



# The Catalyst Challenge returns

University's aspiring entrepreneurs put through their paces.

March saw the return of the Catalyst Challenge to the Science Park, as students

The support given by the Science Park has been excellent, with students gaining unique insights into what life is like as an entrepreneur

from the University of Southampton embarked on a day of workshops, pitches

and sessions designed to challenge their commercial awareness, confidence, creativity and communication skills.

Catalyst Challenge is an annual one-day business competition hosted by the Science Park in collaboration with the Careers and Employability Service at the University of Southampton. The main feature is a pitch event whereby students are split into teams and given three hours to work on a business challenge presented to them on the day.

This year, teams were looking at how to exploit the commercial potential in mobile digital technology in the craft and healthcare markets. They went on to pitch to a panel of experienced judges, comprising Science Park

CEO, Peter Birkett, University of Southampton COO, Ian Dunn, SETSquared Programme Director, David Bream and Catalyst Business Coach, Phil Sharpe.

Sarah Rogers, Head of Student Enterprise, Careers and Employability Service said: "The Catalyst Challenge has been a fantastic opportunity for University of Southampton students. The support given by the Science Park has been excellent, with students gaining unique insights into what life is like as an entrepreneur while developing essential business skills and networks that they can use in their professional futures."

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

## The Interview

In each issue of Park News we get right to the heart of a Science Park-based business. In this issue, we interview Chris Emslie, CEO at Fibercore.

**Tell us about Fibercore.** We spun out from the University of Southampton in 1982 and although we've been through various incarnations, we've always focused on highly specialised, complex, high-value optical fibres for a wide range of applications.

**What kind of applications?** We make the active fibres behind internet amplifiers: about 20% of the nation's internet activity is routed through an amplifier invented at the University of Southampton and powered by a Fibercore fibre. The last time you flew long-haul, there is a high probability that the aircraft navigation system was relying on another of our innovations. We are also involved in the next generation of medical imaging, things like optical coherence tomography (OCT), enabling surgeons to navigate arteries and to visualise where the arterial or blood vessel walls are.

**Tell us about your smart-grid technology?** One purpose of the smart-grid is to manage the convergence of different electrical generating methodologies, where nuclear power stations; coal fired power stations; wind and wave power generation and the photovoltaic microgeneration that takes place on so many domestic roofs all come together. The smart-grid helps us stitch them together so they can be managed, optimised and safely communicating at all times. The uptake of smart-grid is far faster in some of the developing economies of the far east – but we will get there in the end.

You look out onto the Science Park and it's inspiring. There's an electricity at a place like this, one you just don't get at an ordinary business park

The specialised optical fibres that underpin the Faraday effect current sensors used in the smart-grid were developed at the University of Southampton. The technology was first developed in the early 1980s but infrastructure wasn't there to support it. Now we have a digital infrastructure, and the technology that was invented 30 years ago is being implemented internationally and thought of as the latest and greatest high technology.

**And in medicine, what's next?** We're giving robotic surgeons the ability to experience the sense of touch – making robotic surgery much more familiar to conventional surgeons and shortening the typical learning-curve dramatically. You write strain-sensors, called fibre bragg gratings, into the core of the optical fibre and by interrogating those in an appropriate manner, the results can generate feedback that lets the surgeon know exactly how much pressure is being applied during surgery. Used like this, robotics in the medical industry offers so much potential: quicker turnaround times, shorter recovery times and fewer long-term effects, such as the relief for the surgeon's back and spine.

**You've recently been acquired; can you tell us more about that?** It's a truly fantastic opportunity for us. We've been acquired by a

company called Safety Technology Holdings (STH), better-known as Humanetics, who have by far the lion's share of the crash test dummy market around the globe. The car you drove into work today: there's an overwhelming probability that the New Car Assessment Programme tests were conducted using Humanetics' dummies.

