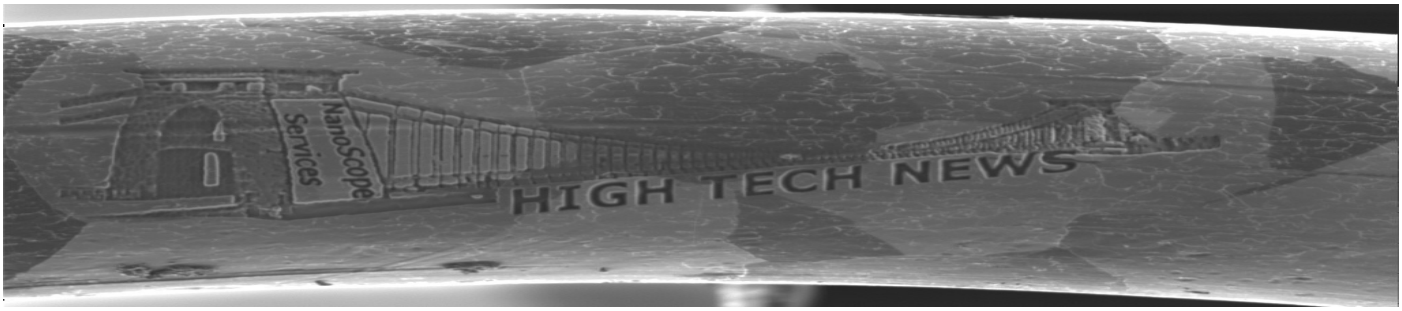

Engine Shed project forms heart of innovation for Bristol & Bath

A £1.5 million project aims to create a focus for innovation and creative industries in the Bristol and Bath region.

The Engine Shed, built by Brunel and previously housing the Empire and Commonwealth Museum at the entrance to Bristol Temple Meads station, will host Bristol's business incubator and inward investment team as well as 20 companies.

The building will be managed by Bristol SETsquared which will take the majority of the space to provide premium serviced offices for its early-stage technology businesses.

Around 20 companies will move in here with a further 40 businesses using the business centre's resources and facilities including hot desks, breakout spaces and meeting rooms. In total, there will be space for 120 people. It will also become the local base for UK Trade & Investment.

"What better springboard for our plans for the Enterprise Zone than the launch of this important project," said Bristol Mayor George Ferguson. "It is very good to see this serious, solid progress on the ground. Now we need to get out and tell Europe and the rest of the world that Bristol's open for business."

More on page 7

Regional boost from funding advice

New funding advisors in the region are assisting local high tech companies as new schemes get off the ground.

The new Regional Growth Fund is getting off the ground with Expressions of Interest applications until May.

Caroline Clark is supporting the innovation voucher scheme at the Bristol and Bath Science Park to providing up to 40% of projects up to £10,000 to connect companies in the region.

Huw Davies, an experienced semiconductor executive who returned to the region to join Bristol chip startup Audium, is now the lead technologist for Electronics, Sensors and Photonics at the Technology Strategy Board in Swindon and will be supporting companies nationally for the TSB's funding competitions.

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The High Tech News banner was developed specifically for us by Nanoscope Services in Bristol which provides key diagnostic services to semiconductor companies globally. The image of the Clifton Suspension bridge is just 8 microns long and was milled into the bond wire of a silicon chip (see the full image above). *www.nanoscopeservices.com*

New biomedical sensor testing centre opens in Bristol

An innovative new centre for biomedical testing aims to provide leading edge research and skills to firms in the region working in medicine, pharmaceuticals and genetics.

The Centre for Alternative Testing and In-Vitro Monitoring (CATIM) is a consortium, led by the Institute of Bio-Sensing Technology, UWE Bristol with the other partners, the University of Bristol, Somerset test equipment maker Gooch and Housego, the European Collection of Cell Cultures, the NHS and the Humane Society International.

CATIM is cross faculty initiative led by Professors Richard Luxton and Janice Kiely which will specialise in the creation of new technologies that will detect and monitor changes in cell systems, critical for the development and evaluation of new products from chemicals to medical implants.

