SUMMER FUN Time to enjoy life JUBILATION 70 years of innovation PIVOTING

Are you brave enough?

BORN READY

Dr Federico Romei has celestial, not merely global, domination in his sights.



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Somethingto shout about?

SO...

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While every effort is made to ensure the accuracy of SO, the University of Southampton Science Park magazine, no responsibility can be taken for errors or omissions. Commissioned articles do not necessarily reflect the opinions of the University of Southampton Science Park or the University of Southampton.

SO MAGAZINE | SPRING | SUMMER 2022 SCIENCE-PARK.CO.UK

Once Upon a Time

Platinum Success

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Voyage of Discovery

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Dr. Robin Chave Chief Executive Officer The University of Southampton Science Park

Welcome to **SO**

I was asked to give a talk recently about entrepreneurship, a subject I naturally interact with on a daily basis whilst managing a leading University Science Park. The dynamics of the relationship between academia and commerce and whether it is possible to teach entrepreneurship, interest me.

With a personal background spanning both materials science and music, I started wondering: is entrepreneurship an art or a science?

For someone to have that vision of something new, a product or service that doesn't currently exist, takes artistic flair so, surely the creativity necessary for innovation puts entrepreneurship in the field of the arts? However, it's surprisingly difficult to find a well-known entrepreneur with an arts degree. James Dyson graduated from the Royal College of Arts with a degree in interior design, but he made his name with an engineering innovation for vacuum cleaners. Steve Jobs, co-founder of Apple, enrolled in a psychology and philosophy course but dropped out of college before graduating. Perhaps then, artistic creativity on its own isn't enough for the entrepreneur to succeed?

Instead, let's consider the entrepreneur as a scientist. There are plenty of examples here: from Thomas Edison and Nikola Tesla to Elon Musk, Jeff Bezos and the founders of Google, Sergey Brin and Larry Page; all of them science and engineering graduates. The scientific ethos requires the development of a hypothesis, followed by experimentation and analysis, before drawing a conclusion and if necessary, restating the hypothesis.

Now that sounds a lot more like the development of a business: to take something that you think people might want, then to test the market, to find out in detail what the need really is, and then, if your original assumptions weren't quite right, to tweak or pivot until you get a close match between the needs and wants of the customer and the benefits that your service or product provides. But is scientific analysis alone sufficient for the entrepreneur to succeed?

I don't believe so. As with most arguments that pitch two traits against each other, the truth lies somewhere in between. To me, successful entrepreneurship is both an art and a science. The successful entrepreneur can take the art of the possible and engineer a solution that will make someone's life better. Apple, and its fusion of technology and design is a classic example, and Steve Jobs is quoted as saying, "It's in Apple's DNA that technology alone is not enough it's technology married with liberal arts, married with the humanities, that yields us the result that makes our heart sing."

Howsoever entrepreneurship emerges, it is a vital part of the engine that will drive growth and prosperity in our region. The creation of new business drives the creation of jobs and the creation of wealth. Further, entrepreneurs achieve success when they are surrounded by a supportive ecosystem where knowledge can be exchanged between the arts and the sciences and between academia and the business community. And that's exactly what we set out to do here at Southampton Science Park.

"To me, successful entrepreneurship is both an art and a science. The successful entrepreneur can take the art of the possible and engineer a solution that will make someone's life better."

what?

SO sees the future differently

SO connects

SO asks questions

SO engages, informs, inspires

SO celebrates success

SO shows how Southampton Science Park shapes society

SO makes science and technology social

SO shines on South Coast excellence

SO where could it take you?

PIAIINUI

Queen Elizabeth II has reigned over 70 years of science and technology-fuelled societal transformation.



1950s

Passenger jets entered service with American Airline's pioneering Comet

Double helix structure of DNA molecules revealed by 1953 Watson and Crick

Black boxes introduced the life-saving capability to record flight data, thanks to Australian inventor David Warren

Nuclear power generated electricity for the power grid in the Soviet Union

1954 Solar cells promised a way to convert energy in light to $electrical\,energy\,using\,silicon\,strips$

1954 Non-stick pans revealed a household application for Teflon and in doing so, domestic bliss

Transistor radios made broadcasting pocket-sized and mobile

Hovercrafts took flight after radar inventor Sir Christopher Cockerell experimented with cat food tins and a hairdryer

Satellites became a reality as the Soviet Union's Sputnik orbited the Earth

Modems started to transmit data over phone networks for North American air defence

1958 American Express offered 'limitless spending', building on a Diners Club concept

Lycra enabled everyone to breathe easy when DuPont created Spandex – an anagram of expands

Integrated circuits began powering most of the world as we know it today

1960s

Global warming was first noted by David Keeling when charting carbon dioxide levels

1961 Contraceptive pills became commercially available, giving women greater choice

World Wildlife Fund charitable trust created for conservation, research and restoration of our natural environment

Wet wipes were unveiled by American Arthur Julius who conceived a disposable wet napkin

Compact disks used lasers to store media files for the first time, invented by

Heart transplants thanks to South African cardiac surgeon Christiaan Neethling Barnard

Calculators made maths easy for all, thanks to Texas Instruments use of battery power

Mice helped computers to be more user-friendly, courtesy of inventor Douglas Englebart

Moon landings were possible after NASA, Apollo 11 and its brave astronauts broke barriers

ATMs put cash control into the



1971 Microprocessors containing entire central processing units on single chips were invented by Intel engineers

- Answering machines from PhoneMate could hold twenty messages on a reel-to-reel tape
- 1971 Emails were conceived when programmer Ray Tomlinson used the @ symbol to route a message
- 1971 CT scans combined x-ray machines with computing to offer a non-invasive diagnostic tool
- 1972 Video games, albeit primitive, made their debut with Atari's Pong
- 1973 Mobile phones took talking outside the home and office with the £4,000 Motorola DynaTAC 8000X
- 1974 Barcodes transformed retail processes when a packet of chewing gum was scanned in a US supermarket
- 1974 Post-Its were invented when 3M scientist Spencer Silver created a strange adhesive by accident
- 1975 Digital cameras did away with film, after Kodak engineer Steven Sasson developed a prototype
- 1976 The Body Shop opened to pursue profit with a purpose
- 1977 MRI scans enabled Raymond Damadian's assistant to be examined with magnetic resonance imaging
- 1978 In vitro fertilisation after the world's first 'test tube baby', Louise Joy Brown, was born
- 1979 Happy Meals began providing food and fun at mealtimes for just \$1

1980s

- 1980 PCs brought computing home, originally in the form of the Sinclair ZX8o, before IBM stole the show
- 1981 Space shuttles enabled man to fly to space, conduct research and fly back home again
- 1981 MTV changed pop culture and killed-off radio stars, airing its first video by Buggles
- 1982 CD players took a long time to come to market but Sony had the team to do it
- 1982 Artificial hearts began beating when Robert Jarvik's idea became a life-saver for Barney Clark in Seattle
- 1983 Camcorders gave everyone the opportunity to star or direct a movie with Sony's Betamax
- 1983 Internet banking reached the UK, launched by Nottingham Building Society
- 1983 Cryptocurrency was designed by American computer scientist David Chaum
- 1983 Cloud Storage offered disk space in the sky when CompuServe launched its consumer service
- 984 DNA fingerprints helped to convict criminals, thanks to the work of UK geneticist Alex Jeffreys
- 1984 Apple Macintosh graphical user interface (GUI) changed the way we viewed and stored data
- 1985 Quorn, developed from a fungus found in Buckinghamshire, signalled new paths to protein
- 1986 3D printing was conceived when American engineer Chuck Hull patented stereolithography
- 1987 Antidepressants could be prescribed after Prozac was approved for use in the US
- 1989 GPS satellites began to give us eyes in the sky to guide us with unprecedented accuracy

