Birmingham Business

FREE • August/September 2019

COLUMN STATE

PLUS 20-page focus on technology

Growing up

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You want your business to be a national success. Learn how at the **Festival of Enterprise.**



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your business faster



START-UP " GROWTH " SCALE-UP " EXIT "

Looking to start, grow, scale up or exit a business?

The Festival of Enterprise – the UK's largest event dedicated to helping fast-track business growth for SMEs and start-ups – comes back to the NEC Birmingham on October 23 and 24 this year.

Scaling up

Strategy can be side-tracked in the day-to-day running of a business, and scaling up can take a back seat with piles of paperwork, projects going wrong or dealing with the overflowing inbox.

This shows in the statistics. According to the ScaleUp Institute. scale-ups bring in £1.3 trillion of the $\pounds1.9$ trillion generated by all UK SMEs. The remainder is brought in by millions of companies not making anywhere near as much of an impact as they could.

There are clearly more than a few secrets business owners need to learn about scaling up. Fortunately, the Festival of Enterprise will reveal all.

The festival

More than 150 experts in business growth will take to the stage at the Festival of Enterprise to share their secrets with other business owners. This is where you can learn from real experiences, hear how they went about getting the funding that enabled their growth, how they grew their management and delivery teams, the big obstacles they overcame and how they re-shaped their plans as they grew.

Managing director for the Festival of Enterprise, James Ashwood, said: "Over the past three years we have learned a great deal about the types of information and services business owners and CEOs are looking for to support their growth ambitions. This has enabled us to create such an exciting programme.

"Not only are we offering worldclass advice from business-growth experts, we are also offering reallife case studies from successful entrepreneurs who have the achievements and battle scars to speak with authority about what it takes to innovate and succeed in today's business environments. This really is an event not to be missed." Entrepreneur and start-up



James Ashwood, managing director Festival of Enterprise

specialist Piers Linney has joined the festival as one of the speakers.

Linney is perhaps best known to the public for being a 'dragon' on the BBC2 television series Dragons' Den, and for his appearance on Channel 4's The Secret Millionaire. He will be sharing his no-nonsense business advice with aspiring business owners.

"I am delighted to be speaking at the Festival of Enterprise, which is providing brilliant advice to help businesses grow. I'll be talking about my #Startup with Piers Linney course and look forward to sharing this with you all at the NEC in October," he said

The exhibition section of the festival will be packed with attendees from small solution providers to specific problems, through to tech giants like Google, LinkedIn and Dell.

Product marketing manager of Google Cloud, David Taylor, said: "Google Cloud is excited to join the Festival of Enterprise with its focus on strategies to scale up.

"Google Cloud offers the tools needed to transform the way businesses work and to help them build a modern infrastructure that will scale with them. The Google Cloud

03 advertisement feature



Piers Linney, entrepreneur and start-up specialist, left, and

team will be hosting a full agenda of seminars on how some of our customers have transformed the way they work with G Suite and how this has helped them to rapidly scale their businesses"

The Festival of Enterprise is designed to provide the owners of established SMEs and start-ups with the tools and information they need to achieve fast growth.

A day at the Festival of Enterprise will put business owners in the 'ideas zone' and will help them re-focus on the strategic issues that affect arowth



Free entrance passes can be obtained by visiting www.festivalofenterprise.co.uk by emailing hello@festivalofenterprise.co.uk or by calling **0121 582 0517**



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By HENRY CARPENTER



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Birmingham **Business**

34 Welcome

It is no exaggeration to suggest that Diane Benussi has a peerless standing in her field.

A legend of the national family law scene, and by all accounts a formidable presence in the courts, Diane has acted for scores of highprofile figures from the political, sporting and entertainment worlds. Her daughter, Helen, has the longterm responsibility of continuing this hugely respected family brand.

Meeting the likes of the Benussis makes this job incredibly rewarding and I could not have enjoyed interviewing them more.

Likewise Rebecca and Craig Struthers. Over in the Jewellery Quarter, the Struthers' workshop and the methods they use in creating exquisite timepieces – would not look out of place in the 1800s. This does not deter clients who know a beautiful piece of craftsmanship when they see it and are happy to pay a premium for the couple's watches.

Benussi & Co and Struthers Watchmakers are at the very top of their respective games, and there's something reassuring about the way businesses founded on traditional attributes such as skill, empathy, brainpower, talent and hard work not new-fangled gadgets and gizmos continue to prosper.

But Birmingham's business profile is nothing if not varied, and these more traditional businesses dovetail Editor comfortably with all the technology-





embracing entrepreneurs and organisations that are prolific in the region

As our 20-page focus on the tech and digital sector hopefully reflects, the city is fast becoming a byword for technology. The number of tech workers in Birmingham – estimated at 100,000 – and the work they are doing is extraordinary.

Such is the breadth of the subject we can only really scratch its surface in the room we have available here, but it is hard not to feel real optimism when reading the columns and insights from some of the many experts in their fields that Birmingham is truly at the cutting edge when it comes to technological advances.

Elsewhere, our cover story profiles a company looking to play its part in helping to feed society in the years to come. Keep an eye on Alex Fisher and his company, Saturn Bioponics. We also provide an update

on proceedings at the Paradise Birmingham development, and are delighted to cover several social events which have been taking place over the summer.

We hope all of this provides a welcome distraction to the interminable uncertainty surrounding Brexit.

Our next issue comes out in October when - you never know there might be just a little more clarity on where the country is heading. Until then, enjoy the rest of the summer.

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A little closer to **Paradise**?

It is almost four years since work started on Birmingham's largest building project. But, as HENRY CARPENTER reports, the patience asked of everyone who lives or works around the development looks soon to be rewarded.







06

feature

Rob Groves, Argent, Clir Ian Ward, BCC, David Ellis, BAM, at the topping out of **Two Chamberlain Square**

The beginning of the end is surely in sight.

We are assured that Phase One of the Paradise Birmingham development will be completed by Christmas. This means that the first occupiers of the development will be moving in this year - all on schedule.

Which, to many, will be a blessed relief. The residents of, visitors to and motorists around the western fringes of the city centre have had their patience tested to the limits with the development of Paradise Birmingham

For the best part of four years. since work started, the air has been filled with rubble dust and the noise from drills and machinery; the traffic has ground to a halt around Paradise Circus, with repercussions throughout the city centre and beyond.

It is little wonder then that reluctant acceptance gave way to impatience and perhaps a little anger to be followed by a beleaguered weariness (spot the similarities with Brexit). But maybe we can now add excitement to these emotions.

It was leader of Birmingham City Council, Councillor Ian Ward, who said earlier this year: "Paradise is an example of Birmingham delivering

on its growth, skills and jobs agenda, and a huge vote of confidence in the

city. "Thanks to the hard work of a lot of people, the city continues to move forward and we are beginning to feel the very real benefits and economic uplift of projects like Paradise. But as well as creating and sustaining new jobs for the people of Birmingham, Paradise is also about restoring and improving connectivity for pedestrians across the city centre and providing a fitting environment for our historic civic buildings."

So truthfully, will anyone care a hoot about the disruption and inconvenience if the £700 million development delivers on its own identification as the most important development the city has seen in a generation?

To recap, Paradise Birmingham is completely changing the profile of that area of the city centre between the end of Broad Street and the civic offices in Victoria Square. Three new public squares are being created, as are pedestrian links and a new public transport system, including the hugely-anticipated Midlands Metro extension.

The development will deliver offices, shops, bars, restaurants and a hotel within the 1.8 million sq ft set of new buildings, and some 17 million people are expected to pass through the site every year.

It is being run by Paradise Circus Limited Partnership, a private-public joint venture with Birmingham City Council, with private-sector funding managed by Hermes Investment Management. Property developer Argent oversee the building work.

There have been several key milestones along Paradise Birmingham's timeline.

In January, Two Chamberlain Square – the second building in the development - was topped out at a ceremony which saw a golden bolt installed into the steel frame at the top of the building by Cllr Ward who was joined by Rob Groves, regional director of Argent, and David Ellis, regional director of construction firm RVW

Overlooking the Town Hall, Council House and Birmingham Museum and Art Gallery, Two Chamberlain Square sits at the heart of the Paradise development with direct access from the new public realm. An enhanced Chamberlain Square will open later this year along with the newlycompleted Centenary Way.

As Mr Groves said at the time: "The Two Chamberlain Square fronting

topping out was a huge moment for both Paradise and Birmingham. We have achieved so many milestones over the past 10 years, but this one feels extra special and reflects the huge momentum behind this incredibly significant scheme.

"Rising above the challenges of the liquidation of Carillion at the beginning of 2018, the scheme continues at pace with both initial buildings advancing – 2019 will be even more significant with the completion of the first phase of Paradise bringing our first occupiers to the development.

"This will include the completion of the Phase One public realm that the people of Birmingham will be able to both witness and be part of."

While the bulk of the floor space across the Paradise site will be taken up by offices, both hospitality and retail are also expected to be integral to the development.

So there was much excitement with the announcement of wine bar and restaurant Vinoteca – which currently operates five sites across central London – launching outside the capital for the first time with its arrival at Paradise Birmingham.

Vinoteca has taken 3,390 sq ft in





"As well as creating and sustaining new jobs for the people of Birmingham, Paradise is also about restoring and improving connectivity for pedestrians across the city centre."



08 feature



Chamberlain Square and Centenary Way, and is due to open early in 2020.

Charlie Young, co-founder of Vinoteca, said: "Paradise offers our brand an unbeatable location and commercial proposition right in the heart of Birmingham."

Mr Groves said: "Bringing a critically-acclaimed wine bar and restaurant brand like Vinoteca to Birmingham really demonstrates our aspirations for Paradise. Our perfect mix of unbeatable location and top-quality design means we are the natural choice for innovative leisure retailers keen on reaching an audience of 17 million people a year."

But it is unlikely any of these milestones will be greeted with more fanfare than the completion of Phase One at the end of this year.

One Chamberlain Square, designed by Eric Parry Architects and topped out in December 2017, is an eightstorey, 172,000 sq ft building fully let to professional services giant PwC which can increase its Birmingham headcount by 1,000 thanks to its move. As the first tenants of the Paradise site, this is a symbolically significant part of Phase One.

Phase Two of Paradise will see the



largest building yet – the 280,000 sq ft One Centenary Way – due to start this year with a completion date of 2022, and with a 22-storey hotel to follow.

Finally, Phase Three will offer a range of commercial and mixed-use buildings across the northern part of the site, with the whole project expected to be completed in the mid 2020s. So there's still a long way to go until the last workman leaves the ongoing building site that is the Paradise Birmingham development.

But it's a phase-by-phase process and hopefully the knowledge of functioning, tenanted buildings by the end of this year will make the bitter pill of disruption a great deal easier to swallow.



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West Midlands in need of more job 10 opportunities



Paul Faulkner, chief executive of Greater Birmingham **Chambers of Commerce**

Summer job figures have highlighted a pressing need for greater employment opportunities in the West Midlands.

Although unemployment in the region decreased by 0.4%, it still remains well above national figures, the Greater Birmingham Chambers of Commerce emphasised in its Quarterly Business Report.

And West Midlands employment levels are still below the national average, having fallen by 0.4% between December 2018 and February 2019.

However, the UK enjoyed its fastest rise in nominal wages since 2008 in the year to May 2019, while real basic wages rose by 1.7% for the last quarter.

The chamber said the Government must create more job opportunities outside of the south of England in order to tackle regional unemployment and boost employment.

Chief executive Paul Faulkner said: "It is great to see wages continuing to outpace inflation, which for those in work will mean pay cheques are going further.

"It is also positive to see a drop in

New routes announced by budget airline

Wizz Air – the largest low-cost airline in Central and Eastern Europe with family and friends or find their has announced two new routes from Birmingham Airport to Poland.

The first route due to launch on September 16 is to Poznań, Poland's fifth largest city, with the second route launching the day after to Krakow – the seventh Wizz Air route to operate from Birmingham Airport.

Tom Screen, aviation director at Birmingham Airport, said: "It's great news that Wizz Air will be operating to Poznań and Krakow. The launch of both routes will mean the airline will operate seven routes in total from Birmingham Airport.

"Providing our passengers with

a range of destinations to connect next city break is important to us and with these additional routes we are able to do just that.

"Wizz Air currently operates to Cluj-Napoca, Budapest, Bucharest, Warsaw and Wroclaw – adding routes to both Poznań and Krakow in September. The new routes are a fantastic addition and we're really looking forward to growing our offering with Wizz Air over the next few years here at Birmingham Airport."

Tamara Vallois, head of marketing and communications at Wizz Air, said: "We are delighted to announce

we will now operate a total of seven routes from Birmingham Airport.

the region's high unemployment rate.

However, this remains well above

unemployment in the South East

fell by the same amount to 2.8%.

was also accompanied by a drop

in employment – which remains

significantly behind the national

"These statistics only reiterate

the need emphasised in our latest

Quarterly Business Report to create

greater employment opportunities

to this process, and we are pleased

to see politicians recognising this. "Already supporting over 9,000

jobs across the country, HS2 is

expected to create over 100.000

jobs in the West Midlands alone

He urged the House of Lords

economy by passing the HS2 Phase

2A: High Speed Rail (West Midlands

 opportunities the region is determined local residents will be

to similarly demonstrate their commitment to balancing the UK

"The construction of HS2 is central

outside of the South.

able to access."

to Crewe) Bill.

In the West Midlands, the drop

national figures.

average.

"In the same period.

"We launched our very first Wizz flight to Birmingham in 2015 and today we offer seven low-fare routes to Poland, Romania and Hungary.

"With fares from only £17.99, we hope to see many happy customers on board our brand-new Airbus aircraft on routes to Poznań and Krakow as well as on all the other routes in the Wizz network."

Wizz Air, a Hungarian airline, has been a partner of Birmingham Airport since June 2015 with its inaugural route to Warsaw, quickly followed by Budapest.



Laura Banks

An intrepid team from Birmingham

mechanical and electrical building services provider J S Wright completed an arduous physical challenge through Snowdonia – raising more than £10,000 for charity. The 12 directors, employees

and friends from the 129-year-old company, which has its headquarters on Portland Street in Aston, cycled, trekked and kayaked for six hours over a 36km route in a Snowdon Triple Challenge in memory of their colleague Stuart Rouse who died from cancer last year.

Top lawyer ranked in respected directory

A Birmingham wills and estates lawyer has repeated her ranking in the Chambers UK High Net Worth Guide 2019.

Laura Banks, a senior associate solicitor based at Thursfields' Birmingham office, has been listed by Chambers for her expertise in private wealth law.

Ms Banks specialises in advising clients on trust and estate matters, lifetime giving, wills and tax planning. The entry states that she is

one of the "associates to watch" in the Birmingham area, citing various sources describing her as "technically very strong" and having "fantastic technical knowledge".

Ms Banks, who grew up in Birmingham and returned to the city after university and law school in Nottingham, said: "I'm thrilled to have once again been listed by

Chambers HNW, giving Thursfields more of the skilled profile that it deserves.

"We work hard as a team to make sure we give the very best legal advice to our clients, and it means a lot to us when these efforts have been recognised."

Thursfields' director Shane Miller said: "We're very proud of Laura and all our other lawyers who regularly feature in directories like Chambers and the Legal500.

"We aim at being the best law firm possible, and we are delighted when this is acknowledged by the legal sector"

The Chambers UK HNW Guide is one of the main directories used for finding top lawyers and law firms, with rankings assessed by experienced researchers and updated every year.



Snowdonia challenge raises over £10,000 for cancer charity

•

They beat their target of raising £10,000 for the Royal Marsden Cancer Charity, which supports the Royal Marsden Hospital, the cancer centre that treated Stuart, who was a foreman at a work site and a close friend of the team. Managing director Phil Leech

said: "It was a fantastic day. Everyone in the team can feel proud of completing the challenge successfully and raising so much money, which will make a real difference to the Royal Marsden and all those affected by cancer."