Backed by £896,000 from from the European Regional Development Fund (ERDF), the centre at UWE Bristol's Frenchay campus aims to give access to advanced technology and expertise in the field of cell monitoring and alternative testing. One particular area of activity is the development of technology to reduce and replace animal testing.

"Over the coming years I will be working with our key partners at generating research projects and attracting world class academics to build a major centre for this growing research area," said Dr Bret Dash, centre director. "It's very exciting to be here at the beginning and there is enormous potential for collaborations that can make a positive difference in testing methods used across a range of industries."

Businesses from many sectors – from biomedical and agri-food to advanced engineering – may benefit from access to the Centre's resources and technical support; for example, with designing a test programme, developing skills in testing, or new product development.

www.catim.co.uk

AlphaSphere goes global

The first models of a new electronic musical instrument – the AlphaSphere 'elite' – are being dispatched to locations all across the world after a year long development.

The Bristol based developer nu desine has been taking pre-orders since April 2012 based on interest which was generated by a production prototype being demonstrated at a trade fair in March 2012. Though a third of the £1000 AlphaSphere elites will stay in the UK, the rest are shipping to the USA, Europe and Japan. The rapidly growing company have now initiated full production of the first several hundred units to fulfil a second round of orders.

Despite the imminent shipping, development has only just concluded. "We were overwhelmed by pre-orders pretty much as soon as we announced the device, and had to move quickly in order to satisfy them" said nu desine's founder Adam Place. "Just a single prototype was enough to sell the concept to the world, so it's going to be really interesting to find out what happens when there are a few more out there."

Amongst the first elite musicians is Mercury award winning composer Talvin Singh, who described the AlphaSphere as "an incredible universe of an instrument which gives you the feeling to tailor-make tones, aesthetically and sonically, as well as allowing you the capacity to invest in more indigenous and rebellious scale systems." Production run has taken place entirely in Bristol, though components have been sourced from across the world. The SETsquared company is now transferring the production process to a facility in Hartlepool, which has a higher capacity than their Bristol HQ at Bristol Science Park.

"The Alphasphere has been an exciting project to work with over the last couple of years and we are delighted to see this shipping globally. Most of the companies we work with are 'born global' and this confirms it," said Nick Sturge, Centre Director of The Bristol SETsquared Centre.

www.nu-design.com

LEP board seeks nominations

The West of England Local Enterprise Partnership (LEP) is seeking nominations from business people who might wish to participate on its Board. Two of the existing LEP Business Members are up for reelection and in addition the LEP is seeking an SME owner/manager from the West of England to participate on the LEP Board.

The application window for these Board opportunities will be held open until Friday 3 May 2013.

WestofEngland LEP

Bath sets up £2m world leading centre for energy harvesting

The University of Bath has received over £2m for a new world-leading centre for energy harvesting.

The Centre aims to create new piezoelectric and ferroelectric energy harvesting systems capable of converting mechanical vibrations into electrical energy, thermal fluctuations into electrical energy, sunlight into chemical and electrical energy, and vibrations into chemical energy. Having a focus centre on energy harvesting can boost developments in clean tech, power systems and chip design, all of which are strong in the region.

"Setting up a world-leading research centre here in the UK will put us at the forefront of this increasingly important field of work," said head of the new centre, Professor Chris Bowen. " The new Centre brings together experts in from different disciplines, including materials, physics, chemistry and electrical engineering, offering an ideal environment in which to develop new and innovative solutions to generating and harvesting energy."

One work stream in the Centre will look at novel materials that are capable of harvesting the vibrations of machines or vehicles and converting the energy into electricity. This electricity can then be used to power devices within a machine, including damage sensors or consumer electronics.

"As we continually strive to create safer and more efficient machines and vehicles, the need to power sensors that can safely sit in potentially very hot and hostile environments near the engine, where batteries would be unsafe or impractical, has increased," said Bowen. "Clean energies are also a high priority for modern society, and through our research we aim to create nano-structured ferroelectric and piezoelectric materials that can be used to split water, creating clean, environmentally-friendly hydrogen fuel."

www.bath.ac.uk

ST Micro pulls back designers as joint venture closes

Ericsson and ST Microelectronics have agreed to close their ST-Ericsson joint venture, with ST taking on existing ST-Ericsson products other than LTE multimode thin modems, certain assembly and test facilities and 950 employees. It had already taken back application processor designers, several based at the Bristol site, which is a worldwide hub for ST's activities in Digital Consumer products covering microprocessors, Audio/Video technologies and advanced software development.

