

# SO

SPRING | SUMMER 2020

**FUTURE TOWNS**  
Plans for a new  
innovation hub

**QUEEN'S AWARD**  
Tonic Analytics  
celebrate success

**SUSTAINABILITY**  
Consider a new  
economic model

# GIVE THANKS TO OUR HANDS

OUR BIOMECHANICAL  
MARVELS



UNIVERSITY OF  
**SOUTHAMPTON**  
**SCIENCE PARK**

[SCIENCE-PARK.CO.UK](http://SCIENCE-PARK.CO.UK)



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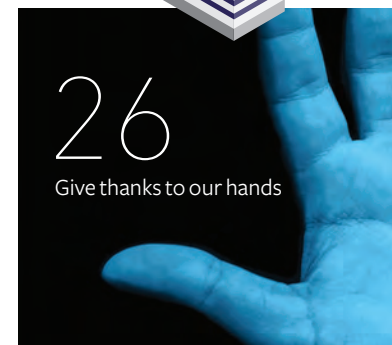
Exploring wellbeing at work

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If you'd like to contribute to the next issue of SO, contact: [parknews@science-park.co.uk](mailto:parknews@science-park.co.uk)

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## Welcome to SO

In business, we talk a lot about “support”. It’s often in the context of end-user support, tech support: support as a service, if you will. Usually this is a paid-for service, integrated into revenue models and multi-layered in complexity.

As I write this – during a period of national lockdown, with unprecedented uncertainty facing humanity worldwide – the concept of “support” has gone right back to basics. By definition, it’s about helping to bear the load, to hold something up, to prevent something from falling.

All around us there are remarkable examples of this in action – a society galvanised into action through individuals changing the habits of a lifetime, by serving the community and by compassionate action. And, despite recent political rifts and broadening chasms of trust between governments and citizens, it’s extremely encouraging to see public-private trust and co-operation in abundance.

In tangible terms, we’ve seen incredible levels of financial support provided by our government to help keep individuals and businesses afloat, and red tape lifted for those companies that have the skills, experience and resources to bolster the health of the nation. Have we ever seen innovations brought to market and production lines reconfigured so quickly?

Many businesses are currently in survival mode, but with the support that’s available around them, I’m confident that our local ecosystem will soon be back to striving for growth. At times like this our Science Park comes into its own with well-established, tried and trusted approaches to business support. From providing the infrastructure which means company heads can concentrate on their core

business, to offering flexible leases that ensure space restrictions can’t throttle growth. From our Catalyst Programme which aims to give the commercialisation of innovative ideas the best start in life, to creating important connections through enabling business networks and events.

**“Despite turbulent times, it’s immensely encouraging to see in this issue so many examples of our resident companies undeterred in their missions to enhance society’s future health and prosperity”**

We recognise that our work doesn’t save lives firsthand - but we are well-placed to support the science and technology businesses that hold the key to society’s future health and prosperity. Despite turbulent times, it’s immensely encouraging to see in this issue so many examples of our resident companies undeterred in such a mission. Long may this continue.

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

### 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?

Work is expected to commence this summer on a new building at Southampton Science Park to house the Future Towns Innovation Hub: a collaborative environment for breakthrough engineering research and technologies.

The Hub – bringing together university research and commercial enterprise – will create an environment for the innovative translation of research to commercial applications that will contribute to the economic growth of the local area and wider region.

The £10m Future Towns Innovation Hub project aims to transform the towns and places of the region into modern, smart towns by developing



engineering solutions to solve the challenges of energy efficient housing, water conservation, sustainable transport, carbon neutral waste management and recycling, and improving health outcomes.

In an exciting collaboration, the new facility will enable leading academics and businesses to develop engineering and technological solutions to make the region’s towns

cleaner, healthier, happier places to live and work. Initially, the focus of the Hub’s work will be towns across Hampshire and Surrey.



Science Park CEO, Dr Robin Chave, commented: “Southampton Science Park, already a magnet for the commercialisation of research and new technologies in the south, is uniquely positioned to host this new facility and we are delighted to be at the forefront of this exciting initiative. I’m absolutely confident that the positive societal impacts arising from the outputs of this new centre will resonate significantly beyond our region’s boundaries and for generations to come.”



The Enterprise M3 Local Enterprise Partnership (LEP), Research England and the University of Southampton are funding the initiative, and the Hub will draw on the support of commercial partners and business support organisations such as Greentech South/Future South, SETSquared, Highways England, Network Rail and The Environmental Change Institute.

# FUTURE TOWNS INNOVATION HUB





**FOR THIRTY YEARS NOW, TED HAS GRADUALLY AND MEANINGFULLY INFILTRATED SOCIETY AT LARGE, CHALLENGING THE STATUS QUO AND GIVING A VOICE TO INNOVATIVE THINKERS. IF YOU'VE NOT EMBRACED THE WORLD OF TED YET, GET READY TO BROADEN YOUR MIND AND DIVE RIGHT IN...**



# IDEAS WORTH SPREADING

## A QUICK GUIDE TO TED

### WHO IS TED?

TED is a not-for-profit organisation devoted to spreading ideas. It's incredibly simple and incredibly powerful.

Accessible across multiple formats and in more than 100 languages, TED inspires the world with new ideas, usually in the form of short but powerful online talks of 18 minutes or fewer, while independently running complementary TEDx events to help share ideas face-to-face across the world.

Curious to see what the future looks like? TED has a vision. Want to have a crack at solving Einstein's riddle? Give it a go at TED. Need to know what the next software revolution will be? TED has a view. Want to know how to fix a broken heart? TED can help. Curious about the discoveries awaiting us in the ocean's twilight zone? Be inspired with TED. Almost all topics, from science and business to personal growth and global issues, are covered.

You could be forgiven for thinking of TED as a search engine - but stop right there! The richness and diversity of original thinking, combined with the passion and commitment of the interesting people who present them, have created something that is nothing short of wonderful.

### WHY IS IT IMPORTANT?

TED gives everyone a voice and every idea airtime. The goal of the TED Foundation is to foster the spread of great ideas. It provides a platform for thinkers, visionaries and teachers so that people around the globe can gain a better understanding of the biggest issues faced by the world and feed a desire to help create a better future. Core to this goal is a belief that there is no greater force for changing the world than a powerful idea.

### WHERE DID TED COME FROM?

Founder Richard Saul Wurman noticed a potentially powerful convergence of Technology, Entertainment and Design (TED) and set about bringing these fields together via a conference, held in the US in 1984. Despite making a financial loss, this event included a demo of the compact disc, the e-book and cutting-edge 3D graphics from Lucasfilm, while mathematician Benoit Mandelbrot demonstrated how to map coastlines using his developing theory of fractal geometry.

By 1990, the TED Conference had become an annual event in Monterey, California, attracting a growing and influential audience from many different disciplines 'united by their curiosity and open-mindedness'.

Now run by a non-profit foundation, TED has become the first port of call for those seeking inspiration. The profits made by the TED conferences are directed toward these initiatives, and the TED Foundation welcomes contributions from those who share its philanthropic goals, and support from any organisation or company that can help distribute 'ideas worth spreading'.

### HOW CAN I GET ON BOARD?

Simply choose your channel.

TED.com, and its associated mobile apps, podcasts, blogs and social media channels, allows great ideas to be easily accessible anywhere in the world, for free. But be warned: once you dive in, you'll be immersed for a long, long time...

If you wish, you can dig deeper into ideas with TED books. Long enough to explore a powerful idea but short enough to read in a single sitting, TED books pick up where TED talks leave off. This wide-ranging series will cover everything from architecture and business to space travel and love.

### 12 MUST-SEE TED TALKS

- 1 Alejandro Aravena:  
MY ARCHITECTURAL PHILOSOPHY?
- 2 Amy Cuddy:  
YOUR BODY LANGUAGE MAY SHAPE WHO YOU ARE
- 3 Brené Brown:  
THE POWER OF VULNERABILITY
- 4 Bryan Stevenson:  
WE NEED TO TALK ABOUT AN INJUSTICE
- 5 Chimamanda Adichie:  
THE DANGER OF A SINGLE STORY
- 6 David Christian:  
THE HISTORY OF OUR WORLD IN 18 MINUTES
- 7 David Gallo:  
UNDERWATER ASTONISHMENTS
- 8 Hans Rosling:  
THE BEST STATUS YOU'VE EVER SEEN
- 9 Hugh Herr:  
THE NEW BIONICS THAT LET US RUN, CLIMB AND DANCE
- 10 Robert Waldinger:  
WHAT MAKES A GOOD LIFE?
- 11 Sarah Kay:  
IF I SHOULD HAVE A DAUGHTER...
- 12 Sir Ken Robinson:  
DO SCHOOLS KILL CREATIVITY?