1990s

- 1990 Browsers enabled untrained users to access the world wide web and make Tim Berners Lee's vision a reality
- 1991 Websites went live, the first online presence being created and launched by Berners Lee at CERN
- 1992 Texting changed how we communicate after Neil Papworth sent the first SMS saying simply, Merry Christmas
- 1994 Euro Tunnel opened following five years' hard graft by 13,000 workers along 50 kilometres
- 1994 Amazon, initially an online bookstore, began transforming product availability and delivery
- 1996 DVDs came to market accompanied by the world first DVD player, killing off VHS and Betamax
- 1996 Dolly the Sheep caused a sensation as the first cloned mammal using nuclear transfer
- 1998 Googling settled early search engine wars with its revolutionary algorithm and simple user face
- 998 PayPal provided a safer way to transfer money digitally and buy stuff on eBay



2000s

- 2000 Camera phones became commercially viable and hit the market in various forms
- 2000 Bluetooth started to be incorporated into consumer products, Ericsson being the first to offer an enabled mobile phone
- 2001 Wikipedia started helping kids with homework with the sole rule of volunteers providing non-biased content
- 2001 Space tourism took off when American businessman Dennis Tito visited the International Space Station
- 2001 Mobile broadband took off in Japan and South Korea enabling access to an enviable array of services and information
- 2001 Electric cars began their journey to success with the introduction of the hybrid Toyota Prius
- 2003 Contactless payments reduced pocket fatigue with Mastercard finding a consumer use for RFID technology
- E-cigarettes created by Hon Lik, a Chinese pharmacist, inventor and smoker after his father died of lung cancer
- 2003 Skype developed by a Swede, a Dane and three Estonians made keeping in touch even easier
- 2004 E-readers, first introduced by Sony, transformed how we consume literature
- Mars Exploration Rover reached the surface of the red planet to reveal its secrets
- 2004 Human Genome Sequence published providing an unparalleled understanding of our species
- 2004 Social Media gave a voice to everyday people with the launch of Facebook, swiftly followed by YouTube the following year and Twitter in 2006
- iPhones and iPods showed us how form and function could fuse beautifully
- 2009 Uber starts seamlessly connecting riders to drivers using GPS and mobile technologies
- 2009 Fitness trackers kicked off a new era in health management with the launch of the Fitbit
- 2009 Bitcoin demonstrated how a new peer-to-peer financial ecosystem could work

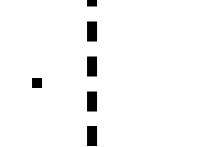


- WikiLeaks, founded by Julian Assange, began publishing classified documents and information
- 2011 Smart homes marked by the release of the Nest Learning Thermostat
- 2011 IBM's Watson proved that AI supercomputers could beat human brains on gameshow Jeopardy
- 2011 Esports became mainstream with the Twitch platform for competitive gaming
- Tesla Autopilot technology demonstrated how cars could drive themselves
- 4G broadband hits the UK offering super-fast download speeds
- 2015 Voice control became commonplace with the launch of Amazon's Alexa and Apple's Siri
- 2016 Brexit shakes up the geo-economic-political landscape
- 2017 Fidget spinners became a craze for all cool kids everywhere
- 2017 Cybercrime reveals online dangers with a highly organised Wannacry ransomware attack
- **2017** Fortnite online video game released by Epic Games drawing in 125 million players in under a year

2020s

Will your breakthrough be on this list by the end of the decade?





YAGE OF DISCOVERY

START-UP / SCALE-UP

In September 2021, an eclectic group of ambitious entrepreneurs embarked on a unique business support programme, Southampton Science Park's prestigious business accelerator, Catalyst. Diverse though their businesses were, their aims were consistent: how to launch and lead their businesses to achieve their full potential in the highly competitive innovation space.

After six months of intensive mentoring, workshops and sheer hard work, they have completed their Catalyst tenure and are now equipped to take on the challenge of turning their plans and ideas into flourishing companies. All participants reported that their expectations of the programme had been surpassed and that important lessons had been learned. Here's what they had to say about their journeys and their three overriding take-aways.

Embrace Challenges

All businesses were encouraged to rigorously challenge their plans, as OhmSpace founder, Federico Romei commented: "Catalyst changed our mindset on moving the business further away from the academic/technology focus to a more entrepreneurial approach. The mentorship and feedback provided us with a financial and business plan that has become the baseline for future work having received a very good response from potential investors. I am now confident that OhmSpace will get investment and grants to develop both our product and business. I know that launching to the market is going to be a tough, unknown journey, but one I am desperate to take!"

This motivation through challenge was echoed by **ANAMAD**. "Catalyst pushed us to understand that a business is much more than the technology. We had a technology seeking a use. We had too many options. The programme challenged us to make more of our technology, to move faster, to get out and speak to customers," reflected Sergey Mikhalovsky.

And **OTB Vendors** founder Patrick Songore added: "The Catalyst experience was fantastic; definitely better than I had expected. The wealth of knowledge that you have access to is extremely rare from people who have a tonne of experience. The constant challenging of your thoughts is great. After testing and adjusting our business model, a few changes needed to be made to funding and management approaches to achieve the best outcomes."

For some, the challenge opened doors, as KCC founder, Kevin Clarke, explained. "Catalyst has been instrumental in rethinking the scope and scale of our plans and ambitions. The coaching has been superb: a great deal of experience and shared in an understandable and fun manner. It has been quite a journey, reshaping the plan, testing thinking, working alongside start-ups. It has led us to greatly change our target and we are now looking to make a much bigger



Small peer group working was explained. "Working with other early-stage companies has been invaluable and meeting other Science Park staff and companies has also proven helpful. Peer to peer support and feedback is, I believe, one of the most meaningful ways of progressing. Working with the cohort has brought many real-life learning opportunities -

Federico commented, "Catalyst offered a lot of opportunities for connection and knowledge exchange. The diversity of the businesses in the cohort fitted well with the open approach of the programme which allowed me to meet exceptional peers and mentors. Regular workshops and meetings have been the key to the success of the programme which, overall, has been a great experience."

It's a sentiment built on by Patrick Songore, who added: "Perhaps an and we've watched each other face challenges and overcome them. This is good for motivation."

Anita Gera highlighted how the

Others, like Hugh Smith, founder of **ES Consulting** appreciated the focus but wanted more! "From my perspective the programme has been excellent and delivered more that I was expecting. I of course would like it to be extended for longer than 6 months!" he concluded.

It's a theme that runs throughout the experience. Sergey Mikhalovsky added, "The mentoring reached into every aspect of our business and tested it, building resilience where needed and giving us much needed focus, allowing us to understand where we can access the most value and increasing our chances of success.

He continued: "Our previous experience of other accelerators led us to expect dry workshops and little else. What we have received far exceeded our expectations. It provided excellent advice on how to improve all aspects of the business, from sales/marketing, IP, to finding key people. It has been more varied than expected and has come at just the right time for us to implement learnings. The standard of workshops, mentoring, networking, business panels and engagement from the other businesses has been exceptional all round and, as expected, the science park facilities are excellent."

Apply for Catalyst 2022

Applications from innovation and technology-led businesses are welcome any time for the Catalyst 2022 programme. Apply online science-park.co.uk to benefit from:

- A fully funded six-month programme of mentoring and workshop learning.
- Retaining all equity in your companies as no stake is required to participate.
- High-level one-to-one sessions with world-class business mentors.
- Commercially focused weekly peer group workshops with subject experts.
- Up to £5k funding injection courtesy of funding support provided by Hampshire County Council.
- A prestigious Southampton Science Park business home throughout the programme.
- Opportunities to network with Southampton Science Park's innovation community.



universally regarded as hugely beneficial, as **Gera.Solutions**' founder, Anita Gera it has far exceeded expectations."