Ericsson will take on the design, development and sales of the LTE multimode thin modem products, including 2G, 3G and 4G multimode devices, along with 1800 staff. The formal transfer of the relevant parts of ST-Ericsson to the parent companies is expected to be completed during the third quarter of 2013.

The products coming over are complementary to ST's focus on the wireless semiconductor market, such as system-optimised analogue mixed signal and power management devices, high-quality, low-power audio and video enhancements and energy harvesting solutions (see Bath's new centre for energy harvesting, above).

The closure is expected to cost ST $350 million to $450 million, less than originally forecast.

www.st.com

SouthWest microscope used for graphene research

A specialist microscope developed and built in Gloucestershire is being used in new research that addresses one of the major problems around the wider exploitation of graphene for the next generation of electronic devices and systems: the difficulty in growing large defect-free films.

The Renishaw inVia Raman microscope is being used by an international team—led by Oxford University scientists Professor Nicole Grobert and Adrian Murdock— in collaboration with Renishaw and researchers from the Forschungszentrum Juelich in Germany and University of Ioannina in Greece to examine film thickness, strain and defects in graphene films.

Graphene is a single layer of carbon atoms and was the first two dimensional material to be discovered. It has very interesting electronic and mechanical properties; it is one of the most conductive materials known to science and has a breaking strength 100 times greater than steel.

"The inVia Raman spectrometer is a very powerful tool for investigating the properties of graphene. This work gives a much better understanding of CVD graphene growth, which will be important for manufacturing graphene on an industrial scale," said Dr Tim Batten, Raman applications specialist.

www.renishaw.com/invia

Funding boost for innovation in the West of England

The West of England LEP Regional Growth Fund and innovation vouchers are two key opportunities for funding to support innovation and R&D for companies in the region. The most support is available to the small and medium sized companies (SME) with a minimum of £10,000 and a maximum of £1m funding from the regional growth fund. The funding varies from 70% for industrial research to 45% for the development of prototypes, while pure research can be totally funded by the scheme. New companies can also benefit with support for 15% of their R&D costs in the first three years (see table).

The prospectus is available on the LEP website.

Expression of interest forms are available from the LEP and there will be funding days to look at the best way to make the applications successfully,

Aid	Proportion of project for an SME
Industrial Research	70%
Experimental Development	45%
Fundamental Research	100%
Startup R&D support	15%

The scheme supports the transfer of technology by the acquisition of patent rights, licences, know-how or unpatented technical knowledge, or wage costs generated by increased employment following capital investment, which can be used for training. There is also specific support for the employment of disabled or disadvantaged workers and for small enterprises newly created by female entrepreneurs.

Innovation Vouchers are a way to connect companies that have not previously worked together. If you are a start-up or SME located in the South West of England, an Innovation Voucher can be used to buy in external expertise to develop ideas and improve performance. It can be used to pay for up to 40% of the cost of projects worth up to £10,000 and Science City Bristol can support the application for an Innovation Voucher and help you find the right academic partners for the project via Caroline Clark, their dedicated project worker.

More details of funding schemes available in the LEP area for high tech companies will be available shortly through the *High Tech sector group's LinkedIn group.*

Bath pioneer deal brings Cisco into the region

Small cell pioneer Ubiquisys, the first company in the University of Bath Innovation Centre, is to be bought by US giant Cisco Systems for $310m.

Ubiquisys, based in Swindon, provides of intelligent 3G and LTE (Long-Term Evolution) small-cell (or femtocell) technologies that provides seamless connectivity across mobile networks for service providers and this marks one of the largest European exits in recent months. It follows Mindspeed's acquisition of picoChip in Bath, NVIDIA's acquisition of Icera Semiconductor in Bristol and General Dynamics' acquisition of IP Wireless in Chippenham, all in the wireless sector.