**FIND THESE AND LOTS MORE ON TED.COM**



# WEATHERING THE STORM

Continuity is a comfort, especially in times of crisis. Your customers depend on you to maintain not just your service, but also your standards. As such, no matter how your business changes, the show must go on.

**your customers depend on you to maintain not just your service, but also your standards**

Businesses in many industries are now working in an environment that is completely different to the one they were in just months ago. During any crisis, your suppliers and customers are likely to need enhanced levels of support and reassurance. The challenges posed this year with coronavirus, however, were so unexpected that this requirement increased exponentially.

Many business leaders may be considering actions that change the dynamic of the supply chain, such as by reducing activity in one area while simultaneously trying to increase output and headcount in another, to fulfil new demand. These actions may have unintended consequences for both customers and suppliers in the wider supply chain.

Given the uncertainty of the situation, effective and timely communication is vital. It's essential for businesses to provide regular updates about any changes to their operations and the steps being taken to safeguard business continuity in times of crisis. Your customers and suppliers alike

will want to feel informed, secure and prepared for change.

#### Potential issues

Changing demand can be difficult to forecast and impacts the whole supply chain. Large volume changes can influence quality, safety, costs and inventory.

Establishing effective methods of cash collection and adjusting terms of payment are both critical to minimise the financial impact. Quick implementations and reactions are needed across key areas like online sales, inventory management, distribution formats and servicing the vulnerable safely.

Forecasting and mitigating supplier risk around financial and operational failure can ensure supply chain resilience and efficient operation. As international logistics become more challenging, it may be wise to replace imported products with a domestic version. In addition, now is the time to identify essential versus discretionary spend with suppliers, and choose where to prioritise payments to protect liquidity.

#### 3 strategic steps

##### 1. Assess

Identify issues that might impact your suppliers and customers, and consider what the ramifications might be. How will the situation impact your business specifically? During a crisis, the desire to work quickly is understandable – and sometimes necessary. But take the time to examine what impact your actions will have in the medium to long term. Taking as much direct and indirect cost out of the business to protect cash flow is advisable, but only if doing so allows you to continue at an efficient and profitable level.

##### 2. Protect

Quickly develop top-down, high-level options and tie your strategic and tactical

decisions into those choices to ensure synergy. What are your specific priorities? It's important to ensure that your key suppliers and customers are ring-fenced, and that both are supported through this crisis.

**some sectors are likely to enjoy a post-crisis boom**

#### 3. Restore

Once the market is more stable, take time to think through potential 'aftershocks' for your business. Some industries may take longer to recover as spending habits will have shifted. Conversely, some sectors are likely to enjoy a post-crisis boom – in China, for example, several areas of the economy have quickly ramped up to 140% of previous demand, compared to before the COVID-19 outbreak. These spikes in demand may be difficult to predict but ensuring that you have the working capital and supplier relationships to reflate your business when activity picks back up is an important consideration.

The most prudent advice amid uncertainty is to look at simplifying your business. The months ahead may prove a watershed moment for tail-end products or services. But by focusing on fewer core, profitable outputs, you may end up a slightly different business but with a much healthier bottom line and secure customer base.

[grantthornton.co.uk](http://grantthornton.co.uk)



## OPERATIONAL RESILIENCE IN A CRISIS

Operational resilience has been tested more than ever this year. We asked Norman Armstrong, a Partner at Grant Thornton, to provide some practical advice on how companies can continue to meet the needs of both customers and suppliers effectively and efficiently in times of crisis.

#### KEY QUESTIONS TO CONSIDER

- What are the main changes to your services and how are they affecting customer behaviour?
- How can you provide regular and clear communication about your policies and service updates?
- Where are the risks of financial failure and what are the opportunities to generate cash more quickly?
- Which customers and suppliers will need extended terms or different arrangements, and where your supply chain relies on travel or exports, do you have alternatives in place?
- Are any of your competitors in other countries impacted and are there opportunities to support customers who are struggling with international supply?



# INTRODUCING

## Professor Mark Spearing

### Chairman of the Southampton Science Park Board

Professor Mark Spearing, Vice-President (Research and Enterprise) at the University of Southampton, was appointed Chairman of the University of Southampton Science Park Board in January 2020.

On his new appointment, Professor Spearing commented: "I am delighted to be given the opportunity to be involved in the future development of one of the country's leading university-linked science parks. The thriving community at Southampton Science Park and its success to date provides a compelling base to build on and I know that there are exciting plans to do just this."

**I continue to be impressed by the diversity and vibrancy of the companies on the Park**

Dr Robin Chave, Science Park CEO, added: "My team and I are looking forward to working alongside Professor Spearing and the rest of the Board to ensure that Southampton Science Park realises its full potential and fulfils its role as a beacon for innovation and entrepreneurship on the South Coast. We have a unique offering for science and technology businesses from start-up through to multi-national, and I'm confident that our new Chairman's experience of bridging academic and commercial sectors will be particularly valuable as we move into the new decade."

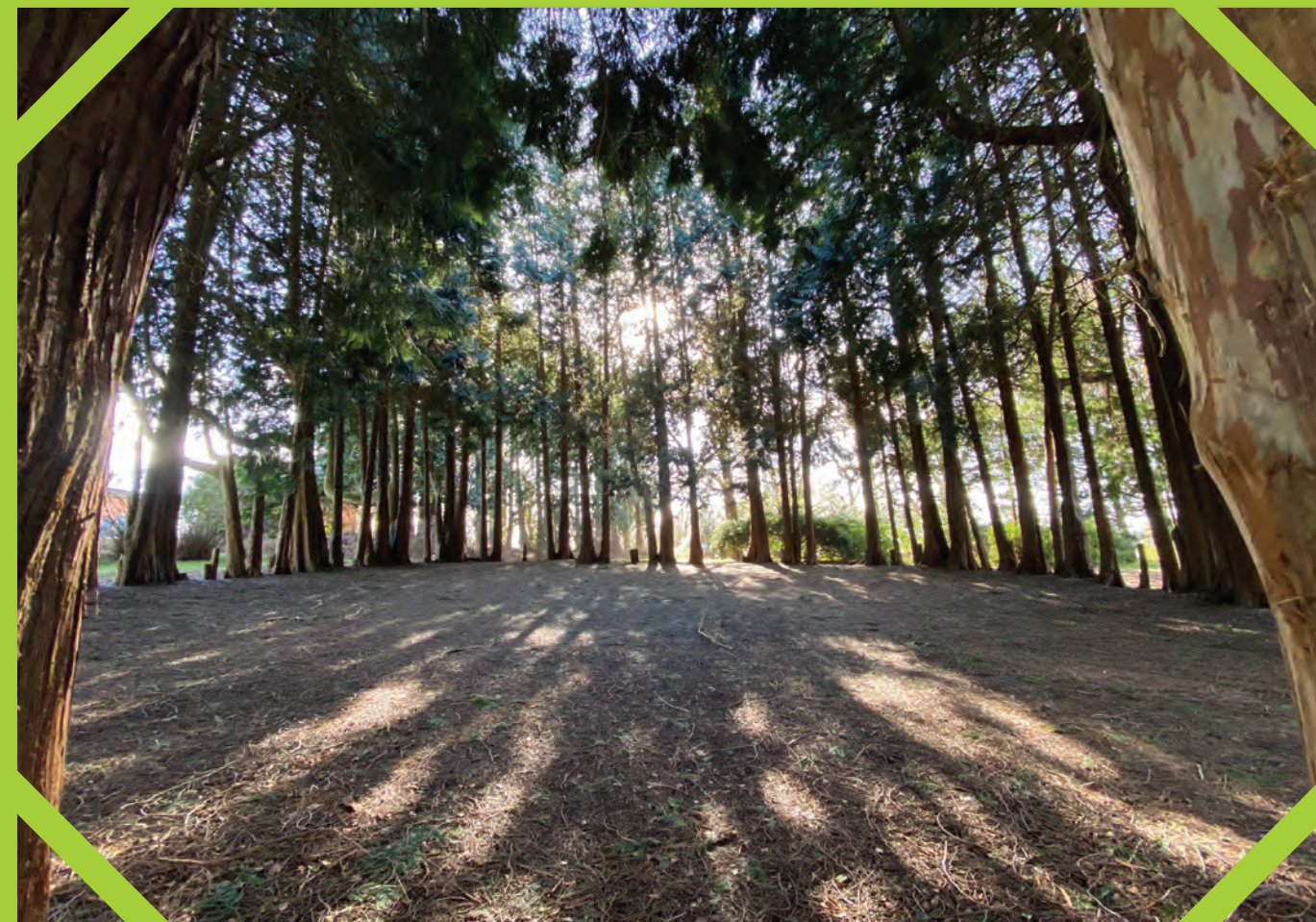
During an impressive career spanning business and academia, Professor Spearing has worked at BP Research, Carborundum Microelectronics and Massachusetts Institute of Technology. He is a member of the Technology Advisory Group of the UK Aerospace Technology Institute, a Trustee of the Faraday Institution, a Fellow of the Royal Aeronautical Society and an Associate Fellow of the American Institute of Aeronautics and Astronautics. He was awarded a Royal Society Wolfson Research Merit Award for 2004-2009.