Birmingham-based branding agency Orb has purchased marketing firm Superdream which has gone into administration

Former Superdream staffers Hannah Moreton and Aaron Jones have joined Orb's management team as head of client services and head of digital respectively.

Orb founder Rob Bloxham said: "Powered by the hugely successful and established Elonex Group who are backing the venture, the acquisition provides significant financial stability for Superdream's former clients and staff. This is a great opportunity for us to build on existing relationships and take on the biggest agencies across the UK. as we join the Elonex vision to elevate Birmingham to the city of collaboration and creativity that competes globally."

12 cover story

Food for thought

Hydroponics is seen by many as a sustainable answer to help feed society.

> CARL JONES meets the boss of a Birmingham firm leading the way in cultivating the science.



Alex Fisher is pioneering an ecofriendly revolution in the fresh food growing industry . . . and he's loving it. He now dedicates his working life to preaching the benefits of hydroponic science to an everwidening and increasingly receptive global audience.

Hydro-what, you say? It's an adaptable, high-density way of growing fresh food in a clean, less labour-intensive way. Not planted in the soil, but raised above ground level in vertical cylinders, lengthening their shelf life and boosting flavour, colour and nutritional values.

Strawberries, lettuce, pak choi, herbs - the list is growing all the time. Hydroponics is now broadening its reach to include baby leaf products such as spinach and rocket too, as well as tobacco and even medical cannabis.

Instead of being planted into the ground, these crops are grown in

various types of planting system including multi-layered vertical columns, where they are fed on a carefully controlled blend of nutrient-enriched water and low-cost substrates instead.

Not only does this mean the grower has 100% traceability through the cultivation process, the hydroponic method also offers the capacity to increase the yield in a typical greenhouse as much as four or even fivefold

Fisher is founder and chief executive of Saturn Bioponics, who have conducted much of their research in glasshouses and polytunnels at the University of Birmingham where hydroponic science – the most innovative and disruptive technology to hit the salad, leafy veg and fresh fruit growing sector in generations – is being constantly tested, refined and expanded.



The company's mission is to deliver sustainable soil-less crop production solutions into commercial agriculture all over the world.

"It's not easy," he admits. "We are trying to persuade an agricultural sector which is traditionally very conservative that it needs to embrace new ways of thinking.

"Maybe naively, when we first started this project I thought it would be much quicker to take off. But it has been a challenge to convince growers whose industry has been growing in the soil for thousands of years."

In today's increasingly ecosensitive climate, the hydroponic message is beginning to strike a chord and momentum is slowly but surely starting to build.

"Soil was not made to do what humanity is now asking it to do, with such intensive food production in fields which were once covered with



forests and other natural vegetation before we devastated them," says Fisher.

"Understandably, this soil starts to resist. It wants to be left alone to operate its own natural eco-system but is instead being forced to do otherwise. That's why farmers are having to fight with the soil and use chemicals to grow their produce.

"With hydroponics, we take the growing out of the soil, leaving it to do what it does naturally. Of course, there is an initial investment required from a grower to achieve this, but the benefits are long lasting.

"This is a philosophy which we are building as a way forward for many years to come - the idea that we can grow these products without the need to interfere with our natural environment round us."

After eight years of research and trials, and more than three years of commercial production, the Saturn Hydroponics team has trialled more than 200 varieties and grown more than 1.1 million plants, amassing an array of vitally important data.

The Birmingham-based experts have studied how plants are able to adapt and perform in a variety of different growing environments, and are now in a position to use this know-how to spread a powerful and environmentally timely message.

Payback from a switch to hydroponic growing methods, for a typically sized operation, is now usually less than three years, the company says – such is the potential for increased yield, product consistency and quality.

For farmers, the hydroponic system also removes doubts over land quality, cuts down the need for fungicides and herbicides, and offers the potential to extend growing seasons which could also reduce the need for imports.

Fisher is now part of a team of six full-time and four part-time staff at Saturn Bioponics.

"Soil was not made to do what humanity is now asking it to do, with such intensive food production in fields which were once covered with forests and other natural vegetation before we devastated them."

He started his hydroponics journey nine years ago, admitting he somewhat 'fell into' the sector after eight years in a number of different small businesses and spending some time working in eastern Europe.

"I actually graduated with a 1st in international relations when I was at university here in Birmingham, and still have a real interest in politics. But my earliest years in business included building and hiring marquees whilst I was studying."

He also had a popular restaurant called Annexe for seven years, near the Birmingham law courts, whilst Saturn Bioponics was precommercial.

Fisher initially started developing the innovative 3D planting system

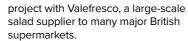
used by Saturn Bioponics on a small scale, working with a friend, gradually building up links with universities and eventually securing a patent.

In those early years, there was very limited funding available for research and development, but more recently the company has been able to refine its technology through several Innovate UK-funding packages.

The firm won the DEFRA Innovate UK For Growth competition in 2012, receiving £25,000 to develop an initial prototype. Then in 2013 it followed this up with an Innovate UK/SBRI contract, again funded by DEFRA, totalling more than £500.000.

This was a really significant step, allowing the business to create a high-quality demonstration piece, retool the technology, and carry out extensive research into different substrates and nutrients. It also allowed the business to engage with many more farmers and potential end customers, spreading the hydroponics message.

In 2015 the company received its most recent Innovate UK grant of £127,400 to fund a collaborative



And three years ago, its pioneering work in soil-less science work was recognised in the Innovate UK multi-sector innovation awards for SMEs, winning the national award for productivity improvement in the Houses of Parliament.

Another feather in the company's cap can be found at Westminster, where it is the only business in its field to be name-checked in the Government's current 25-year environment plan on ways of using agri-tech developments to improve farm performance, both in terms of profits and the impact on the environment.

Fisher says: "If you take lettuce as an example, they can be grown using 95% less water using this system. while strawberries can produce as much as 10 times the average yield per square metre.

"We have been doing commercial crop production for about three and a half years now, and growers working with us are now realising the benefits of building big new facilities to take advantage.



"It's not always easy - gaining planning permission for building these kinds of greenhouses can still be something of a struggle. There is still a real stigma among local authorities, for some reason.

"But we are talking to, and working with, some massive players who are looking for clean and traceable products. With hydroponic science you have total traceability and can optimise desirable quality traits - like the sugar/acid balance in a strawberry – and that's really appealing to them and their customers.

"We see a future where not every crop will be grown hydroponically - wheat, barley and big cereals will still be planted in the ground – but lots more fresh produce and smaller scale field crops will make the change. We've even had some initial

conversations about cocoa trees." It's slightly premature to be talking world domination just yet, but it's clear that Saturn Bioponics is looking to spread its international wings guite dramatically. So, what role does the UK's second city play in its plans going forward?

"As we continue to evolve and



"It's about transforming an industry which has traditionally been reluctant to change. But that's a great challenge. "

cover story

expand, Birmingham is definitely somewhere we want to remain," says Fisher. "It could be, though, that while our commercial operation remains in this city, we end up needing to spread our research and development operations elsewhere.

"Although there are plenty of very important funding streams available to businesses such as ours, which have been so valuable to us, the UK is actually not particularly well geared up when it comes to supporting farmers in learning about and adopting novel technologies.

"France, for example, is way ahead when it comes to disseminating innovations through hubs and networks – and we're going to be doing some work with them in the coming period.

"International markets are where we see massive potential over the coming years, through a combination of joint

ventures, partnerships, agencies and sales agreements."

What of Brexit? Might that throw a spanner into the works of the company's cross-border growth plans?

Fisher doesn't think so. "I'm not too worried to be honest. I don't think it is going to do us any real favours, although having said that, the impact of Brexit on UK farming may focus their minds on the need to look at alternative methods, which I suppose could work to our advantage. "As far as our team is concerned,

we're already very international - in fact, until recently I was the only English person here!"

The international band of experts includes chief technical officer Arnoud Witteveen, who says the company is making a "significant impact on the future of agriculture". "What is unique about Saturn

Bioponics is that it has formed a bridge between science and practice, providing technology and specialist inputs for different crop areas," he says.

"With the data collected, both in our research and our commercial farms, we have seen that through a bespoke combination of cropspecific strategies and treatments, we can enhance traits such as crop consistency, shelf life and overall nutritional values."

Fisher concludes: "All in all we're in a very good place right now, but what I'm doing involves more than a lifetime of work for much more than just one person.

"It's about transforming an industry which has traditionally been reluctant to change. But that's a great challenge. Frustrating at times, but fantastic to be involved right from the start."



Dunton Environmental, SME of the year

Success at awards



James Wong, second left, winner of Community Excellence



Lifetime Achievement Award presented to Stewart Towe by Ninder Johal





Alex Fisher inspecting produce with a colleague

news

Birmingham restaurateur James Wong, Walsall filtration specialists Bowman Stor and Perry Barr-based Dunton Environmental were three of the winners at the 4th Nachural Summer Business Awards.

There was also recognition for industrialist Stewart Towe who was presented with a Lifetime Achievement Award for his commitment to business and the community.

Mr Towe, who is chairman of the Hadley Group, whose headquarters are in Smethwick, has overseen growth of the business from £1 million turnover in the 1970s to one approaching almost £200 million. He was also recognised for his commitment to the community through various roles, including that of chairman of the Black Country Enterprise.

The keynote speaker at the event which was held at Wolverhampton Racecourse and attended by more than 500 people – was Greg Reed, the UK CEO of Homeserve.

The headline sponsor for the event was Investec Wealth and Investment. whose regional headquarters are in Colmore Row.

Ninder Johal, CEO of Nachural and a former president of the Black Country Chamber of Commerce, said: "We had a fantastic speaker in Greg Reed who gave an insight into the importance of culture and the role of investment in training.

"We had a brilliant set of highquality nominations from all over the Midlands and it was fitting that Stewart Towe was recognised for his role in giving back to the community in which his business operates."

Passing the mantle

Diane Benussi is a legend of Birmingham's legal scene and someone you would want fighting your corner in the law courts.

Since she set up her eponymous practice in 1993, the reputation of this charismatic lawyer has gone on to resound far beyond the Midlands.

Diminutive in stature she may be, but Diane is a giant of family law, and Benussi & Co is one of the most sought-after niche practices in the UK, with many a high-profile figure from the political, sporting and entertainment worlds calling on the firm to assist and guide them through their marital break-ups.

With forward planning in mind, the responsibility of continuing the Benussi brand lies in the hands of Diane's daughter, Helen.

HENRY CARPENTER visits the mother-and-daughter team in their Newhall Street offices to hear all about the progression of this deeply respected family firm.

Henry Carpenter: Diane, you did your articles in 1974 and I know that prior to setting up this firm, you had a law business in Sutton Coldfield. Was that a purely family law concern as well?

Diane Benussi: No, we did general law. But after a while it became clear to me that a top-class matrimonial and divorce service was needed in the city centre, not only for individuals but also for other law firms to call upon and refer to.

I decided to set this up as a boutique operation, solely a family law practice. A lot of thought went into the structure of the business: we knew exactly how many supervisors we needed, how many fee earners, support staff and so forth. When we moved to Birmingham, we started in Waterloo Street before moving here about 15 years ago.

HC: Benussi and Co was set up as a business first and foremost - but I sense you cared about what you were doing?

DB: That's why we did family law. I had gone through a divorce myself and I was very involved in the Solicitors Family Law Association.

You must remember that we are dealing with people who are seriously, seriously upset and depressed; we get through hundreds of boxes of tissues here. It's about

being partisan and letting them know we are going to support them, and solely them. When we tell clients that they often burst into tears.

So, we made the environment as client-friendly as possible. We had an in-house counsellor which was unheard of. We had interview rooms, which again was unheard of.

Back then, solicitors' offices were piled high with files with client names on their spines – we made sure we protected client confidentiality.

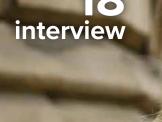
I also wanted family lawyers to support one another because it is such an isolated business because you are dealing with clients who are upset and needing a shoulder to cry on

Helen Benussi: We always have music on in reception. The music is there to stop people overhearing what's being said in the interview rooms

DB: It's also there because

businessmen sometimes squeeze an appointment here between a multitude of others in their day. They come in and think they're getting into a transaction. As soon as they arrive, they sit in reception with a decent cup of coffee listening to music. That's when they stop being businessmen and put on their personal hat

HC: Tell me about the counsellor.



19 interview

DB: We realised very early on that the lawyers themselves couldn't be the shoulder to cry on because our charges were very high - that's why we employed a counsellor. Surprisingly, men used her more than women, often to talk about their business problems and things like that

It is very important that you pick people up emotionally. I used to do two or three interviews in a day and at the end of it I would be absolutely exhausted. You're trying to explain to people who are at rock bottom that there is life beyond their husband having an affair, and that they will become very different people.

And that's the joy, bumping into people in different circumstances and not recognising them because they haven't got red blotchy skin and eyes. Suddenly, you see people looking amazing and those are the ones you remember because you put so much into getting them up and running again.

HC: When you set up this practice in 1993, were you the only niche family law firm?

DB: In the early days you were limited to a certain number of partners, so firms were quite small. But we hit the ground running and within two years I had to stop taking on work. That was actually a huge



lift. I was a single mother trying to run the business and the family, and I couldn't manage all the work I was offered.

HC: Helen, what do you remember of your mother during your childhood?

HB: I remember her as incredibly hard working but I didn't really associate her with family law specifically.

HC: When did the law bug bite you? DB: This is a really lovely story ... HB: When I moved back to Birmingham after university, I realised that everyone seemed to know my mother's name - it got really tiring, beyond funny actually. I decided to do law at Birmingham – this was back in 1997. On my very first day at university, the lecturer said "welcome, there's a very special lady here today who I met when she

was in a Moses basket". Even on my first day at uni I was known as Diane Benussi's daughter, so I decided to put a hold on it and go down the accountancy route.

I did that for 20 years and then mum phoned me a few years ago. There had been rumblings about what she was going to do with the business with offers coming in to buy her out.

I didn't want this to happen. I didn't want Benussi and Co to disappear into the big guys. I was just so proud of the brand. We talked about it and decided I would take it over but under the condition that I qualified as a lawver.

HC: Are you glad you made that decision?

HB: Yes I am, but not because I wanted to become a lawyer! HC: I don't suppose there are many

independent boutique practices like this still in operation?

HB: Very few I think. I don't think many of them had succession planning; there was no one to take them over.

HC: How easily did the legal work, acting for clients, come to you?

HB: I found it very, very hard work. It was also incredibly upsetting - some of the things you hear are just awful. You can't believe people treat others as they do. But I understood then why everyone gets on so well in this office – and I mean this genuinely, everyone talks to each other and everyone's mentoring each other. I realised that's what gets us through it. We talk to each other.

So no, it wasn't an easy way in at all. But I started to look at it as a business. I decided I didn't want to do the practicing of the law



them in through the back door."

and focused more on running the business. I don't have any clients as such.

DB: I don't have any clients either. Just dealing with new clients is very, very time consuming and we do reject about 75% of people who contact us.

HB: I know there are brilliant lawyers in our office that would do a much better job than I would.

HC: Does mediation play a large part in what you do here?

HB: I think a lot of individuals think they can't say no when it's offered to them. They feel they have to be seen to be attempting it.

DB: For mediation the two parties absolutely have to be equal. To send a housewife who isn't used to negotiating into mediation with her hotshot husband . . . well, she might as well roll over and play dead.

HC: What percentage of your clients come from Birmingham?

HB: Probably around 70%. We do get a lot of clients from elsewhere in the country, often for added privacy. We also have a core of international divorces. All we need is one or two face-to-face meetings with them during their case.

DB: Birmingham is good for privacy. We can always reassure clients that they're not going to get door-stepped at the courts. Anyone that's very visible, courts will let them in through the back door.

