EXIST insight

Exeter Initiative for Science & Technology

A focus on science, technology & innovation for the business community

SEPT 16 ISSUE 02

Exeter Chamber of Commerce & Industry

ANTECH

EXETER FIRM WORKING AROUND THE WORLD

EXETER SCIENCE PARK

HERE TODAY, MORE TOMORROW

STEMM NEWS | FIFTH SIDMOUTH SCIENCE FESTIVAL OPENS CALL FOR INNOVATORS & INVESTORS AT VENTUREFEST SW | IMECHE WORKS WITH UNIVERSITY OF EXETER | SW WELCOMES FIRST SPECIALIST CYBER SECURITY COMPANY | FILM FOCUS WITH BITPOD | SUNGIFT ENERGY AT THE FOREFRONT OF ENERGY STORAGE WITH TESLA

ABOUT **ExIST** AND **INSIGHT**

Exeter Initiative for Science and Technology is a sub-group of Exeter Chamber of Commerce and Industry. The group was founded in June 2011 by a group of business leaders in Exeter and the sub-region. The groups aims to optimise interaction between science and technology businesses trading in the area, to increase awareness of Exeter as a centre of science and technology, to build relationships between education at all levels and business and to encourage investment in the STEMM industries in the region.

ExIST Insight is the newest project from the group and aims to raise recognition of the STEMM organisations and its community within Exeter and the local region, The quarterly newsletter enables us to share information within the network and for external promotion to encourage increased visibility of Exeter as a science city.

Find out more
www.existexeter.co.uk

ExIST_Exeter

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ISSUE 02

WELCOME TO ISSUE 2 OF EXIST INSIGHT

When ExIST was launched back in 2011 many of us wondered whether we could meet the demands of regular quarterly presentations involving businesses and organisations based in and around Exeter. After over 25 events and over 90 presentations we continue to have no difficulty in finding speakers and topics and now it seems the same is true of Insight.

This issue covers a number of new business activities locally, the Sidmouth Science Festival details, Venturefest South West – a first for the South West region and Exeter, information on the growth of the Exeter Science Park and our first (of many we hope) film, focusing on local businesses. I would like to thank Alex Wren from Bitpod for launching this project and for his work, with Gabriel Wondrausch of Sungift Energy, on the pilot film.

Robert McIlwraith with Robin Jackson, co-founder and steering group member of ExIST

Whatever is happening in the world around us, Exeter continues to flourish and grow. In the areas of Science and Technology, Exeter is a great place to be located.

Read the articles, use the links, follow us on Twitter and make others aware of what is going on in STEMM in Exeter

Robert McIlwraith.

STEMM NEWS

IMECHE WORKS WITH UNIVERSITY OF EXETER

Engineering challenges lie at the heart of many of the most significant challenges facing society in the 21st century. The need to find creative, innovative and efficient solutions to many problems, be they complex or commonplace, will only intensify as the world's population doubles in the next five decades.

The University of Exeter offers a range of professionally accredited undergraduate and postgraduate engineering degrees covering the major engineering disciplines and aimed at educating our graduates to meet these challenges. Specialist programmes cover mechanical, civil, water, materials and electronic engineering, as well as engineering management. Combined teaching and research facilities which have recently undergone a multi-million-pound refurbishment give students access to industry-standard equipment and technology.

It is recognised that professional engineers often work together within multidisciplinary teams, solving problems collectively, and this underpins how the course is taught. All our degrees have a strongfocus on multi-disciplinary and project-based learning.A core first year lets students try each of the major disciplines within engineering, giving them the flexibility to choose their direction before specialising. Added flexibility is provided through being able to transfer between BEng (three year) and MEng (four year) degrees at the end of the second year, along with the opportunities to experience an industrial placement or a period of study overseas.

Postgraduate courses, taught in partnership with the University of Exeter Business School, offer students the chance to study modules in strategy and management alongside core engineering, giving them a competitive edge in the employment market. Many of our postgraduate programmes are available part-time or on a module-by-module basis as career development for professionals.

Exeter University graduates excel in specialist engineering fields and across a broad range of other sectors, with alumni working for companies such as Jaguar Land Rover, Lockheed Martin, Dyson, Siemens, Renishaw and Price Waterhouse Coopers.

www.imeche.org

SW WELCOMES FIRST SPECIALIST CYBER SECURITY COMPANY

Securious is the first specialist cyber security company in the South West and brings to the region the skills and expertise to assist companies and organisations improve their cyber security and achieve necessary compliance.