**While the current health situation necessarily will significantly dampen business activity for a period, I am confident that we can emerge strongly once we are past the worst of it**

In his role at the University of Southampton, Professor Spearing has oversight of all research and enterprise activities there including the research and enterprise strategy, funding, research governance, research quality, intellectual property and spin-out companies.

Reflecting on his first few months in the role, Professor Spearing said: "Up to the outbreak of the COVID-19 pandemic there had been reassuringly few surprises since I took over chairmanship of the Science Park board at the beginning of the year. I think that this is because I have been a board member since 2016 and have been well-immersed in the Science Park activities. I continue to be impressed by the diversity and vibrancy of the companies on the Park. While the current health situation necessarily will significantly dampen business activity for a period, I am confident that we can emerge strongly once we are past the worst of it."

"Looking ahead, I believe that there are some great opportunities to take advantage of, particularly with regard to the growing understanding of the importance of place, coupled with a post-Brexit desire to increase our export economy as well as overseas inward investment. I also believe that there are opportunities to increase the links we make between business on the Park and the research and educational activities at the University."



## AND THE WINNER IS...

**Matthew Williams**

from Wessex Academic Health Science Network.

Congratulations on winning the Science Park Wellbeing at Work spring photography competition!

#lovewhereyouwork #SOPhotoComp





# STAND OUT SUCCESS

Tonic Analytics is a young company that's making a big impact on society through performance-enhancing big data and predictive analytics, so much so that it's just been awarded a Queen's Award for Enterprise – and all before the company's fifth birthday! Chief Operating Officer, Andy Dollin, reveals what is making the company stand out.

## Andy, tell us about your journey to COO.

I have a practical background, having originally qualified as an aeronautical systems engineer and technician before transitioning into supervisory and leadership roles to VP level. This early career experience has been incredibly valuable throughout because I have a good understanding of what happens on the 'shop floor' and what it takes to create an efficient operation. Since partnering with Andy Heather and Rob Horabin to form Tonic Analytics in 2015, my focus has been on the application of advanced data and analytics technologies to help organisations drive their own performance.

## There are a lot of data companies working on digital transformation, data and analytics out there. What makes Tonic Analytics stand out?

We see ourselves as 'pathfinders in a world of data', providing solutions that deliver good outcomes for society.

As you say, there's a lot of data out there, and a lot of companies working on processing it. Our unique capabilities centre around our

proprietary red.thread® technology. This delivers powerful, actionable insights to our clients; these range from saving lives on highways to reducing airline delays, and from tackling crime to optimising offshore energy production.

With a digital twin at its core, red.thread® enables us to collate and blend data from a wide variety of sources - assets, infrastructure, processes, people and the environment, for instance – and then apply live predictive analytics and cloud applications to pinpoint the right outcome.

## What are your clients' needs and how have they changed over time?

Each project requires us to deep-dive into understanding the specific needs of the organisation before applying technology in the most appropriate way. For us, it's all about utilising the right blend of technology, as opposed to using 'the next big thing'. We have Artificial Intelligence and Machine Learning technology – but the key is to only use it where it adds value. Sometimes, for example, traditional statistical techniques are much more effective as well as being quicker and less costly to implement.

All of our work is about operational improvement, but this comes in many shapes and forms. For example, our work with airlines focuses on reducing schedule disruptions, while helicopter operators are





OUR TECHNOLOGY ENABLES US TO DELIVER THE SCALE FAST AND EFFECTIVELY SO THERE AREN'T REALLY ANY LIMITS TO OUR DEPLOYMENT CAPABILITIES.

more likely to be concentrating on operational safety. For clients in the oil and gas sector, it's about reducing production downtime and environmental impacts, while for law enforcement agencies, we're working to optimise limited resources.

One of our largest current projects is the Galileo programme, aimed at tackling crime, increasing safety and reducing the economic cost of incidents on the UK's road network. Sponsored by the National Police Chiefs' Council and Highways England, Galileo requires the utmost ethical use of innovative data analytics technology to deliver actionable intelligence that ultimately results in good outcomes for the public by enabling a safer, more secure and efficient experience on the roads.

One significant change in the way that we work with our clients has been in data governance in recent years. Data is our business and it follows that the integrity of that data and its lawful processing is absolutely paramount in building and maintaining client and public trust. We have always put a lot of effort into all aspects of this, hence we're one of only ten companies selected to participate in the Information Commissioner's Office (ICO) sandbox for the Galileo programme. It shows that we're innovative and operating at the boundaries of what's currently understood about data protection.

The ICO sandbox is a safe space where organisations can innovate using personal data. It was conceived to support organisations like ours which are developing ground-breaking products and services with a clear public benefit, and require personal data to do so.

**These are big societal challenges that you're taking on, aren't they?**

Yes, we specialise in taking on these large challenges. We're not afraid to do this and thrive on working with large corporate and public sector partners to achieve significant and long-lasting impacts.

**Tonic Analytics is a young business and remains a relatively small team. Has this presented any challenges in terms of getting a foot in the door of large clients?**

Unbelievably, we celebrate our fifth birthday this year and we already have much to celebrate.

Importantly too, we've grown organically with no external funding input. We're reinvesting into the continual improvement of our red.thread® technology but we also recognise that it's not just the ideas that are important; it's the knowledge and capabilities that our staff bring to the table. How we acknowledge and reward their effort is a critical underlying success factor.

We're now a company of 10 full time members of staff (with additional contractor support when required). There's a lot of senior experience here; we're fully integrated, agile, able to move very quickly and with the required focus. In this way, our team size is proving to be a real benefit to our clients rather than a challenge for us.

What's more, our technology enables us to deliver the scale fast and effectively so there aren't really any limits to our deployment capabilities. The thing that drives us is genuinely making a difference for people. There are plenty of sectors that we could move into that would build on the projects we've successfully delivered to date. Our only real principle is that everything we do delivers a tangible outcome for society, so the medical arena is one that we'd like to explore, for example.

**You mention the importance of acknowledging all members of staff and you've recently announced that the company has become an Employee Ownership Trust – the first business on the Science Park to do this. How has this come about?**

We've always been a close team with no visible hierarchy. We know that everybody here is as important as the next person and so we've always concentrated on making sure that everyone is fully integrated and feels valued.

Becoming an employee ownership trust has been a big achievement. It means that we now have a structure that encourages even greater employee participation and engagement where everyone can benefit from company performance, without having to buy shares and put their own money in. The most famous example of this in action in the UK is the John Lewis Partnership. The process took around nine months with the support of a specialist consultant to guide us through the multiple legal layers involved, but we officially transitioned in January this year.

While there are clear and tangible benefits of this move for our staff, the same is true for our clients. Winning business is about differentiation and the culture of a company is a key element of this – it's not just about the technology. Operating as an employee ownership trust says something about the ethical nature of our business and the direction it will take. It's a clear signal to clients that every member of our team has fully bought in to delivering for them.