Reflecting Anita's point, Ohm Space's

underrated part of Catalyst is that the businesses are together for six months

Find Focus

splash in the food tray manufacturing

manufacturing system and raising the

unexpected conclusions. Fraiserline

founder Matthew Jensen is no stranger

he noted benefits from the programme

in terms of decision making: "On joining

the programme, I established that my

new concept was not a viable business

and quickly made the decision not to

proceed and waste time and money.

This pivot and swift decision making

viable product, a concept which is now

flourishing. I have learned about the

value proposition and have been

encouraged to consider investor

thinking. My challenge now is to

based on its outcomes."

refine my business plan and grow

He continued, "I have personally found

business strategy (for both businesses)

my mentor to be a huge asset of my

decision-making and key operations

than if I had not been in the cohort.

programme I have engaged with."

Catalyst is the best business support

and I have been more efficient in

resulted in testing a new minimum

world. The scale of challenge now is

significant, arranging the right

finance to make that happen."

For others, the challenge led to

to running a business but even so,

mentoring aspect of the programme bought her focus, particularly in relation to sales and marketing. "The input from my mentor has been extremely useful as I fine-tune my sales and marketing approach. I was hoping to get more ideas on how to move forward so working with him on creating a detailed plan has been very useful. I began the programme without much idea of who to target but now have a very tightly framed focus,"



Jane Scarth House provides emotional and practical assistance to anyone whose life is affected by cancer – the person living with cancer, a family member, close friend or carer – via its Romsey Cancer Support Centre.

This independent charity is Southampton Science Park's official charity for 2022. Through events and initiatives around the park this year, we aim to boost awareness of the team's valuable work and raise up to £10,000 to help local people affected by cancer.

Since opening in 1995, Jane Scarth House has assisted thousands of people and their families throughout their cancer journey from diagnosis, throughout treatment and beyond. The team is small and lean, yet very well regarded amongst medical professionals, receiving referrals from hospitals and nursing teams across Southampton, Winchester, Basingstoke and Salisbury.

Jane Scarth House services include befriending, one-to-one counselling and group sessions, meditation and mindfulness, complementary therapies, welfare and benefits advice, and Macmillan HOPE courses. They are all provided free of charge.

Robin Chave, CEO of Southampton Science Park, explains why Jane Scarth House was chosen as our charitable focus this year. "Often, it is the large, well-known charities that benefit from commercial partnerships meaning that small, locally focused charitable enterprises miss out on much needed assistance. Jane Scarth House is one such charity. An extremely lean operation that receives no government funding, this independent charity relies on fundraising to provide much needed expertise and services to people throughout our area that are affected by cancer," he said.

"I hope that the whole Science Park community will join us in boosting awareness and raising funds to aid the charity's team in their important work."

How your help will help others

- £25 means that someone can have a relaxing meditation or reflexology session
- £30 makes it possible for someone to benefit from some one-to-one counselling
- £45 enables someone to enjoy a creative art for wellbeing session
- £100 pays for vital disposable aprons and masks
- £500 buys a disposable couch cover so someone can enjoy a complementary therapy treatment
- £1000 pays for a day's counselling each week for a month

Find out more at

www.science-park.co.uk/about-the-park/our-charity and www.janescarthhouse.co.uk





GAMECHANGER



Federico, tell us a little about your career to now. I came to the University of Southampton's Engineering and Physical Sciences faculty in 2013 from the University of Bologna to explore electric spacecraft propulsion for my master's degree.

Just two weeks before I was due to return to Italy, I was extremely fortunate to be contacted by an eminent lecturer in astronautics, Dr Angelo Grubisic, who was searching for his first PhD student to work with him on a project about propulsion systems. This was a wonderful opportunity and I enjoyed working closely with the hugely talented Angelo for some years. Tragically, our collaboration came to an abrupt halt in 2019 when he sadly passed away in a base-jumping accident in Saudi Arabia.

Everything stopped at a point when we had won a number of space agency grants to develop our research and the project was just really kicking off. I didn't know what to do next, but what I did know from the collaborations we were beginning to develop, was that our research achievements were significant. What was questionable was commercial application. I knew I had to take it to the next stage, so I decided to take any opportunity out there to work on assessing marketability.

I completed an Innovation to
Commercialisation of University Research
(ICURe) programme with SETsquared,
and also a six-month programme with
the University's business accelerator,
Future Worlds. Unfortunately, this was all
online due to pandemic restrictions, but the
work that I started on customer discovery
proved to me that I was onto something.

And then you joined the Science Park's Catalyst accelerator in 2021?

Yes. My contract with the University was ending but I was determined to advance the business strategy for what had become OhmSpace. I was successful in securing a Royal Academy of Engineering Enterprise Fellowship which has enabled me to stay in the UK and fully commit to the project.

Catalyst has really helped me to develop a business strategy and plan to a point where I'm now ready for investment. The programme has pushed me beyond what I perceived were my limits and ramped up my efforts.

OhmSpace is tipped to revolutionise the satellite industry: tell us about this. The space industry is evolving from

large and costly platforms to global constellations of thousands of identical microsatellites the size of washing machines. Chemical propulsion is usually required to perform high-thrust manoeuvres but, if even a few litres of chemical propellant (often hydrazine) are needed, these toxic systems require fuelling at the launch site and typically delay the launch by three days. Hence, there is a fast-emerging need for space propulsion solutions that use non-hazardous propellants that are safer, easier, and cheaper to integrate.

OhmSpace has met this market need with a patented electric propulsion solution. This is a breakthrough in resistojets because it not only removes dependence on hazardous chemical propulsion, but it enables fast, accurate positioning, thanks to the ten times higher thrust-to-power ratio than competing electric propulsion technologies. This will allow our clients to save time and budget when building their platforms as well as producing a quicker

operator return on investment through faster deployment to space.

Our technology has been demonstrated in a laboratory environment. We need investment to facilitate a further 18 months of development time for us to deliver an in-orbit demonstration towards the end of 2023.

And the market potential? It's huge. Right now, the space economy is estimated to be around \$370bn. This will double over the next five years.

Pin-point accurate positioning of satellites will become critical and OhmSpace will play a leading role in this, I have no doubt. What we're doing is really important because future infrastructure will be in space. Already, everyone has GPS, while hundreds of million people will use satellite broadband. More and more, technology serves the globe, not the local, and that's a good thing because everyone on earth benefits from the emerging space economy.

With such a large potential market, how will you scale? I have a concrete plan based on a great deal of evidence building. I'll need a team of 15 to get us to the next stage, specifically commercial and product development people. I'm looking for people more knowledgeable than me in fields where I'm not strong.

Longer term, I plan for the business to stay in the UK but with international outreach. The UK has 5% of the space market so the next step will be into Europe and then to the US, which has more than 60% of the satellite manufacturing market. For this I'll need a much bigger team, but, with only about 50 potential customers globally, they will need deep market insight.

Coming to this as a spin-out, talking to potential customers for the first time must have been a real watershed moment. How did that feel? Yes, I'm engaging more and more with potential customers. It's changed over time. The very first time, we were offering a vision, but now we're offering a reality that takes the vision forward into specific market segments, backed up with tangible evidence.

How has your skillset changed as you've transitioned from an academic to a commercial environment?

Actually, it was surprisingly difficult to switch from an academic to a business environment. Being at Southampton Science Park has been extremely positive in this. It's a cool place, but above that, the information exchange has been particularly valuable.

Aside from actually learning how to run a business, the key thing that I've learnt from my mentors, which has transformed my

approach, is that you no longer talk about the details of the technology, but about its benefits – it's more visionary than specifics.

Is there anything else that you've learnt from your entrepreneurial journey so far that you'd like to share with those who may be about to start out on theirs? I would say, make sure that you have a viable business. Spend time at the beginning validating the idea and working out what your customers want before putting all of your energy and effort into developing a product. Then make them aware of what you can do.