"The acquisition doesn't just provide Cisco with Ubiquisys' small cell knowhow; it also gives Cisco experience in working with a broader set of mobile operators," said Daryl Schoolar, principal analyst at market analyst Ovum. "Ubiquisys provides Cisco much greater market credibility when it comes to 3G and LTE small cells. Cisco will also benefit by having greater control over Ubiquisys' product development cycle, freeing Cisco from having to rely on the development cycle of third-party partners like IP access.

"Outside of its work with AT&T, Cisco's licensed small cell experience has been hard to find," said Schoolar. "Ubiquisys on the other hand has over 50 customers (vendors and operators) that include Softbank (Japan), SFR (France), and Network Norway. Ubiquisys' small cell experience greatly bolsters Cisco's small cell position.

The acquisition of Ubiquisys complements Cisco's mobility strategy along with the recent acquisitions of BroadHop and Intucell, reinforcing in-house research and development, such as service provider Wi-Fi and licensed radio. Ubiquisys' product portfolio and team will be integrated into its Small Cell Technology Group led by Partho Mishra.

www.ubiquisys.com

Beware the Pitfalls of IP

"We are all in the gutter, but some of us are looking at the stars". It's all about your point of view: inventors see ground-breaking new ideas; investors see valuable assets, balance sheet worth; accountants see expenditure with questionable value; IP lawyers see an opportunity to write reams of pages. The reality is that IP can be a very valuable means of protecting your market, but any IP strategy must be part of an integrated approach to your business and product strategy, not something the CTO is solely responsible for.

Patents are key

When you patent a product it means you have received recognition that your invention (not an idea) is new, unique and useful. From a commercial point of view a patent gives you the exclusive right to prevent others from making, using, selling, marketing or importing your invention in the country where your patent was issued.

There will be international markets for your products, and you must obtain a patent in every country where you need to protect these rights. Every country has its own patent laws, however, many countries co-operate with each other allowing you to apply for a patent in one country and to subsequently apply to other countries. Like a giant game of Risk, you can quickly spread your protection across a whole continent but this process becomes very expensive, and you'll always struggle to hold Asia! And once you have filed your application you will only have 12 months to file applications in all other countries you need.

You will not be able to obtain a patent at all if you have publicly disclosed your invention anywhere in the world prior to making your application. And you will need to address the question - perhaps someone else has already got there first? What you have invented must be new, so you will need to spend money at an early stage conducting freedom to operate searches of the key international patent registers, to ascertain whether you can pursue your invention without receiving a legal claim based on infringement of an existing patent. And when you get your patent, do you have the resources to fight off infringers.

The reality – product is king

So IP is very much part of a defensive strategy, you can use it to create a ring fence around your product space. But it doesn't substitute for the basics: you need to make a realistic assessment of your product, what is the addressable market, what is the potential size of that market, do you know the costs of manufacturing, can you make the products profitably, and then you can factor in the costs of IP protection. Will the product have a lifespan that will make it worthwhile obtaining patent protection, or will it have the appeal of a Joe Dolce greatest hits album?

The reality check doesn't stop there: you really need to work up the feasibility of the product, you will need to produce a working prototype that demonstrates its advantages, repeatable performance and the challenges of manufacture; and only then you can make your assessment of whether to spend more in IP protection costs. Sometimes it is better to hold onto your hard-earned cash and say, "well, back to the old drawing board".

Andy Braithwaite is an experienced IP lawyer and head of technology at Thrings in Bristol

www.thrings.co.uk

Cluster map goes ahead

The High Tech Sector group has been given the go ahead to develop a map of the cluster of high tech electronics and embedded software companies in the Bristol and Bath region. The project will be based on existing technology used for other cluster maps with customisation for our region.

More information and how to participate will be available in the next newsletter.

UKTI seeks electronics sector account managers

The UK government's inward investment agency, UKTI, is looking for account managers with specialist expertise in electronics and communication technologies. The role is managed by PA consulting, with an office in Bristol, to support foreign owned businesses located in the UK to invest further in the UK by making them aware of relevant networks, resources and government support, and helping them to build these into their UK growth plans.

www.paconsulting.co.uk/careers/ job # 2779

XMOS launches lowest cost multicore microcontroller chips

XMOS Semiconductor in Bristol is launching a new chip that dramatically reduces the cost of processing for industrial designs.

