

# EXIST

Exeter Initiative for Science & Technology

# insight

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

NOV 17 ISSUE 05



**Exeter Chamber**  
of Commerce & Industry

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# ABOUT EXIST AND INSIGHT

The Exeter Initiative for Science and Technology (EXIST) 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 group's aim is 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 STEM industries in the region.

EXIST Insight is the newest project from the group and aims to raise recognition of the STEM 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  
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# ISSUE 05

## WELCOME TO ISSUE 5 OF EXIST INSIGHT

It is an exciting time for STEM in Exeter and the region. We have recently welcomed a fantastic new facility at the University of Exeter, the Living Systems Institute. The building held its Opening Symposium, in July, with delegates from around the world attending and has been built to bring together researchers in mathematics, biology, evolutionary genetics, biochemistry and physics and encourage collaborative work. EXIST is planning to hold a future event at the building. We are also looking forward to two new buildings at the Science Park, with building works set to begin in the next month. These buildings will allow Exeter based businesses to relocate, new businesses to move to Exeter and existing, growing Science Park based businesses the chance to use larger space.

This will be my final issue of Insight. I have been Chair of EXIST since its inception in 2011 and have thoroughly enjoyed being involved with our science and technology community in order to help raise Exeter's STEM profile. We are now



Robert McIlwraith

seeking a new Chairperson for what is a truly rewarding role – read more about the role on the facing page.

Finally, I would like to remind you that we have now created a Media Centre of STEM documents and made it available on our website [www.existexeter.co.uk](http://www.existexeter.co.uk) – here you can watch talks from previous events, access presentations, download PDF versions of Insight and find other useful information. Please do share this resource with your colleagues and contacts.

[www.existexeter.co.uk](http://www.existexeter.co.uk)

Robert McIlwraith.

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## EXETER INITIATIVE FOR SCIENCE AND TECHNOLOGY SEEKS NEW CHAIRPERSON

A business person with the skills, experience and passion to help position Exeter as the region's centre for science, technology, engineering, maths and medicine is being sought to become the new chairperson of Exeter Initiative for Science and Technology (ExIST). The voluntary role will involve leading a steering group which aims to optimise interaction between science, technology, engineering, mathematics and medicine businesses. The group aims to increase awareness of Exeter as a centre of science and technology, to build relationships between education and business and to encourage investment in the region's STEMM industries.

The person taking on the role will have a sound knowledge of the STEMM sector and will be expected to review the group's strategy and activities including quarterly events and the launch of Insight, a dedicated science and technology print and digital magazine for the city.

The role is central to Exeter's growing reputation as a centre for the science and technology community. The city has seen considerable growth in these sectors in the last few years, with the development of Exeter Science Park, the Met Office's HPC – Europe's biggest supercomputer – and the University of Exeter's investment in the Living Systems Institute.

Robert McIlwraith, current chairperson of ExIST, said: "This is an exciting role for an ambitious and experienced individual. The group has achieved a lot since founded in 2011, but now it is time for someone new to take the helm. It has been a privilege to work with the city's leading science and technology businesses over the past six years."

[www.existexeter.co.uk](http://www.existexeter.co.uk)

## VIRTUAL JET CENTRE AND UNIVERSITY OF EXETER PARTNER TO DEVELOP NEW COURSE IN HUMAN FACTORS

Aviation experts at The Virtual Jet Centre have been working with the University of Exeter to develop Human Factors courses that specialise in developing team work and behavioural change with the aim of increasing productivity for organisations.

Dr Sam Vine, a Senior Lecturer in Psychology and Human Movement Science at the University, said "Since the introduction of black boxes, the aviation industry has gained a considerable knowledge about the limiting factors to human performance and significant insights into how to use errors, failures and accidents as learning tools. There is a growing recognition of the role of Human Factors within the culture of other industries such as health care, construction, transport and finance."

The training provided at the centre allows small teams to experience the state of the art, full motion, 737 flight simulator and be put safely under pressure in a fully controlled environment. The main focus of the course is on teamwork,

decision making and communication and how pressure impacts upon performance. Experts provide feedback using their extensive debriefing experience. If further analysis is required, Dr Vine uses psychological theory, and heart rate monitoring equipment to understand how individuals react and respond to pressure. Detailed analysis of the data collected will provide you with information regarding how subjects perform, how they respond and most importantly how they can improve. This can enable improvements to organisational productivity and performance.