Our concierge recognises some of our more high-profile clients. I'm terrible at recognising them. I saw someone literally walk into a lamp post after seeing me and this guy on the other side of the road. I didn't have a clue how famous he was.

HC: Your team of lawyers are all female. Does this mean that the vast majority of your clients are as well?

HB: Actually, it's about half and half. **DB:** Men come to us not because they think we understand anything better but because they think it looks better in court.

HC: Let's talk about the industry in general. Diane, you must have seen some pretty big changes over the last 40 years or so, not least smaller practices being swallowed up by bigger firms. What else? DB: Everyone's a specialist these



early age. One of the worrying things is the overall knowledge of lawyers nowadays, tending to understand one tiny little fragment whereas people used to have a working knowledge of guite a wide spectrum of disciplines.

We've also had IT in shedloads. When I started during my training we had a word processor, the first I'd ever heard of. It was quite a clunky thing. But what has all this technology done? It has hugely increased the amount of paperwork. You now have contracts that go through so many



"Birmingham is good for privacy. We can always reassure clients that they're not going to get door-stepped at the courts. Anyone that's very visible, courts will let



interview

days. And they specialise from a very

iterations it's a joke. Leases, for instance, should go through two or maximum three stages of corrections. So I've seen the law processes proliferate and not to the benefit of anyone. Lawyers doing their 40th correction on a contract . . . that's not serving clients. It's tragic I think. Sorry, I'll get off my high horse! HC: Are there any achievements in your career that you look back on with particular pride? DB: My claim to fame was having Helen in the final year of university,

back in 1973. I don't have any standout memories of particular cases. I remember them as people but not the details.

I saw one person recently who, when I asked him if he was well, told me he had just gone through a divorce. "I'm so sorry," I said, and he then told me that we had acted for him! I honestly didn't remember. But these days I don't do the divorces myself – the person is entirely separate from the case.

HC: How has Birmingham changed? **DB:** The business community has changed over the last 10 years. Birmingham Forward [the lobby group, of which Diane was chair] for instance was a very good organisation. It was a bush telegraph, a huge network. It was actually very full on. There used to be a real party scene in the business community and I'm not sure if there still is. HB: I think there still is. And I still meet people who remark what a nice, welcoming city it is. Everyone just gets on with everyone in Birmingham. People are honest, not bigging

themselves up to look good. HC: And what about Birmingham plc?

interview

DB: I think it's going like a train. HC: We've talked about succession. Diane, can you see yourself coming into work in five years' time? DB: Never say never. I have no idea

how you actually retire. My life has been this business, along with my



family. Helen's taking a huge weight off my shoulders. I don't want her to go through what I went through – a good work-life balance is essential, something we instil through everyone who works here. **HB:** I think the reason why mum

hasn't retired is we still get lots of people ringing up wanting Diane Benussi to act for them. That's the name. It's a great name and always has been. I was in London recently at a party and this chap asked where I was from, and I said Birmingham. He knew mum and so did most of the other guests. And I just found that unbelievable. It was really amazing -I was so proud.

DB: That's so lovely! It's made me want to cry . . . but don't write that!



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Training company expands nationwide

An HGV driver-training company has invested tens of thousands of pounds in a new fleet of vehicles to continue its expansion and create a national footprint for the business.

Birmingham-based A1 Training Ltd, which provides categories C, CE and C1 training, as well as B+E, forklift, lorry-loading crane and other industry-related courses, has invested more than £80,000 in replacing its fleet – and plans further additions over the next 12 months.

Managing director Collin Meredith said: "We have developed a strong reputation for regional training in and around the Midlands, but we have ambitions to take on more national coaching and become a one-stop shop for bespoke training.

"Updating our fleet means we can continue to give the very best training.

"We know we have to look at other ways to address the driver shortage that impacts our industry.

"New drivers often find it difficult to get work due to lack of experience, so we are looking towards building productive links with companies to put new drivers through mentoring schemes with existing drivers. This gives confidence to company owners and insurance companies when



employing new staff.

"It's a win-win situation because it means they are more attractive candidates for jobs because they have greater experience and more intensive on-the-job tuition. "It also helps put a dent in the

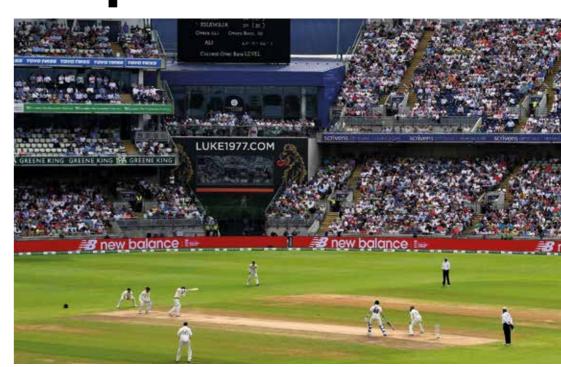
Partnership unveiled

Edgbaston Stadium used the first Test of this summer's Specsavers Ashes series to unveil a new partnership with menswear brand, LUKE.

LUKE is a fashion brand divided into Luke the Technical Tailor and Luke Sport. Luke the Technical Tailor is a menswear offering, while Luke Sport is a full lifestyle collection inspired by athleisure and urban street style.

The partnership, which will run until the end of 2019, has given LUKE marguee branding sites within the stadium bowl at Edgbaston, which were installed ready for the Test match and will remain for Vitality Blast Finals Day on September 21.

Ben Seifas, commercial partnerships manager at Edgbaston, said: "Attracting a global brand like LUKE to our commercial partners portfolio demonstrates just how attractive cricket and our programme of major matches at Edgbaston is in the current sporting landscape."



news

driver shortage rather than younger, inexperienced drivers putting a dent into their employer's vehicles and taking valuable assets off the road."

Collin Meredith of A1 Training with one of the new Volvo trucks





Katie Millington and Amrita Aujla Steve Gregory

24 Agency opening





Lynsey Turner and **Kimberley Owen**



Marketing agency M3 hosted a special event at The Botanist to mark the official opening of its Birmingham office.

There were several presentations, including talks given by Steve Gregory, the co-founder of Love Sugar Science, and food influencer Niki Webster.

Nick Lovett, managing director of M3, said: "Birmingham is a very exciting place to be with lots of interesting regeneration projects, HS2 slowly gathering pace and creative energy that is just waiting to be harnessed.

"We are looking forward to investing even further in its growth and in creating local jobs."

Left: Niki Webster

Below, clockwise from left: Nick Lovett, Steve Gregory, Stu Perry, Glen Pawson, Callum McGuire, Niki Webster and Sonya Gonzales Mier



Sarah Courbet and Gemma Bower





Nick Lovett and Sam Hufton Callum McGuire and Will Barth



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Sonya Gonzales Mier



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26 Spotlight on technology

There is a tech revolution in the UK – and Birmingham is right in the thick of it.

Technology is all about creating longterm solutions and Birmingham has embraced it, applying the knowledge to manufacturing, engineering, healthcare, media, telecommunications, finance and many other sectors besides.

In this 20-page section devoted to the subject, we hope to give at the very least an indication of where and why the region can be so proud of its technological advances across a whole range of sectors.







By DAVID HALL Principal associate, Mills & Reeve

Few would deny Birmingham is coming into its own as a tech and digital hub. Ranking as one of the top UK Tech Cities in a recent CBRE report, and home to more developers, programmers and software architects than any other British regional city, it is fast establishing itself as a hotbed for talent – both encouraging established international players to locate here and developing an exciting pipeline of homegrown innovation

spotlight

However, while there is a temptation to position Birmingham as a challenger to the tech might of Manchester or London, we risk holding ourselves back through comparison. Instead, we should be looking to carve out our own niche as a global player, following the example of tech centres such as Barcelona and Amsterdam and establishing a global reputation from the outset.

Our city already has the skills. products, services and ideas to compete on the international stage but crucial in pushing our tech talent towards the world stage is strategy.

Playing the brand game

From gaming hubs in Digbeth to a flourishing FinTech offering, taking in data analytics, AI, social media, software and screen along the way, Birmingham's current tech scene offers breadth in terms of sector and size of business.

Halesowen alone, for example, has been chosen by Texas-originating software giant Epicor as its UK base, and provided an environment from which Birmingham-born InTouch Games could grow its randomgenerator casino games into an international operation. Birmingham has proven itself as an attractive prospect both in terms of building businesses from the ground up and as a location for already established brands

Particularly strong is the city's software and digital creative offering. Look no further than Birminghambased Snaptivity: blending innovative Al software with robotic cameras to provide sports brands, venues and fans with the social-media catnip of 'candid' videos of celebrations at live events. The city is also crammed full of digital marketing agencies, video producers, and other tech-driven creatives who also help to build and promote brand and drive sales.

There is potential then for

From bright sparks to big players

Taking Birmingham tech to the next level

Birmingham brands to present a real threat to current sector stalwarts. Take Blueberry Consultants, based in Digbeth, whose video and audio capture program BB FlashBack at least matches that of current leads in the field, such as Camtasia. Both applications offer powerful, efficient screen capture of the kind that has fueled a whole new YouTube subsection of 'How-To' programming videos. The only thing distinguishing the two is brand profile, with Camtasia's online presence being

larger. Here lies the key to unlocking the full potential of Birmingham's tech offering. With products and expertise already in abundance, and new entrants to the market emerging all the time, what is now needed is greater brand visibility – for individual businesses and the region. Enter government industry bodies and strategic partners, able to bring both the resource and vision to support the effort involved in achieving global roll-out of local tech offerings.

To the tech innovators currently operating in the city, where the priority is daily production, it will rarely be easy to free up the time and cash resource required for brand development and international promotion. As well as funding

and provision of mentorship and expertise, the likes of the West Midlands Combined Authority. council-run Digital Birmingham and the Midlands arms of Innovate UK and Tech Nation should also look to perform a persuasive function, encouraging Birmingham tech to play the brand and promotion game (and helping to source the necessary resources).

With the right foundation in place in terms of messaging, assets and long-term plan, what stands to be gained is impressive. A strong brand sets up a business for global takeover, with localising a tech product for new markets relatively cheap and easy, yet likely to result in turnover and profits multiplying almost overnight.

Collaborate to innovate

Therefore, Birmingham tech business is set to skyrocket through the right strategic steps. These can take the form not only of market expansion and brand development, but collaborative practice. Partnership involving Birmingham tech business has seen some of the most exciting developments in the industry

over the past several years – both vertically (through contracting and sub-contracting with industry stalwarts in tech), and horizontally, as bright thinkers join forces for further success.

As larger businesses from across sectors as varied as banking, health. construction and real estate look to capitalise on the potential of innovative tech, Birmingham is increasingly defining itself as a breeding ground for development of the raw technology and digital content. With new organisations often consisting of a crack team of less than 10 people – looking for opportunities to disseminate their ideas and make their tech products or skills count, mutually beneficial partnerships are ripe for the taking.

Collaboration can be headed up by the big players themselves, as in the case of Colmore Tang, who last year launched the £10 million innovation fund ConstrucTech. The scheme, in providing funding and mentorship for start-ups, saw the Birminghamheadquartered firm look for the brightest - and most profitable new ideas to revitalise construction Attesting to the strength of our

David Hall is a principal associate at national law firm Mills & Reeve. He specialises in digital technology and data, and leads the firm's work in the Birmingham technology sector.

regional offer, the internationally open bid for innovation found its winner no further than Bromsgrove in Wearable Link, the Midlands business utilising the Internet of Things to provide live feedback from and improve safety on construction sites.

Government bodies and strategic partners can also be key in facilitating partnerships between (and opportunities for) businesses across the region. Organisations like the West Midlands Combined Authority, Digital Birmingham, Innovate UK and Tech Nation have the network and resources to be able to see opportunities for collaboration, and consult with sector-representative organisations to identify needs that could be met (i.e. 'product' ideas) by innovative technology developers.

These agencies are in a position to do this more effectively than the developers and creatives who are working on the front line. The city's thriving tech community does a great job of fostering horizontal collaboration – as proven by various networking groups and tech incubators joining forces for the city's inaugural Birmingham Tech Week. taking place this October. However, it

falls partly to external bodies to use their wider perspective and strategic nous to identify and cultivate vertical opportunities.

Protecting your assets

With development and collaboration comes vast potential, but also legal risk. Tech businesses in Birmingham and beyond have historically been too likely to jump into product development and partnerships on an informal basis, dissuaded from enlisting legal help by time and cost concerns. However, failure to account for legal implications in early stages - such as deciding which participant in a collaboration will own the IP, making sure that the IP assets are original (or lawfully licensed) and protected (and registered where possible) from the get-go, managing contracts effectively and ensuring data compliance - can be a ticking time bomb.

When these bombs go off, you lose revenue opportunities (from contracts), assets (like IP), money (through fines or similar), investment or business sale opportunities, or even the entire business.

Luckily, as the tech industry evolves, many lawyers and other professional service providers are moving with the times as well. We are increasingly delivering legal service and knowledge through workshops and training based models, so we can feed in strategic advice at an early stage, when it's needed, but in a very cost-effective way - giving tech business the tools to protect their intellectual and data assets and future-proof partnerships. You can still get full legal service if you want it (and sometimes it's the right level of service), but when you have a choice, the more agile, cost-effective ways to meet the needs of a fast-moving industry make sense.

When it comes to Midlands tech, success lies in encouraging our bright businesses to take a step back and look beyond the day-to-day. This is where external parties, be they legal or government funded, should step in to offer the wider, top-down vision. All the key elements are in place for us to establish a name for ourselves on an international level, but key steps taken by those on the peripheries could turbocharge our city's tech offer.

spotlight

Engineering and professional services consultancy WSP is working with Transport for West Midlands to design and support the delivery of a 100km testbed facility for connected and autonomous vehicles in the West Midlands.

The project is part of a wider contract with TfWM worth more than £1.7 million. WSP, which recently completed a major relocation of 700 staff to a new headquarters in Birmingham, is now overseeing the

preliminary and detailed design of the TfWM elements of the Midlands Future Mobility CAV Testbed.

TfWM will use the facility to trial new modes of transport, services and technologies after the Government's decision last year to name the West Midlands as the UK's first Future Mobility Zone. WSP has already carried out

a design feasibility study for the testbed project, identifying 140 potential sites across Coventry,

Solihull and Birmingham.

The firm is now in the design and deliver phase for the physical infrastructure needed to support the project, including installing roadside units to enable communication with CAV services on vehicles.

Other technologies to be rolled out include hi-tech weather stations, live cameras and GNSS correction towers to provide high accuracy positioning for vehicles using GPS data.



Biomed start-up prepares US launch

Birmingham biomedical start-up Adapttech has announced the appointment of Stuart Mead, pictured above, as chairman ahead of the company's launch in the United States later this year.

Adapttech's technology for improving the fitting of lower limb prostheses has also been granted a decision as a Class I medical device by the United States Food and Drug Administration.

The company's INSIGHT system, which has already undergone successful user testing in Europe, is now being used in an outcome study at two prosthetic clinics in the United States ahead of its commercial launch later this year.

INSIGHT combines laser scanning,

wearable technology and a mobile app to make it faster and easier to correctly fit lower-limb prosthesis and monitor a patient's entire rehabilitation process

"When fitting a lower limb prosthesis, it can take weeks to achieve a final, properly-fit solution, with several appointments often required, which is inconvenient for the patient and clinician alike," said Frederico Carpinteiro, founder of Adapttech.

"Using INSIGHT, clinicians spend less time attending to patients with limb-socket problems, technicians spend less time fitting, assessing and refitting sockets, and patients spend less time visiting and re-visiting the clinic.

"INSIGHT has the potential to help prosthetic facilities improve their patients' lower limb functional mobility scores, which can help them access better prostheses from their healthcare provider."

Mr Mead is the former CEO of Touch Bionics, the company that created the world's first bionic hand, and has been appointed for his insight and leadership in the prosthetics sector.

"Securing the FDA's decision on INSIGHT is a key business milestone for Adapttech and we are now fully focused on launching in the US market this year," he said.