There are two reasons why they've acquired us. One is that the next generation of crash test dummies will probably have sensors that are optical fibre-based, because there's more you can do with them compared with conventional sensors. And two, they've got a massive portion of the world crash test dummy market so they're nearly at their ceiling. When you hit your ceiling, you need to look at other ways of growing and having us on board adds to their current diversification strategy.

**Tell us your views on Brexit.** Deep breath: 98% of our business is exported, so you'd think we'd be worried. A third of that exported business is in mainland Europe, so the first thing I did was get on the phone to my strategic customers in Europe and help them feel at ease. The UK will have to negotiate a trade deal and it's going to take time.

We have been here before, if we can end up with something at 3% or less then we'll see if we can counter that through efficiency. We don't pride ourselves on being cheap, in-fact we tend to be more expensive, but people come to us because of our value and skill. If anything, hopefully Brexit will make businesses more efficient.

**What advice would you give to entrepreneurs running their own businesses?** Money isn't everything. However wanting to get up in the morning is. Keep focused on what you really want to do and keep at it. Don't be tempted by short-term gain, or something that is going to bore you to death. The most important thing on the planet is wanting to get up every single morning. Sometimes that doesn't seem the right financial choice, especially in the short-term, but you're probably going to do a better job at it long-term, when it will actually pay off.

**You're big fans of Southampton, why is that?** It's fantastic what goes on right on our doorstep. People in Southampton don't actually realise how instrumental the city has been in changing the world. People think that incredible innovations happen at Massachusetts Institute of Technology (MIT) or NASA only, but they happen here too. The backbone of the internet: Southampton. The fibre that drives 80% of the optical gyroscopes in this country and has put our products on Mars: Southampton. Changing the world is fun.

**What do you like about being based on the Science Park?**

There's a number of things, for me it's the location and its proximity to the University of Southampton. The environment is also great, you look out onto the Science Park and it's inspiring. There's an electricity at a place like this, one you just don't get at an ordinary business park that's full of insurance companies.

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



Dr Chris Emslie, CEO at Fibercore

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If you have any relevant news or stories you would like to see included in the next issue of Park News, contact React Communications at Tel: 02380 016 199 Email: [philip@reactcomms.co.uk](mailto:philip@reactcomms.co.uk)



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# PARK NEWS

Southampton Science Park Newsletter

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## BLUPOINT

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## GRANT THORNTON

Accountancy firm to launch co-working space in the south



## nquiringminds heads east to experience China's future cities

Fresh from a trade trip to India, nquiringminds headed east once again, this time to China as part of a Future Cities Mission initiative. With 200m people set to move from rural areas to cities, and 84 new skyscrapers constructed in 2016, China is experiencing an unprecedented urbanisation drive. While mass migration to cities has raised China's living standards, infrastructure and services are starting to fail.

Embarking on the tour of four Chinese regions in five days, nquiringminds, which specialises in advanced Internet of Things technologies for smart cities, was promoting collaboration and innovation between UK and Chinese companies, and getting a first-person insight on the solutions needed to ease the strain on China's new metropolises. [www.nquiringminds.com](http://www.nquiringminds.com)

## Science Park welcomes Skipjaq and AccelerComm

Tech duo join the thriving Science Park community.

Java web solutions provider Skipjaq, and wireless communications specialist AccelerComm are the most recent additions to the Science Park campus.



Skipjaq, which delivers Performance Optimisation as a Service for Java web applications running on Amazon Web Services (AWS), has built an automated platform to improve the efficiency of programs whilst providing users with actionable insights so that they can optimise for throughput and performance. [www.skipjaq.com](http://www.skipjaq.com)

AccelerComm is working with industry bodies, research institutions and customers to accelerate the next generation of wireless communications in 4.5G, 5G and beyond. Its technologies are designed to eliminate the effects of noise, interference and poor signal strength that may inhibit the uptake of future communication networks.