[www.virtualjetcentre.co.uk](http://www.virtualjetcentre.co.uk)

## EXETER SCIENCE PARK DISCUSSES FUTURE OF THE SOUTH WEST WITH SIR VINCE CABLE

Liberal Democrats Leader and former Secretary of State for Business, Innovation and Skills, Sir Vince Cable has met with fast-growth businesses at Exeter Science Park as part of a visit to the South West to discuss its booming science and technology sector.

The Science Park Centre, which opened in June 2015 to accommodate and support innovative businesses, now has over 180 science, technology, engineering, maths and medicine (STEMM) professionals on site.

New grow-on space is being built for expanding companies, with work due to start on site in November 2017, and it is estimated that by 2034 over 3,500 people will work for companies within the Science Park; with over 2,500 of these being new high-quality jobs.

Pharmaceutical software company, Rx-info, presented to Sir Vince on Friday, October 27th, alongside airport, parking and venue-based reservation commerce provider Rezcomm; engineering entrepreneur Mike Badley of Sigma Technical and Joe Pearce from the SETsquared Exeter incubator.

Sir Vince also heard from Dr Sally Basker, CEO of Exeter Science Park, on its future vision and plans for growth, as well as discussing how the South West can strive for an improved business landscape and economic growth.

Dr Basker said: "We were thrilled to welcome Sir Vince to the Science Park, not only to discuss our progress and visions for the future of the site, but also our mission to support and engage with the wider region.

"We're looking to put the South West on the map as a centre of excellence, with the Science Park hosting and connecting innovative companies, however there are a number of challenges that we need to address to deliver our vision for extraordinary growth.

"A key challenge for us in the region is how the South West as a brand is often distorted by figures from cities such as Bath and Bristol, meaning that we may not attract the businesses and talent that we need. We were keen to discuss with Sir Vince how we can work as a whole to improve this for the future."

[www.exetersciencepark.co.uk](http://www.exetersciencepark.co.uk)

# CHRIS THORNTON

IS PROFESSOR OF FUNGAL IMMUNOLOGY AND DIRECTOR OF IMPACT FOR BIOSCIENCES AT THE UNIVERSITY OF EXETER. CHRIS IS ALSO DIRECTOR OF THE UNIVERSITY SPIN-OUT COMPANY ISCA DIAGNOSTICS LIMITED.



As an eight-year-old, Chris fell in love with biology, an interest later fuelled by an exceptional A-level teacher, Mr Thomas. Since graduating from the University of Newcastle-upon-Tyne in 1987, Chris has worked at Oxford, Cambridge and Sheffield Universities, before joining the University of Exeter in 1997, and his appointment as a lecturer in 2003. Chris was recently appointed as Director of Impact for Biosciences, but it is his University spin-out company, ISCA Diagnostics, which Insight is looking at today.

As a 'bench-to-bedside' innovator in medical diagnostics, ISCA enables Chris to translate his academic R&D into user-friendly tests for human diseases. The Company's ground-breaking research and innovation is set to make diagnosis of Invasive Pulmonary Aspergillosis (IPA), a life-threatening



lung disease of immunocompromised patients, quick, accurate, and low-cost. This devastating disease can develop in patients with weakened immune systems, for example leukaemia and bone marrow transplant patients,

following inhalation of air-borne spores of the fungal pathogen *Aspergillus*. The fungus is abundant in the environment, but is not dangerous to individuals with healthy immune systems.

ISCA Diagnostics' flagship test is the *Aspergillus* lateral-flow assay (LFA), a quick, simple, and cheap bedside test that can identify IPA in fifteen minutes. This is a major breakthrough in testing for the condition, which currently can take up to seven days, and which has a mortality rate of up to 95% without timely detection and treatment. Patient prognosis worsens significantly as the disease progresses, and so doctors often treat high-risk patients on the basis of clinical suspicion, which means that already severely sick patients are given toxic and costly anti-fungal drugs when they might not actually need them.