"Our technology is proven - we have the team in place to support it and we are ready to transform the way that prostheses are fitted."



Anyone hoping to glimpse an example of the next generation of data centres should look no further than Google's new hyperscale project in Luxembourg.

Covering 34 hectares in Bissen, the data centre will be 15 times bigger than the country's largest shopping mall, employing as many people and costing more than US\$1 billion. The plans include three data centre units, an administrative

building, a warehouse facility and a myriad of other blocks.

Such hyperscale data centres support thousands of physical servers and millions of virtual machines. They provide the megatech companies such as Google, AWS and Microsoft with the kind of scale that attracts international corporations eager to migrate their infrastructure to the cloud, giving them higher computing



31 advertisement feature

power at much reduced costs. But it is not just international corporations that are attracted to the cloud to cut business operating costs - and it is not only the hyperscalers that are changing the face of data centres. Across the globe, the trend for businesses large and small is to rationalise their data centres, to modernise and thrive in an ever-competitive environment.

Building a data centre strategy

Until recently, most businesses have relied on smaller data centres with one or two racks scattered in multiple locations across multiple offices. But now it is more about building a data centre strategy and having two or three locations where all the data is stored.

Companies are able to bring their assets into a centralised location to achieve better efficiencies of scale. Virtualisation, in particular, has helped to shape the new business models of many businesses looking at a data centre strategy for the first time.

Above all, technology needs a modern infrastructure that frees a business to shift its resources to strategic initiatives, while offering higher levels of agility to meet new commercial opportunities. Data centre modernisation ensures organisations stay ahead of the competition with an infrastructure

that is future-ready to support new applications and technologies in a multi-cloud era. And it's important to remember that there is no one-size-fits-all for data centre modernisation; a data centre strategy has to look beyond the hype and the headlines and understand what a business needs to compete in tomorrow's marketplace.

Partnership is key

advertisement

feature

First and foremost, a partnership is key to data centre modernisation. Choosing the right IT company to deliver a data centre strategy is probably one of the most important business decisions a board will make. The partner will need to be independent, while having strong vendor relationships. This ensures the business has impartial knowledge and advice on the technology to fit its unique requirements. Furthermore, flexibility is also vital for businesses with legacy applications that are unable to be virtualised, or those requiring a data centre consolidation project before transforming to a consumption model.

SCC uses a suite of new technologies to upgrade an organisation's data centre strategy - from an initial assessment and design through to migration, management and optimisation without the need for any internal technical skills. It's important to take the stress out of digital transformation with an end-toend service, so the business can function without concerns around the technology that underpins the

A successful working partnership

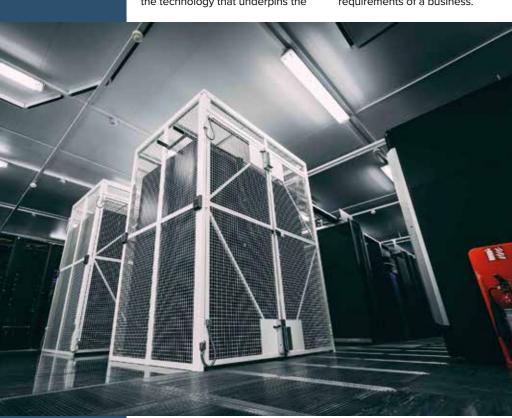
In 2015, the UK's Secure Trust Bank (STB) carried out a strategic review and examined its approach to how it provisioned systems and associated IT services.

As part of the review, STB identified the capabilities it considered critical to its future success. A fundamental component was the determination of its approach to how and where applications were managed and what type of data centre would serve this purpose to best effect. According to Roy Aston, chief technology officer at STB: "For STB to remain competitive in today's economic climate and achieve our plans, we have to ensure that our systems are built to support and complement our business goals and objectives."

Mr Aston is responsible for STB's IT architecture, infrastructure and the implementation of new technology. "Our overarching goal is to build the best bank in Britain and to do it in a manner that's straightforward and transparent for our customers and colleagues," he said.

Up to that point, STB had either sourced or developed and

operations. To ensure a company is taking the right approach for its data centre modernisation, it is important to take it through a series of stages. This will help all the partnership understand the unique requirements of a business.



managed virtually everything inhouse

"So we had a choice, either continue with that approach or buy more services from specialists such as SCC.

"Three things separated SCC from other bidders: its approach to understanding STB's requirements, how it would manage the first phase of live operation, which was the implementation of a new retail banking platform, and its approach to all subsequent platform migrations."

Going forward, with SCC as its strategic IT partner, STB is benefiting from continued assistance achieving its business ambitions and goals.

"Migrating in-house hosted applications to Cloud+ is continuing and we are also considering using other SCC products and services." Mr Aston said. "This wasn't a prerequisite as part of the initial selection, but we see this as a real benefit in an environment where for the foreseeable future working with third parties will increase.

"It appears that both SCC and STB share the same ambitions for our businesses even though we operate in different markets. In

At SCC, the following phased approach is recommended: Discovery

It is important to understand the current data centre challenges and goals a business faces before any work starts. Firstly, a range of assessments need to be undertaken that are designed to analyse IT usage at different stages of the data centre modernisation journey. These assessments are performed as a first step, or at regular intervals, to ensure the business is running an optimised environment. Public cloud services have a

reputation for enhanced flexibility as businesses only pay for what they use. These services are often described as building blocks, allowing customised designs to match specific business needs.

The challenge with increased flexibility is that the variety of building blocks creates the need to understand all the pros and cons. These could include security, availability, performance and cost, which must all be factored in. This results in IT teams designing solutions that are either over or under engineered, possibly leading to security risks or excessive costs. SCC's assessments take the guesswork out of the cloud by gathering the required information and giving logic-driven recommendations to improve a



today's environment that's really refreshing and a credit to SCC.

"Working with SCC has given us access to a range of technology experts who work with us to define and implement solutions to real business challenges. Once implemented, STB also benefits in that SCC provides a service that ensures our systems are proactively monitored and managed 24/7."

Mr Aston maintained that SCC's commitment was consistent with

company's cloud environment. The assessments vary in length as SCC analyses different elements that make up the data centre. The format involves a period of data collection and analysis.

This results in a report with advice on the next steps to take, which include design workshops and migration services.

Design workshops

In the design workshops, customers learn about the latest cloud technologies and how they can be applied to meet their business goals. The workshops are an opportunity for SCC to collaborate with the company's IT team on the variety of technologies available from cloud providers. These help SCC to learn about the business and other IT projects to ensure the best recommendations for the company's cloud strategy.

Any cloud strategy needs technical and business expertise in equal measure. One of the most important elements of cloud adaption is to make sure the



For more Information please contact: T: 0121 766 7000 E: online@scc.com W: scc.com

professionalism and competence. "The whole SCC team has made

that of the bank's own people,

a real effort to understand our

outsource arrangement – they

operate in a manner where they

will migrate a business to the

business risk associated with

with the project methodology.

time within timescales.

When implementing new

technologies, it is essential

the business is well supported

to protect the investment and

Support

It's worth remembering that

are an extension of the bank."

he said

and money.

Migration

business, integrate with our team

which is a testament to their

and really bought into our vision," "Actually, to such an extent that

despite the governance that we've got in place, it doesn't feel like an

company has a business plan that it can continue to review and adapt. This ensures long-term viability for investments, avoiding wasting time

SCC's team of technology experts

cloud using a multi-stage approach to ensure efficient delivery in a

controlled manner. Aware of the

migration, the emphasis at this stage has to be on agility and flexibility

migrating IT services is not without risk. But with correct procedures, particularly around communication and governance, all migrations can be achieved successfully and on

reduce downtime. SCC provides consistency of knowledge even in the event of attrition as staff move in and out of the IT team. It is important to bring experience in providing support and managed services to data centre modernisation, ensuring businesses are making the most of their investments.

Managed services

SCC's managed services are designed to enhance the standard offering with proactive monitoring, strategic design reviews and ongoing assessments to give the best possible experience when using the cloud. As with all IT services, the cloud technologies are subject to problems and incidents that need to be monitored, managed and resolved. A managed service is designed to check on key performance indicators (KPIs) on each of the elements used in the cloud estate.

Optimisation

Data centre providers are forever evolving with multiple services constantly being introduced. A business is no longer restricted by storage capacity or hardware performance; data centres have (almost) unlimited elasticity. This offers new opportunities including alternative ways to deliver a service or to support a new business goal. Understanding what is available and maximising its benefit to the business is one of the key challenges for a company.

SCC's optimisation phase gives businesses greater visibility of their data centres, ensuring they are designed to provide the best balance between cost and performance.

As part of a data centre modernisation strategy, SCC deploys discovery tools to determine a number of factors including:

resource utilisation performance cost

architecture

The optimisation service should provide the business with visibility and make recommendations for improvements. For example, this could be improvements in architecture to reduce cost, or it could be to highlight performance issues and ways to improve the user experience. SCC offers an optimisation bolt-on as part of the managed service to ensure a company's data centre environment is managed effectively, while guaranteeing that the services are optimised.

33 advertisement feature



By SIDDARTHA KHASTGIR Head of verification and validation, intelligent vehicles at Warwick Manufacturing Group



realising a dream

The vision

It is estimated that the global connected and autonomous vehicles industry will be worth more than £50 billion by 2035, with the UK CAV industry comprising over £3 billion of this. Additionally, the UK Government's Industrial Strategy aims to bring fully autonomous cars without a human operator on the UK roads by 2021, which will make us

A safer way to travel

It is suggested that in order to prove that CAV are safer than human drivers, they will need to be driven for more than 11 billion miles. While this requirement has garnered a lot of publicity, the focus needs to be on what happens in those miles (in other words, smart miles which expose failures in CAV) and not on the number of miles themselves. One will not gain much information about the capabilities of a CAV system if we drive them up and down the sunny roads of a desert.

one of the first countries in the world to achieve this vision.

The CAV vision is motivated by a variety of potential benefits the technology has to offer - increasing safety by reducing accidents and minimising human error, decreasing traffic congestion, driving lower emissions and freeing up drivers' time in vehicles - enabling

While prototype CAV technologies have existed for some time now, ensuring the safety level of these technologies has remained at the forefront of development decisions and considerations, and has emerged as a potential hindrance to the commercialisation of CAV technologies.

Presenting hard evidence-based data and trends efficiently will have a significant impact on public adoption of this new technology and the confidence levels invested. Safety is

individuals to be more productive during the work commute or the school run.

However, in order to realise this vision and the market potential, safe introduction of CAV is crucial. The diverse technological, legislative and societal barriers associated with public deployment of CAV will require significant research to overcome.

at the forefront of the case for why a future with CAV is more reliable, more efficient and less risky. But just saying this is not enough; people want to see objective insights and make their own informed decisions on how this new technology is safer.

The task of proving this is coupled with the challenge of requiring innovative testing and safety analysis methods, as interactions between large numbers of variables and the environment demand complex solutions and experimentation.

Positioning the UK as a world leader

WMG at the University of Warwick facilitates collaboration between academia and the public and private sector to drive innovation in science, technology and enaineerina

Intelligent vehicles research at WMG is focused on supporting the UK's position as the world leader in CAV research and innovation for a

long lasting societal and economic benefit. Intelligent vehicles resear capability areas include verificatio and validation, communications, experiential engineering, supply chains, cyber security and cooperative autonomy.

Testing in a virtual world

WMG's 3D simulator for intelligent vehicles, funded by the Engineering and Physical Sciences Research Council, was launched in 2016 at WMG's International Manufacturing Centre to test real-world robustness and usability of smart, CAV technology. The simulator creates virtual conditions for Intelligent Vehicles, replicating complex driving scenarios, changing lighting conditions, communications interference or unexpected

Public road testing by mid-2020

WMG is involved in major research programmes like the £25 million Midlands Future Mobility (a realworld testbed), which focuses on 'smart miles' by proving concepts and getting products to market with quick impact measures. Led by WMG, Midlands Future Mobility is an 'on-road ecosystem' comprising nine partners from industry and local authorities all with a shared vision and objective - to launch the first service offering of public road testing by mid-2020.

WMG is also one of the seven centres in the High Value Manufacturing Catapult and with 'smart mobility' being one of the focus areas for the WMG HVM Catapult centre, their existing strong links and partnerships leave them well positioned to inform and respond to Government policy.

Achieving the connected and autonomous vehicle vision

Past studies have indicated that only 50% of drivers tend to use advanced driver assistance systems like lane departure warning. Increasing trust and acceptance of CAV technologies remains a challenge for the industrial and research community. Reaping the Demonstrating safety, commerce

viability and customer desirability pose three of the main challenges

events, all in a safe and repeatable environment.

The success of smart, CAV technologies or Intelligent Vehicle technologies, will depend upon research and development, which can quickly demonstrate safety, security and robustness. Testing these technologies on-road in real-world driving situations is often complex, uncontrollable and potentially risky for early stage development. It is also reliant on



by drivers and the wider public as a fundamental part of their everyday lives. Challenges associated with

realising the CAV vision are huge.

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associated with realising the CAV vision. The 'evaluation continuum' concept for CAV, at WMG, involves using digital technology to simulate various environments and conduct repeatable test track testing before launching trials in the 'real-world'. WMG research is leading to the creation of international standards for the safe deployment of CAV.

the production of costly physical prototypes. Industry trends in CAV suggest the widespread adoption of machine learning (ML) in the autonomous control systems. ML systems by their structure are nondeterministic in nature, resulting in different behaviours and a lack of transparency around the CAV system. Therefore, it is often difficult to identify reasons for a particular failure in such ML-based systems and take the corrective measures.

35 spotlight

benefits of the CAV technologies will only happen when they are accepted but the benefits are even bigger. The only way we can achieve the CAV vision is through collaboration and knowledge exchange between various stakeholders – manufacturers. SMEs, suppliers, local councils and research organisations.



Founder and CEO of Sprint Power, **Richie Frost**

36 Government award for technology firm

Sprint Power, a start-up British technology company specialising in the innovation of electric propulsion, has been awarded £2.4 million from the UK Government to develop wireless charging platforms for electric vehicles

As part of a successful consortium awarded a total of £4.6 million, Sprint Power will be charged with demonstrating the suitability of wireless charging technology in light

commercial vehicles

The company will develop technology and data to allow wireless charging to be rolled out to the masses across UK businesses, towns and cities.

Founder and CEO of Sprint Power, Richie Frost, said: "We are in the midst of an electric revolution, with many businesses, councils and individuals looking to make the transition to alternative fuelled

vehicles. Our view is that wireless charging will significantly contribute to the infrastructure required to support mass uptake of electric vehicles.

"This project will work through the technical and commercial challenges. creating a framework to demonstrate the viability of wireless charging as a true long-term solution to a wireless future."

Funding for the wireless charging project has been awarded by Innovate UK, a non-departmental public body funded by the UK Government designed to drive research and development into new technologies.

Sprint Power specialises in the nnovation of electric propulsion and offers strategic and technical services to partners.

Based in a brand-new dedicated facility in the Midlands, its team of engineers helps manufacturers develop vehicles that comply with stricter emissions regulations around the world.

Its capabilities include alternative powertrains development, vehicle integration, power electronics, motor and inverter development, manufacture and management.

The Manufacturing Technology Centre has become the first research and development centre in the UK to install precision equipment to allow 3D printing of small and complex electronic components.

The Coventry-based MTC has taken delivery of a Nano Dimension DragonFly LDM precision additive manufacturing system. The new equipment will allow the production of small-scale electronic components used in smart connected devices. as well as multi-layer printed circuit boards and sensors.

The technology will be available to all MTC clients to allow them to take

advantage of the speed and cost benefits of the rapid prototyping of electronic components.

MTC technology director Ken Young said the technology further pushed the boundaries of additive manufacturing capability. He added: "We will use this

equipment for advanced applications development, including the production of devices requiring increasingly complex features, high geometric intricacy and very small dimensions.