Founded by Pete and Roz Woodward and based in the Exeter Science Park, Securious aims to help organisations both take meaningful steps to ensure their information is secure and demonstrate they have established themselves as a trustworthy company to do business with.

Whether through the Government's Cyber Essentials scheme, an entry level certification suitable for every company and organisation, or by satisfying the requirements of standards such as PCI DSS or ISO27001, Securious is the only company in the South West qualified to ensure compliance across this range of core cyber security standards. For clients, this means they can work with a local team and avoid considerable costs involved with bringing in personnel from outside the region.

Securious is also a founder member of the South West Cyber Security Cluster, a not for profit collaboration raising cyber security awareness and best practice in the South West. Director Roz Woodward says "We are passionate about helping organisations in the South West understand the threats involved but also realise there are simple, low cost steps they can take to protect themselves." www.securious.co.uk

BUILDING PEPTIDES IN EXETER

Isca Biochemicals are based in Exeter and create custom peptides for pharmaceutical companies and universities across the world. Dr Cliff Rush is a Director (job title?) and has been synthesising peptides since completing his PhD in Chemistry at Exeter University (in YEAR?). Isca has been operating since YEAR, but Cliff has been commercially producing peptides in Exeter since YEAR.

As Cliff explains, "Custom peptides are used by researchers as reagents when developing new drugs, for example, to bind to a specific receptor on a virus. So we find out from the customer the properties that they're looking for from the peptide, and we then create this in our lab, one amino acid at a time. Quite often, they make the easier ones inhouse, so we're often commissioned when they have a particularly difficult problem."

Once a peptide has been synthesised by Cliff and his team, it's freeze dried, and mailed out of Exeter to the customer. Despite working with international companies, Isca are keen to develop more local links to pharmaceutical and research companies in the South-West, "We already work with a few research groups locally, but we want to develop this – research groups will often use catalogue companies for their reagents, but by cutting out these companies, they can save money, and we can work directly with them to improve the reagents we supply."

www.iscabiochemicals.com

SUNGIFT ENERGY AT FOREFRONT OF ENERGY STORAGE WITH TESLA.

ExIST has teamed up with Bitpod to launch a series of films on science and technology businesses in the area. Our first visit was to Sungift Energy. Find out how Sungift are working with energy forerunners TESLA and why Exeter is the place to be, in an interview with founder Gabriel Wondrausch.

Visit www.existexeter.co.uk/sungift to see the video. If you would like to feature in a future film please contact alex@bitpod.co.uk

EXETER SCIENCE PARK

lays foundations to become the South West's beacon of excellence

EXETER SCIENCE PARK, LOCATED TO THE EAST OF EXETER AND JUST OFF JUNCTION 29 OF THE M5, HAS BEEN LAYING FOUNDATIONS TO BECOME THE SOUTH WEST'S BEACON OF EXCELLENCE FOR SCIENCE AND TECHNOLOGY.

Over the past six months, the Science Park has covered significant ground in improving the infrastructure and connectivity, securing funding and supporting the growth and development of many of its tenants within the Science Park Centre – an incubation hub to promote innovation and support fast-growth for science and technology businesses and entrepreneurs.

Since 2012, more than £9million has been invested in the development of estate roads, infrastructure and drainage systems. In 2014, an additional £250k was invested to provide 1GB of ultra fast broadband across the site and in 2015-2016 a further £2.5million will see the completion of new roads, car parks and further plot preparation to make way for the Global Environmental Futures Campus – a cluster of new buildings which will become home to businesses that specialise in climate change and sustainable futures.

The funding has enabled the Park to prepare the land ready for the provision of new buildings, providing space for innovative, high-growth local businesses, as well as attracting exciting new firms to the city to join the growing science, technology and big data business community.

In November 2015, £10m of funding was secured through the Government's Growth Deal 2 initiative for the delivery of three high quality, bespoke buildings, including two new grow-on buildings and a statement building within the Global Environmental Futures Campus.

These distinctive buildings will provide crucial space for private sector organisations to set up home at the Exeter Science Park, some of which are already in talks with the management team.

Thanks to the funding, the plots are now ready, enabling more science-based entrepreneurs to be on site much sooner than originally planned. Work is expected to start in November this year, with the grow-on buildings completed in November 2018.