ISCA's test uses antibody-based technology similar to that found in a pregnancy test, but with fluid taken from the lungs or with blood serum. Fifteen minutes after the sample is applied to the test, a positive or negative result appears in a display window, and shows whether a patient has the disease or not.

The potential impact of ISCA's quick, non-invasive, diagnostic test on patient care and welfare is impressive. This is quite apart from the huge cost-saving potential for the NHS - the drugs used to treat patients suspected of having IPA, and the additional time spent in a hospital treating the disease, can add an additional £35,000 to patient costs. Chris's test currently costs £2 per unit, with an aim in the future to reduce the cost to 75 pence, made possible by volume.

Chris says: "I saw an opportunity to take the knowledge and lab skills I had developed in my academic work to benefit the medical world. I have been lucky to be able to collaborate with many doctors and hospital diagnosticians, whose support has been invaluable.

**"THEY HAVE THE PATIENTS AND I HAVE THE TECHNOLOGY – IT IS A GREAT MARRIAGE."**

Collaboration with experts across Europe, as well as European Union funding, has been pivotal to Chris's work. Chris said: "I do have concerns over future projects. I have already noticed that the drive to work with UK academics has been impacted by the UK's Brexit vote. Working with the UK on projects over a fixed number of years which will fall well within our exit from the EU is risky for project partners, particularly when grants are being assessed by award panels."

Chris is supported by research scientist and Company employee Genna Davies,

whose work Chris has been able to finance through European research funding, collaborating with experts from France, Germany, Denmark, and Switzerland. The group is currently working on state-of-the-art antibody-guided PET imaging that allows non-invasive detection of infectious diseases using hospital MRI scanners. The work will soon enter first-in-human clinical trials in Germany.

For the sector's future, Chris would like to see investment into STEM apprenticeships, allowing talented young people to step straight into the sciences from school. He also believes that more needs to be done to retain women in science, with females poorly represented after graduation.

Chris says: "Being an academic is challenging. The skills needed are diverse - the ability to teach at the highest level, to fundraise effectively, to undertake world-leading research, to manage student welfare, to speak at conferences - but this career has allowed me academic freedom, and with the spin-out system, I can now direct my own company too."

[www.iscadiagnostics.com](http://www.iscadiagnostics.com)



# KARIME HASSAN

is the Chief Executive and Growth Director of Exeter City Council. We asked him about his vision for Exeter.



Image Credit: Getty Images

Exeter has flourished over the last decade, even standing strong during the last recession. How and why?

On average, we have been growing 3.4% pa for the last 15 years but we did drop -0.5% at the peak of the recession.

Just before the winding up of the SW Regional Development Agency it put out a report. It suggested that Exeter was the city most vulnerable in the South West to the reduction in public sector workers because of the structure of our economy and they forecast we could lose 3,500 jobs.

This caused us to think about the nature of our response to the recession.

We had a long-term infrastructure investment plan locked into bringing forward strategic sites on the periphery of the City, but our immediate challenge was supporting private sector businesses in the City and the City Centre.

Some 20,000 people were employed in the City Centre and the High Street was having a hard time, many were forecasting the end of the High Street. We made a concerted effort to land the John Lewis investment in the City Centre and we spent a significant sum of money in getting the environment right for that investment. We chased down very specific inquiries to land interest, one shop at a time we build confidence back into the High Street. "Momentum, momentum, momentum" was the internal message for the Leader of the Council. The Leader spent money on putting on activity and events in the City Centre and protected funding for

culture to provide reasons for coming into the City Centre.

We worked with the volume house builders to understand what it would take for them to invest in the City and in their usual blunt fashion - Simon Perks of Permission being typical - told us what we needed to do. We temporarily changed our requirement on housing types and affordable housing and transformed the culture of our planning service. We moved from one volume housebuilder working in the City to half a dozen.

The whole culture for the City Council was repurposed to support business and to support growth and I was appointed as Chief Executive and Growth Director. During the recession, we did indeed lose 3,500 public sector positions but we created more than 7,000 jobs in the private sector and therefore managed the recession better than most.