I would also say, be ready to pivot if necessary. I had to adapt because the research that we were doing at the University was too limited in terms of market potential and too long in terms of development time.

The hard deadlines and unexpected twists and turns on my journey have forced me to focus on priorities and take decisions, and that's been a good thing: I'm 100% focused.

ohm.space



INSTANT EXPERT

MAKEITSO

Southampton is one of four cities shortlisted for UK City of Culture 2025. What does this mean and why is it important?



What is a UK City of Culture?

Becoming a UK City of Culture is an opportunity to project a city onto the world stage. The title represents a specific time and place to concentrate and present international cultural activity, bringing performers and works from across the globe to build sustainable collaborations and trusted partnerships.

Run as a competition every four years by the Department of Digital, Culture, Media and Sport, the initiative was born out of the EU Capitals of Culture programme which was seen as a huge success for Glasgow and Liverpool in 1990 and 2008 respectively. Previous winners were Derry/Londonderry in 2013, Hull in 2017, and most recently, Coventry in 2021.

"Culture exists to inspire and to stimulate creativity, innovation and ideas. Culture is dynamic and contemporary as much as it is historic, it creates a space to look towards the future international development of a city as much as back to its past evolution" Kathy McArdle, British Council Director of England and Cities

Why does it matter?

To be named UK City of Culture, is not just a badge or logo or photo opportunity. Winning the prestigious title has enormous benefits, with previous host cities attracting millions of pounds in additional investment, creating jobs and attracting thousands of visitors to their local area. Beyond the immediate vicinity, the designation raises a city's profile nationwide, and it projects a new facet of the UK around the world.

"It's a real chance to put a city on the map – to change perceptions, showcase our diversity and give a voice to every part of our community. If our bid wins, we'll attract visitors, enterprise and trade that will boost our own homegrown businesses and cultural organisations, bring in investment and boost opportunities for young people. We'll get the support we need to tackle the challenges we face, too." Southampton 2025 Bid



"I'm so proud of the city I grew up in and love!

RE:SEARCH



Copper vs Covid

When the COVID-19 pandemic hit, there was one particular group of researchers that were more prepared than most to assist in the global effort to protect the population.

Dr Sandra Wilks and Professor Bill Keevil from the University of Southampton lead a team investigating the length of time viruses and bacteria can remain on surfaces, exploring the effectiveness of various decontamination methods – including a focus on the antimicrobial benefits of copper.

Work by Sandra, Bill and their team led to the installation of antimicrobial touch surfaces globally in hospitals, supermarkets, on public transport and in a busy airport, and this has been further expanded during the pandemic.

A copper powder spray they developed with Copper Cover Ltd has been used to `copperise' door, trolley and fridge handles at Morrisons in Totton, near Southampton, and several door handles in Building 85 at the University's Highfield Campus.

Sandra said: "Our research into the antimicrobial use of copper and its protection properties against fungi, bacteria and viruses has enabled us to provide consultancy to hundreds of organisations. The pandemic and the research needed around COVID-19 means we are busier than ever."

The team has secured more than £200,000 worth of consultancy funding since the start of the pandemic.

Read the full story in the University of Southampton's research and enterprise magazine, Re:action, at www.issuu.com/university_of_southampton/docs/reaction_magazine_winter_2021



"Our research into the antimicrobial use of copper and its protection properties against fungi, bacteria and viruses has enabled us to provide consultancy to hundreds of organisations. The pandemic and the research needed around COVID-19 means we are busier than ever."

Dr Sandra Wilks

Lecturer in Medical Microbiology, Health Sciences

The Unitary Patent

"Is your business prepared for the biggest change to European patent law in 50 years?" asks Craig Slater, Patent Attorney at Barker Brettell LLP

After many false starts and delays, including constitutional complaints in Germany and Brexit, the Unified Patent Court Agreement will soon come into force, most likely in early 2023. This is the biggest change in European patent law for decades, and it paves the way to obtaining Unitary Patents (UPs) that cover multiple EU countries in a single right, with litigation being conducted at the Unified Patent Court (UPC), a new supranational court.

This is a big departure from the current system, where European patent applications are examined centrally by the European Patent Office (EPO), but once granted must be brought into force as national patents in each country individually with litigation being handled separately by the various national courts.

European patent applications will still be examined by the EPO, but, once granted, it will be possible to obtain a Unitary Patent (UP) covering multiple EU states rather than

This change will have important implications for any business with European patent rights, and the UPC may not be right for everyone.

The old system of validating European patents nationally will still run alongside the new UP, and when a pending European patent application grants it will be necessary to decide whether to obtain a UP or whether to stick with the old tried-and-tested system of obtaining individual national patents in the countries that are of commercial interest.

obtaining individual national

patents in each country.

Weighing Options

There are pros and cons to both approaches, and what is right for one business will not be right for another.

Advantages of the UP system include the reduced cost of covering multiple EU countries, dispensing with the need for costly translations and multiple renewal fees.

Another potential advantage is central enforcement in the UPC, rather than having to litigate separately in each country, which can be time consuming and very costly.

But this cuts both ways, and UPs will be vulnerable to central revocation, which may give patentees pause for thought. The UPC is also a brand new court that is yet to be tested, and there will be substantial uncertainty in the early years as case law develops and the court finds its feet. Some businesses may want to be actively involved in moulding the case law in the early years of the UPC, but this will not be for everyone.

Geography Matters

The UP also does not cover all EU states, with Spain and Poland being notable exceptions, and the UP will also not cover non-EU states, such as the UK, Switzerland, and Norway. It will therefore still be necessary to convert granted European patents into national rights in those countries alongside a UP, and the UP will therefore not provide a onestop-shop for comprehensive European patent protection.

There will also be important decisions to be made in relation to existing national patents in those EU states participating in the UPC. This is because the UPC will also become the default forum for matters relating to existing patent rights in the participating EU countries, even those that are not UPs. However, it will be possible to opt existing national patents out of the jurisdiction of the UPC and maintain the exclusive jurisdiction of the national courts for these rights. This can be done within a three-month 'sunrise period' before the UPC becomes operational, and it will be possible to opt-in to the UPC again later if desired.

Decision Time

There is a lot for businesses that have European patent rights to think about, and the right strategy will depend on the aims and profile of each business.

The important thing is to realise that decisions do need to be made, so obtain advice and act proactively to ensure your European patent rights are in order before the UPC comes into force early next year.

Find out more at www.BarkerBrettell.co.uk

ADVICE



"People forget facts, but they remember stories"

says Kris Lawton at KLH Brand Advocates

'Once upon a time...'

Those four simple words have become the gateway to a million stories over the years, inspiring ideas and forming memories across the entire world.

he art of telling and appreciating a good story is instilled in us from childhood. Whether it is the last thing parents talk to children about before bed, reciting nursery rhymes, or studying the way they are written at school, everyone can recall a story or a scene that has stuck in the memory. The reader may not remember the exact facts, but they will have connected on a personal level to the characters, places, or experiences. Possibly even feeling like they are a part of the narrative. This is exactly what the art of storytelling is all about. A connection. Whether it is fictional wizard schools or factual product information, stories make things relatable, giving meaning and substance to pieces of everyday information which would otherwise run the risk of being forgotten.

he volume of facts and figures presented to consumers can be overwhelming, and this information has never been more readily available than it is today. Traditional advertising is now supplemented by social media, targeted adverts, and the ability to access reviews and specifications immediately through smart phones. Products and services continue to improve and offer something new or different, as they try and prove themselves to be better than the competition, but hard facts are not always what is needed to sell or make them appealing. This is where it is important for businesses and brands to employ economies of detail, to distil the information available down to something that is truly relevant and understandable in layman's terms.