**How will you capitalise on your success to date?**

Incredibly excitingly, we were honoured with a Queen's Award for Enterprise in April this year. These awards recognise outstanding achievements by UK businesses, and, for us, it was presented in recognition of our accomplishments in international trade.

While there are many, many business awards out there, the Queen's Awards are held in particularly high regard and they set an extremely high bar. I couldn't be more proud of our team in achieving this and hope that this will indeed help us to capitalise on everything that we've done to date.

Over the last five years, we've all witnessed a tremendous amount of change, but change is what creates competitive advantage for us, so we expect and plan for that to continue. We're entering a period of consolidation within the markets in which we're already active while starting to develop approaches for new, specific vertical sectors of the market.

**Reflecting on what you've learnt over the last five years, what advice would you give to other entrepreneurs?**

Operate ethically and maintain absolute credibility at all times. Obviously, you have to have technology that delivers – this goes without saying – but it's really important not to oversell your capabilities. I've seen many businesses achieve short-term success but ultimately fail because they do this.

Also, set up as you mean to go on. We set up to be completely cloud-based at the outset, so we can genuinely operate from anywhere at any time. We don't even have paper and a printer in our office!

Another important factor is picking the right suppliers to work with as this ensures that most of our effort goes into our client core business, as opposed to running our business. It means we're lean, fast and efficient – what I firmly believe large organisations look for in an SME partner.

**Has Southampton Science Park helped in this respect?**

Without a doubt. Southampton Science Park enables us to focus on running our core business and not worry so much about the infrastructure.

Tonic Analytics has enjoyed a long period of engagement with the Science Park. From initially being three men and a dog with a virtual business address at the Park, to taking a small office and growing from there, one of the big advantages of being here is the flexibility to accommodate growth.

We worked through the Catalyst Plus programme too and participate in the Chief Executive's Breakfast Club, giving us access to support and networks. And, as you know, we take wellbeing in the workplace very seriously so being able to offer the team access to childcare, discounted gym membership and alternative transport schemes through the Science Park is of considerable benefit to us as a small business.

**tonicanalytics.com**







As we prepare this issue, the nation has been asked to work from home wherever possible. While technology is a real enabler in these times, making the logistics of remote working easier than ever before, the impact that mass homeworking is likely to have on our mental health has raised concerns among many experts. What happens when we return to the office, however, is an equally important consideration.

Here, we explore how wellbeing at work has emerged as a management priority that is yet to be addressed by most.

Wellbeing in the workplace – wherever that might be – is not a new concept. Back in 2009, the National Institute for Health and Care Excellence (NICE) issued guidelines for employers looking to support their team's mental health. The publication of these guidelines underlined the important impact that work has on personal wellbeing – both positive and negative.

On the plus side, work is an important determinant of self-esteem and identity. It can provide a sense of fulfilment and a means for social interaction. For most people too, it is the main source of income which opens up further life opportunities.

But work can also have negative effects on mental health, particularly in the form of stress. Although pressure can motivate employees and encourage enhanced performance, when pressure exceeds an employee's ability to cope, it becomes a negative force. If prolonged, this can lead to depression and even physical conditions including heart disease.

Working environments that pose the greatest risks for mental wellbeing are those that put high demands on individuals without giving them sufficient control and support to manage those demands. A perceived imbalance between the effort required and the rewards of the job can also lead to stress, as can a sense of injustice arising from management processes or personal relationships.

Mental wellbeing is a dynamic state in which the individual is able to develop their potential, work productively and creatively, build strong and positive relationships with others and contribute to their community. It is enhanced when an individual is able to fulfil their personal and social goals and achieve a sense of purpose in society.

Mental wellbeing at work is determined by the interaction between the working environment, the nature of the work and the individual.

### A Profound Problem

The acknowledgement of the issue in 2009 was an important step but, wind the clock on a decade, and we see an increasingly dismal picture; a problem that has not been addressed and one that is becoming more profound.

The latest comprehensive findings on mental wellbeing at work were published in the report, Mental Health at Work 2019: Time to Take Ownership. Based on a YouGov survey, the key findings revealed:

- 30% of the UK workforce have been formally diagnosed with a mental health condition at some point in their lifetime.
- 39% of employees have experienced poor mental health due to work, or where work was a contributing factor, in the past year. (This figure was 36% in 2017 and 2018).
- 52% of those who experience mental health problems related to work say this is due to pressure such as too many priorities or targets.
- 62% of managers have had to put the interests of their organisation above staff wellbeing either sometimes, regularly or every day.

The three main causes of work-related poor mental health are: too much pressure, workload impacting ability to take leave, and a lack of support. Poor work relationships and people not feeling able to trust their managers also have negative effects on employees' mental health.

The same report also highlighted a worrying disconnect between what senior leaders believe about the support they provide and the reality of employees' experience. For example, 51% of respondents at CEO and Board level thought that their organisation supported staff mental health but just 41% of employees believed their organisation did so effectively.

### Bad for Business

In 2009, NICE quoted research suggesting that impaired work efficiency associated with mental health problems cost £15.1 billion a year (almost twice the estimated annual cost of absenteeism at that time). By 2019, The Centre for Mental Health estimated that the cost to employers had risen to £34.9 billion per annum.

Although parity between physical and mental health has yet to be realised, employers must take this ambition seriously if positive change in the workplace is to be achieved. Good employee mental health is fundamental to building a successful, sustainable organisation. It leads to increased commitment and job satisfaction, staff retention, improved productivity and performance, and reduced absenteeism. All in all, it makes good business sense to step up efforts on wellbeing.

### Time to Act

The Mental Health at Work 2019 report calls for employers to take full ownership of the issue and to acknowledge and support employees experiencing poor mental health, whatever the cause (where employees are experiencing poor mental health symptoms not related to work, the impacts will still be felt there).

It cites three priority actions, which the authors believe will have the biggest impacts. These are:

1. Create good work that enhances mental health, for everyone.
2. Acknowledge and support poor mental health, whatever the cause.
3. Publicly report your wellbeing performance.

It is also important to understand that 'one size doesn't fit all'. There are different risks and concerns for different individuals, so providing a safe, open environment for discussion is key to unlocking wellbeing in each particular workplace.

### Web resources:

[bitc.org.uk](http://bitc.org.uk)  
[cipd.co.uk](http://cipd.co.uk)  
[mentalhealthatwork.org.uk](http://mentalhealthatwork.org.uk)  
[mentalhealth.org.uk](http://mentalhealth.org.uk)  
[mhfaengland.org](http://mhfaengland.org)  
[mind.org.uk](http://mind.org.uk)  
[nice.org.uk](http://nice.org.uk)  
[thecalmzone.net](http://thecalmzone.net)  
[time-to-change.org.uk](http://time-to-change.org.uk)



**Ash Ledran is the Founder of op\_n, an organisation which aims to create a conversation around mental health. We asked him for his personal insight into how to work effectively from home – and adapt to returning to the office, too – without compromising your overall wellbeing.**

# My Story



## Hi. I am Ash.

A while ago, I made an attempt on my life and then, not long after, I tried it again. What's become painfully clear is that I am absolutely crap at suicide.

At the time, I was working from home for a company that was not set up for this. It wasn't agile enough; its approach was lacking direction and cause...and that affected me. The company had an office in the Nordics so, being based in Hampshire, working in the office was not something that was regularly accessible – it was one hell of a commute!

I understand that working from home is new, very new to lots of you. When I first started working from home, it was with a 1-year-old around my ankles. You also may be trying to read this in a similar scenario.

Here, I will try and show you my pitfalls when I first started working from home, trying to find that balance, the importance of a good routine on our mental health and how to best manage your day.

Managing both workload and wellbeing is no easy feat. But, when you find your balance, you will feel like you have more time, get more work done and feel happier at the end of each day.

The most powerful thing I can advocate doing is making sure you give yourself the breaks in your day you would usually have. This is important in keeping in tune with your routine. So, if you normally take a walk to grab a sandwich, then put your shoes on and go for a walk. Try and get outside at least once a day, for at least 10 minutes...you will come back to your home feeling refreshed and ready for whatever the day throws at you.