"This innovative technology will complement our existing worldleading additive manufacturing

footprint further into the revolutionary research and commercialisation of manufacturing electronic components in this way."

technology is the industry's only comprehensive additive manufacturing platform for 3D printing of electronic circuitry.

Ltd. The MTC's industrial members

igbeth the new ome of tech?

Digbeth, a traditional hotbed of creative talent, is now the centre of a thriving tech scene bolstered by its social amenities and incubation spaces. Increasing numbers of innovators, movers and shakers in the tech world are choosing to set up business there.

Three Digbeth-based tech businesses share their journeys, plans for the future and why this area south of the city centre which has the Custard Factory and **Fazeley Studios at its core – works** so well for them as a location.

capabilities and extend our industry

The DragonFly LDM printing

The MTC was founded by the University of Birmingham, Loughborough University, the University of Nottingham and TWI include some of the UK's major global manufacturers.





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"Digbeth is a fantastic place for tech companies. There is an AI and robotics company right around the corner. There are lots of start-ups focusing on specific fields."

HOLOSPHERE



Holosphere is a virtual reality agency and production company. Sean Duffy is its technical director.

Birmingham Business: WHAT IS HOLOSPHERE?

Sean Duffy: Put simply, we use immersive technology to solve business problems. We've been located on Bromley Street - in a big warehouse which is brilliant as we need space for prototyping and demos – from the beginning and we've just celebrated our third birthday.

The technologies that we use require a lot of space – one half of our building is where we do full room VR and we use a great deal of equipment like projectors, rigging and production screens. The other half of the building is office spaces for artists and management. **BB:** WHY DIGBETH?

SD: Digbeth is the epicentre of creative start-ups and there are many suppliers both new and old nearby which we use; there is even a blacksmith's on the same road as us who we have used before! Digbeth is full of technologists, designers and fabricators, and it makes a huge difference to us to have that resource on tap.

BB: IS IT A GOOD PLACE FOR TECH?

SD: Digbeth is a fantastic place for tech companies. There is an AI and robotics company right around the corner. There are lots of start-ups focusing on specific fields. The universities - BCU especially - have great courses in computer game development and many of our current employees came from there.

KATJE'S MAGIC CANDY

USA-born CEO Melissa Snover set up Katje's Magic Candy – a personalised confectionary company using 3D printing technology - in the Custard Factory in 2016. The firm is shortly due to launch 'Nourished', which uses patented 3D technology to create personalised gummy vitamins.

Through an online app, customers can choose any seven active ingredients based on their lifestyle and goals to create bespoke supplements, all of which are vegan and sugar free. The vitamins, which are delivered to the customers door in single monthly batches, are eco-friendly and sustainable as all packaging is plastic free with no wastage. inconvenience or extra costs. Head of branding, Caitlin Stanley

(pictured below), has been working with Melissa since 2016.



Birmingham Business: TELL US ABOUT YOUR ORIGINS Caitlin Stanley: We started Magic Candy Factory in January 2016 in the Green House in the Custard Factory. When we started, it was just four of us in a tiny office, which proved to be a great incubator space. We then moved to another slightly larger unit, then another. We grew rapidly and needed a unit with a specialised logistics area and so we moved just down the road to Floodgate Street to a much larger unit with three floors where we could grow. We have also just extended out into the site opposite to us, which is really exciting. **BB:** . . . AND THE COMMUNITY **CS:** The community here is fantastic. There are so many startups and creative businesses, and if we are ever outsourcing work, be it printing or design work, we always look at Digbeth first as there is so much talent right here. We love to support our neighbours as they have done us. **BB:** WHY DIGBETH?

CS: Our CEO is American, so when she was setting up Magic Candy Factory, she could have chosen anywhere in the world. She chose Digbeth as it's such a cool, vibrant area – an area she describes as the Brooklyn of the UK. There are also many universities offering 3D printing in Birmingham, with grants and support networks you can rely on, which was also really handy for us to have access to. **BB:** THE FUTURE?

CS: We're just preparing to launch 'Nourished' which is a brand new. innovative concept launching exclusively into the UK later this year. We have developed the patented 3D printing technology, completely in-house in Birmingham. The concept is personalised nutrition and it allows us to combine seven active ingredients into one personalised nutrition pack. Rather than consumers taking multiple tablets and vitamins a day, they can just take one personalised to them, completely based on their lifestyle and goals.





The 'Nourished' team

YAMINATION

Yamination is an animation studio based in Digbeth. Drew Roper's company began life in 2009 and moved to the Custard Factory in 2011. It specialises in stop-motion animation, building figures, sets, puppets and props from scratch. Yamination utilise 3D printing and 3D scanning to bring inanimate objects to life.

Birmingham Business: TAKE US BACK TO THE BEGINNING Drew Roper: Our first studio in Digbeth was in the Custard Factory in 2011 and it was there that we made our short film, 'At-Issue', in 2015 which we sold to Sky. We also worked on various commercials for companies like Cravendale and Coca Cola. We then moved to a larger place on Floodgate Street and we have been there since 2016 - It's just given us that extra space to grow and do even bigger and better work. **BB:** WHY DIGBETH? **DR:** Digbeth is a very cool creative place and home to a lot of likeminded organisations and individuals. There is a lovely, creative vibe to the

area. It's also nice to know that you're not too far from a city centre, but also within distance of big shops like Screwfix and B&Q and also the Rag Market, which we use a great deal when building sets and props. Clients are also more inclined to visit as it's only a 10-minute walk from Grand Central to Digbeth. There is also the famous street food scene and night

BB: WHAT ABOUT COLLABORATIONS?

DR: I am a firm believer in collaboration. In animation especially, you cannot do everything yourself the job itself requires collaboration for it to work and we try to work with other likeminded companies who have skills and assets that we don't have in-house.

We try and keep it as local as possible. DigWood, for instance, who are opposite us, can carve huge, bespoke pieces for our sets. For vinyl or 2D printing, we use Shaded Rose in the Custard Factory. Second Home Studios around the corner is a studio very similar to ours, but rather than see each other as competition, we support and borrow from each other all the time.

BB: SO IT'S A GREAT PLACE FOR TECH?

DR: Birmingham itself is known as a tech city, and Digbeth is full of so many like-minded, creative people ready to collaborate, and it's only going to get bigger and better. It is a very good time to be here in Digbeth. **BB:** WHAT OF THE FUTURE? **DR:** We work predominantly making TV commercials and promos, and we are just now venturing into long format projects so television series 💦 would be high on the agenda.

spotlight



By WAYNE LANGFORD Director at West Midlands Combined Universities



Power in partnership:

Combining resources for **5G** success

It is no longer breaking news that 5G will very soon revolutionise our region, with the high-speed mobile internet transformation of the Midlands now well under way.

Vodafone and EE have launched their 5G networks in Birmingham, and Three is set to follow suit later this year, kicking into the next gear a process set in motion by allocation of government funding back in 2018: establishing our region as the UK's first multi-city 5G testbed.

Wide-scale launch events and

interactive public demonstrations from mobile network operators have meant that the benefits of 5G are now no longer shrouded in tech babble.

By reducing download speeds and drastically minimising latency – the time taken between transfers of data such as the time elapsing between live-steaming video in one place and it reaching your recipient in another - 5G promises a new era of internet usage, no longer held back by the lags involved in using mobile data.

This reliability allows businesses

and services to make decisions based on the assumption of a fast, reliable mobile internet connection. It will result in opening up the use of other tech, for example automation. robotics, artificial intelligence and virtual reality, across sectors as wide reaching as manufacturing, transport, healthcare, logistics and emergency services.

The 'why' is firmly established; our region is now looking to the 'how'. With key industry players Igor LePrince and Robert Franks appointed as chair and managing director respectively of West Midlands 5G, the West Midlands Combined Authority's funnel for 5G funding, we are now moving from set-up and mobilisation to implementation.

All this is pushing the region beyond the customer-centric offer of ultra-fast gaming or streaming as it works with businesses, educational facilities and organisations to test 5G applications and services at scale. However, the structural and technological demands of 5G, alongside a reach and remit that spans sectors and stakeholders.

means that a spirit of collaboration will be crucial to 5G success.

Partnershins like West Midlands Combined Universities provide ready-made partnership frameworks to speed up and streamline roll-out, ultimately ensuring that no time is wasted in realising the real-word benefits of 5G – with collaborative practice, just like 5G itself, minimising lag between action and result.

The collaboration model

What 5G's high-frequency waves gain in increased speed, they lose in reach, making for challenges when it comes to transmitting over longer distances.

Therefore, despite 5G's ability to piggyback an existing 4G infrastructure, more base tech is required in wider 5G implementation. Alongside the bread-and-butter collaboration between network providers such as EE, infrastructure

Wayne Langford is director of West Midlands Combined Universities, the formal partnership between Birmingham City University, Coventry University and the University of Wolverhampton.

providers such as Ericsson and the local authorities and councils housing new hardware, seemingly competing bodies are looking to team up to meet 5G's more demanding requirements. Look no further than recent news

that Vodafone and O2 will share equipment – namely the physical towers needed for implementation to activate 5G, allowing the operators to accelerate deployment, drive down costs and reduce net environmental impact. Rather than pursuing separate, fiercely guarded races to the finish line, the providers have realised that in the world of the ever-demanding consumer and 5G's specific set of challenges, business ego is best laid aside in pursuit of results. In other words, a 'space race' approach to 5G will only hold back innovation – with maximum value of 5G best harnessed by working together.

Outside of the nuts and bolts of 5G implementation, collaboration is also crucial when it comes to sharing ideas and expertise. On an international scale, 5G RailNext, a UK consortium of private and public sector UK SMEs and education partners, will partner with South Korea to look at how 5G can boost the use of augmented reality and mixed reality, improving customer experience on both the London underground and Seoul metro. Once again, value lies in putting aside individual egos and instead looking to how pooling resources - this time, not only physical infrastructure but research capabilities and expertise - can get the job done better and faster.

Strength in numbers

With WM5G looking for partners This is where organisations like to create and launch its planned WMCU really come into their Application Accelerator – an own, offering those charged with organisation to demonstrate and realising 5G's potential with a realise the benefits of 5G in a real ready-made combined offer. The sense for businesses, public sector University of Wolverhampton, bodies and citizens – it should be Birmingham City University and aiming to follow the lead of the likes Coventry University form the WMCU of Vodafone, O2 and 5G RailNext, partnership, committing to sharing and seek out opportunities where assets - be these physical estates together really does mean stronger. and infrastructure, access to staff, Partnerships like WMCU are leading students and businesses, or research the way, realising that future-facing capabilities - to drive prosperity in tech innovation suits an openthe region. minded, collaborative approach With the terms of the agreement and pre-empting 5G's need for - alongside brand and messaging organisations that think beyond their offers a combined total of 80,000 own walls. Mobile connectivity will be supercharged by connectivity students and 20,000 staff ready to collaborate, alongside an estate's between people and places.

already established, WMCU

development programme totalling £1 billion over the next 10 years. With combined infrastructure that spans the city and beyond – taking in BCU's central Birmingham position, to the Black Country and Warwickshire with Wolverhampton and Coventry - WMCU can provide the linkedup infrastructure to help kick-start connectivity.

Brainpower meets geographic reach, with 5G-aligned research areas as far-reaching as intelligent transport, cyber security, musical interaction, artificial intelligence and gaming, primed and ready to be incorporated into region-wide objectives. WMCU's approach means communication channels and connections are already forged and potential snags have been ironed out.

As proven by Vodafone and O2's collaboration – where clearly delineated terms show the operators sharing the physical antenna, whilst remaining in control of their individual radio equipment, fibre connections and power supply – partnership doesn't need to come at the expense of autonomy. In the case of WMCU, its universities each share the same civic purpose, being deep rooted in their home city and boasting unrivalled knowledge of, and a long, proud history of contributing to social, economic and educational development in the region.

As a result, its 5G agenda sees the partnership commit to ensuring that fast and reliable mobile internet is maximised not only by larger organisations and businesses, but by local individuals and the community, realising the full extent of 5G's social and economic benefits.

spotlight

The era of digitalisation

advertisement feature

The impact on SMEs from the tech facilities you can't find anywhere else in the UK.

The Science and Technology Facilities Council (STFC) is the Government's agency for Big Science. STFC is funding the University of Birmingham, through its Bridging for Innovators programme, to offer big science to small businesses. Part of the Big Science portfolio is supercomputing located at the STFC's Hartree Centre – a leading UK digital centre that houses extraordinary high-performance compute capabilities.

Who is STFC? And what is the Hartree Centre?

STFC is a government research and innovation organisation at the forefront of UK Science and Technology. STFC's community of scientists and technologists have had a hand in some of the world's best-known innovations and discoveries including: the web, touch screen technology and DNA. The Hartree Centre is where some of these innovations and many others have taken place. Backed by over £170 million of government funding, the Hartree Centre is home to some of the most advanced computing, data and artificial intelligence technologies in the UK. Their

emerging technologies and internationally recognised expertise offer significant opportunities for UK industry to boost its productivity by engaging with the University of Birmingham and its Science 2 Industry programme.

There is big talk at the moment around Industry 4.0, AI and the era of digitalisation, and there is no shying away from the fact that the speed of new technology adoption is fast and SMEs across a variety of sectors are having new challenges to consider. With the use of high-speed

supercomputers and state-of-the-art analysis and visualisation facilities, the Hartree Centre is helping businesses move forward with new innovations, more confident decision making, sustainable operations and increased competitive advantage.

How?

Hartree's facilities together with their highly-skilled scientists and technologists are like no other. The centre houses one of the UK's largest High Performance Computers (HPC) available for industry.



A crucial element of high-performance computing is social physics with data becoming the key resource for innovation. And in a world increasingly driven by data, harnessing this data and extracting new insights from it is the key to competitive advantage.

GSK provides an eye-opening example of how it benefited from Hartree's computing facilities. GSK a leader in pharmaceutical research and a global healthcare company - together with STFC's scientists, has developed specialist software that creates 'networks' to visualise the relationships between diseases. biological pathways and genes. This was done by analysing millions of biomedical research publications to identify correlations and the frequency at which they occur. This piece of work has been investigated in order to identify connections between different genes and diseases, with a view to developing more effective treatments within the healthcare sector

The difference in facilities is that an ordinary computer can only show - and the human brain can only comprehend – a limited part of the network, restricting the view to small portions of data at a time. The tech facilities at the Hartree Centre are able to see the bigger picture, look at data to a high level of granularity and offer real-time results.

Following big data, visualisation is a pioneering facility at the Hartree Centre that represents an object, situation or set of information as a chart, diagram or other image. It's an area of expertise which spans many industries and areas of research as the value of big data often hinges on the ability to interpret it effectively. A great example of how visualisation has been applied to business can be explained by Unilever.

Inventing, making and selling home and personal care products is more complex and time consuming than often imagined. Just one example is the challenge of formulating a fabric conditioner. This product tends to be unstable, especially when shipped to very cold or very hot countries. Traditional stability tests on the laboratory bench tend to be boring and very time consuming, typically taking eight to 12 weeks. However, the comparable test on a supercomputer takes only about 45 minutes. Coupled with a specialist 3D visualisation suite, which Unilever product developers can use to explore the data and see correlations that are otherwise elusive to the eye. In other words, the Visualisation facility at Hartree allows you to see in detail the components of your product and like-for-like images in real time. So, if you wanted to look into a product and change something, you would see the result in real time.