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



[www.science-park.co.uk](http://www.science-park.co.uk)

## ALSO IN THIS ISSUE OF PARK NEWS

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For more information and to register your place, visit the website at: [www.science-park.co.uk/events](http://www.science-park.co.uk/events)



### Intellectual Property - have you covered your assets?

Wednesday 26th April 2017 at 16:30  
Southampton Science Park, Kenneth Dibben House, Conference Room 6



### Funding: Making the most of grants and awards

Wednesday 7th June 2017 at 16:30  
Southampton Science Park, Innovation Centre, Conference Suite

[www.science-park.co.uk](http://www.science-park.co.uk)

# A note from the CEO, Peter Birkett

Back in 2012, in the midst of the economic recession, I established the Catalyst Incubation Programme to facilitate the growth and evolution of young businesses by providing entrepreneurs with access to first-rate facilities, expert advice, and extensive networks. Five years on, the Programme has expanded and we are proactively supporting businesses, helping them achieve their maximum potential. With Catalyst applications open for 2017, now is an ideal opportunity to celebrate the achievements of the Programme so far.

I take immense pride in the way Catalyst has grown in only five years. Our start-ups have secured a total of £5m in seed funding, we have featured in The Times Start-up List, and some of our businesses have forged significant global partnerships. Entering the programme in 2013, BluPoint has established links with international organisations including Dixons Carphone, UNESCO and the Bill and Melinda Gates Foundation, whilst SAL Scientific counts three global pharmaceutical companies as clients. Another start-up, Utonomy, has grown in just 20 months from a concept to having major customers, employing six full time staff, and having raised more than £1m in investment. Other Catalyst companies have had similar experiences of converting a business vision into reality.

In assessing candidates, we set simple but tough criteria for companies competing to join the Catalyst Programme. We look for science and technology-based business concepts with the potential to deliver value to customers, and a team, or individual, with the energy, passion and skills to make it happen. The market prospects and capability of candidates is tested through a robust pitch process. For 2017, I am seeking new ambitious businesses to join the elite group engaged in the Catalyst Programme, whether seasoned entrepreneurs looking to accelerate their next venture, PhD students and academics with disruptive research, or youngsters with great ideas, ambition and business flare.

I am a firm believer that a business should not give up equity too early. At Catalyst we practise what we preach: we remain one of the few incubators in the UK that takes no equity stake in its businesses but rely instead on graduates of the programme establishing a long-term presence at the Science Park. I simply aim to identify new technologies, nurture the innovators and business leaders of tomorrow, and facilitate their collaboration with the region's thriving business community.

We surround Catalyst companies with a high quality network of business coaches, advisers, and mentors. The team comprises individuals who have achieved success locally,



nationally and internationally - and are eager to share their experience and expertise with those on the programme. Steve Bedford, for example, is the Founder and former CEO of children's superstore Build-A-Bear Workshop. He brings 25 years' experience at both public organisations and FTSE companies so was ideally placed to lead the 2016 negotiation skills workshop. Similarly, cleantech pioneer, Sandra Sassow, has won both 'Eco Entrepreneur of the Year' and 'Enterprising Woman of the Year' awards and her company, SEaB Energy, has won many more. Having launched a series of successful companies here and in the US, Sandra brings a wealth of expertise which she has shared generously with a number of Catalyst cohorts.

Applications for the 2017 cohort are now open and I look forward personally to working alongside the region's future entrepreneurs. [www.catalystcentre.co.uk](http://www.catalystcentre.co.uk)

# Grant Thornton comes to the University of Southampton Science Park

Accountancy firm to launch co-working space in the south.

With similar office set-ups in Chelmsford, St Albans, Oxford and London, global accountancy firm Grant Thornton has chosen the University of Southampton Science Park for its latest co-working initiative.

Designed by award-winning workspace fitters, Area Sq, the workspace will bring a host of features together to encourage inspirational and agile working. These include networking and coffee zones, meeting booths, a board room, call pods, and flexible project space.

The new centre will provide a nucleus for Grant Thornton's southern networks, so regional businesses can come together, exchange ideas, attend events, and access expert advice. The firm is aligned with the Science Park's mission to build a community which spans a range of sectors, including students, private, public, not-for-profit and social enterprise, entrepreneurs, investors and innovators.