Stories can help to differentiate and strengthen a brand. They help to humanise a product or service. They can help to offer clarity among a fog of information. Through careful crafting of a message around a very select number of key points, the skill of a storyteller is to provide an overview or snapshot, rather than a bombardment of countless facts which run the risk of

being misinterpreted, misunderstood or, worst case, forgotten completely. A well-structured story should convey the major points in your own narrative, concisely presented and summarised in a neat and digestible package for the consumer.

everyone likes to feel they are receiving special treatment; getting something just for them; the inside scoop; and no-one likes to feel that they have been sold to. Connecting on that personal level, through direct conversation and discussion that allows a greater link, and it is these conversations that consumers will engage with and recall. This strategy is all part of a coordinated storytelling programme which considers the audience, the subject matter, what the end goal is, and what the purpose of the overall communications programme is. Pitching the story at the right level is key to engaging the audience, and it is a fine balance. No-one likes to feel out of their depth but, equally, an audience will quickly switch off if the information being presented is deemed irrelevant or below them. It is through carefully curated storytelling that the audience is optimised. The important part is to find the subject to use as the foundation which carries the story throughout. Other information and facts then add colour, helping turn a dry subject matter into something engaging and memorable.

prime example is the 1976 Formula 1 Achampionship. Only a hardened Formula 1 fan will remember the specifics of any given race season, let alone one from more than 40 years ago. However, the personalities and storytelling angles which have portrayed the battling and mutual respect held by characters Nikki Lauda and James Hunt mean that a huge audience can recall the key points from that season, far beyond the audience reach of the sport. Many people who were not even born will know tiny details about the races that specific year but ask them about 1996 or even 2016 and you will likely be met with a blank face, and that is the power of a strong story. You connect with the subject through the information being presented around it, and you - the consumer, or viewer actively wants to know more about it.

Businesses are now more open than ever to creating a clear profile, granting much more extensive access than before, and engaging more freely with their customers. Every brand has a wealth of stories waiting to be uncovered, but it is important to know what to do with the information and how to then present it in different ways to the relevant audiences.

ere at KLH Brand Advocates, we have been researching, creating, and delivering brand stories for leading businesses across high pressure environments for more than 15 years. It is this careful curation and the 'less is more' approach that saw us entrusted to tell the stories from one of the most famous names in motorsport, the McLaren Formula 1 team. Working directly with the team at the headquarters in Surrey and at the race circuits to get inside the brand, we act as the human representation of the brand to a diverse audience of race fans, media, VIP clients, partners, sponsors, and senior executives. Armed with information to help create and support the customer's narrative, the result ensures our team acts as a knowledgeable source of information, providing effective communication at every touchpoint, while ensuring no-one is swamped by the mountains of data being provided over the course of a race weekend.

Kris's 3 Golden Rules of Storytelling

- 1. Distil the message
- 2. Make it make sense
- 3. Nail the 'payoff'

The KLH Brand Advocates team works closely with businesses across a range of industries to offer a bespoke package to help build profiles, creating and portraying concise and positive messages.

www.klhbrandadvocates.com

ARE YOU TCFD READY?

Although a great deal is now known about the causes and consequences of rising global temperatures, putting a price on these risks is more complex.

That's why, in the spring of 2022, climate risk reporting became mandatory for the UK's largest businesses with the introduction of a Task Force on Climate-Related Financial Disclosures. Could your business be affected?

There is, finally, widespread acceptance that climate change is a priority challenge for us all and that companies must adapt quickly to become resilient to its impacts. In contrast, however, understanding financial risks posed by climate change – to companies, investors, and the financial system as a whole – remains early-stage thinking.

Consequently, there is growing demand within the financial markets for climate-related insight. Creditors and investors need access to a new range of risk information that is consistent, comparable, reliable, and clear. This is because inadequate risk assessments can lead to the mispricing of assets, misallocation of capital and potentially financial market instability, vulnerable to abrupt corrections.

The Task Force on Climate-Related Financial Disclosures (TCFD) was established in 2016 to encourage companies to disclose their climate risk information so that investors understand, and can act on, their financial exposure. Comprising 32 members from across the G20, it represents both preparers and users of financial disclosures and is chaired by Michael R. Bloomberg.

TCFD in the UK

The UK has a stated aim to be the world's first Net Zero-Aligned Financial Centre. This requires our financial institutions to have a robust decarbonisation transition plan to meet ambitious and legally binding net-zero targets. Accordingly, we are the first G20 country to make TCFD mandatory.

Effective from 6 April 2022, the UK's largest traded companies, banks and insurers, and private companies with over 500 employees and £500m turnover, need to disclose climate-related risks and strategies by law.

Launching the initiative, Energy and Climate Change Minister Greg Hands said: "If the UK is to meet our ambitious net-zero commitments by 2050, we need our thriving financial system, including our largest businesses and investors, to put climate change at the heart of their activities and decision making."

While this requirement is currently focused on large organisations, smaller companies that are working to attract investment and grow should factor in action on TCFD too. It's a fast-moving ethical finance landscape that will undoubtedly see increased regulation in the not-too-distant future and it will send a strong, positive and reassuring signal to potential investors.

Risks and opportunities

The Task Force has divided climate-related risks into two categories. The first of these is risks related to the transition to a lower-carbon economy including policy and legal, technological, market and reputational risks. The second risks category relates to the physical impacts of climate change and is grouped into acute (event-driven risks such as flooding) and chronic (longer-term shifts in climate patterns such as rising sea levels).

Company disclosures should cover four areas - governance, strategy, risk management, and metrics and targets - and this is fully aligned with other disclosure programmes such as the Carbon Disclosure Project (CDP), so compliance will be familiar to companies that already recognise and report on their environmental impacts through such schemes and duplication of effort will be minimal. The key difference is that, while CDP is voluntary, TCFD is mandatory.

Of course, it's important to remember that risks can be balanced by opportunities. These include resource efficiency and cost savings, the adoption of low-emission energy sources, the development of new products and services, access to new markets, and boosting resilience throughout the supply chain.

Increasing transparency makes markets more efficient and economies more stable and resilient

Michael R. Bloomberg, founder of Bloomberg LP and Bloomberg Philanthropies, Chair of TCFD.

Time to act

In line with other disclosure programmes, continual improvement is expected and it's not necessary for companies to provide a full TCFD report at the outset so long as there is transparency and a robust improvement plan in place.

A first step is to identify the climate risks in your business and ensure that these are considered as part of your corporate risk register and resilience planning. Then, start gathering data around these risks – even if this data isn't publicly disclosed it will demonstrate forward-thinking around responsibility and governance. Finally, look to benchmark your data within your peer group and location to set appropriate efficiency strategies that are aligned with company, local or national net-zero action plans to structure annual performance improvement.

Read more at www.fsb-tcfd.org

RE:SEARCH



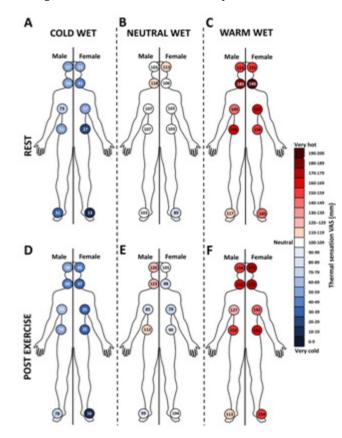
No Sweat

Did you know we don't have a receptor in our skin for wetness? It's a sensation we take for granted – an experience our brain picks up from other cues, such as temperature and touch.

Pioneering research by Dr Davide Filingeri, Associate Professor in Skin Health at the University of Southampton, is exploiting these facts to influence everyday product design, from nappies to deodorants.

"You can play with the brain," said Davide. "Wetness is one of the most common sensations we experience, so people don't question it. You can trick your brain to feel wet when something is not wet, or trick it to feel dry when in fact something is wet.

"If you are sitting on a metal chair with bare skin, you might jump up feeling wet when really, it's just the cold of the metal that cools the skin very quickly. Or, if you wear a latex glove and put your hand into water and take it out again, you will probably feel wet on your hand even though there is no moisture in contact with your skin."