The xCORE XS1-L4-64 integrates four 32bit processor cores at a price under $3 that is comparable with competing single-core devices but gives ten times the processing power. The devices are used in a wide range of applications, from Sennheiser sound equipment to the latest industrial robots.

“The xCORE L4 offers 400MIPS performance at the price point of other manufacturers’ 40 or 50MIPS products,” said Ali Dixon, Director of Product Marketing and co-founder of XMOS. “Embedded designers working on high-volume applications can now add more features, including those that require real-time determinism, with software that is functionally safe. We believe it’s a real game-changer.”

The new device is aimed at accurate stepper motor control, industrial networking and motion control. With 64bit precision DSP capability, it is also particularly well suited for signal conditioning tasks and applications such as control that combine cost-sensitivity with high performance demands. The xCORE L4 will also help drive the growing trend towards distributed intelligence in embedded design, by allowing developers to locate low-cost processing and communications closer to system nodes such as sensors and actuators.

“The L4 breaks new ground by combining low unit cost, real-time deterministic execution, multicore performance, on-chip DSP and the industry’s fastest response times,” said Nigel Toon, President and CEO, XMOS. “At 400 MIPS it offers a price/performance ratio unbeaten in the world of C-programmable embedded devices. Just as importantly, we provide the design tools engineers need to harness this performance – making the move to multicore technology an instinctive and natural experience.”

The XS1-L4-64 comes in a 48-pin package that is pin-compatible with the existing devices with 64Kbytes of SRAM, the 6-core L6-64 and the 8-core L8-64. This allows designers to take a platform-based approach that permits early implementation of emerging technologies and standards, future-proofing and the addition of new features as requirements evolve. Samples of the XS1-L4-64 are available today, with volume production expected in Q2 2013.

www.xmos.com

Gnodal aims for 40Gbit Ethernet networks

Bristol-based Gnodal is taking on industry giants Cisco Systems and Juniper Networks in 40Gbit Ethernet cloud computing and data centres with significant software enhancements to its adaptive, load-balancing operating system.

The innovative architecture in the Gnodal distributed, low-latency, Layer 2 core, removes typical constraints to cloud deployment, using custom chips and the Gnodal Network Operating System (GNOS). This allows multiple Gnodal GS-Series switches to be combined to create distributed core fabrics that support thousands of nodes.

RedPixie in London is using the technology to connect compute and storage nodes in its NimBrix platform for a unified compute, storage and networking platform that eliminates the need for a SAN and overcomes conventional architectural limitations and costs.

"Gnodal is uniquely positioned to redefine enterprise Ethernet networks to meet the objectives of next-generation data centre and cloud infrastructures that rely on flat and efficient, east-west, layer 2 Ethernet transport common to virtualized applications," said Atchison Frazer, Gnodal CMO. "The Gnodal Network Operating System underpins a tightly integrated Ethernet fabric; while other vendors talk about switch device functionality based on merchant silicon, only Gnodal Ethernet Fabric-exclusively delivered via the Gnodal PETA-ASIC chip architecture-delivers three key tenets of intelligent network fabrics: low latency, congestion avoidance, and multipath handling."

GNOS is based on a Linux kernel with Gnodal hardware drivers, and a number of protocol layers above it. A key differentiator between GNOS and legacy switching is that a large part of GNOS is embedded within the PETA-ASIC. It also offers distributed control, whereby each Gnodal PETA-ASIC actively participates in the system as a whole.

www.gnodal.com

Bristol robotics specialist leads £8m nuclear programme

Bristol-based OC Robotics is leading an £8m project to use its 'snake-like' robotics arm for hazardous environments, particularly in the nuclear industry.

LaserSnake2 will run from 2013 to 2016 with £5.7m funding from the Technology Strategy Board, together with the Department for Energy and Climate Change and the Nuclear Decommissioning Authority to develop long reach snake-arm robots for hazardous and confined spaces, both in air and under water. he combination of snake-arms and mobile robots to create a mobile platform for exploration of complex spaces.

The project will develop laser cutting optics for safe, remote cutting in air and in water, particularly focused on nuclear decommissioning, and look at the regulatory and certification issues associated with tele-operated delivery of laser cutting solutions for the nuclear sector is also a key objective.