The outdoors and fresh air are things I bang on about quite a lot. The strength of the outdoors on your mental health is enormous. Just because you are working from home, it does not mean you are chained to your desk. I speak to many people who say they feel guilty about taking breaks when they are working from home, I understand it. It's unnatural. But I would flip that, I would feel guilty about not taking breaks. They are important in finding your balance, managing your day and controlling stress.

I remember when I first started working from home, I had NEVER done it before. I was also much younger than I am now with fewer grey hairs (oh, I have them!). I would sit down on the sofa with my laptop and turn on the TV. I would then see a pile of washing, start doing odd jobs and, before I knew it, it was lunchtime

and I'd not actually achieved anything work-related. Nightmare!

Now, I make sure I do a few things to set me up for the day. I hope this helps you plan how to structure your day:

**7:00** Wake up – It is early I know, but I am one of those annoying people.

**7:05** Exercise – Get the blood pumping and heart rate up. Get some movement and feel charged.

**8-ish** Hop in the shower – Just because you are working from home, don't let your hygiene slip. It's an easy one but a downward spiral...especially after a run!

**9:00** Move to my designated workspace and begin – I am fortunate to have a spare bedroom to work in, to escape the rest of the house. As I mentioned earlier, this is super important. Do not turn on the TV (I know there's that hot new series you want to watch...but leave it!). I have given myself a desk, in a room, with no distractions. I put on my headphones, start Spotify and I am off for the morning.

**12:30** Break – Wahoo, break time! Make sure you do this. My break at 12:30 consists of a 30-40 minute walk outside, followed by making a protein shake to drink for my lunch. If it is raining, then I pop on a raincoat! This is my once a day treat outside under current government guidelines around COVID-19. As I know it's once-a-day, I make the most of it!

**13:30** Back to work.

**15:30** Break – Here I break again to try and refocus. I might put on the news for a little bit, catch up with the day, or make a call to my mum and make a cuppa!

**17:00** Finish.

Now, I am not that regimented. Those times obviously fluctuate each and every day, but I try to keep in that routine, in that order. I know what's coming, and this helps manage anxiety levels and keep me happy. Sometimes I will have video calls or urgent work that needs doing so things will slide...but things never get removed. That's important when I work from home.

You will find your own routine. It might take a week, it might take three. If you are feeling anxious about working from home, or don't feel it's working, then I urge you to try a routine such as my own. You can skip out the 7am exercise if you like...

Before COVID-19, my working life consisted of home-working two days a week and being office-based for three days. Now, more than ever, I appreciate what a good office can do for our mental health. Being surrounded by chatter, by ideas, by good distractions, by dogs...

Employees now look much further than salary before deciding on their next move. It is about culture, ethics and how they get treated so office managers who want to help employee wellbeing have to offer more than a bowl of free fruit. Come on, we can do better than that!

The best offices I have worked in do three things very well. They:

1. Open team spaces to collaborate, to eat, to work and to play.
2. Trust team members to achieve their work in a manner and method that suits them.
3. Offer support and guidance from outside sources.

Providing staff with space to do things other than work is crucial in my eyes. Their work is important, but their happiness is more so. It means they will talk more positively about the business, they will be more productive, they are more likely to refer talent.

But this requires a culture shift – it is not something you can tinker with. You have to have a strategy of improving employee wellbeing in the office and then go all in. The outcome will not only surprise but be of huge benefit for all.

**Regardless of where I work, the most important element for me and my wellbeing is around time. I make sure I have the time I need for work, so I don't feel like I am not performing and also the time for me, my friends, family and my partner.**

**op\_n**

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



# ON THE PARK

News from the Science Park Community



## AUDIOSCENIC

3D Audio technology expert, AudioScenic, is to collaborate with Chinese integrated solutions provider 3nod Acousticlink to develop a range of gaming soundbars based on AudioScenic's revolutionary Virtua 3D Audio technology.

Traditional 3D audio systems force listeners to sit in a small 'sweet spot'. AudioScenic technology eliminates this restriction completely, creating a breathtaking, natural-sounding audio experience. Using arrays of speakers and advanced head tracking technologies, AudioScenic Virtua delivers fully immersive 3D audio without the need for headphones or speakers located all around a room.

David Monteith, the company's CEO, says: "We believe gamers and consumers deserve the best possible 3D audio experience without the compromises imposed by previous generation products. We are thrilled to partner with 3nod Acousticlink to bring our Virtua technology to the gaming market."

Dr. Fabio Santagata, Director of Product Innovation at 3nod Acousticlink, commented: "We are very excited to be working with AudioScenic to revolutionise the 3D audio world and introduce a new level of audio performance to the gaming accessories sector. We also look forward to continuing our collaboration to develop more innovative audio products together."

audioscenic.com



## Made and Worn

Made & Worn has entered into a strategic partnership with fast-growing independent retailer Wool Warehouse.



Made & Worn enables everyone to become designers and creators of bespoke knitwear. The clever app combines individual measurements and a personal knitting gauge with a wide range of styles and textures to generate unique interactive knitting patterns. It's so customisable, there are literally thousands of combinations, and instructions are supremely easy to follow, keeping track of progress in real-time. The company, a Catalyst business accelerator graduate, is regularly featured in top craft magazines and consumer shows.



Founder, Ruby Lee, commented: "While our patterns will always be available directly to customers via our website, I'm delighted that the knitting industry is embracing Made & Worn, too. Yarn shops, whether online or on the high street, have an incredibly loyal customer base that trust retailer recommendations in order to create successful projects."

"The brilliant Wool Warehouse is a really good example of this community in action. Unifying our platforms to enable their customers to design and purchase their bespoke pattern at the same time as their yarn will bring about mutual benefits for all concerned."

madeandworn.co.uk



## Can Sense

CanSense, a Southampton Science Park Catalyst business accelerator graduate, has won multiple awards in recognition of its potential for societal impact.

The company has been named Best Start-up at the MediWales Innovation Awards 2019, and it won the Outstanding Research and Innovation Collaboration category at the Swansea University Research & Innovation Awards 2020. CanSense also won Best Start-up at the Oxford AHSN accelerator program run by BIOCITY.

Combining raman spectroscopy with artificial intelligence technology, CanSense has developed an accurate, fast, non-invasive diagnostic test for the early detection of cancer using a simple blood sample. The innovation is expected to substantially improve patient anxiety and discomfort while enabling GPs to make quicker, more informed decisions to ensure patients receive the right treatment pathway sooner.

The test is initially focused on bowel cancer, the second most common type of cancer globally and one that is predicted to rise by 60% over the next ten years. When it is detected at an early stage, bowel cancer has a high survival rate, but many patients are not diagnosed until the disease is at a later stage, with a much higher risk of mortality.

Dr Adam Bryant, CEO of CanSense, commented on the future of the technology: "Our longer-term vision, after technical and regulatory development, is to establish our blood test as the test of choice in general population screening for all cancer, globally. The ultimate goal is to save more lives through earlier cancer detection."



Commenting in the Welsh Government magazine Advances, Professor Tom Crosby OBE, National Cancer Clinical Director for Wales, noted: "This is a potentially game-changing innovation in terms of population-based access to a cheap, convenient and acceptable test. This innovative test will mean subjecting fewer patients to invasive endoscopic examinations. This is an important step in the development of precision medicine undertaking the right test for the right patient at the right time."

cansenseld.com



Inflowmatix has brought a new platform designed for fast, accurate and scalable hydraulic modelling to market. Named Arboricity, this launch builds on the company's well-established, unique suite of solutions that address challenges across water networks, such as network leakage, burst detection and localisation, interruptions to supply and water quality.



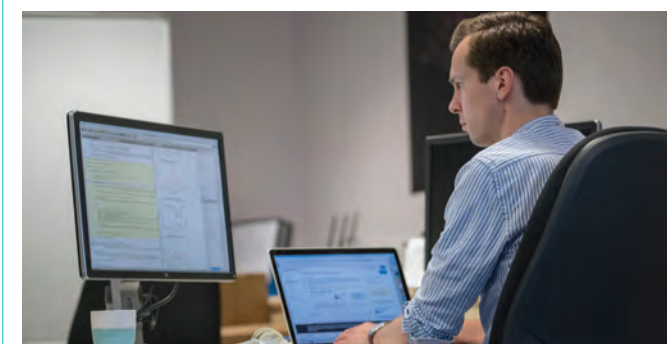
Inflowmatix is the only company to develop, manufacture and effectively integrate advanced monitoring technologies with modelling and optimisation methods and applications. By virtue of its access to data of a level of accuracy, quality and frequency that the company's InflowSense devices alone can produce, the Inflowmatix team has a unique advantage in applying its patented algorithms and analyses to deliver solutions and services that address multiple and wide-ranging issues across the water sector.