But in my opinion, the single most important factor in the relative success of the City over this period was the massive capital investment programme carried out by the University of Exeter. Despite the virtual collapse of the construction sector in 2010/11, with the loss of companies like Rock and Connaught, more than £375m was put into the City. The expansion of the University, growing at almost 1,000 students a year, has created momentum.

Since the recession our economy has grown by 20% and real wages have returned to pre-recession levels.

What does the 'knowledge economy' mean for you? Was there a key point in the City's development where science and technology became a focus for the City's future - a light bulb moment?

We have been pursuing an agenda to make Exeter a knowledge economy for almost 20 years and it recognises the type of jobs that we associated with science, technology, and professional services. The arrival of the Met Office was a major light bulb momentum and anchored our vision with a credible story. The ascendancy of the University of Exeter and the brand of the Met Office gave us the ingredients to work with. We then spent a decade shaping the proposition and testing our credibility.

My first visit to see science parks in

Cambridge was on 11 December 2002. We carried out research to inform the business case for the Exeter Science Park and then the knowledge economy strategy for the City and this confirmed our unique expertise in the areas of environmental science and supercomputing. It is a long hard slog!

What is your vision for the City? And for development of the Science Park and the east of Exeter area? How do the University / Met Office / other organisations support this vision?

The key institutions have a shared ambition for the City; all of us are aspirational and strive for the exceptional. A great City, globally significant, but a City that still feels like a small town/village, where the quality of environment matters and where we are connected with our wider environment. Creating a great place to live and work requires us to solve our transport challenges and put pedestrians and cyclists firmly at the centre of our transportation strategy. The work we are doing with Exeter City Futures is rooted in finding solutions to urban challenges and, in the process, creating lots of businesses that innovate and capture investment. A virtuous cycle of investment that improves the quality of life and supports growth.

What is the City doing to attract business here?

Attracting and retaining talent is probably the biggest challenge for business; we have been working on this agenda for many years. There is a package of things we are doing to address the matter including enhancing the quality of the City Centre and providing great things for people to see and do. The skills agenda is important and we have been working hard with the University and College on the apprenticeship programme and the development of what we call the skills escalator. Housing supply is a significant challenge. Although we have delivered the fourth highest growth in the housing stock, the perception is that all we have delivered is purpose built student accommodation. Affordability of accommodation is a challenge and we have yet to see the provision of PRS. The more companies that come to the City the more individuals conclude this is a good location.

[www.exeter.gov.uk](http://www.exeter.gov.uk)

# MAUREEN GORI DE MURDEN

joined Exeter City Council's Economic Development team in 1999 following a career in private banking. Over the last 18 years she has worked on attracting numerous companies to relocate to Exeter as well as helping Exeter employers to grow and prosper, heading up the Council's Invest in Exeter initiative.



## What is Invest in Exeter's remit?

Everything and anything to do with supporting Exeter's business community to expand and prosper. From business relocations to better broadband for businesses in Exeter, Invest in Exeter aims to support organisations and create a thriving business community in our city, promoting collaboration, partnerships and development.

## What services/support do you provide?

We offer a full relocation service, which includes helping Exeter-based companies who are growing and looking to move, as well as those looking to relocate into the City and find new development sites and premises. We provide support with business planning, planning applications, sourcing staff, and assist with familiarisation visits and presentations to management teams. We also help these companies become integrated into Exeter's thriving business community.

For new start-up or small companies, we provide free business advice and support through the Growth Hub Service. We also work closely with the Department for International Trade (formerly UK Trade and Investment) to promote Exeter overseas.

Our team has successfully bid for (and continue to lobby and bid for more) funding from Central Government to increase broadband speeds for businesses in Exeter. And we monitor the health of the Exeter economy closely and share this data as well as good news stories in our monthly Business Bulletin.

## What has been your biggest success?

Oh, that's a difficult one as I'm immensely proud of all of Exeter's successes. Our biggest success is obviously attracting and relocating the Met Office to Exeter. One close to my heart is IKEA, who I first started working with in 1999! But some of our biggest successes have been the small one or two-person companies, where you've held their hand right through the relocation process and have then seen them flourish and grow into leading businesses.