The technology has huge potential outside of the nuclear sector - for instance, inspection and maintenance of high value assets in the oil & gas and construction sectors, and working within confined spaces such as aircraft wings for assembly and maintenance. For this reason the research will focus on the underlying technical challenges including software control, electronics, process development, and mechanism design. The project will conclude with onsite demonstrations. The success of the project will be measured both in terms of progress made towards developing a tool kit for the nuclear sector and in the exploration of non-nuclear markets.

www.OCrobotics.com

Centre for Digital Entertainment seeks R&D partners

The Centre for Digital Entertainment, based in the University of Bath Innovation Centre, is looking for new company partners for funded research and development projects in gaming, animation, VFX, and simulation. Company partners suggest project ideas and the CDE matches these with high-calibre candidates – many companies use these kinds of schemes as an extremely cost-effective way of training future high-level staff.

Current partners include Aardman Animation, Electronic Arts, Double Negative, Ninja Theory, Hibbert Ralph Animation, Wonky Films, and The National Trust.

The average company contribution is £8.5k pa for 4 years. The contact is Sarah Hayward, Project Coordinator at s.hayward@bath.ac.uk

Engine Shed creates new opportunities for innovation

Core to the £1.5m Engine Shed project will be a business lounge and co-working and collaboration spaces for academics, entrepreneurs, innovators, investors and business leaders.

"Bristol is repeatedly recognised as having significantly high potential for economic growth and the intellectual capital provided by world-renowned research and the activities of some of the country's highest performing students go a long way to supporting this," said Professor Eric Thomas, Vice-Chancellor of the University of Bristol.

"It's great to be heading up the Engine Shed facility and bringing together so many groups, from companies and entrepreneurs to academics and students," said Nick Sturge, Director of the Bristol SETsquared Centre. "Everyone involved has a huge sense of excitement for what can be achieved in this great building. The additional space will literally allow Bristol SETsquared to grow and we hope it will become an active hub of world-class innovation and enterprise activity – located within what is arguably one of the UK's most connected transport hubs."

A planning application has been submitted for the Engine Shed, which is likely to be dealt with in the next few months. Colin Skellett, Chairman of the West of England LEP, said: "After months of planning, it is exciting to see the birth of the Engine Shed project. City marketing must be joined up. By bringing together all our investment specialists we are creating a formidable resource to attract new jobs. "Entrepreneurial, high growth businesses are the lifeblood of our economic growth. What better place to inspire them than Brunel's Engine Shed. Set on the direct line to London and onto Europe, this will be an exciting focus for innovation," he said.

Other key partners in the Engine Shed project are Network Rail and the Homes and Communities Agency (HCA), both of whom are key delivery partners for Temple Quarter Enterprise Zone.

Bristol inspires 12-14 year olds about electronics

The University of Bristol hosted the finals of a pilot initiative to raise awareness of the electronics sector among school pupils aged 12-14 and help reverse the industry-threatening decline in students undertaking electronics courses at university.

The inaugural 10-week Go4SET project, developed by the UK Electronic Skills Foundation in partnership with the Engineering Development Trust, saw 10 teams of 6 students from across the South West compete to present their visions and prototypes of future technologies.

Teams were sponsored and mentored by industry partners and the University of Bristol. And proving that electronics plays an important role in our everyday lives, students came up with ideas for technology applications that included teaching, sport, school security and entertainment.

The overall winners were a team from Badminton School with a watch that can be used for RFID registration. The winners for Innovation were Lydiard School, with a watch that connects to a smartphone to check Facebook, emails, other apps and make calls. The students' choice was another team at Badminton School who developed an electronic netball top with working prototype based on Arduino LilyPad.

"Electronics is an exciting technology that touches and enables every aspect of life. Our industry needs to reach out to students and engage with them to communicate this before they even begin making their GCSE choices," said Indro Mukerjee, UKESF Strategic Advisory Board chair and CEO of Plastic Logic in Cambridge. We must ensure this is done in a stimulating and intriguing way; it is not enough to simply give a careers talk at a school.

"The ideas presented yesterday show that this new UKESF-Go4SET project can certainly play a significant role in achieving this. However, further support for the project by employers across the country is necessary to help attract more young talent into the sector."