Dr Mike Williams, CEO, explains: "Ever greater pressure is being placed on the water industry. Regulator Ofwat has been very incisive in its approach to improving the customer experience, not only in terms of reducing leakage by at least 16% by 2025, but additionally demanding resilience of supply whilst reducing customer bills. The Ofwat drive is in many ways leading the world with a focused and proactive approach to improving our use of water."

He continued: "We support this effort with technologies that are tailored to one end: our role is to help water operators build confidence in their network and enable the industry in meeting its challenging targets, faster and using fewer resources than ever before. Our unique and timely insights into water networks help customers to cope with unexpected network events and plan interventions to minimise impacts to consumers."

The launch of Arboricity is an important step forward when accuracy, resolution and timeliness of data are fundamental to success: the higher the confidence in the model to represent the hydraulics of a network, the higher the operational gains can be achieved."

Inflowmatix.com





## FortisNet Annual Conference

FortisNet held its annual meeting at Southampton Science Park's Axis Conference Centre with a truly inspirational speaker: Alex Lewis, a quadruple amputee who, in defiance of his physical condition, overcomes adversity and pushes his limits through involvement in ground-breaking projects.

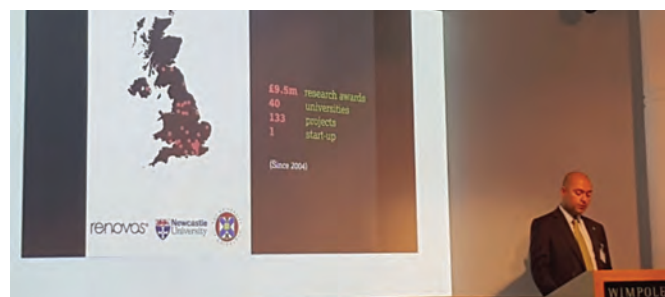


Most recently, Alex undertook a gruelling expedition with Ethiopian wheelchair user Emebet Allie Deress to scale one of the tallest mountains in Africa - the 4,550 metres of Ras Dashed in support of The Wild Wheelchairs Project. They did so in unique handcycles designed and built by University of Southampton masters students who used technology created by a Science Park business in their construction. The project's aim is to inspire people to achieve their goals irrespective of the obstacles that are put in front of them, while raising money to finance the construction of wheelchair manufacturing facilities in Ethiopia. This will transform the lives of hundreds of disabled people living in the eastern African nation.



FortisNet is an interdisciplinary network of clinical, academic and industrial partners convened by the University of Southampton Institute for Life Sciences. It aims to improve lives by delivering better treatments, increasing the speed to market of musculoskeletal-focused technology, and training the next generation of scientists and engineers. By bringing engineers and biomedical scientists together to work in partnership with clinicians, industry partners and patients, there have been demonstrable improvements in the way new ideas and designs are brought to market.

Photos courtesy of the Alex Lewis Trust. [alex-lewis.co.uk](http://alex-lewis.co.uk)



### renovos®

Renovos is the first company to receive investment from the newly launched Ronald Furlong Fund, set up by charity Orthopaedic Research UK (ORUK). The £140,000 investment will support the company as it seeks to solve unmet needs for patients with painful and debilitating bone and joint conditions.

Renovos is a pioneer of new nanoclay gel technology which has the potential to transform orthopaedic surgery. The technology allows a 100x lower dose of regenerative therapeutic agent to be precisely delivered and localised to the sites where needed, fundamentally changing the way extremely powerful and sometimes harmful drugs are given around bone. The approach is being regarded as a step-change improvement in safety, efficacy and ease of use, as well as delivering reduced adverse events and complications compared with current orthopaedic interventions for both the ageing population and younger, active individuals.

Dr Arash Angadji, CEO of ORUK said: "We are the first charity supporting start-ups with a focus on musculoskeletal health in the UK. The Ronald Furlong Fund initiative will play an important role in assisting entrepreneurs and innovators to quickly turn ideas into reality, with measurable benefits for the entire healthcare ecosystem. I am delighted to welcome Renovos as ORUK's first investment."

[renovos.co.uk](http://renovos.co.uk)

### zenergi

The Science Park is pleased to welcome energy consultancy Zenergi. Since its small beginnings in 2003, the Zenergi group has grown to 130 employees, but its ethos remains centred on excellent customer service and removing the complexity of managing utilities. From gas, electricity and water procurement to bill validation, compliance and energy-efficiency projects, Zenergi's aim is to make a positive difference in the world of energy, and to do so in a manner that is simple, sustainable and achievable.

With a long history of supporting the education sector with everything to do with their energy, strategic business acquisitions have expanded the company's service offering into a wider number of sectors, now with specialisms including healthcare and housing associations.

CEO Graham Cooke said: "Our aim is simply to delight our customers; however, we are also genuinely committed to delighting our Zenergi family. Our location at the Science Park allows us to create a positive experience, surrounded by likeminded entrepreneurs and tranquil surroundings. It's a positive working environment that ensures everyone can see and feel how much we value them."

[zenergi.co.uk](http://zenergi.co.uk)



## The Catalyst Business Accelerator

A 6 month fully-funded programme for start-ups and early stage businesses, based at the prestigious University of Southampton Science Park.

Applications open in May, keep an eye on our LinkedIn channel for more information

# Accelerate your success

[science-park.co.uk/grow/start-up/catalyst](http://science-park.co.uk/grow/start-up/catalyst)  
The University of Southampton Science Park





# HOW WILL THE BUSINESS LANDSCAPE HAVE CHANGED BY THE END OF THE DECADE?

THREE EXPERTS PUT FORWARD THEIR VIEWS ON OUR QUESTION OF THE DAY



**David Bream**

Founder, The SETSquared Partnership  
Business Mentor, The Catalyst Business Accelerator

"Things are changing so rapidly in the technology space that it is difficult to predict what will happen by the end of this year, let alone the end of the decade. New technology is enabling new products, services and business models to emerge at an extraordinary rate, and the winning companies are those that go on to be the behemoths of tomorrow.

Looking backwards for a moment, America's five largest companies by valuation are all technology companies. They are, as of Q4 2019: Apple (established 1976), Microsoft (1975), Alphabet (1998), Amazon (1994) and Facebook (2004). None of these even existed 45 years ago and this fast rate of change and disruption can only accelerate.

In my field of new business creation, I think it can be a mistake to look too far out. Looking ten years out is the realm of those in research and development and here, I fully expect a whole host of really exciting and important developments in fields such as medicine, the environment, energy and communications. Working at the Science Park, in the vicinity of the University of Southampton and Southampton Hospital, it's evident to me that there's no shortage of innovation and creative ideas coming forward. Those wishing to create new businesses, however, should be looking to capitalise on the innovation that is emerging right now.

The incubation process is becoming better understood. Our role in the business creation and incubation community is to help entrepreneurs evaluate and act on the ideas that have the best commercial potential. Ultimately, we help entrepreneurs avoid making mistakes that would otherwise damage their chances of success. Of course, there will always be risks - the business landscape is affected by social, political and environment factors as well as technology change - but the best entrepreneurs operating in the best support environment will be the winners."



**Rob Dunford**

Assistant Director, Business Delivery  
Enterprise M3 Local Enterprise Partnership

"There is no certainty about the lasting aftermath of the COVID-19 pandemic. There are, of course, many possibilities. It is already clear that, coming out of the crisis, we might choose to try to return to where we were before. But there is an opportunity for the private and public sectors to do some things better.

As I write, current restrictions, where companies find their workforce either off sick or off site, will accelerate the adoption of automation in some sectors. Technological developments are good for areas and people with high level skills and good knowledge-based, innovation-led economies. They can, however, put significant numbers of lower skilled people out of work.

The new dawn in e-commerce and the ever-increasing digitisation of businesses, given forced impetus by the pandemic, could have a similar effect. People who have never shopped online are now doing so in huge numbers and may not turn back.