## What are the challenges of getting business here?

I would say it's perception. Some people still think Exeter is somewhere off the end of Land's End, when really, we're less than an hour from London by plane and two hours by train. Almost without fail, if a company comes to Exeter on a familiarisation visit,

our beautiful City sells itself and the company relocates.

## Do you see trends in enquiries / sectors?

Exeter has always been very popular in terms of relocation enquiries. When the service was first set up in 1999, we received 122 relocation enquiries that year; we now regularly receive that in a month! Since 1999 we've worked with more than 15,000 companies looking to relocate. In the early days, a lot of our enquiries were from the public and financial services sectors. As Exeter's tech community has grown, so have the number of tech companies looking to relocate to Exeter. An increasing number of foreign owned companies have been getting in touch looking to have a presence in Exeter too.

"SOME OF OUR BIGGEST SUCCESSES HAVE BEEN THE SMALL ONE OR TWO-PERSON COMPANIES, WHERE YOU'VE HELD THEIR HAND RIGHT THROUGH THE RELOCATION PROCESS & HAVE SEEN THEM FLOURISH"

## How can business help you?

Get in touch! If your company is growing, expanding or relocating, we are here to help - we can't assist if we don't know you're there. We also love to publicise Exeter businesses success stories, so if your business is doing something amazing, let us know.

[www.exeter.gov.uk/business/](http://www.exeter.gov.uk/business/)

# A DAY IN THE LIFE DAVID FERGUSON

Head of Digital Innovation in Research and Development at the energy company, EDF



DAVID FERGUSON IS THE HEAD OF DIGITAL INNOVATION IN RESEARCH AND DEVELOPMENT AT THE ENERGY COMPANY, EDF. THIS GLOBAL COMPANY IS THE LARGEST PRODUCER OF ELECTRICITY IN THE UK AND THE LARGEST SUPPLIER OF ELECTRICITY AND GAS, AND IS BUILDING THE HINKLEY C NUCLEAR POWERPLANT IN SOMERSET. THE COMPANY EMPLOYS 15,000 PEOPLE AND ITS UK OFFICES ARE IN LONDON, CRAWLEY, BARNWOOD, AND EXETER.

## INSIGHT CAUGHT UP WITH DAVID TO FIND OUT MORE ABOUT HIS WORK

What are your main tasks each day? Typically, I spend time with my team discussing new technologies and concepts and new project ideas; I will meet with an interesting startup and chat with academic partners. I'm really lucky in that I get to talk with many very smart people – I am invariably the oldest and the least-qualified in

the room! We've adopted some very modern ways of working so I thankfully spend only a small amount of time writing emails.

What are you currently working on? The big topics are virtual reality (VR), blockchain, and artificial intelligence (AI). AI is going to change the world in ways we can't even imagine yet.

Career highlight to date? I started my career as an environmentalist and have many good memories: I lived and worked in Paris for two years, which was an amazing experience. I attend the Rio+20 Earth Summit and hosted a televised panel discussion, in French, live from the conference centre – possibly the most nerve-wracking thing I've done! Since moving into digital innovation I've had the opportunity to work on projects with some cutting edge tech but giving evidence to the new All Party Parliamentary Group on AI was pretty cool!

What advice would you give to any young people considering a career in R&D or digital innovation? Every child at school should learn to code. It is as important as learning to read or write. In EDF Energy's R&D team there are people researching jellyfish (it's a long story), and people forecasting the weather, and people modelling the way graphite cracks inside nuclear reactors – and they all do that using the coding language Python.

Other than that I would say that everyone is good at something. So try lots of things until you discover your something.

What does your work space look like? I have four workspaces: my desk in Exeter, which is inside our call centre next to the motorway; my team's office in Brighton, which is a funky innovation

space with lots of beanbags and whiteboards and suchlike; my home office which is full of books and broken electrical gadgetry; and a seat on the Southwest Trains service to London! I generally spend 500 hours a year on that train.

Who has influenced you most in your career? Mother Nature. I'm a keen climber and surfer and have travelled the world. I've seen the stunning beauty and diversity of the Earth and that motivated me to try to keep it special.

What do you wish other people knew about your place of work/your type of work? It's even more fun than it sounds!