Davide's research has sparked a series of enterprise collaborations. He has helped to inform the design of more comfortable nappies for Procter & Gamble (P&G) and has worked closely with sports clothes manufacturers to assess sports apparel design and comfort in specific populations, such as female athletes.

A new project this year will seek to understand the biophysical and perceptual mechanism of skin wetness sensitivity of the underarm, to inform the design of more comfortable antiperspirant deodorants manufactured by P&G.

Read the full story in the University of Southampton's research and enterprise magazine, Re:action, at www.issuu.com/university_of_southampton/docs/reaction_magazine_winter_2021

Body maps to show regional differences in thermal sensitivity to warm, neutral and colowet stimuli in males and females pre- and post-exercise



SOMETIMES, CHANGING DIRECTION IS THE ONLY WAY TO GET WHERE YOU WANT TO GO.

Wrigley didn't always sell gum.

When Mr Wrigley Jr moved to Chicago in 1891 to sell soap and baking powder, he started offering a free chewing gum with purchase. The gum proved to be more popular than his actual product and so he decided to manufacture his own. Two years later, Wrigley's Spearmint and Juicy Fruit gum were launched and by 1910, the company began selling internationally. Acquired by Mars Inc in 2008 for \$23bn, Mars Wrigley Confectionery is the largest chewing gum manufacturer in the world, selling to over 180 countries.

Now, that's one profitable pivot! An intuitive pivot, born from identifying and acting on an opportunity. Others pivot in reaction to necessity.

TURNING POINTS

In the last few years, many companies have strayed from their stated business plans to adapt, even survive, in the wake of Covid-19, climate crises and more recently, conflict. Unexpected circumstances can sometimes show you the way, and of course, learning to recognise these signals and opportunities is an important part of running a successful business.

In their article 'The Impact of Covid-19 on Capital Markets, One Year In', Chris Bradley and Peter Stumpner, partners at McKinsey, highlight the need to seize the moment. "We know from analyses of previous crises that the momentum with which a company emerges from a downturn determines its course for years: those that come out strong keep outperforming while the latecomers continue to lag," they say. "The past year in the capital markets has underscored the growing pace of change. This suggests a short window of time to prepare your company for disruption, potentially requiring you to pick up the pace on any planned strategic transformation. The growing divergence between individual companies, meanwhile, highlights the reality that, while every crisis produces winners and losers, economic shocks also create opportunities for those that act boldly to surge ahead."

They go on to advise building out various scenarios in times of uncertainty, considering carefully how pre-existing trends and

aftershocks change industries. "If your sector has been troubled for a long time, it may be time to consider changing industries – or leading fundamental change within your industry. If you are among the outperformers, what do you need to do to deliver on the promise inherent in your market valuation?

It's time to bring disruption from the edge of your thinking into the centre."

When macroeconomics doesn't drive action, there are other circumstances that make business leaders think they might now be headed in the wrong direction. This is particularly the case in software, where pivoting has become all part of the journey. Silicon Valley culture is now built around great pivots, often regarded as an essential part of feature enhancement. These sudden strategy shifts can turn a mediocre idea into a billion-dollar company.

Take PayPal, for example. While it has always focused on payments, this company has gone through many permutations since it was first developed by a company called Confinity in 1999 to allow people to beam payments from their handheld digital computers, such as the Palm Pilot. After merging with a financial services company called X.com, PayPal became the preferred online payment system for eBay sellers, which propelled its name into payment processing fame.

Twitter is another. 'Odeo' began as a network where people could find and subscribe to podcasts, but, when iTunes began taking over the podcast niche, the company gave employees two weeks to come up with new ideas. It subsequently ran with the concept of the now legendary status-updating micro-blogging platform conceived by Jack Dorsey and Biz Stone.

Michael Schlein, writing for Harvard Business Review, highlights the opportunity, and touches on a warning too, in his article, 'Making a Big Pivot While Staying True to Your Original Mission.' "A company's digital evolution can result in startling changes.

Shopify, for instance, started out as an online store for snowboard equipment and is now an e-commerce platform worth billions, used by small businesses globally.

For mission-driven organizations, a digital pivot can offer a similarly powerful opportunity to maximize impact. But bold moves can also cause mission drift: diluting or distorting an organization's core work to create positive change in the world."

TO GO OR NOT TO GO?

So, is changing direction always a good thing? "Pivot' is a much-loved term, but I don't share the love," comments David Bream, Director of business incubator SETsquared Southampton. "Pivoting simply means you got it wrong first time. I would advocate better strategic planning and customer discovery in the first place and avoid the financial cost, loss of time and loss of credibility involved in repositioning further down the line."

This is a theme picked up by business coach, Gary Smith. "One consequence of pivoting that is often overlooked is dilution to shareholding. This can happen when the pivot takes place after a funding round. The company may need additional capital to restart the business with the new plan, to re-engineer a product or service, re-focus marketing, or even replace the sales team. In effect, much of the funding raised before the pivot has been wasted, and with this, the value of the founders' and investors' shareholdings."

Catalyst programme mentor, Phil Sharpe, agrees. "Generally, any departure from a founder's passion about a product or service usually results in a sub-optimal business and eventually loss of founder motivation leading to business failure. To me, customer pivoting is always to be preferred and is part of Steve Blank's widely acclaimed Lean Methodology and Customer Discovery."

In 'You Don't Have to Pivot in a Crisis',
Daniel Isenberg and Alessandro Di Fiore
expand the case that pivoting isn't necessarily
the right move, instead advocating shunning
strategic agility for stability.

They identify a set of rules that stay-thecourse companies follow: slow down, reaffirm your thesis, trim around the edges, watch the data, and test for weakness.

These companies adopt the behaviour of a cheetah, never pursuing at full speed so they don't over-commit and can change course effectively when required. But, if you do have to pivot, do it explosively, they advise.

Perhaps there's a middle ground, as Eric McNulty, Crisis and Change Leadership author, points out. "A pivot, in its true sense, involves holding some things constant while changing others," he writes. "The decisions about what to maintain and what to change are critical. Change nothing and you'll likely succumb to changing conditions. Change everything and you'll amplify the chaos while possibly taking injurious missteps."

He goes on to advocate a three-step strategic approach to assess whether and how much to adjust or to stay the course: assumptions, objective, and pathway. "In a crisis, you first look to see which of your assumptions (about the market, supply chain, your workforce) remain valid and which are not. Look at your path to see if it is still clear or is it now blocked with rubble or pockmarked with potholes. And see if your objective is still a viable goal."

TAKING PEOPLE WITH YOU

In any organisation, there will aways be a strong pull towards sticking to existing strategies and previously successful approaches. Taking people on the journey is not an easy task, but a critical one. Michael Stein offers three key pieces of advice based on his own experience as a CEO of a fintech business.

"First, foster a culture of innovation.

This culture is built from the top down and bottom up: by creating the time and space for every employee to try new things, and by the

"THE DECISIONS ABOUT WHAT TO MAINTAIN AND WHAT TO CHANGE ARE CRITICAL. CHANGE NOTHING AND YOU'LL LIKELY SUCCUMB TO CHANGING CONDITIONS. CHANGE EVERYTHING AND YOU'LL AMPLIFY THE CHAOS WHILE POSSIBLY TAKING INJURIOUS MISSTEPS."

board ensuring their CEO has permission and support they need to take risks. Leaders who feel they lack this cultural component can weave together previous risks, experiments, and stories of success to create a narrative that complements their mission and opens an exciting path forward.

Second, build a deep understanding of the opportunities and risks brought by digital disruptions. By following the successes and failures of digital innovators in your field, you can apply lessons to your mission and take a test-and-learn approach to harnessing digital innovation.