An expansion of packers and delivery drivers may boost immediate recovery, but advances in autonomous vehicles will further reduce the need for human resource. Aspects of public services, particularly healthcare and welfare, will be digitised. Again, it is the low skilled roles which will be either lost altogether or expanded to pick up the very mundane tasks machines can't do.

Yet, a highly digitised and higher tech economy does rely on a healthy supply of technical skills. This is where the real big opportunity lies: an education, training and employment system built on lifelong learning, developing transferrable skills and offering career progression where the lower skilled can become the higher skilled. A coalition of policy makers, employers and educators is critical to grasping this opportunity. The EnterpriseM3 Local Enterprise Partnership is up for bringing that coalition together."



**Professor Mark Spearing**

Vice-President (Research and Enterprise),  
University of Southampton, Chairman of  
the Board, Southampton Science Park

"As I write this, the COVID-19 pandemic continues to escalate, so it is particularly hard to look a decade into the distance, but I will try.

I write from my perspective working at the University, with responsibility for an exceptionally diverse range of research and enterprise activities and an equally diverse range of students, researchers and enterprise professionals. I believe I see trends emerging, some of which may well change the landscape for business over the coming years. The following three trends are particularly clear at the moment:

I see amongst our students an increasing entrepreneurial attitude. This has changed dramatically over the past 10-15 years, and as this generation of students enters the job market, I am confident that some of them will continue on to be successful entrepreneurs, and be bolder than their predecessors in allowing themselves to think differently and challenge convention.

The second trend is around the green economy. Again, our students are leading, and I believe after numerous false starts this is likely to be the point when globally everyone needs to have a strategy that considers how to have the most positive environmental impact possible. At the same time there will be significant business opportunities resulting.

The third major theme is that of the relentless digital revolution. Artificial intelligence, data science, Internet of Things, autonomy, social media, and an increasing need for cybersecurity and consideration of the ethics of personal data will continue to evolve rapidly and become pervasive for all businesses and sectors.

As always, in each of these areas, the challenge is to see the opportunities before others and embrace the changes they represent."



# HANDS DOWN GENIUS!

Have we ever been so obsessed with our hands as we have been so far this year? Not as a purveyor of infection! But as biomechanical marvels - one of the most complex and beautiful pieces of natural engineering in the human body.

○ **Nurturers** – fingers contain some of the densest areas of nerve endings in the body and are the richest source of tactile feedback. The first sense to develop inside the womb, a foetus can sense touch at just nine weeks. Continuing this powerful bonding sensation from the point of birth is regarded as essential to a child's healthy development.

○ **Symbolic** – handshakes as an indication of good faith, thumbs up as an agreement, crossed fingers as a wish for luck and a forward-facing palm as direction to stop, linking with another: hands are one of the most common forms of non-verbal communication and often universally understood.

○ **Identifiers** – our hands are remarkably resilient and indelibly marked with unique fingerprints: arrangements of friction ridges that form patterns in loops, whorls or arches. Even more personal than DNA, fingerprints, combined with technical advances, have become an important means of security.

○ **Forecasters** – with roots in Hindu astrology and embraced by the ancient Greeks, mystics have long analysed our hands to demonstrate how their individual characteristics predict our fate. Palmistry, also known as chiromancy, involves identifying particular traits, including the overall shape of our hands, fingers and joints as well as the lines that cross them.

○ **Evolutionary** – the hand gives us a powerful grip but also allows us to manipulate small objects with great precision. This versatility sets us apart from every other creature on the planet. Making fire, building shelters, capturing and preparing food, drawing water – more than any other piece of anatomy, hands are what have made us such a successful species.

○ **Communicators** – a rich combination of hand gestures, facial expressions and body language assists communication with deaf people. Sign language originated in the 16th century when Italian physician Geronimo Cardano taught deaf people by writing symbols and associating them with the thing they represented.

○ **Healers** – touch has always been linked with healing. Cave paintings from 15,000 years ago show healing touch in action, while ancient Chinese, Indian and Egyptian manuscripts contain numerous references to massage as a therapy for preventing illness.

○ **Beautifiers** – across the world, adorning our hands with painted nails has become an artform of its own, but it's nothing new - even Cleopatra stained her nails for cosmetic enhancement. In the Middle East too, women have long decorated their hands with intricate patterns of red henna for special occasions and as a visible sign of good health.

○ **Creative** – whatever your creative urge – music, art, knitting, writing, carving, building, playing, sewing – we can teach our hands pretty much any skill or creative intent with patience. Now a booming industry, handicrafts have been practised for centuries, born out of material necessity.

○ **Medics** – our nails give a lot away about the state of our general health and often offer up early indications of many common illnesses. The colour, shape and texture of our fingernails alert us to conditions like malnutrition, diabetes, iron deficiency and diseases of the heart, liver or lungs.





# Sustainable Markets

## “Our markets are unsustainable. We need a new economic model.”

It's a message that we've heard many times over the last couple of decades, usually emanating from non-governmental organisations or well-known sustainability champions. Nothing new, perhaps? This particularly strongly worded declaration, however, came from the very heart of the global economy: the World Economic Forum. The message couldn't be clearer. And this time it's not just an aspiration: this time it's a defined goal, supported by a ten-point action plan. Say hello to a new economic model: Sustainable Markets

When world leaders met in Davos for the World Economic Forum (WEF) in January this year, they were joined by His Royal Highness, the Prince of Wales. He'd come to launch The Sustainable Markets Initiative and Council, in partnership with WEF.

Sustainable markets are designed with the intent to ensure the economy operates in favour of people and planet while contributing to growth and prosperity. It's a subtle but critical switch of emphasis.

The business leaders and policy makers behind the plan stress that sustainable markets do not require sacrificing profit but, instead, ask us to broaden our assessment of capital and its value while exploring how to optimise for global future benefit.

### Risks and Opportunities

Before looking at how this might be achieved, it's important to take a step back and consider why. What are the risks of continuing as before?

**“We now at last have a hugely important opportunity to reimagine our world through the lens of Sustainable Markets, and to put people and planet at the heart of global value creation.”**

HRH The Prince of Wales

WEF's documentation suggests that the current market system is no longer fit for purpose because it has brought about increased income inequality, environmental degradation, loss of species at unprecedented rates (an estimated 200 each day), severe stress on food systems and on water, massive deforestation and, collectively, an irreversible impact on climate change. This tangible evidence offers multiple and indisputably compelling reasons for businesses to innovate and change course.

# The New Economic Model

There are also some interesting statistics which help to demonstrate that stakeholders other than shareholders are increasingly demanding more of business leaders – these should persuade even the most fiscally-focused board of the opportunities arising from taking a new path. For example:

**6x** Revenues from sustainable products and services grew at six times the rate of overall company revenues.

**\$12tn** The Sustainable Development Goals represent a \$12 trillion market opportunity.

**60%** Consumers control around 60% of global gross domestic product so they have an incredible influence on the market and policy.

**25%** Socially responsible investing has grown by 25% since 2015 to \$23 trillion in assets under management.

**38 fold increase** There has been a 38-fold increase in environmental legislation since 1972 in response to consumer concerns and scientific evidence.



**“On so many levels, ours has been a market system that has served us well. But deep fractures in the system are beginning to show. Unless we act now, the price for all this progress may prove much too high, ultimately driving us backwards.”**

The World Economic Forum

Perhaps most importantly, behavioural economists now believe that the entire premise of classical economics – that people will always act in their own self-interest – is wrong.

Sustainable markets help to drive systems-level change by focusing on consumer demand, disruptive innovation, sustainable alternatives and enhanced partnerships between the public and private sectors. They can also promote “blue ocean” opportunities to help fuel the economy of the future.

That’s why increasing numbers are now calling for a new kind of market: a sustainable market – inclusive, equitable, green and profitable where sustainable principles drive growth; a market that will generate long-term value across society through the integration and balance of natural, social, human and financial capital.

#### A Decade to Deliver

Although some corporates have publicly made net zero – and even carbon negative, such as in the case of Microsoft – commitments of late, for many commercial enterprises, it’s ‘business as usual’ where the pursuit of profit continues to outweigh the protection of the world around us.

For a tipping point to occur, practical frameworks – as opposed to yet more buzzwords, scientific and theoretical information – are needed to assist businesses in taking a fresh look at what growth could mean. The lack of this kind of pragmatic support is what has held the sustainability agenda back for years.