If you could be anyone for a day who would it be? I hate to be predictable but I'd quite like to be Elon Musk for a day. He's got his finger in so many interesting pies (electric vehicles, space travel, solar power, artificial intelligence...) that his day must be fantastically stimulating.

What is your favourite aspect of the job? Coming up with ideas and





having a team with the skills to turn those ideas into reality. You know when you think: I wish there was an app for that. We often think that and 12 hours later, tada, there is an app for that!

**What were you good at School?**

Rock climbing. Traditional school, and traditional school subjects, didn't suit me very well.

**When did you decide what you wanted to do career wise and how did you set about pursuing this goal?**

I realised when I was travelling round the world that I wanted to work as an environmentalist so I went back to university and studied a Masters at Imperial College. That led me into consulting and then into EDF Energy.

Being an environmentalist in a big energy company is quite hard. I spent all of my time persuading people to

do things differently. I realised that the internet offered this amazing possibility to solve some big, serious problems like climate change and inequality. So I moved into R&D about 4 years ago and took over this position in early 2016.

**What are your next steps? /Where do you see yourself/the business/ industry in five years' time?**

The energy industry is really changing. The way we produce electricity needs to change really quickly if we are going to avoid catastrophic climate change. We also need to change the way we use energy but energy efficiency is a topic that 99% of people find boring and complicated. We are looking for the way to make energy efficiency completely effortless and I think that Artificial Intelligence is the key. That's my mission.

**Why Exeter? When did you come to Exeter? Why did you choose Exeter?** I used to live in London and Paris. My weekdays consisted of: get up, cycle across town to work trying not to die, work until 7pm, go to the pub, cycle back home, eat some food, watch some TV, and then go to bed. There was no time for anything else.

In Exeter I can work until 4pm, jump in the car and drive to the north coast and surf until it's dark. And at weekends we can go wild camping on Dartmoor . On the downside, Exeter could definitely do with a more diverse independent restaurant scene (with at least one top-notch fish and chip shop please) and better cycle routes. But on balance, the quality of life here is just brilliant.

# STEMM NEWS

## CSW GROUP TO DELIVER 'GENERATION STEM' WORK EXPERIENCE PROJECT WITH 130 SOUTH WEST SCHOOLS

CSW Group has been commissioned by The Education Endowment Foundation (EEF) and The Careers and Enterprise Company (CEC) to deliver a Work Experience Project to year 10 students in schools across the South West.

The project is research based and will be part of a randomised control trial to demonstrate the impact of work experience on young people. The evaluation will be conducted by the National Federation for Educational research (NFER).

130 schools will be engaged with half receiving the delivery of the programme and the other half forming the 'control group'. Schools are randomly allocated into one of these groups; those that fall into the control group will receive a financial payment for their participation. The programme will be delivered in the current (2017/18) academic year.

The project will work with schools to deliver a work preparation day to equip all students with a range of employability skills and enable them to engage with employers through a range of activities such as CV writing and mock interviews. A small cohort of students will then be selected to take part in the work experience programme where they will have the opportunity to apply for a work placement through an application and interview process. Successful students will then be supported with briefing and debriefing either side of their placement. CSW group will also be supporting employers to devise their work placement programme, and is particularly keen to engage with new employers who don't currently offer work placements.

Contact [workexperience@cswgroup.co.uk](mailto:workexperience@cswgroup.co.uk)  
01225 707817 / 01392 215501

## EXETER CITY COUNCIL BACKS CITY'S DIGITAL AND TECH COMMUNITIES

Exeter City Council has taken further steps to uphold Exeter's thriving technology and digital sectors by pledging its support to Digital Exeter and Tech Exeter CIC.

Digital Exeter and Tech Exeter are sister communities aimed at those who work in and around cutting-edge technology, bringing together like-minded people to support the sector's growth in the city.

Run by Kris Sum and Rob J Glover, the communities' core responsibilities include co-ordinating regular events for the 2000+ members, including free monthly meet-ups with lightning talks and networking sessions, as well as providing training, workshops and facilitating collaboration opportunities.

The team also runs an annual Tech Exeter conference, showcasing regional, national and international speakers who are experts in the field.