Also in November, a landmark agreement was signed with E.ON to provide a district heating network, providing a sustainable and cost-effective source of heat and hot water to the park as well as to new homes and businesses in Monkerton.

The district heating system is another part in the Park's ambition to be sustainable. All buildings on the Park will be built to a high efficiency standard, BREEAM Excellent, whilst the further enhancement of the surface water attenuation ponds is helping to minimise the impact of the development on the wider drainage infrastructure. In addition, a comprehensive planting initiative has been implemented across the park to preserve and enhance the diverse ecology already present.

Emerging from the ground is the Park's newest building, set to house the Met Office's £97million High Performance Computer, which will be the biggest supercomputer in Europe. Once installed, the much-anticipated computer will enable the Met Office to run more detailed weather and climate models to assist the UK's resilience to extreme weather.


Caption here

Peter Quincey, Senior Development Manager of Exeter Science Park said:

"We have come a long way over the past six months and it's very satisfying to finally see the fruits of our labour. We couldn't have achieved all that we have without the support of our partners who have all recognised the long-term benefits the Park will bring to the region."

"The funding has helped us to rapidly progress the site preparation, build new roads and get the Park ready for more businesses looking to develop their own bespoke premises. We are already in talks with several firms looking to move to the area. We are all very excited about the next 6 months when we will continue to support the growth of innovative, fast-growth science and technology businesses."

Early in 2016, the Met Office will hold its official topping-out ceremony for the High Performance Computer building which is expected to be completed in the autumn. In addition, the Park is expected to announce the arrival of an "Internet of Things" start-up at the Exeter Science Park Centre over the next few weeks – which will further bolster the capabilities of this fast-growing enterprise community.

For more information please visit www.exetersciencepark.co.uk call 01392 249 222 or follow the team on Twitter @ExeterSciencePk

EXETER SCIENCE PARK

ANTECH

ANTECH ARE AN ENGINEERING COMPANY WHO DESIGN AND DEVELOP PRODUCTS AND SERVICES FOR THE UPSTREAM OIL AND GAS INDUSTRY. HEADQUARTERED IN EXETER, ANTECH HAS GROWN CONSIDERABLY OVER THE PAST 24 YEARS AND NOW HAS FACILITIES IN THE UNITED STATES, SAUDI ARABIA AND ABU DHABI.

Jennifer Bentley is their Head of Production and has been with AnTech since 1997. Having graduated with a degree in Electrical Engineering in 1997, Jenny moved to Exeter and quickly got a temp job at AnTech working on a piece of software that visualised well profiles.

"Initially I was employed to improve the usability of the software, but quickly became permanent as I started training industry professionals how to use it. I then started managing improvements to the software following the feedback I was getting in training sessions. I've been here ever since!"

In her first year, fresh from University, Jenny travelled to The Netherlands, Canada, Brazil, United Arab Emirates, Argentina and the United States to train customers to use AnTech's software. Visiting these countries and clients meant that Jenny was able to see the scale of field operations and her drawings were brought to life. "As an engineer, I've always preferred the 'hands-on' type of engineering – on-site, working out what's needed and fixing things when they break. I really enjoyed seeing the wellsites and meeting the people working on them. The industry has a particular way of working and a vocabulary all of its own!"

AnTech originally started out as a design house and now operates across two divisions. The service division directly targets oil and gas operators

with declining fields that are wanting to take advantage of AnTech's downhole drilling equipment. On the products side, mechanical, electronic and software engineers, design, test and manufacture customised products for the big service companies. The success in the products division and external investment has made the launch of the service division possible.

When Jenny started at AnTech there were just 16 in the company and it now employs nearly 50 people. "The oil and gas industry has regular cyclical downturns, but as we are still relatively small we can be proactive and respond to customer requirements.

"AS AN ENGINEER, I'VE ALWAYS PREFERRED THE 'DIRTY' TYPE OF ENGINEERING – ON-SITE, WORKING OUT WHAT'S NEEDED AND FIXING THINGS."

Jennifer Bentley, Head of Production

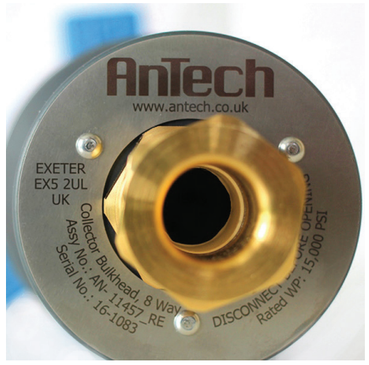
Recently, we launched a new range of low cost products which have been specifically designed for current market conditions to help customers weather the storm". The 2013 investment from Saudi Aramco Energy Ventures (SAEV) and Calculus Capital is an indicator of the value that the industry places on AnTech's expertise and knowledge and their confidence in the company's future growth.