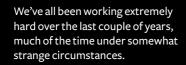
Finally, remember that difficult choices often don't require a zero-sum approach.
Leaders should ask if a strategic pivot is a truly binary choice or whether there is more value in a multi-pronged approach. Leaders can smoothly transition into new strategies while slowly transitioning out of older ones – or while adapting legacy strategies to better harmonise with newer goals."

23

15 Who Took a New Path and Won	15 Who Stayed the Course and Fell Behind
Avon	Blackberry
EcoLab	Blockbuster
FujiFilm	Borders
Groupon	General Motors
IBM	Kodak
Instagram	Motorola
Netflix	MySpace
PayPal	Pan Am
Pinterest	Polaroid
Play-Doh	Staples
Starbucks	Tie Rack
Suzuki	Tower Records
Twitter	Toys R Us
Western Union	Woolworths
Wrigley	Yahoo



Feel it's time to celebrate some success? So do we.



So, here at Science Park Central, we decided it was high time that we all took time out to reward our efforts, applaud our colleagues and generally give ourselves a resounding pat on the back.

We warmly encourage you to join in

THE 2022 GAMECHANGERS!

No black ties to stifle in, lengthy speeches to prepare (or endure) or nervous dinners to sit through. Instead, an enjoyable gathering of our Science Park community, standing ovations a-plenty and, hopefully, some well-timed whooping at our informal festive prize giving in December. What a lovely way to end the year!

BUT FIRST, we need your nominations...

To get your hands on a Gamechanger Gong, all you need to do is nominate yourselves, your colleagues, or your businesses in one or more of our six categories. An esteemed judging panel will then pour over the entries to award one winner and one highly commended in each.

It doesn't matter if you're a new business that's just started trading or you're already a global success story: it's the quality, not the scale, of your contributions over the last 2 years that count.

Anyone can nominate anyone in any category so jump in and have some fun! Nominate yourselves, why don't you?

Entry is free and online but do get your nominations in before the 30th September deadline.

Shooting Star

Which individual or business on the Science Park has taken huge strides towards personal or business growth and is showing considerable promise for the future?

Community or Cultural Champion

Which individual or business on the Science Park always looks up from their screen to consider the impact of their actions on others around the business or wider community?

Top Dog

Which individual on the Science Park is an extraordinary executive, for whom effective leadership and business success is seemingly a breeze?

Innovation Icon

Which business on the Science Park is blazing a supersonic creative trail, leading from the front on an undeterred mission to make the world a better place?

Wonderous Workplace

Which business on the Science Park has created a workplace that is a pleasure to be a part of, a home from home?

Sustainability Superhero

Which individual or business on the Science Park always looks out of the window and considers the environmental impact of their actions, working to prioritise planet along with profit?

Enter online at science-park.co.uk/gamechanger-awards

Got a question? Call in or email the Science Park office.



Switching on Solar

Southampton Science Park will save 50 tonnes of carbon emissions each year after investing in solar energy at Kenneth Dibben House.

Southampton Science Park has been given the green light to switch on solar panels at Kenneth Dibben House in a move that will generate 207 MWh of electricity and save 50 tonnes of carbon emissions each year. The majority of the energy produced will be consumed by resident companies with any surplus being sold back to the Grid.

Kenneth Dibben House, which comprises office and meeting space for a number of businesses, including some with significant energy demand for research and development work, was revealed to be the prime location on the park, following analysis conducted by former Catalyst business accelerator company, Absolar.

Absolar founder, Dr Phil Wu, said: "Our technology, using remote survey, demonstrated that this building has great solar potential as well as the shortest payback period, even before recent energy price increases are taken into account. Throughout the project, we worked closely with Southampton Science Park to ensure the design, installation and commissioning was carried out successfully."

Stuart Perry, Operations Manager at the Science Park, oversaw the works. He commented: "This project has been a fantastic learning curve throughout, and I've gained a vast amount of insight working with the team at Absolar throughout the process.

This project has been a fantastic learning curve throughout, and I've gained a vast amount of insight working with the team at Absolar throughout the process.

"Although we have been developing the idea for some time as part of our sustainability agenda, our first solar panel installation was surprisingly quick, taking just a couple of weeks, despite storm Eunice halting work on the roof for a couple of days!

"The expectation is that our solar panels will reduce our energy bills by around £600,000 over their 25 year lifetime, while helping to reduce the carbon emissions of not only the Science Park but all of the companies in Kenneth Dibben House. As long as the system delivers in line with expectations, we intend to extend solar power to other suitable premises. Furthermore, other residents have expressed an interest in their own installations and are carrying out feasibility analysis for their own buildings. I'm excited to see where this momentum leads."

DOWNTIME

Summer of fun

Going out is the new staying in. After a couple of years of introspection, it's time to get out there! Here's what's happening across Hampshire this summer for you to enjoy.



JUNE

1 Bond in Motion: No Time To Die

National Motor Museum, Beaulieu, SO42 7ZN Until 31/10

Iconic cars, gadgets and costumes from the latest 007 film, including technical plans for vehicle designs and DB5 weapons. What's not to love?

www.beaulieu.co.uk

2 Magic of Thailand Festival

War Memorial Park, Basingstoke, RG21 4AG 11-12/6

A family-friendly weekend to challenge your taste buds and feast your eyes.
Featuring world class food, experiences and performances including traditional music and dancing, boxing, and massage.
www.magicofthailand.co.uk

3 War on the Line

The Watercress Line, Alresford, SO24 9JG 18-19/6

Transport yourself back to the 1940s to experience the Blitz Spirit. Enjoy unlimited hop-on/hop-off steam train travel to explore period displays, music, dancing, vintage vehicles and re-enactments.

www.watercressline.co.uk

IIIIV

4 The Hat Fair

Winchester, city-wide

The UK's longest running outdoor arts festival transforms the everyday into the extraordinary, with three days of theatre, dance and circus. Simply pop some cash in the hat at the end of the show.

www.hatfair.co.uk

5 UEFA Women's Euro 2022

St Mary's Stadium, Southampton, SO14 5FP 7-15/7

Southampton FC's St Mary's Stadium is hosting three matches during the UEFA Women's EURO 2022 finals, including England's final group game. So, show up and show your support for the lionesses. www.thefa.com

6 Lymington Seafood FestivalBath Road Park, SO41 3SE

15-17/7

Some of the most exciting and innovative artisan food and drink producers will be cooking up fishy delicacies from around the world whilst you enjoy shopping and live music on the riverfront.

www.lymingtonseafoodfestival.co.uk

Farnborough International Airshow

Show Centre, Farnborough, GU14 6FD

For decades, the global platform for the aerospace and defence industry, this event showcases all manner of aerial innovation to a truly global audience.

www.farnboroughairshow.com

8 New Forest County Show

Brockenhurst, SO42 7QH 26-28/7

Bringing together animals aplenty, countryside crafts and demonstrations, international show jumping, art, antiques, flowers, vegetables, local producers and entertainment over 30 acres.

www.newforestshow.co.uk

9 Hampshire Food Festival

County-wide Until 31/7

Wander through vines, linger in lavender fields, tour breweries and get hands on in the kitchen to explore what goes on behind the scenes to grow, rear and serve Hampshire's tastiest produce.

www.hampshirefare.co.uk

AUGUST

10 Boomtown Festival

The Matterley Estate, Ovington, SO24 oHY

A diverse line-up of global music with boundary pushing immersive art, theatre and performance coming together as a living, breathing, fictitious city where attendees become part of the story.

www.boomtownfair.co.uk

1 Victorious Festival

Clarence Esplanade, Southsea, PO53PB 26-28/8

This multiple-award winning festival is one of the most beautifully located in the UK. Stereophonics, Paulo Nutini and Sam Fender headline, while the Kids Arena is a mini festival in itself.