Cognitive computing is on the horizon too. What does it mean? It means enabling machines to learn and evolve through experience, reason with purpose and interact process or R&D-based technical with humans in a more natural challenge that is hindering business way. In other words, training a growth across any sector. system the expertise the same way The Science 2 Industry project at University of Birmingham is a the human brain needs to learn. By learning and evolving based on user gateway to these facilities. We are feedback, past experiences and new here to support SMEs along this innovative journey to: data, cognitive systems can become Work closely with you to experts in new areas. In effect they understand your technical problem become the perfect assistant for our existing human expertise. Take a and the impact it has on your doctor for example who doesn't have business the time to continuously absorb a Match you to an appropriate facility to achieve the desired vast, ever-changing body of medical research. A cognitive assistant outcome and offer hands-on that they can question and interact with in seconds could speed up Provide access to grants for technical problem solving and streamline everyday tasks and decisions, saving time and money. Offer useful advice to

Although the above involves some astounding science, it's important to remember that STFC have some extremely talented scientists behind and at the forefront of the scenes who are able to investigate, analyse and provide results like no other. And now these facilities and scientists are available



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For more information on how we can help provide solutions to your business challenges please contact science2indsutry@contacts.bham.ac.uk or visit www.birmingham.ac.uk/S2I

to SMEs that have a product,

support for the application process maximise business growth Offer support to SMEs across all sectors, including advanced manufacturing and engineering, agriculture, food and drink, professional business and finance, construction, digital economy, life sciences and medical technologies.

43 advertisement feature

Science & Technology cilities Council UNIVERSITYOF

BIRMINGHAM



Photos by STFC

The University of Birmingham brings cutting-edge UK science and innovation to solve SMEs' product, process and R&D challenges

The Science and Technology Facilities Council (STFC) is the Government's agency for big science. And through their Bridging for Innovators (B4I) programme they are funding the University of Birmingham to deliver Science 2 Industry in partnership with the Manufacturing Technology Centre and STFC national facilities.

Science 2 Industry aims to solve technical product, process and R&D challenges that may be impeding productivity or stunting business growth in the Midlands region and bevond.

We have launched the Science 2 Industry project, to offer small and medium-sized enterprises (SMEs), across the region, funded access to a suite of high-tech scientific capabilities, facilities and knowledge. Some of these capabilities include:

- Supercomputing, Computational Chemistry, **Artificial Intelligence, Digital Imaging, Cyber** Security and Blockchain Technology
- Advanced imaging and material characterisation
- Space science
- Materials development
- Micro-electronics
- Lasers
- Photonics

Regional SMEs across all sectors can receive funding from this programme. Alongside access to these UK-wide and globally recognised facilities the programme also supports access to a community of over 2000 scientists, technologists and engineers - at the forefront of their field, whom are ready to solve your technical challenges.

Science 2 Industry is the Midlands' home for big science. By combining STFC together with the University of Birmingham and the Manufacturing Technology Centre; Science 2 Industry has an unrivalled one-stop technical solutions offer for businesses across the Midlands. We want to help your business maximise productivity, minimise costs, reduce waste and create a positive economical and societal impact.

The Science 2 Industry programme welcomes interest from any businesses who require support to solve their technical challenges. After your initial request for information, we will work closely with you to understand the technical problem, support your application process and match you to an appropriate facility to support your desired outcome.



DON'T JUST TAKE OUR WORD FOR IT

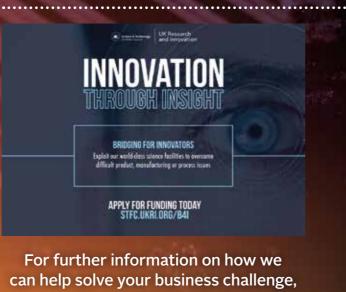
As a global leader in aero-engine provision Rolls-Royce strives to make continuous improvements in crucial areas such as fuel efficiency, noise reduction and emissions performance.

With innovation at the forefront of the company's reputation Rolls-Royce wanted to improve its design to assembly process and its overall product quality.

Working with scientists, technologists and engineers from STFC it was able to speed up its design to build process by using state-of-the-art high-performance computing and enhance the quality of its components by using cutting-edge imaging technology that could detail component performance from the atomic to the whole assembly level – supporting Rolls-Royce in maintaining its global position.

The University of Birmingham also offers a variety of initiatives that support SMEs across various Local Enterprise Partnerships (LEPs). Our academic links can help to nurture your project through its life cycle; from developing skills, resources and personal development, to establishing feasibility and proof of concept

We engage in ground-breaking collaborative and contract research partnerships and can source funding support to transform ideas into realities. Each year thousands of students graduate from the university, creating a motivated and sizeable talent pipeline for your business



please get in touch at: science2industry@contacts.bham.ac.uk www.birmingham.ac.uk/S2I

The launch of Pure VoIP

A hosted system with a difference. **by Pure Telecom** managing director **David Hayward**



Efficiency in business is key to productivity, so we are very excited to tell you about the launch of a new product at Pure – our very first exclusive branded product in fact, Pure VolP

Three million customers have already moved from traditional telephony and a further five million users are expected to move to a VoIP platform within the next five vears. Pure Telecom has been heavily involved in this 'technological revolution', had a good look at the market and decided the time is now right to deliver Pure VoIP for the improved benefit of customers.

For those who may still be unsure of what VoIP is all about, Voice over Internet Protocol means your 'phone calls' will be delivered via an internet connection, meaning you can take your calls anywhere on your VoIP phone. It is also known as internet telephony, internet calling and IP telephony, and is reckoned to be the culmination of the most successful technology of the past 10 years or so.

Hosted telephony lives in the cloud and provides greater freedom than previous communication systems restricted to the static office setting, improving productivity by offering users tremendous advantages over the older, more traditional equipment, limited line capacity and high maintenance contracts

It has also put a stop to many of the technical and practical problems that dogged onsite systems which hampered and impeded businesses from operating effectively. There are many benefits to operating in the

The launch of Pure VoIP is designed to help customers meet their obligations with the minimum amount of fuss and effort, enabling them to do what they do best - take care of business!

cloud; the system is easier to use, very reliable and the ideal vehicle for flexible working

It provides ongoing updates of new features as they become available, an interactive capability far in excess of anything that has gone before, and the provision to allow for growth or consolidation depending on the requirements of your business. Hosted telephony also allows you to bring all your communications together: phone lines, internet connections, video conferencing and so on.

There are so many different suppliers of VoIP platforms currently on the market, the majority of whom are offering a per seat offering regardless of whether the phone is being used – and all are tied into a long-term contract.

The team here at Pure was keen to develop a platform which offered the customer increased value in a number of key areas, and we are delighted to reveal what Pure VoIP will offer: fully tailored solutions to meet individual company needs, increased resilience - reducing the amount of downtime and ensuring the infrastructure is reliable and built to a world-class standard that won't let you down - and enhanced features and choice

There will also be flexible contract lengths rather than longterm agreements, reduced costs based on lines being used rather than on the number of seats, an online portal allowing complete control of the system, fully managed implementation and fully managed support with leading SLAs.



Key features of Pure VoIP include:

Wallboards – with seven different options offering real-time statistics

Unified Communications – where fully-featured UC clients can be added to each user to deliver presence, and there's a facility to chat and integrate with more than 350 CRM solutions with screen popping and click to dial features.

Call Recording – which can be activated on the platform for training and monitoring purposes.

Call Recording Transfer allowing flexibility to store recordings on customer servers and provide the option of having recordings sent to an FTP or SFTP server automatically.

Dialler and TPS Service - Pure VoIP has an automated, network friendly dialler which is also integrated into the CTPS & TPS service database to ensure you stay on the right side of the Ombudsman. Operator Console – offering high call volume environments the ability to move calls around quickly and offer maximum information to the receptionist.

Pure VoIP addresses the concerns raised regarding other products on the market, with the focus on transparent contracts which offer more flexibility and a system with greater choice - all at a reduced cost. We operate on a customer-first service basis which means you can always be assured of the best in your dealings with us, including fully managed installations and fully managed services.

45 advertisement feature

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Bv JOHN JAMES

Capitalism at 46 the crossroads

"May you live in interesting times" is allegedly an old Chinese saying. I'm not sure that is historically correct, but one thing for sure is that, with a new Prime Minister, an as yet undelivered Brexit, and the possibility of a General Election within the next few months, we are about to enter seriously uncharted waters in the business world with a real risk that capitalism itself will be under threat.

Capitalism has been the bedrock of most successful economies throughout the modern world and for all its inevitable faults, it is generally been accepted as infinitely preferable to the other alternatives, including communism or dictatorships.

But take a look now at the United States or our own United Kingdom. Research by leading economists on both sides of the Atlantic has revealed that over half of 'millennials' (aged 23 to 38) would prefer to live in a socialist (46%) or communist (6%) nation.

Business is seen by them not a

force for good, but as an ogre. And if your initial response – as mine was – is to be shocked by that, on further reflection you can understand why. Media outlets of all kinds give disproportionate coverage to failures in the business world. The goodnews stories around progress in jobs creation, or technological innovation for example, tend not to make the headlines

Young people these days have a more cynical attitude to business than older generations (one distinguished businessman puts this down to university education, on the basis that most academics are left wing: I think the issue is more finely nuanced than that!).

"Capitalism will evolve itself out of existence" is the declared mantra of John McDonnell, the Labour Party Shadow Chancellor, who could well be directing the UK's economy policy if we don't exit the EU by October 31, and the Tory party continues its

own bizarrely self-obsessed form of hari-kari.

The 'silent stiletto' approach of a self-declared advocate of communism should not be underestimated, and his party's appeal to millennials on issues such as nationalisation and free university education has a resonance the older generation ignores at its peril.

So, capitalism has to take a good look at itself and start to cast the motes out of its own eves before dismissing out of hand the challenges to it. If big international behemoths like Amazon and Facebook pay little or no taxes on huge trading turnover in the UK; if chief executives take multi-million pound bonuses from failing companies: if property companies use government schemes designed to help the poorest get on the housing ladder but then declare grossly obscene dividends for their leading shareholders: if the pay of the chief executive of one of the world's largest companies is 1424 times the median pay of his workers: then be prepared for a backlash

Business is of course a major force for good. It creates jobs, it innovates, it builds infrastructure, it generates enormous amounts of taxes which pay for our nurses, teachers, police and so forth, and it produces the products and services we rely on every day of our lives. And the truth is that most CEO remuneration is reasonable; most businesses try to plan longterm strategies in the interests not only of shareholders but also their employees, and there are actually very few true monopolies distorting the market.

But there is nevertheless a real challenge out there. Supporters of capitalism need to look at essential reforms, before the left, shouting "inequality", seek to replace it with government control of the commanding heights of the economy a disaster which would result in such a decline in living standards as to make the flawed philosophies of Animal Farm look like utopia!



First graduates of manager degree

Aston University has celebrated the graduation of its first cohort of chartered manager degree apprentices.

Jack Downes, one of three apprentices to complete the programme, attended the ceremony at Birmingham's Town Hall, while Jordan Turner and Luke Graves graduated in absentia.

The university has worked in close partnership with Capgemini, the global consulting, technology services and digital transformation company, to revolutionise the way people develop high-level skills through apprenticeships, offering them the chance to gain a degree whilst employed in industry, with their tuition fees paid through the apprenticeship levv

Employers including Mondelez. Chiltern Railways and Kaplan have since joined Capgemini in training new talent and existing staff in business and leadership skills through the chartered manager degree apprenticeship

The chartered manager is a flexible degree apprenticeship that can be adapted for a wide range of business areas. Each module is designed to enhance the apprentice's leadership and management capabilities. teaching them the skills required to

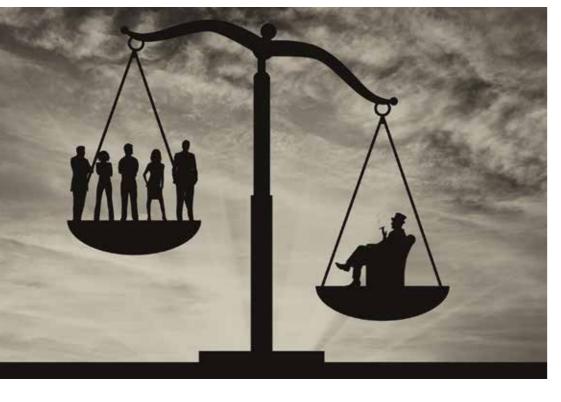
lead projects and people effectively. Jack, an application consultant

at Capgemini and graduate of the chartered manager degree apprenticeship, said: "I decided on a degree apprenticeship because I could never see myself attending university in the traditional sense, but I knew that having a degree would be an invaluable asset for my career.

"My apprenticeship has helped my career more than I could ever have understood when I first began applying for the schemes. Despite being the age of a graduate, I now have the qualification and experience of a professional who might have been working in the city for a number of vears.

"I have worked on four different projects in various roles and travelled around the UK and to numerous countries in Europe to take part in workshops and client activities. I have never once felt like 'the apprentice' and now I have finished the course nothing has changed!

"I'm very excited by the future and it looks bright. Now I have finished my degree apprenticeship, I am looking to really develop my management skills over the next couple of years. I would like to start leading some small teams and begin building up my management portfolio."





Keith Schofield



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news

Jack Downes Mark Smith



Dr Keith Schofield, dearee apprenticeship lead at Aston Business School, said: "We are very proud to celebrate with our first chartered manager degree apprentices graduate from Aston Business School. "The degree apprenticeship journey requires commitment from not only the apprentice, but from their employer and the university. Aston's strong collaboration with Capgemini

is creating talented professionals who are making exceptional contributions to the IT sector.

"As Aston's degree apprenticeship offer continues to grow in collaboration with key stakeholders in business and the professions, we look forward to celebrating the achievements of more graduates who will join our network of degree apprenticeship alumni."

Mark Smith, executive director of employer engagement at Aston University, said: "I'm delighted to welcome Jack to the Aston graduate family of alumni. His achievement is of course a triumph, showcasing his ability and enabled by the excellent support of his employer.

"Aston is delighted to continue to work with Capgemini, and to extend our relationship from technical studies into helping draw out future management expertise."





Course aims to contribute to economic upturn

Aston University is hopeful that business leaders of the future can be found through its MBA for executive apprentices.

With 83% of employers struggling to recruit new leaders, according to the CMI's Future Forecast report, Aston's Level 7 executive apprenticeship MBA aims to play a key function in boosting the country's dwindling output.

Business representatives from a variety of sectors, from Specsavers to National Express and Chiltern Railways, are already backing the challenge to drive up the UK's low productivity levels by helping to upskill today's and tomorrow's leaders of industry

Terry Hodgetts, director of the corporate client solutions team at Aston University, explained: "Our productivity is lagging behind all of the Western developed economies. Take the car industry for example. Would you have a centre for

design and engineering and no manufacturing?

"The implications for employment and for social mobility are pretty stark if we end up with no car factories, a few highly-paid designers and everything manufactured offshore.

"There is a bigger picture here and we want to be part of it - to lead, to innovate and to strategise are absolute critical requirements."

Programmes such as the executive apprenticeship MBA offer business an advantage when it comes to addressing areas with the largest skills gaps. Management has been recognised as one of the most prominent skills shortages that needs to be addressed.

Four in five managers have had no formal training prior to taking up management positions, according to CMI research.

At Aston University, the executive apprenticeship MBA teaches employees to 'become enterprising

in everything they do', to avoid pigeon-holing individuals into roles and workplace attitudes for life.

The apprentices work full-time and complete the MBA over a two-year period through a combination of online learning and termly two-day study sessions on campus.

In addition to learning the fundamentals of business, finance, marketing, operations and organisational strategy, learners can benefit from The Aston Edge, a personal and professional development programme that will equip them with skills vital for the ever-changing global business environment.

The MBA is funded by the apprenticeship levy, paid by employers with an annual payroll over £3 million. In return, firms can draw down the full amount of their levy funds to spend on apprenticeship training.

Emily Stubbs, policy and patron



advisor at the Greater Birmingham Chambers of Commerce, which is backing the Aston MBA initiative, said: "Birmingham has long had a skills gap at every single level, and we have a high proportion of low qualified people.

"I think that employers working with educational institutions at any level is absolutely fundamental in eliminating the skills gap.