Rob said: "Our second Tech Exeter conference this year was even bigger and better. With over 150 delegates, 20 speakers and 3 tracks, it was a wonderful day of tech at the University of Exeter Business School. Highlights included talks from IBM, SAP, Oracle & ARM; VR experiences from The Met Office and lots of talk around Artificial Intelligence and machine learning.

"As organisers, we have been delighted to bring big brand names to Exeter to talk, as well as provide local tech professionals with



the opportunity to talk at a conference; for many, this was their first high profile speaking gig."

Councillor Rachel Sutton, Lead Councillor for Economy at Exeter City Council said: "The City Council realises the significance of supporting this vitally important growing sector which in turn will improve the overall economy, productivity, job availability and the ambition to be a world-class leader in the technical sector."

[www.techexeter.uk](http://www.techexeter.uk) [www.digitalexeter.uk](http://www.digitalexeter.uk)

## EXETER'S ECONOMY ATTRACTING INTERNATIONAL TRADE OPPORTUNITIES

An international trade event has been held in Exeter to demonstrate the city's world class facilities and thriving economy to potential customers worldwide.

More than 30 Exeter firms joined representatives from the Department of International Trade (DIT) and Exeter City Council to discuss the potential for new markets post-Brexit.

In recent years, Exeter has flourished and is part of the 'leading pack' of cities that boast economies that have grown by at least one-fifth since 2011. The top five cities include Aldershot (32%), Oxford (25%), Cambridge (23%), Exeter (20%) and London (20%).

Cllr Rachel Sutton, Lead Councillor for Economy at Exeter City Council said: "In recent years, we've seen considerable economic growth, particularly in our digital and technology sectors, and have some world class facilities on our doorstep, so the Council will be working with businesses to ensure we stay in this 'leading pack'.

"Although the economy in Exeter is thriving, there are a number of challenges that the business landscape faces across the country that we must address to ensure that this upward trend continues.

"Research has shown that, as a result of Brexit, Exeter will be the most affected area in the UK due to 70% of our exports currently going to EU countries. However, with an increased number of fast-growth, highly productive businesses relocating to or starting up in Exeter, we are confident that the business community can continue to thrive."

Trevor Horne, International Trade Advisor for the DIT, who spoke at the event, said: "International trade is currently the single biggest discussion subject amongst the business community.

"The DIT is responsible for promoting British trade across the world to ensure the UK takes advantage of all the opportunities available. There is some funding available to support eligible business costs, such as exploring new markets which can help to ensure economies continue to thrive."

[www.investinexeter.co.uk](http://www.investinexeter.co.uk)

## EXIST EXAMINES A.I. AND ROBOTICS AT QUARTERLY EVENT

On 19 October 2017 held its quarterly meeting at Exeter College Technology Centre, attended by more than 60 businesses from the Exeter business community.

Chaired by Julie Hawker, joint chief executive of Cosmic, the event encouraged delegates to network and hear from speakers on the topic of A.I. and robotics. Julie's colleague Kate Doodson addressed the audience with a thought provoking presentation on the future use of A.I. across multiple sectors and functions. David Ferguson from EDF Energy and a member of the All Party Parliamentary Group on Artificial Intelligence spoke about A.I. and the ethical implications of some of its applications. Finally, John Laramy principal and chief executive of Exeter College talked about the College's commitment to providing courses equipped to teach students about current and future technologies and help them to be workplace ready.

John was delighted to welcome attendees for a tour of the Technology Centre where they were given a unique insight into the work of Exeter College students including virtual reality headsets specifically for soldering training, and a workshop on robotics. Speaker presentations are available to view on the ExIST website. [www.existexeter.co.uk](http://www.existexeter.co.uk)



From Left to Right: Julie Hawker and Kate Doodson, *Cosmic*  
Rob Bosworth, *Exeter College* with David Ferguson, *EDF*

## ONES TO WATCH: EIGHT EXETER ORGANISATIONS MAKING BREAKTHROUGHS IN TRANSLATIONAL SCIENCE

**Argue to Think** – Argumentation technique developed through a PhD to help A level students to write better essays, also being used to help insurance companies write better business cases.