Norman Armstrong, Partner at Grant Thornton LLP Southampton, believes the enterprising new environment will bring wide-reaching benefits to its staff, clients

and business people predominantly based in the Solent and M3 corridor region.

"We believe today's world is all about connecting across businesses and industries, between public and private, which we have a strong track record of doing," he said. "Working with dynamic growing businesses is in our DNA."

Peter Birkett, CEO at Southampton Science Park, commented: "After winning the Business Park of the Year Award at the South Coast Property Awards and with the opening of our showcase office at 5 Benham Campus, it has been a landmark 12 months for the Science Park and the arrival of Grant Thornton reinforces this. With our shared vision for economic growth in the region and our culture of collaboration, the benefit will be felt not just by the Science Park community but also across the wider regional economy." [www.granthornton.co.uk](http://www.granthornton.co.uk)

We believe today's world is all about connecting across businesses and industries

The innovative new environment is set to launch in June and will see 65 client-facing staff using the Chilworth site as their base. The move is part of the firm's strategy to bring people and ideas together to help shape a more vibrant economy.

## Double pilot success for BluPoint

Long-term partnerships follow successful education pilots in South Africa and Kenya.

Catalyst alumnus BluPoint, which provides internet and digital services to off-grid and remote communities, is celebrating two major early successes for 2017.

Working with South Africa's Joint Education Trust (JET), an education equality think tank, BluPoint successfully deployed its technology into 15 schools near Durban.

With the pilot project bringing instant results, BluPoint and JET are set to collaborate over the next two years, implementing BluPoint's service to 200 schools in South Africa.

The JET partnership is one of two successful education pilots for BluPoint. The other is a recently completed project with a global Japanese electronics manufacturer, taking its high quality education materials into Kenya's Kenyatta University. Using BluPoint technology,

students and course leaders were able to access the content without incurring data charges. BluPoint curated hundreds of videos and over a thousand articles from their digital library, and adapted the content to work on both smart and non-smart devices.

The system was used at such low energy it remained operational even as the power grid was taken out by a lightning storm. With proof-of-concept confirmed, BluPoint will expand the initiative from east to west Africa, focusing on Ghana and Nigeria next.

Professor Mike Santer, Founder of BluPoint said: "The partnerships come at a pivotal period of expansion for BluPoint. The success of both of these projects sends a strong message about the universal impact we are making from our base in Southampton."

[www.blupoint.org](http://www.blupoint.org)



# Entrepreneurs pitch at Wessex Academic Health Science Network med-tech showcase



Health innovators present to 100 investors at major London event.

An invited group of 16 health sector entrepreneurs have presented their technologies and solutions to 100 angel, venture capital and corporate investors as part of the med-tech investment showcase.

The event, overseen by Wessex Academic Health Science Network alongside university incubator SETSquared, both based at the Science Park, is in its seventh year. It is a platform to help ambitious medical technology businesses secure the investment they need to develop their ideas.

The Science Park's nquiringminds, pitched at the event, offering its CARESHARE initiative, a sharing-economy inspired marketplace

for domiciliary care services. The solution helps carers co-ordinate support for their dependents whilst providing alerts to friends, family, neighbours and charities free of charge.

The event was supported by Nicola Blackwood, the Minister for Public Health and Innovation, who said: "The event illustrates exactly why we see AHSNs as such a crucial part of the system in driving innovation throughout the DNA of the NHS - ensuring that patients and health and care services benefit from the latest advances in medical science."

[www.wessexahsn.org.uk](http://www.wessexahsn.org.uk)

## South West Water selects i2O for loggers



Sale of 4,000 loggers marks i2O's largest order to date.

University of Southampton Science Park resident, i2O, has been selected by South West Water to provide the digital loggers that will monitor clean water performance in the South West region for the next four years.

South West Water, which provides water and wastewater services to 1.7m people across Cornwall, Devon, Dorset and Somerset, will install 4,000 of i2O's dNet loggers to record, communicate and analyse data relating to water demand, flow, pressure, and the condition of assets.