"In the past, putting someone on an MBA programme has been seen as a reward or a pat on the head. Rather than seeing it as a reward for an individual, the MBA is an investment for business."

One well-known high street name that has backed the Aston levyfunded MBA is opticians Specsavers, which has a cohort of students at the university from throughout the UK.

Guy Kidd, Specsavers' national apprenticeships business partner, said: "Our first cohort of apprentices are really engaging with the programme. They can see the direct benefits that come from it.

"Specsavers is really positive about



the value this brings to the industry and to the business."

Martyn Thomas, a joint venture partner for two Specsavers practices. joined the programme earlier this year, said: "My professional qualification is as an optometrist and despite running my own businesses for the last 12 years, my business skills and knowledge have been built through experience rather than structured learning

"The MBA is an opportunity to hone those skills and improve upon them. I'll gain an improved financial understanding and a better business head to make effective decisions when running my businesses."

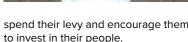
But despite the positive feedback from companies like Specsavers, the value of the MBA is still failing to reach some boardrooms.

From February 2018 to January 2019, only £523 million, or 22 per cent of the £2.36 billion received into employers' apprenticeship service accounts, has been drawn down.

The university is working to engage with employers who do not







"Management skills are not a gift that people are just born with," said Simon Finley, associate dean for the MBA, apprenticeships and online programmes at Aston Business School.

"It requires nurturing and development. There has been significant under-investment in skill development for too long, particularly in new and developing industries and in the use of new technologies and

this is damaging UK productivity. "There is just as big a need to upskill UK management skills as there is the entry level workforce; at the end of the day what good will a highly-skilled workforce be if we don't have the organisational and leadership skills to exploit this effectively?"

Industry and university veteran Terry Hodgetts is a testament to the value of an MBA, having studied for one himself 20 years ago.

"If we can put the managers back into the businesses that are better able to make strategic decisions, there can be better outcomes for their customers and these organisations are going to be more competitive.

"One of the best ways to reduce the productivity gap is to improve the capabilities of managers to drive firms. We are talking about a much broader skillset and toolkit – it is about managing our organisations better."

The university is also combatting outdated views that apprenticeships are just for school leavers entering the working world.

Aston Business School's executive dean, Professor George Feiger, said: "The idea that an apprenticeship can only be for a young, inexperienced trainee is old-fashioned.

"The apprenticeship levy has broadened the definition to encompass skills that do not fit the traditional mould, but are nonetheless vital to jump-starting productivity.

"The evidence is clear – better managers lead to more efficient workforces."

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Left: Martyn Thomas





Mike and Julie Ward Gary Hyem, Fiona Pendleton, Sally Beavan and Al Pendleton

Gateley's This was the 18th year the event – which was founded by Gateley's CEO Michael Ward – was held by the professional services group at Canalside in The Cube. All money raised at this year's ball will be charity ball

donated to four homeless charities in the Midlands.

Guests celebrated with a drinks reception and a three-course meal.





Steph Mersh and John Dearden

Left: Graham and Julia Hall, and Sofia and Demetri Theofanou



Jon Miller, Nyah Miller and Sami Rao Tracey and Adrian Lamasz, Laura Patrick and Frances Bargellini



Tracey Bailey, Ian Howey, Michelle Freeman, Nisha Patel and Alpesh Patel



Sasha Norman, Mark Gillingham, Cecilie Illum

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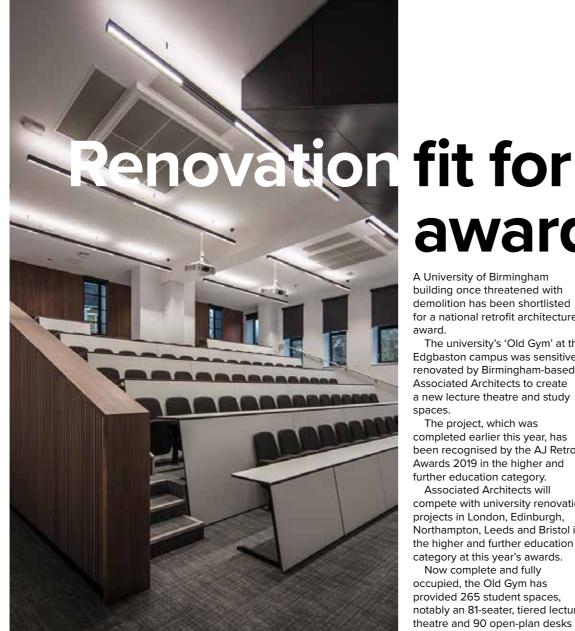


51 social



and Kirsty Handley Mike and Emma Collis, and Nikki and Gary Ecob







award

A University of Birmingham building once threatened with demolition has been shortlisted for a national retrofit architecture award

The university's 'Old Gym' at the Edgbaston campus was sensitively renovated by Birmingham-based Associated Architects to create a new lecture theatre and study spaces.

The project, which was completed earlier this year, has been recognised by the AJ Retrofit Awards 2019 in the higher and further education category. Associated Architects will

compete with university renovation projects in London, Edinburgh, Northampton, Leeds and Bristol in the higher and further education category at this year's awards.

Now complete and fully occupied, the Old Gym has provided 265 student spaces, notably an 81-seater, tiered lecture theatre and 90 open-plan desks across four floors, with meeting rooms and consulting pods on the two upper floors. The total internal area has been extensively expanded with break-out areas for each of the open plan office spaces.

Warren Jukes, an Associated Architects director, said: "With its new study spaces and lecture theatre, we're delighted to see the Old Gym being brought back to life in such a positive, useful way.

"For the Old Gym to now be shortlisted by the country's leading retrofit awards shows how it is often possible to reconsider and re-use a structure instead of demolition and rebuild.

"Sustainability is at the heart of everything we do at Associated Architects and the Old Gym is the perfect example of how old spaces can be reassessed as the buildings of tomorrow, perfectly in tune with the people who need to use them."

The 2019 winners will be announced at an awards ceremony at The Brewery in London on Wednesday, September 11.





52 property

Fund manager Frontier Development Capital has relocated its Birmingham headquarters.

The firm has moved its operations and 25 staff from Baskerville House to a 5,246 sq ft office at 45 Church Street in the heart of the city's business district.

FDC provides access to investments of up to £10 million, deploying flexible capital to mid-market businesses across England. After making five new staff appointments in the last 12 months, the relocation will provide the firm with the space it needs to continue its expansion.

The move follows several highprofile deals such as supporting the management buyout of Hammonds a national fitted furniture manufacturer and retailer employing 837 staff.

FDC has also enabled notable property investments, the latest being a £3.5 million loan supporting a scheme led by Cedar Invest, to transform 0.86 acres of brownfield land in Digbeth into a 140-apartment development.

Sue Summers, CEO at FDC, said: "This is an important milestone for Frontier Development Capital. Only three years since launch, the firm has grown rapidly, increasing funds under management while delivering crucial investment to mid-market businesses across England.

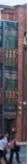
"Church Street will provide us with both the space and modern facilities needed to further grow our team as we continue to establish FDC as a leading fund manager in the alternative funding landscape.

"We will also continue to see resilient, impassioned businesses coming through despite the uncertainties in our economic landscape, and we look forward to welcoming investee businesses, intermediaries and other partners to our city-centre home in the months to come'

FDC officially opened its new office at an event attended by guests from the region's business and finance community.

53 property

Top: Members from the Frontier Development **Capital team**



Prime acquisition

Workspace group WeWork has completed its largest deal in the city to date, with the acquisition of seven floors at one of the region's prime business destinations.

WeWork will welcome members to Six Brindlevplace when it opens for business in Q1 2020

The letting signifies the largest of three locations for WeWork in Birmingham, following deals at Louisa Ryland House and 55 Colmore Row. The deal represents the largest office letting in the city this year.

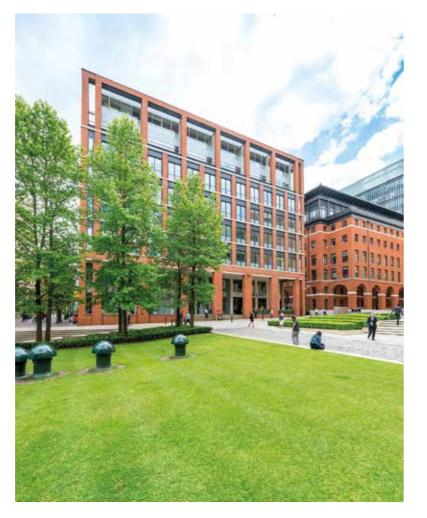
property

The seven-storey building features a double-height reception area, open-plan floor plates arranged around a glazed central atrium, an array of ground floor eateries and 95 basement car parking spaces.

Avison Young and Savills acted on behalf of asset managers Hines, while JLL acted on behalf of WeWork in the deal

Raj Rajput, head of asset management for Hines, said: "Six Brindleyplace provides a rare opportunity to offer a bespoke headquarters building in the heart of the city.

"To welcome an innovative and thriving company such as WeWork to Brindleyplace is a great endorsement for the estate as a location that business calls home.



Office expansion for West Midlands construction firm

Construction company mac-group has quadrupled the size of its West Midlands offices as it looks to grow its operations in the region.

The mac-group has expanded its construction and interiors division

into offices next door to its existing property in Station Road, Solihull, after growing the business from seven staff - when it first opened an office in the region in 2017 – to 60.

The new Midlands HQ, which

takes the company's office space to 4,300 sq ft, has been fitted out by mac-group interior fit-out specialists and comprises office space, break-out areas and meeting rooms.

The company secured significant multi-million-pound construction and refurbishment contracts in the Midlands and beyond in 2019, taking its turnover to £60 million out of a group turnover of £250 million. Paul McKenna, group CEO

of the mac-group, which has its headquarters in Dublin, said: "The company has enjoyed a sustained period of solid growth in the Midlands, with the resulting increase in our head count and the need to expand our office

"The mac-group owes its success to finding a service for its customers. rather than trying to find customers for its service. We are continually seeking ways to do more and better. Our commitment to quality and design is borne out by our high-quality new office space in Solihull."

Paul McKenna, group CEO, and Ray O'Sullivan, director of construction UK at mac-group

Million-pound makeover enters next phase

A Birmingham property firm has put a 'boutique' theme and community feel at the centre of a major refurbishment programme for Cornwall Buildings in the city centre.

The Grade II-listed building, which is owned by Bruntwood Works, is set to move into the next phase of its £1 million transformation, introducing a scheme designed by Birminghambased Associated Architects.

The planned makeover, which was due to get under way in September, includes a new manned barista coffee offering in reception, a 'host pod' to remove the traditional reception desk barrier, and new seating areas on the around floor

Feature lighting will also be installed to create 'zoning' throughout the building, whilst biophilia will be brought in to inject greenery into all the public spaces.

The scheme, which is expected to be completed in early 2020, will focus on the ground floor, corridors, staircases and kitchens across the four-storey building, with office suites also undergoing a revamp to reflect the building's heritage and forming part of Bruntwood Works' commitment to sustainability.

Bruntwood Works said a sense of community will be evident throughout the new ground-floor space and will provide an area for customers to meet like-minded, innovative people, network and collaborate.

Rob Valentine, director of Bruntwood Works in Birmingham, said: "Cornwall Buildings is a beautiful. historic building with a mix of

innovative workspaces which include serviced offices and meeting rooms.

"The building has an incredibly rich heritage and we've ensured that we pay homage to its unique character throughout the refurbishment, preserving and restoring its original features to help create our sophisticated 'boutique' feel.

"What people want from their workplace is changing and it's now more important than ever to create inspiration in the office to keep your team motivated. Our transformation at Cornwall Buildings offers customers much more than an office –it provides them with an environment and community in which they can thrive.

"Everything from its spacious and private suites with high ceilings and full of natural light, to the beautiful boutique new community around floor for people to gather and socialise, has been created with our customers' wellbeing, productivity and business success in mind.

"We also recently launched an exclusive online community platform 'The Collective' making it even easier for our customers to collaborate and connect with each other not only within the building or in Birmingham, but across our portfolio in Leeds, Liverpool and Manchester"

The upcoming changes follow the first stage of the Newhall Streetbased building's makeover, with a new lounge being created around 20 months ago, as well as meeting spaces being transformed with antique furniture and the latest AV technology.



55 property

As part of the scheme - and in keeping with Bruntwood Works' commitment to local arts and culture - the team is currently finalising a selection of artwork that will be displayed across the building. This includes pieces from local artists Jovce Treasure and Suzi Osborn. who were awarded places as 'artists in residence' as part of Bruntwood Works' partnership with Grand Union earlier this year.

The pair, who also receive mentoring from Grand Union's curatorial team, are based at a specially-created studio at Cornwall Buildings.

The building's event space will also be improved thanks to the reception area's moveable furniture and AV system, creating more options for customers.

Mr Valentine added: "The planned refurb to Cornwall Buildings will ensure we have one of Birmingham's most sought-after workspaces."



The craft that time forgot

profile

The traditional art of watchmaking is still very much alive in Birmingham. HENRY CARPENTER visits a husband-and-wife team whose business in the Jewellery Quarter attracts deep-pocketed clients with an eye for precision and timeless beauty



Craig and Rebecca Struthers are an increasingly rare breed - experts of a traditional craft using the skills and tools of a bygone age.

They also have the patience of an army of saints. Which is fortunate really, because when their line of work involves making the most intricate watches imaginable, where the design-to-delivery time period averages at around two years, a tendency to rush and cut corners is simply not an option for the meticulous duo.

No doubt their tolerance levels are helped by the fact that each of their watches – and they've only produced 11 watches since they set up business together four years ago - costs up to £50,000 a pop; their creations are that highly regarded.

Few watchmakers like this husband-and-wife team remain as independent practitioners.

Traditional skills practiced in an area with such a rich, time-honoured heritage, Struthers Watchmakers are old-fashioned exponents of their craft. The processes and tools they use in their Jewellery Quarter workshop could easily be transported back to the 1850s and not look out of place.

"We gain much of our inspiration from historical timepieces – even our tools are vintage," confirms Craig. "Most of the bigger brands use a lot of technology. CNC production is not a route we take."

Whatever techniques they use, the success of the products – and the premium clients are willing to pay for them – speak for themselves. Craig and Rebecca are at the very top of a rarefied craft.

The Struthers' big break arrived in 2013 when they tackled a project



which allowed them to combine their creative energies and put them on the watchmaking map as serious artisans.

It came in the form of the Lonmin Design Innovation Awards. The brief was to design an item of jewellery where platinum was the hero of the piece.

"We designed a pendant watch called the Stella with a vintage 1960s universal movement," explains Craig. "It was made of platinum and also a platinum weight was used to wind the watch. We entered the drawing first, and a week later we had notification congratulating us on winning our category.

"The joy turned to mad panic when we were told we had 10 weeks to make it for a national jewellery exhibition in London. We found a sponsor, which was necessary because of the price of platinum, a stone cutter and a setter, and then we basically had to teach ourselves how to make the case with an incredibly high level of accuracy. By the time we finished we were traumatised - but we did it!" Suddenly things began to happen for Craig and Rebecca. Journalists started getting in touch and quickly

it became obvious that winning the Lonmin award had acted as the ideal PR tool for the couple.

All the while the Struthers' profile was quietly becoming more prominent through their restoration work.

"It takes a while to get people to trust you," explains Craig. "But restoration inspires us to make timepieces, and we have had to learn how to make every component from other people's watches. Also, some of our restorations have turned





58 profile

and The Carter

The Kingsley MKII, left into commission clients, so the value of our restoration work can't be underestimated.

> "We only make between one and five watches a year."

