFC's ISIS neutron source as an electronics technician, made a clean sweep picking up three awards: the 'Alfie Phillips' award, for consistently good reports in each placement; the 'Joe Hoskins' award for achieving an excellent record and helping others with their training; and the 'Apprentice of the Year' award, jointly with Paul Cross, aged 19 from Abingdon.

On receiving his awards, Jamie said, "This is an excellent way to end my apprenticeship, I'm honoured to be given these awards. It's with thanks to my supervisors and mentors, everyone has been so helpful from day one. I decided to do an engineering apprenticeship because I didn't think A-levels were for me. I'm so glad I did it because I've enjoyed every moment and have picked up lots of important skills along the way, not to mention making some really good friends for life. I've been working fulltime now since the start of October and it's everything I thought it would be – lots of interesting and varied hands-on work."

Twenty-two year old Lauren Summers from Wantage received the 'Apprentice Achievement' award for successfully balancing her engineering training whilst representing Great Britain in the World Ice Hockey Championships. She said, "I didn't know I was going to receive this award so it's a great surprise. It has been tricky doing my ice hockey training and the apprenticeship but I thoroughly enjoy both so I don't mind working hard. My ultimate aim is to work in the space industry.

The apprenticeship scheme offers a way into this field with RAL having a Space Department so I'm hoping to get a permanent position there when I complete my training next year."

The Advanced Engineering Apprenticeship scheme at RAL offers school and college-leavers comprehensive training in electrical, electronic and mechanical engineering in unique working environments such as the Diamond synchrotron, the ISIS neutron source, and RAL Space. The four-year scheme receives applications every March, with successful applicants starting their foundation year at college in the following September. For more information visit <http://www.stfc.ac.uk/About+STFC/24595.aspx>



Graduating apprentice Jamie Nutter and special guest Phil Taylor with Jamie's awards



Third year apprentice Lauren Summers at Diamond Light Source with a Printed Circuit Board (PCB) she has designed for the STFC Technology Department



Treatment for glue ear one step closer

Scientists from the Medical Research Council's Mammalian Genetics Unit have identified a potential new treatment for 'glue ear' – a common inflammatory condition in children that can cause temporary, but often prolonged, hearing loss.

The new study, published on 20th October 2011 in the journal PLoS Genetics, shows that several existing drugs currently used in cancer treatment, also relieve the symptoms of persistent ear inflammation in mice.

The research could eventually lead to an inexpensive, easy-to-apply localised treatment for glue ear, which could eliminate the need for children to undergo surgery to fit tiny ventilation tubes (known as grommets) into the ear.

Professor Steve Brown, Director of the Mammalian Genetics Unit who led the research, said: "We found that one of the key factors in developing glue ear is a lack of oxygen reaching the middle ear. This lack of oxygen, known as hypoxia, appears to prevent the inflammation in the middle ear resolving, allowing fluid to build up, which can impair hearing.

By using existing drugs that tackle the root causes of hypoxia, we have been able to significantly reduce hearing loss and the build up of fluid in the middle ear of our mouse models. Furthermore, the fact that these drugs are already on the market means that the time and cost needed to develop them into a new treatment for glue ear could be dramatically reduced."

It is estimated that 90 per cent of children in England will have had at least one episode of middle ear infection by the age of five. Most children recover quickly, but some will go on to experience repeated bouts and a number will develop a chronic condition, where inflammation continues, leading to the middle ear filling with a thick glue-like fluid. The associated hearing loss can cause both social and developmental delays in the child, including delayed language acquisition.

This research is an important first step in developing a treatment for glue ear which is less invasive and more effective than the current surgical intervention of fitting grommets.



Dear Harwell Oxford Business Breakfast attendees,

It's been a great year for the Harwell Oxford Business Breakfast. We've got a new venue, the popular pitching format has been polished and improved and we have heard from some fantastic pitchers. We also carry into the New Year our post-breakfast events, which have proved a popular way to make the most of people's time and provide overarching themes for the Breakfasts. In 2011 these included:

- The Institute of Physics Business Forum
- A talk and demonstration from the International Space Innovation Centre
- An SEM workshop with Hitachi and the NanoKTN

If you've not yet been to a Harwell Oxford Business Breakfast, you're missing out! Come along to our next Breakfast on January 19th, and join us afterwards for a

seminar on Measuring the Earth with the Environmental Sustainability KTN and the Science and Technology Facilities Council.

Register at <http://www.myharwell.com/record/event/168>

Many thanks to the Breakfast team (Lorna, Fola, Andy, Ian, Nicola, Michele, Jo, Adele and Sally), our caterers (the bacon rolls are crucial!) and of course to all our regular attendees and the many newcomers we've had this year. I look forward to seeing you all at the Breakfasts in 2012!

Megan



HLRA Annual General Meeting

The Annual General Meeting of the Harwell Laboratories Recreational Association will be held on Thursday 26th January 2012 in the Harlequin Club Room of the Harwell Oxford Sports Pavilion, commencing at 12.30 hrs prompt.

Members wishing to put forward proposals for consideration at the AGM should do so in writing by not later than Wednesday 18th January 2012 and indicate a Seconder to any proposal made, either via e-mail to recsoc@hotmail.com or to:

HLRA Administrator,
The Pavilion, Rutherford Avenue,
Harwell Oxford.

The HLRA Management Committee consists of 20 Voting Members (Life, Ordinary or Honorary), eight being elected at an Annual General Meeting (or co-opted subsequently by the Committee) and twelve being representatives of each affiliated club. Elected and co-opted members serve until the next Annual General Meeting.

Nominations for positions on the Management Committee may be made at any time prior to the AGM and forms are available for this purpose in the Association Office. All nominations must be seconded, approved by the nominee and forwarded to the HLRA Administrator.

Members are urged to make a special effort to attend and support the Association.

Car Share Scheme

During Liftshare week in October, the Harwell Car Share Scheme gained an additional 20 members, bringing the total to 581. Thank you to everyone who is taking part! There are journeys registered from as far away as York, Liverpool and Exeter as well as many local routes. If you'd like to join the scheme free of charge and register regular or occasional journeys, visit www.myharwell.com/record/page/carshare

Merry Christmas and a Happy New Year

from Sally Ann, Jason, Megan, Dawn, Duncan, Jo and the rest of the Harwell Oxford Management team



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Victorious HICC team from the final game of the season at Ewelme

Harwell Cricket Update

Harwell International Cricket Club completed a highly enjoyable season on the newly re-laid cricket pitch, with good results in Sunday friendlies and the Berkshire Downs League. In its first season the new pitch provided a much improved playing surface that should be better still in 2012: quality batting and bowling will both be assisted by a bit more pace in its second season.

This should prove a significant asset to the club. On Sundays, the club claimed some notable scalps against local rivals and provided strong opposition against some very competitive sides. Overall we won more games than we lost, with some notable batting and bowling performances. A most enjoyable season for all involved.

The Wednesday league team finished 3rd in the table and missed out on promotion from Berkshire Downs League Division 3 by a single place.

We lost several very close games and have high hopes for the 2012 season. Outdoor net practices will start up in April 2012. New players of all standards are welcomed to this very friendly club: contact us on harwell.cricket@gmail.com.

If you have any news, photos or upcoming events please contact:

Megan Morys
t: +44 (0)1235 742 104
e: Megan.Morys@goodman.com

Managed by:
Goodman



www.harwelloxford.com