To find out more about visit www.antech.co.uk

As part of AnTech's CTD service offering, the team is hired to plan, drill and provide real-time analysis whilst drilling a well. In order to operate and maintain the tools at the wellsite, they have a custom-made 40ft workshop that can be loaded onto a truck and taken directly to a well site anywhere in the world. All of their tools are built to withstand harsh downhole conditions and are designed to cope with intense vibration, extreme temperatures and pressures. For example, in the Middle East, temperatures reach nearly 200°C while drilling, so everything is carefully tested before being shipped to ensure that it can cope with these extreme conditions.

Every well and its drilling requirements are planned in advance and AnTech's downhole tools include a whole suite of sensors that enable the tool to be steered while drilling. "A drill bit can be directed to turn corners of 50° per 100 feet, so we can respond to the data that's coming back to surface and if required, we can adjust the well path in real-time."

Jenny is also very proud of AnTech's history of supporting younger people who are interested in developing their engineering skills. Jenny completed an industrial placement as part of her degree and appreciates their value to students. They regularly work with the Engineering Development Trust (EDT) to offer places to post A-level



students as well as undergraduates. A number of these placements have led to permanent roles: AnTech's Head of Engineering started 13 years ago as a year in industry student and he now manages all of the engineering design and development for the company.

"We are able to offer fantastic opportunities to young engineers just starting out. We look for practical skills and the ability to work in a team. We encourage individuals from a broad mix of disciplines and backgrounds – that way our teams can bounce ideas off each other and solve problems together. We're still a relatively small company, so we encourage and value everyone's input as everything we do is a team effort."


Caption here

EXIST EVENTS

VENTUREFEST SOUTH WEST

18TH OCTOBER 2016, SANDY PARK, EXETER

Call for tech entrepreneurs, innovators and investors as first Venturefest South West launches

A flagship event for innovators, entrepreneurs and investors in the technology sector has been announced for the region. Venturefest South West will be held at Sandy Park, Exeter on 18th October and will bring together hundreds of talented small enterprise innovators and entrepreneurs from across Devon, Cornwall and Somerset along with investors on the lookout for emerging talent. This is the first time a Venturefest event, part of a national network supported by Innovate UK, has been held in the region.

Venturefest South West aims to help innovators develop their ideas and support entrepreneurs in securing investment. Attendees can make valuable connections and take away insights and advice from world-class speakers and the region's trailblazing technology companies through a mix of talks, workshops and exhibitions.

Speakers confirmed so far include Darren Westlake, founder of Crowdcube, the world's leading investment crowdfunding platform which was founded in and still operates from, Exeter and Professor Roy Sandbach from the University of Northumbria, a leading voice nationally in the field of innovation. Discussing investment will be Natwest's Head of Technology, Media and Telecoms for the UK, Neil Bellamy.

Among other technology areas, the event will focus on innovation in Agri Tech, Blue Tech, Digital Health, Creative Digital including games development, Photonics and Big Data.

Martin Brown, Chair, Venturefest South West and board member of the Heart of the South West LEP said: "The region has a strong and growing reputation in technology innovation and this event is aimed at innovators and entrepreneurs, as well as investors who want to discover the next big things. Venturefests run across the UK so it's only right that this region should host an event given the huge potential we have here. The event is all about collaboration, connecting with other people in the sector, learning and making links with potential investors. It is free to attend so accessible for those with start-up businesses or innovations."

www.venturefest-sw.co.uk

UPCOMING EVENTS

OCTOBER

Tech Exeter Conference– Exeter - Sat 8th October. 09.00-18.00

Sidmouth Science Festival – Sidmouth, Sat 8th – 16th

Venturefest South West - Sandy Park, Tues 18th. 09:00 – 17:00

IMechE – Helicopter Rotor Blades- Exeter University, Wed 19th 18:30 - 21:00

NOVEMBER

The Graphical Web – Met Office, Tues 1st – 4th

DECEMBER

IMechE- Thunderbolts And Lightning – Are They Really Frightening? - Exeter University, Thur 8th. 18:00 -21:00

For full details about these events, visit the ExIST website.