[www.arguetothink.com](http://www.arguetothink.com)

**ImpulsePal** - ImpulsePal has been developed within the University of Exeter Psychology Department to help people resist impulses. An app is being designed by behaviour change researchers at the University of Exeter to help people eat more sensibly and manage their weight. The app offers various psychological strategies that help you stick to your lifestyle goals, and is designed primarily for people trying to lose weight, however, it can be useful for anyone who would like avoid temptations and reduce the amount of unhealthy snacks they eat. [www.impulsepal.co.uk](http://www.impulsepal.co.uk)

**Brain in Hand** – Brain in Hand offers personalised support for people with autism or mental health problems, reducing anxiety through a number of features on software which can be accessed from a mobile phone. The software includes a diary with reminders for medication and appointments, the ability to help people through tasks which they would otherwise find challenging, access to personalised best coping strategies and the ability to easily request extra support. Brain in Hand offers a quality of care which helps people live independently. [www.braininhand.co.uk](http://www.braininhand.co.uk)

**Milkalyser** – Milkalyser is developing new technology to revolutionise dairy fertility management using on-line progesterone analysis in the milking parlour. The potential market for this technology is huge and global. [www.milkalyser.com](http://www.milkalyser.com)

**SeeDATA** – In addition to its LifeQI quality improvement software for health and social care, SeeDATA are working with the University of Exeter to develop a tool to confirm the authorship integrity of written reports in order to prevent plagiarism and cheating. [www.seedata.co.uk](http://www.seedata.co.uk)

**ISCA Diagnostics** – ISCA Diagnostics is a University of Exeter spin-out company, established by Professor Christopher Thornton, specialising in point-of-care tests for life-threatening fungal infections of humans, such as invasive pulmonary Aspergillosis. [www.iscadiagnostics.com](http://www.iscadiagnostics.com)

**Attomarker** – Attomarker, founded from the research of Prof. Andrew M Shaw, was established as a spin-out company from the University of Exeter and specialises in blood profiling technology, in particular monitoring physiological responses to inflammation. Such technology may assist clinical decisions makers with patient treatment regimens. [www.attomarker.com](http://www.attomarker.com)

**BioSystems Technology** – BioSystems Technology provides low cost, high-throughput, ethical solutions for researchers who require alternatives to animal testing. A spin-out of University of Exeter, Dr Olivia Champion, CEO of BioSystems Technology, has developed research-grade insect larvae to act as a substitute for small mammals in basic life science research applications. [www.biosystemstechnology.com](http://www.biosystemstechnology.com)

## UPCOMING EVENTS

### NOVEMBER

**STEMMcell @ Exeter Science Park**  
**Chris Jenner – Development manager at Transmission Investment** 5pm-7pm  
[www.exetersciencepark.co.uk](http://www.exetersciencepark.co.uk)  
8th November 2017

**STEMMcell @ Exeter Science Park**  
**Ken Woods – Principal Conductor of English Symphony Orchestra** 5pm-7pm  
[www.exetersciencepark.co.uk](http://www.exetersciencepark.co.uk)  
15 November 2017

**Startup Weekend Exeter Exeter Innovation Centre/Business School**  
[www.spaceforsuccess.co.uk](http://www.spaceforsuccess.co.uk)  
17th November 2017 - 5.30pm  
19th November 2017 - 7pm

### DECEMBER

**Exeter Phoenix, Rob Varley – Chief Executive of Met Office on Weather Forecasting,** from 8.30pm  
[www.projects.exeter.ac.uk/cafescientifique/](http://www.projects.exeter.ac.uk/cafescientifique/)  
4th December 2017

**STEMMcell @ Exeter Science Park**  
**Timothy Nyahasha - Head of Administration for LIDL Exeter** 5pm-7pm  
[www.exetersciencepark.co.uk](http://www.exetersciencepark.co.uk)  
6th December 2017

**Exeter Chamber Christmas Lunch**  
**Business networking and charity auction at Mercure Southgate,** 12pm-2pm  
[www.exeterchamber.co.uk](http://www.exeterchamber.co.uk)  
13th December 2017

**STEMMcell @ Exeter Science Park**  
**13th December: Christmas social event with donation to Devon Community Foundation.** 5pm-7pm  
[www.exetersciencepark.co.uk](http://www.exetersciencepark.co.uk)  
13th December 2017



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

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