Despite UCAS data showing a significant rise in demand for engineering and technology courses since 2002, there was a 29 per cent drop in British applicants to electronics engineering courses between 2002 and 2012. The gender gap is also significant with females typically making up less than 8 per cent (1 in 12) of UK applicants.

The Go4SET scheme is designed to raise awareness among younger students in a way that appeals to both males and females. The inaugural UKESF sponsored project saw four mixed teams, four girls-only teams and just two boys-only teams. The UKESF-Go4SET project will now be rolled out nationally.

Bath sees technology futures

The University of Bath Innovation Centre (UBIC) hosted the first of its Technology Futures seminars, bringing together industry experts, from Rodric Yates of IBM UK ARM-founder and technology venture capitalist Jamie Urquhart and semiconductor market research guru Malcom Penn, to look at future trends.

"In the era of cognitive computing, systems learn instead of passively relying on programming," said Yates. "As a result, emerging technologies will continue to push the boundaries of human limitations to enhance and augment our senses with machine learning, artificial intelligence (AI), advanced speech recognition and more," he said.

Urquhart warns against the 'herd' mentality and, ironically, in following established trends blindly.

"As an entrepreneur you have to make your own predictions," he said. "VCs are very formulaic and our our job isn't to forecast. What I do is look at interesting ideas and if they can articulate what they do in an interesting manner I might invest in them. What matters is markets - its not about the technology, and you have to ask what the problem is being fixed and does the solution have value. Just because something seems neat and useful doesn't mean it will be taken up."

For the next technology trends event, see page 9

High Tech Newsletter at MIPIM

The High Tech newsletter was available in both paper and electronic form at the recent meeting of inward investment professionals in Cannes in France. MIPIM brings together over 4,00 investors from 79 countries. For a customised version of this newsletter for events, please contact Nick Flaherty at SW Innovation News.

SEA helps lead £5m combat technology research

Local consultancy SEA is to be a key part of a three-year, £5 million research project into the next generation of combat systems.

Under the Dismounted Close Combat Sensors (DCCS) Research Programme, SEA will work Roke Manor Research and QinetiQ to lead a team of specialists, drawn from across industry and academia to assess, mature and integrate innovative sensor technology for the dismounted close combat soldier. The programme is part of the UK Government's Defence Science and Technology Laboratory (Dstl).

SEA, which has 230 staff in Bristol and Beckington in Somerset, already leads the Delivering Dismounted Effect (DDE) Research programme will have specific responsibilities for developing architectures and assessing the benefits of potential technology. SEA will be drawing on its experience of developing open system architectures and conducting similar work on Future Dismounted Close Combat Research Programme. Additionally, SEA's Human Factors Team will be integral to assessing the benefits of potential solutions to the human as a system.

"This is an excellent opportunity to work closely with Roke and QinetiQ in a combined leadership role," said Steve Hill, MD of SEA. "This is new territory for the three of us but we're all confident the benefits to UK Defence will considerable from this approach. We're also looking forward to bringing the experience and knowledge we've gained from DDE to this challenging opportunity which we are confident will deliver some exploitable benefits"

SEA provides applied research, technology development, systems integration, specialist electronic systems, engineering and software design services to the aerospace, defence, space and transport markets, as well as Government agencies, industrial prime contractors and academia. The company was founded in 1988 and was acquired by Cohort plc in 2007.

www.sea.co.uk

Ocean Blue drives connected TVs

Bristol TV software developer Ocean Blue has launched middleware that will enable manufacturers and operators to provide set top boxes and iDTVs with full Connected TV functionality, allowing access to sites such as You Tube, Flickr and local catch up services; via a consistent User Interface (UI) and sitting alongside the linear broadcast. The new 'Horizon' HbbTV middleware supports the pan-European Hybrid Broadcast Broadband TV standard, allowing the software to be used by manufacturers across the continent.

"Ocean Blue is an active supporter of the HbbTV standard and our development of a fully compliant solution comes at an exciting time for us, particularly when HbbTV is emerging as the dominant platform to unite broadcast and connected TV," said Paul Martin, new CEO of Ocean Blue who joined recently from chip maker NXP Semiconductors to replace founder Ken Helps.