FIFTH SIDMOUTH SCIENCE FESTIVAL RETURNS ON 8-16 OCTOBER

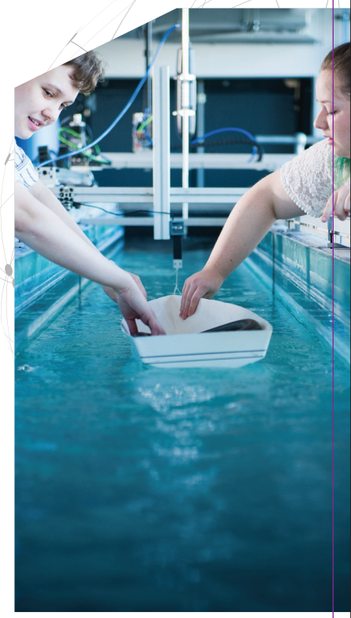
Preparations for the 2016 Sidmouth Science Festival are now well under way. The Festival lasts for 10 days from Saturday 8th until Sunday 16th October with events for all ages and all abilities encouraging people to learn, explore and think about the STEM subjects of Science Technology Engineering and Maths through serious technical events and hands-on activities as well as through art, music, comedy and drama.

Dave Bramley, festival organiser, said "The family programme is central to the Festival's activities aiming to inform, educate and inspire young people and encourage them not only to think about the world around them but consider the STEM subjects as a career. Science shows and hands-on activities are key, are easily accessible and most events are free. Schools in the Sid Valley and East Devon benefit from workshops and talks to compliment their studies.

This year we are having a visit from Iggy the dinosaur, a rather large Iguanodon."

Other festival highlights include a strong Geoscience theme, inspired by Sidmouth's Jurassic Coast World Heritage Site Coastline, the Norman Lockyer Observatory with its historic domes ands planetarium, the Jet Car races (Bloodhound) at the Observatory and keynote speakers including Simon Singh with his talk "From Theorems to Serums, From Cryptology to Cosmology … and The Simpsons" and current Fellow of the Royal Society, Professor Mike Benton talking about "Vertebrate Palaeontology".

visit www.sidmouthsciencefestival.org for more info



HIGHLIGHTS AT EXETER SCIENCE PARK

2015

JANUARY

Prime Minister, David Cameron, tours Exeter Science Park Centre to see how building work is progressing.

JUNE

Exeter Science Park Centre opens with an "Invest in Exeter" launch event, attended by representatives from the Science Park Board and partners, including Professor Sir William Wakeham and Exeter City Council Chief Executive & Growth Director Karime Hassan.

Urodynamic specialist Exeter Scientific Developments move in.

JULY

Construction work starts on a new building for the Met Office High Performance Computer.

KONCEPT

Venture technology firm Koncept move in.

AUGUST

CONCEPT FIRST
Software Development & IT Consultancy

IT, R&D and software development specialists Concept First move in.

SEPTEMBER

£10m of funding was secured through the Government's Growth Deal 2 initiative for the delivery of three high quality, bespoke building.

NOVEMBER

Landmark agreement signed with E.ON to provide a district heating network, providing a sustainable and cost-effective source of heat and hot water to the park.

DECEMBER

Exeter and East Devon Growth Point awarded Enterprise Zone status.

routeshoot

Geo-tagging video specialists RouteShoot move in.

2016

Dashboard, an Internet of Things (IoT) company developing remote monitoring technology for the oil and gas industry move in

FEBRUARY

The Met Office and Exeter Science Park mark 'topping out' of the new home for the new supercomputer.

MARCH

seeDATA

Bespoke software company Seedata relocates to the Centre. Cyber security and dark web specialist Dynamiq opens headquarters.

rezcomm
commerce technology

Airport ecommerce and reservation systems specialist Rezcomm relocate to the Centre.

MAY

Exeter Science Park launch Canopy Exeter, a new tech incubator initiative for ambitious start-ups and entrepreneurs, whilst hosting visits for entrepreneurs from Portugal and Boston looking for growth opportunities

International security specialist Edson Tiger and cyber security experts Securious move in.

JUNE

Veterinary clinical pathologists TDDS commission bespoke new headquarters on the Science Park

JULY

THALAMUS

Medical technology specialist Thalamus Health move in

A focus on science, technology & innovation for the business community

VISIT WWW.EXISTEXETER.CO.UK/INSIGHT

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