www.victoriousfestival.co.uk

12 Carfest South

Laverstoke Park Farm, Overton, RG25 3DR 26-28/8

Featuring music, cars, bars, stars, food and adventure, enjoy seven magical festivals in one at the UK's largest festival designed with families in mind and in support of children's charities.

www.carfest.org

13 Park Proms

Broadlands Estate, Romsey, SO₅1 9ZD 27-28/8

A new music event featuring the Royal Philharmonic Concert Orchestra, Aled Jones and Laura Wright, contrasted with James Morrison, Pixie Lott and Scouting for Girls in a spectacular setting.

www.parkproms.com

SEPTEMBER

Cycle Southampton SporteriumGuildhall Square, Southampton SO14 7LP

A new event to get people out on their bikes. Designed for first timers and experienced riders, there are two distances, friendly marshals and plenty of feed stations to keep you going throughout.

www.sporterium.co.uk

15 Kitesurfing Armada

Seafront, Hayling Island, PO11 oAU 9-11/9

A fantastic weekend of kiting, live music, fundraising and entertainment, this is the biggest event of its kind in Europe. All are welcome, no matter if you're surfing or chilling on the beach.

www.kitesurfingarmada.co.uk

16 Romsey Show

Broadlands Park, Romsey, SO51 9LQ 10/9

A fantastic day out with something for all the family to enjoy, featuring displays and have-a-go opportunities. Why not take your dog and take part in the Family Dog Show? www.romseyshow.co.uk

10 Southampton International Boat Show

Town Quay, Southampton, SO14 2AQ 16-25/9

From paddleboards to superyachts, the famous show has all you want to enjoy life in, on or around the water, now organised around sector-specific zones so you can easily find the right vessel for you.

www.southamptonboatshow.com





ON THE PARK

News from the Southampton Science Park Community

Skin Cancer

Wessex Academic Health Science Network has released a study showing that teledermatology can dramatically speed up skin cancer diagnosis, following research conducted on the Isle of Wight.

Teledermatology involves taking high resolution photos via a mobile phone with an attached dermatoscope, thus enabling images of skin lesions to be shared between GPs and dermatologists rapidly via a secure digital platform.

Dr David Isaac, Wessex Cancer Alliance Macmillan GP and Primary Care Cancer Lead, said: "We have been very fortunate to have launched this service during such challenging times. It has meant that our patients with suspected cancer have been able to access expert opinion very rapidly despite the challenges of the pandemic. They can be assessed, seen and treated or reassured with minimal delay. Before this service, some patients might have been waiting for a few weeks, now in many cases we have an opinion and management plan within a matter of hours." www.wessexahsn.org.uk



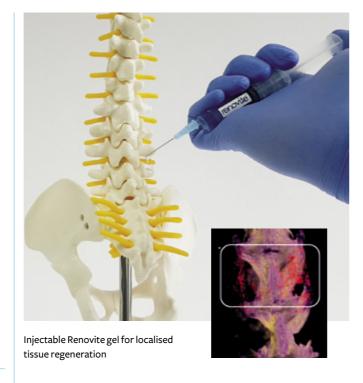
Renewable Energy

Crondall Energy subsidiary, Buoyant Production Technologies, is to participate in a £60m Floating Offshore Wind Demonstration Programme. Under the Government's flagship renewable energy auction scheme to support emerging technologies, Contracts for Difference, it will partner with the University of Southampton, to demonstrate that its patented design can support substation equipment, connecting floating wind farms to the energy grid.

Energy Minister Greg Hands said: "We are already a world leader in offshore wind and floating technology is key to unlocking the full potential of the seas around Britain. These innovative projects will help us expand renewable energy further and faster across the UK and help to reduce our exposure to volatile global gas prices."

The UK is already home to the world's largest deployment of offshore wind. However floating turbines, which can be deployed in deeper waters than conventional turbines, will boost energy capacity even further by allowing wind farms to be situated in new areas around the UK coastline where wind strengths are at their highest and most productive. www.crondall-energy.com





Regenerative Medicine

Renovos has been awarded a Biomedical Catalyst grant of just under £700,000 by Innovate UK.

Agnieszka Janeczek, the company's CEO said: "As pioneers of nanoclay gels for tissue regeneration, we are excited about this funding and the progress in development it will allow us to achieve to get closer to the clinic."

The company's Renovite is an injectable nanoclay gel that delivers bone-healing agents in a precise, localised manner, and at significantly reduced doses. Renovos's compelling pre-clinical data shows that these agents are only released upon contact with regenerating cells, so they can enhance healing in a more targeted manner to improve outcomes with greater safety, efficacy and at a lower cost. This is increasingly important because musculoskeletal conditions are the leading contributor to disability worldwide, with the most common and disabling conditions such as arthritis, back and neck pain, fractures and injuries. Current bone healing agents are poorly localised and rely on very high doses which have been associated with some dangerous side effects. www.renovos.co.uk



Energy

Zenergi can now help support customers in Scotland following a strategic acquisition of DB Group.

CEO, Graham Cooke, commented: "This represents a superb opportunity for Zenergi to benefit from the addition of an award-winning and very likeminded business, with similar values, ethos and a real focus on customer service that we hold in such high regard. The DB team has clearly been delivering on its promises, with a commitment to the Race to Zero, as well as accredited supplier status with the Carbon Trust, great examples of how aligned we are. We are all looking forward to welcoming the team into the Zen family, nurturing our first presence in Scotland and seeing what we can achieve together."

Zenergi is a fast-growing energy and sustainability service provider focused on education, healthcare and social housing sectors. It has recently attracted private equity investment from ECI Partners. www.zenergi.co.uk

zenergi



5G Telecomms

Multiple Access Communications (MAC) and AceAxis have been selected by the Department for Digital, Culture, Media and Sport to receive funding under the government's 5G Diversification Strategy for a project which aims to reduce over-reliance on a small number of telecoms vendors.

Founded in 1986, MAC has considerable experience in the specification, design and implementation of wireless systems.

Managing Director, David Kenyon, said: "The growth in cellular radio was the foundation of our business and having provided our expertise to the industry over four decades we are excited to embark on the next stage in that journey and about the opportunities that Future Radio Access Network (RAN) presents."

Future RAN test systems aim to provide a standardised, cost-effective, off-the-shelf solution that performs all of the key radio frequency measurements and tests the Future RAN optical interface, all in a single unit. This standardised solution will encourage new entrants to focus on innovation of the radio and antenna, whilst supporting fast development and integration of radios. It will accelerate the adoption of Future RAN and further support supply chain diversification.





Customer Experience

TrackBack has attracted new customers, Skoda Italia and SsangYong, the eighth brand to choose the company's lead follow-up measurement services in the Benelux region.

As the proportion of digital car sales enquiries increase, so does the need to make sure that every customer enquiry receives a fast and high-quality response from dealers. TrackBack measures and reports on lead follow-up activity without changing any existing processes. This gives manufacturers like Skoda and SsangYong the data and information they need to work with their dealer networks to increase sales opportunities and improve customer experiences. www.trackback.net

TrackBack

Hampshire Ambassadors

Southampton Science Park was delighted to host Hampshire

The Hampshire Story Ambassadors programme is a county-wide network of businesses, organisations and individuals who come together to hear about the successes and developments that are shaping Hampshire so they can proactively raise its profile.

Hampshire County Council wants to hear from more enthusiastic advocates for the county who want to see it thrive. Whether you are an individual, a big business or a small one, your energy, ideas and connections can influence how Hampshire is portrayed and help put it firmly on the national and international map.

Jane Holt, Business Development Director at the Science Park, commented: "We have an amazing story to tell and a lot to be proud of, but we all need to talk the place up, celebrate our successes; together we need to act as ambassadors for Hampshire and get our story out there. Collaboration has never been more important than now as we move forward from the pandemic and work together to help grow the economy. Together we can show the confidence we have in our future and play a part in making that happen." www.hampshirestory.co.uk

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