So, what’s the plan? The Sustainable Markets Initiative stresses that choosing sustainability does not require sacrificing profit. Importantly, it sees the financial system as part of the solution.

The transformation to sustainable markets will require a highly collaborative effort to bring about a dramatic shift in corporate business models; an aligned, incentivised and mobilised financial system; and an enabling environment that attracts investment and incentivises action.

Supporting this, a ten-point plan has been set out to accelerate the transition and provide the much-needed practical framework for action – see the box for details.

The conclusion is that we need a sustainability revolution – rooted in purposeful capitalism and sustainable markets – and we need it now. [sustainable-markets.org](https://sustainable-markets.org)

**We are on the verge of catalytic breakthroughs that will alter our view of what is possible – and profitable – within the framework of a sustainable future. It is time to invest in solutions.**

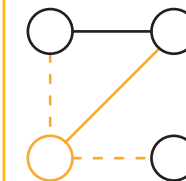


# The Ten-Point Plan to Sustainable Markets

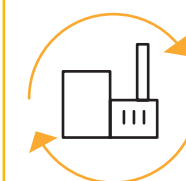
The Prince of Wales and WEF believe that changing our current trajectory will require bold and imaginative action in 10 key areas:



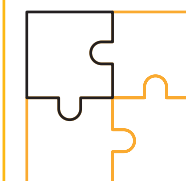
Shifting our default setting to sustainable by putting sustainability at the centre of our business models, our analysis, our decisions and our actions.



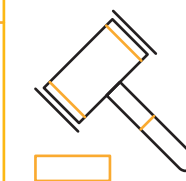
Outlining responsible transition pathways to decarbonise and achieve net and negative zero. Moving together with clear roadmaps will create efficiencies and economies of scale that will allow us to leapfrog our collective progress and accelerate our transition.



Reimagining industries through the lens of sustainable markets to create entirely new industries, products, services and supply chains while, in parallel, helping to transition our existing systems.



Identifying gamechangers and barriers to transition. To accelerate, we need to showcase and invest in the gamechanging technologies and emerging solutions while eliminating the barriers to progress.



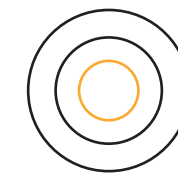
Reversing perverse subsidies and improving incentives for sustainable alternatives. It is time to level the playing field and to think about how we properly deploy taxes, policies and regulation in a way that catalyses sustainable markets.



Invest in STEM, innovation and R&D with a focus on sustainable solutions, alternatives and industries. We are on the verge of catalytic breakthroughs that will alter our view of what is possible – and profitable – within the framework of a sustainable future. It is time to invest in solutions.



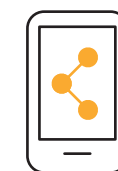
Investing in nature as the true engine of our economy. Building conservation and nature-based solutions into our asset base and supply chains can offer significant economic growth opportunities, including in areas such as the circular bioeconomy, ecotourism and green public infrastructure.



Adopting common metrics and standards. An increasing number of corporations are adopting environmental, social and governance (ESG) methodologies and highlighting their investments aligned with the Sustainable Development Goals. However, it is time to move to unified metrics and global standards.



Making the sustainable options the trusted and attainable options for consumers. With consumers controlling an estimated 60% of global GDP, people around the world have the power to drive the transformation to sustainable markets. We must better communicate with consumers about the sustainability of the goods, services and investments we offer.



Connecting investments to investables using platforms that can rapidly scale solutions. It is time to align sustainable solutions with funding in a way that can transform the marketplace. This requires not only showcasing high potential investments but also reimagining financial analysis, structuring and models of return.





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# NEWS FROM

## UNIVERSITY OF Southampton



### Childhood Cancer

Children with neuroblastoma, an aggressive form of cancer, are being given new hope in a world-first transatlantic clinical trial that is testing a new three-part treatment. The study involves doctors and cancer scientists at Southampton University's Centre for Cancer Immunology and colleagues in the US and Germany.

Neuroblastoma develops from immature nerve cells. It usually starts as a tumour in the abdomen or chest, however, in many children, it spreads to other places in the body such as the bones and bone marrow. It is one of the most common childhood cancers, affecting around 100 children – mostly under the age of five – in the UK each year.

"We're testing whether a combination of different immunotherapies, different antibodies, can be given with a special form of radiotherapy to achieve immunity," said Dr Juliet Gray, Associate Professor of Paediatric Oncology, who leads the study. "The main aim of the trial is to see whether they're safe and the side effects are acceptable to give them together in children and young adults. We're also hoping to see some evidence that the tumours shrink and evidence of an immune response in the blood in these children."

### Conservation Kit

Southampton scientists have been collaborating to develop a toolkit to empower non-governmental organisations (NGOs), agencies, government bodies and private citizens to calculate and measure the impact of conservation.

The Toolkit for Ecosystem Service Site-based Assessment (TESSA) is simple to use and could enable quantification of the real advantages of conservation and environmental best practice: undeniable evidence for the importance of environmental action.

Dr Kelvin Peh, Lecturer in Conservation Science, said: "Researchers, public officials and NGOs often ask, 'Can we put a price on forests?'. The question may sound absurd or even cynical, but I believe that measuring biodiversity value could help us better preserve it. Evaluating the 'price' of a forest, a lake or a hill for a village, a city or even a country would enable better conservation practices.

"This is why we developed the TESSA. The project is designed to support global environmental governance by allowing us to quantify – arguably for the first time ever – the real economic impact or advantages of maintaining an ecosystem for biodiversity conservation."

### Ultra UAV

Building on an impressive history of work on unmanned aircraft, postdoctoral engineering researchers at the University of Southampton, with guidance from Jim Scanlan, Professor of Design within Engineering, have unveiled the UK's heaviest non-military Unmanned Aerial Vehicle (UAV).

The ULTRA project (Unmanned Low-cost TRANsport) will be able to carry up to 100kg of aid within a 1,000km range, regarded as an incredible achievement. As such, it has the potential to deliver vital aid to communities in crisis, potentially changing the lives of vulnerable people around the world.

## GREAT MINDS

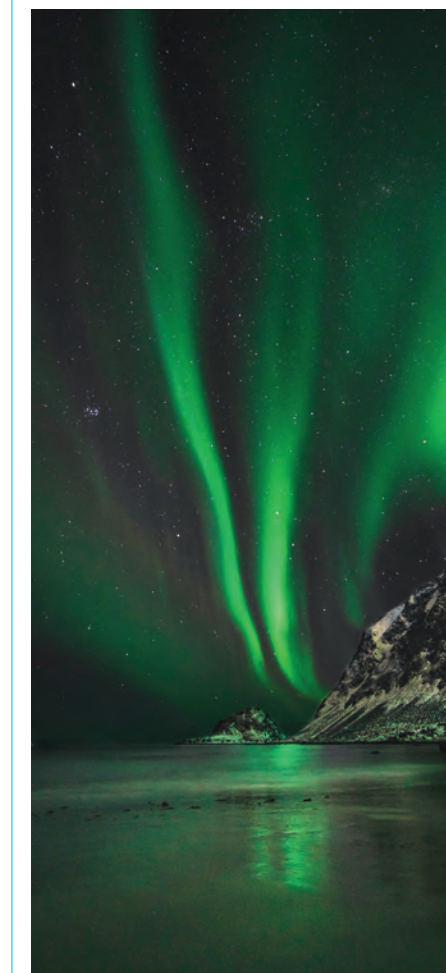
### Aurora Activity

Space physicists from the University travelled to the Arctic Circle to investigate the mysteries of the Northern Lights recently.

From their base in -21°C at the European Incoherent Scatter Scientific Association in Norway, the team collected data to understand how the neutral upper atmosphere is heated by auroral processes – something that remains unanswered by modern science.

The Aurora forms because charged particles from space collide with gas particles in the Earth's atmosphere. The intense current that flows in and around the Aurora affects both the climate and the chemistry of the upper atmosphere.

The study of the Earth's magnetosphere, and how it responds to solar events, is important as the activity of the sun can lead to the damage of satellites, interrupting communication and GPS services, and in extreme cases can even induce currents on the ground and feasibly damage the national grid. By understanding how this system behaves, they can predict these events and hopefully reduce their impact.





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