Ocean Blue's Connected TV software is modular by design and includes the Sunrise DVB stack which is browser agnostic and already ported to work with ACCESS and Opera. In addition to the Horizon HbbTV software, it also includes Ocean Blue's CI Plus module for pay TV systems.

www.oceanblue.com

BLOODHOUND supersonic car will run in 2013

The BLOODHOUND SSC supersonic car is set to run for the first time in 2013, and is now well into its build phase, said project director Richard Noble OBE in the Bloodhound SSC Annual Lecture 2013 at UWE Bristol.

The aim of the Bristol-based project is to break the current land speed record and reach speeds of up to 1000 mph. "Progress is excellent, with the rear lower chassis currently being assembled in our Bristol workshops," said Noble. "The carbon composite monocoque, or single shell chassis, has been manufactured by URT Group in Bognor Regis and is being machined ready to be joined to the rear chassis."

Product Design students from UWE helped to design the ergonomics for the cockpit which will carry driver Andy Green. Assembly of the car will continue for much of 2013 with UK runway testing up to 200 mph in November and high speed trials in South Africa in December.

www.bloodhoundssc.com/

Time to be brave

The $310m acquisition of a local technology leader (p4) has put the global spotlight onto the region. Although Ubiquisys is based in Swindon, it was the first graduate of the University of Bath Innovation Centre and demonstrates the strength of support for technology in the region. Cisco joins many large companies that have recently taken advantage of the skills in the region, with NVIDIA, Broadcom, Mindspeed, Gennum and General Dynamics all buying up local companies at various stages of development.

However the ecosystem of innovation in the region also needs our home-grown global players to be thriving. XMOS Semiconductor (p7) and Gnodal (p7) are doing just that, leading the way in international markets, and taking on companies such as Broadcom and Cisco directly. At the same time startups such as nu-desine are making waves with Alphasphere (p5).

New opportunities in medical test technologies through CATIM (p2) and energy harvesting (p3) will provide both resources for companies to use but also to stimulate new technologies for the next generation of startups.

But all of this needs support and a bit of bravery as they will use a smaller number of more skilled people. If we can take risks and make it significantly easier for companies to access funding that is available we can help more of them grow larger faster, bringing economic and cultural benefits to a region already strong in technology - this is the way that we grow out of the current downturn and build a solid base for growth through the next decade and is an opportunity not to be missed.

Nick Flaherty

INDUSTRY EVENTS

Thursday April 18th 6pm - 9pm
Entrepreneurs Question time
Bristol & Bath Science Park

April 30th
Eco-innovation information day
UWE, Bristol

Tuesday 7th May - 2 - 5pm
Optimising your LinkedIn Profile
Ashfords Solicitors, Bristol

Monday 13th May 6 - 9pm
Tech Startup School Begins
Smith & Williamson, Bristol

Monday 13th May 5.45pm - 8pm
Advances in Human Robot Interaction: The Rise of the Machine?
BCS at the Bristol Robotics Lab

Tuesday 14th May
Device Developers' Conference
Holiday Inn, Bristol

17th May 9.30 -1.00
Silicon South West's TechTrends #2
UBIC, Bath

Wednesday 12th June 6pm - 9pm
Exploiting Social Media
Watershed, Bristol

About the West of England Local Economic Partnership

The West of England Local Enterprise Partnership supports business growth and is working to attract new jobs to Bristol, Bath and Weston-super-Mare – and the surrounding countryside. The West of England has unrivalled business strengths, is at the forefront of academic research, and has a well-qualified workforce. The LEP aims to assist in the creation of 95,000 new jobs by 2030 with 3.4% annual growth by 2020 from over £1 billion of private sector investment over the next 3 years.
The structure supports the LEP Board in making it happen, backed by multiple Sector Groups including the High Tech Sector which meets once a month. More information on the vertical and cross cutting sector groups is here. For more information or to get involved join the LinkedIn group and sign up for the High Tech Sector Newsletter at SW Innovation News for news of events and Special Interest Groups

High Tech News is published by SW Innovation News (www.swinnovation.co.uk) for the High Tech Sector group of the West of England Local Economic Partnership. For custom newsletters for your company or events, please contact Nick Flaherty nick@swinnovation.co.uk