Founded in 2005, i2O provides smart network solutions to help water utilities respond to the challenges posed by urbanisation, ageing infrastructure and

extreme weather. It services more than 100 utilities in over 25 countries but the South West Water order marks i2O's biggest to date.

Joel Hagan, CEO of i2O, commented: "South West Water is currently one of the most progressive water utilities in the UK and I am delighted to be extending our relationship with them. South West Water has recognised that reliable and accurate data is a fundamental requirement for deriving actionable insight about the water network. i2O's loggers are accurate, robust and reliable, and offer unique data about network performance."

[www.i2owater.com](http://www.i2owater.com)

## CATALYST ROUND-UP



Catalyst is the Science Park's proven business incubation programme. The current cohort is moving towards the end of its tenancy – now is a perfect opportunity to catch-up on their progress:

**Barter for Things** held an industry meet-up in March, driving awareness of the business in the Solent region. The company has recently announced a collaboration with East Hampshire District Council to implement a network to allow businesses to connect to vital information from around the area.

**Carena Healthcare** is pursuing grant funding opportunities with Heart Research UK and Innovate UK. It is also preparing to present at the MedTech Strategist Innovation Summit in Dublin.

**Easy Video** has completed an investment round raising a total of £150K of SEIS funding.

**GPEP** is developing its website ready for its first pilot programme in May. The company has engaged interest groups, clinical leaders, health commissioners and research networks to ensure the product caters for all users.

**HiveWire** has just secured £240k of investment. It is about to launch a National Institute of Health Research portfolio study at Portsmouth Hospital and is looking to recruit a new Senior Vice President of Engineering.

**Made & Worn** is seeking funding and angel investment in the textile industry. The company is developing its first version of the knitting platform that is set to launch in October 2017 and in order to gain a greater market awareness, is introducing a blog aimed at knitters.

**Renovos** recently received Innovation in Health and Life Sciences grant funding from Innovate UK to further commercialise its research. The company also exhibited and pitched to an audience of potential investors at Venture Fest South.

**Wessex Social Ventures** travelled to Uganda in March. The company was training charities on how to work with communities to set-up and run micro-enterprises

**Applications are now open for 2017.**

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## CRITICAL Software expands threefold

Alongside new bases in Portugal and Germany, CRITICAL Software has expanded its presence in Southampton, establishing a dedicated smart meter device assurance laboratory as well as a second office space.

CRITICAL Software's Southampton lab will facilitate the testing and validation of smart meters and related smart meter devices, for use on the UK's smart grid network.

Once mobilised, the lab will provide a base for CRITICAL Software and its contract partner, NMI, to collaborate on behalf of the Smart Meter Device Assurance (SMDA) Scheme. The company's expansion reflects its growing client roster, which includes energy suppliers and smart device manufacturers, at home and abroad. [www.criticalsoftware.com](http://www.criticalsoftware.com)

## Mobile Onboard launches smart electronic ticket machine

mTicketr marks a step towards the future in smart travel.

Science Park-based mobile ticketing specialists, Mobile Onboard, has officially launched mTicketr, the smart electronic ticket machine (ETM) that debuted at last year's Euro Bus Expo.

Marking the company's first step into the ETM market, mTicketr was conceived to lead the way as public transport systems move towards ubiquitous mobile and contactless payments.

It was designed for those operators who do not need the complexity of ITSO compliant ETMs, and is therefore a viable and

cost-effective option for transport operators looking to step into contactless payments and m-ticketing.

mTicketr supports cash and smartcards and includes a high-end barcode scanner capable of fast, secure QR code reading.

Corbin Adler, Director at Mobile Onboard, said: "The time for us to deliver our smart ETM to the market is perfect and in line with the ongoing growth of m-ticketing and contactless payment trends. mTicketr has a very exciting development roadmap which will deliver features that could leave other ETMs for dust. It truly is a futureproof system that provides a great return on investment that will be impossible to ignore." [www.mobileonboard.com](http://www.mobileonboard.com)