But what watches they are. They are revealed in all their photographic glory on their website. Take two contrasting examples, the Kingsley and the Carter (both named after the clients who commissioned them). They could not be more different in composition and style but they both

"Restoration we have had to recommissioned and modified late

scream quality. The Kingsley – "our first commission after we had recovered from the Lonmin competition!" says Craig – is a wrist watch inspired by a client's passion for 1950s watches. These are retailing with a starting price of £16,250, though can be adapted according to requirements. The Carter is a different proposition, a little more expensive, too, in silver and gold at £22,500. This is a pocket watch with a

19th-century movement, with the case built around it.

"It has a parachute shock setting which is a very niche historic invention. The way we have rebuilt and recommissioned it - no one else is mad enough to do it!"

The current watch they are working on is called Project 248 - as in two watchmakers, four hands and an eight-millimetre watchmaker's lathe.

It incorporates their first in-house movement, from scratch - quite a step for them – and employing techniques which were being used 200 years ago.

"There are five collectors investing in it who have put down a deposit," says Rebecca. "The asking prices for these will be £50,000.

"We are also working on a collaboration with Deakin & Francis, a one-off 'Kingsley' with a beautiful enamel dial. This one will be sold retail rather than to commission."

Getting to where they find themselves now, where they charge tens of thousands of pounds for their designs, has taken them on a circuitous route which has seen them meet as students at university in Birmingham, joining forces both romantically and professionally in London, before setting up base - for good – back in Birmingham.

Craig came to the profession relatively late in life. After trying several different jobs, he ended up working in IT, but came to the solemn realisation that "most people knew a lot more than me at it".

It was an aptitude test which pointed him in the direction of horology. "I didn't even know what it was," he admits.

He enlisted on the three-year vocational horology course at Birmingham City University, after which he decided to set up his own business restoring at home in Hagley. As he says: "I didn't want to follow the path of working for the big firms."

But a valuable stint working at Fellows & Sons auctioneers in the



Jewellery Quarter followed, where he was handling "everything from early pocket watches to Rolexes and Pateks".

Rebecca tells her side of the story. "Craig and I came at it from different directions. I started quite young. At school in Sutton Coldfield I was pushed towards the sciences but after chatting to someone I knew in the air cadet force, who was a jeweller, I decided to drop out and enrolled at art school for a two-year course in jewellery making and silversmithing.

"While I was doing that course, I missed the precision of the sciences and I switched to watchmaking which took me to Birmingham City University and that was where I met Craig

"And then, like Craig, I also went to work at Fellows – in the early part of my career I always seemed to be chasing him! But while I was at Fellows I was headhunted by Bonhams and I went to London to work in their watch department."

The paths of Craig and Rebecca converged in London and romance swiftly followed. Rebecca was working for vintage restoration practitioner Steven Hale at the time and it wasn't long before she was joined there by Craig.

"After one really long, bad day at work, Craig suggested we set up business together," remembers Rebecca. "I thought it was worth a try so we went to the bank with a business plan and applied for a tiny loan - it was so small there was no way we could survive in London so we decided to move back to the city where we had trained together. After a few workshop moves, we eventually set up in the Deakin & Francis building in Regent Place." Ever since that Lonmin

competition win, momentum has steadily been building for Struthers Watchmakers – but they seem in no hurry to scale up their business model in a bid to boost profitability. In true artisanal style, you get the sense that they see their reward in

their craft rather than commercial gain

But what of the next few years any plans to deviate from what they're doing?

"Not really," says Rebecca. "We are moving premises within the same building in Regent Place, but other than that we'll carry on with our restoration work, continuing to dip in and out of projects."

And with that, it is back in with the eye pieces to tackle the next painstaking stage of Project 248.





inspires us to make timepieces, and learn how to make every component from other people's watches."







Above: The Carter back



Top accolade for hotel

Conference Aston Hotel has received TripAdvisor's 2019 Certificate of Excellence, putting it in the top 10% of businesses registered on the industry site.

This is the first time in the hotel's history that it has received the honour which is reserved for businesses that consistently achieve an overall rating of at least four out of five.

The recognition arrives during a period of significant growth for the hotel that forms part of Conference Aston, Birmingham's largest residential events venue situated on the campus of Aston University.

news

Samantha Brown, head of Conference Aston, said: "This is a defining moment for Conference Aston and our onsite hotel. TripAdvisor's Certificate of Excellence is only received by firms that can demonstrate delivering consistently great service, putting us among some of the best hospitality businesses in the UK.

"The residential events market has been challenging in recent years, with almost two-thirds of events in 2018 lasting only one day or less. We have invested heavily in our hotel, which when combined with the confidence surrounding Birmingham at the moment, has seen us buck the national trend. "This has not only shown

success in the mid-week business tourism sector, but also enabled the hotel to embrace its versatility and attract an increasing share of the city's weekend tourism market."



Samantha Brown, head of **Conference Aston**

Academy secures main prize



Winners WMG Academy

A Solihull academy showcased its engineering excellence when it won one of the main prizes at the Manufacturing Assembly Network's Design & Make Challenge.

WMG Academy beat off the challenge of eight other schools from across the UK to take the Design for Manufacture title for the way it created a hand-crafted vehicle that ran down the test track and could be easily produced in large numbers.

More than 40 Year 11 pupils and A-Level students swapped their daily lessons to take part in the competition, which is funded by nine local SMEs and designed to inspire young people to consider a career in engineering by encouraging them to work together and 'problem solve'.

The four-strong teams were given a box of goodies they could use to build a vehicle that would be propelled by a plywood pendulum, ensuring their designs could withstand the 'strike' whilst also avoiding the friction of the track.

In addition to the main award, there were accolades for Efficient Design and Innovative Design and these were won by John Taylor

High School and Alcester Grammar respectively.

Austin Owens, founder of Grove Design and the inspiration behind the initiative, said: "As manufacturers we can't just sit back and continually reflect on the lack of skills or the number of engineers coming through.

"There is no better way of inspiring young people to consider a career in our sector than showing them first-hand what we do and how we do it, then getting them to put their own ideas into action. The competition gets really intense and there was a massive buzz in the room when the vehicles came to perform.

"Last year's challenge involved seven teams – this time 11 – and we are hoping that next year's will be even bigger. One of the major issues we face is recruitment - we need that to change with manufacturers and educators working more collaboratively to increase awareness."

The MAN Design and Make Challenge, which was hosted by the Advanced Propulsion Centre and Warwick Manufacturing Group. featured nine schools in total.

"There is no better way of inspiring young people to consider a career in our sector than showing them first-hand what we do."



Martin Dudley, Thomas Dudley Group, Neil Lloyd from FBC Manby Bowdler, Dan Turner, chamber policy & representation officer and Julie Cunningham, chamber president

Chamber launches business manifesto

The Black Country Chamber of Commerce has launched its first business manifesto

Approved by the chamber's Consultative Forum, and developed and supported by major organisations and members, the document sets out the key priorities that will be championed by the chamber on behalf of its business community over the coming months.

Many of the topics outlined include longstanding issues that companies across the UK face, as well as those unique to the Black Country. The chamber said that throughout

Birmingham-based property agency FleetMilne was crowned Residential Property Sales & Lettings Agent of the Year at the Insider Midlands Residential Property Awards.

The award was the 20th win for FleetMilne, adding to accolades which include gold in The Sunday Times Lettings Agency of the Year Awards: Innovation category.

Founder Nicola Fleet-Milne, a former Birmingham Young Professional of the Year winner. said: "Since day one, we've been dedicated to showing that estate agents are efficient, honest and generally a delight to deal with.

"It's not always the experience that people have in our industry, but we have to break down those barriers and provide people with the best service for our customers, whether they're renting their first apartment, buying their first home or selling a portfolio of properties."

the manifesto's pages, readers will discover the key topics and themes including manufacturing, finance, transport, skills and business essentials, along with the chamber's responses.

The manifesto will focus on a series of indicators from showcasing the region's established manufacturing sector and recognising and

celebrating business excellence, to maintaining and building working relationships with strategic partners and Government departments.

Black Country Chamber president Julie Cunningham said: "This is a

award from the sponsor

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significant and welcomed statement of intent and provides a clear message to the Government about the importance of investing in our highly successful region.

"Reflecting on calls from our membership and in response to very significant shifts in the political landscape, it sets out the challenges, opportunities and changes that members believe will successfully impact the region.

"The manifesto's success will be to ensure that everybody living, working and doing business across the Black Country benefits from its outputs."



From left, Anton Foster, Nicola Fleet-Milne and Kirsty Cove receive their







Jas Tamber, Ryan Gilbert and Alex Laud Stephen Farnfield and Tom Mathieson

Retirement reception

Happy Retirement Alex

Anthony Collins Solicitors held a drinks reception in their Edmund Street offices to mark the retirement of Sir Alex Elphinston after a 40-yearlong career as a lawyer. Members of the region's intermediary and legal community enjoyed speeches and refreshments, as well as the opportunity to wish the popular solicitor well in the next chapter of his life.

Sir Alex Elphinston and Nick Shioleftou





Eamon Daly, Louise Igoe and Peter Hubbard





Neil Padgett, Chris Winwood and Lisa Whitehouse



John Grundy, Richard Waddans and David Black



Laura Banks, Sarah Huntbach and Clare Burke



Below: Martin Allsopp, Elizabeth Wyatt and Liz Whybrow





Nick Shioleftou and David Black



Promotion for engineers

Civil and structural engineering consultancy CWA Ltd has promoted four of its associate engineers to associate directors.

The Birmingham-based consultancy has promoted Matthew Hughes, Andrew Godber, Andrew Hardy and Matt Endacott to associate director status.

Matthew Hughes has worked at the Birmingham-based consultancy as an associate structural engineer since 2017. He was previously a divisional director with Rodgers Leask, managing their London and Birmingham offices

Meanwhile, Andrew Godber joined Great Charles Street-based CWA in 2015. He was previously senior structural engineer in the

Solihull office of Arup. Andrew Hardy has been an

associate civil engineer responsible for the day-to-day management of the CWA civil engineering team. Matthew Endacott joined CWA in

2011 having worked at Cox Turner Morse for nine years.

CWA director Steve Wedge said: "These four have proved themselves to be associate engineers of the highest calibre while they have been at CWA - to the benefit of our wide range of high profile and blue chip clients."

Pictured clockwise from top left, Matt Endacott, Matthew Hughes, Andrew Godber and Andrew Hardy

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Expansion in property management at **Brindleyplace**

Avison Young has expanded its property management consultancy team with two new appointments.

Helen Palgrave and James MacMullen (pictured below) have joined the company's Midlands office, which operates out of a headquarters at one of their most prestigious managed estates, Brindleyplace.

Helen has extensive experience of the property sector with a career spanning over 15 years in senior positions in private practice in Birmingham.

She will take a leading role in one of the company's largest instructions for a national industrial portfolio, and is joining the team that delivers wide-ranging services for the Brindlevplace estate. James started his career with

the British Rail Property Board before moving into private practice, providing advice primarily on retail and corporate properties.

He will deliver property management services for a range of clients, acting on large technology parks, shopping centres and retail parks across the Midlands and Wales.



Company graduate returns as logistics team director



CBRE has appointed a new director to head up its industrial and logistics team in Birmingham.

Peter Monks has joined the property consultancy from Colliers International where he was a director in the industrial agency team for more than five years. Prior to that, Peter worked at BNP

Paribas Real Estate from 2006 to 2014. He has returned to CBRE after more than 13 years, having trained as a graduate surveyor at the firm back in 2004

Peter will work with fellow director Melissa Wase-Rogers and Craig Herrick in the Birmingham office, along with

colleagues in London and across the UK

Peter said: "Having cut my teeth as a graduate at CBRE, it's great to be returning to the firm where my career first began. I'm excited to be back advising clients and growing the team further.'

Martin Guest, CBRE Birmingham managing director, said: "It's great to welcome back Peter to strengthen the industrial agency team. Peter is a highly respected industrial agent with a strong track record across the Midlands and he will be an extremely valuable asset to the firm.'



Parmveer Virdee and Tony Gibb

Lawyer joins Birmingham office of commercial property department

Thursfields Solicitors has appointed an additional lawyer in its commercial property department, working principally from the firm's Birmingham office.

Parmveer Virdee, who studied law at the University of Birmingham and the University of Law, joins Thursfields from Pickerings in Tamworth.

Her appointment further

property team at Thursfields, said: "We're delighted to welcome

Parmveer to our growing team. "She has picked up some valuable

post-qualification experience and we will be looking to build upon her existing knowledge and skills to help the team achieve strong turnover growth again this year.'

Parmveer said: "I decided to move to Thursfields for the great training and business development opportunities it offers.

"I also wanted to gain exposure to different types of commercial property matters to expand my knowledge base, and I'm looking forward to being part of the firm's growth and development."

Experienced banker strengthens debt advisory team

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Cattaneo Corporate Finance has recruited Scott Peters as an associate director to strengthen its debt advisory capability.

Scott joins the Birmingham-based firm from Clydesdale Yorkshire Bank, having started his banking career with Royal Bank of Scotland. In the last four years he has completed more than 20 leveraged debt transactions across the Midlands ranging from £1 million to £50 million. two of which won prestigious dealmaking awards.

Scott's role will see him working to structure debt packages in a range

of circumstances, and he will also be working closely with the rest of the Cattaneo team in support of their M&A mandates.

He said: "I am excited to be joining Cattaneo. I am looking forward to adding to the skill set of the team and making a significant contribution across the spectrum of transactions that Cattaneo advises on."

Cattaneo partner Martyn Pilley said: "Bringing Scott on board is a natural progression for us to increase our capacity and deepen our expertise in order to deliver optimum solutions for our clients."

strengthens the commercial property team which has seen its turnover grow by 14% in the last financial year.

Tony Gibb, head of the commercial



Law firm partners



National law firm Weightmans has appointed two new partners to join its growing property litigation team

Anna Albini, above left, and Helena Bannister are based in the firm's Birmingham office, ioining the practice from Emms Gilmore Liberson where they worked together for six years to build their property litigation practice.

Anna has represented a broad range of clients including property investors, privately owned property groups, commercial developers, landowners, public authorities and government bodies.

Helena has experience in all property litigation disciplines and has worked for a wide range of clients from national retailers, managing agents, large corporate portfolio clients, landed estates and developers, to small owner-managed businesses and individuals.

Sian Evans, head of housing and partner in the property litigation team at Weightmans, said: "Our team continues to grow in line with the increasing demand for our results-driven service. Anna and Helena are both incredibly skilled and knowledgeable lawyers with exceptional track records. We are delighted to welcome them to the firm



5minutes with...

PJ Ellis

insight

Director, Lightbox Digital

Very briefly, what does your company do?

Digital marketing. We are digital specialists for ambitious organisations, creating and marketing bespoke products. How long have you been in your

current job? My small social media agency

merged with Lightbox in August 2018. Explain a typical week in your working life.

Madness. Not one day is the same. One minute I could be reviewing our tools and subscriptions at Lightbox, the next Louid be helping organise a fundraising event for LoveBrum [the Birmingham charity PJ co-founded], and the next I could be working on a digital strategy for a washroom services start-up. It's all go, go, go.

What is the biggest challenge facing your industry right now?

We are lucky to have a team of six brilliant developers, but we could do with more. Unfortunately, however, we are struggling to find more with the talent, drive and personality that we are looking for.

And what are the big opportinuties? The fact that every business needs



to consider its digital marketing strategy. More businesses in the more traditional industries are becoming more open to investing in digital and partnering with companies like ours to push those transformations forward. How do you get the best out of your staff?

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I think it's by being very open. Every member of our team knows what the business is doing, how it is performing and where we want it to go. At the same time, we have weekly meetings and daily stand-ups so that every team member has a forum to talk about any challenges they are facing or opportunities they have spotted. Monthly employee of the month awards take place with drinks and pool after.

What was your last meeting about, how long did it last, and was it productive?

It was about a member of the team's probationary period. It was coming to an end and we needed to make a decision. My business partner hates wasting time, so meetings are run very effectively. This meeting took 10 minutes and it was productive in that we made a decision that we needed to make.

How many emails do you get in a day, and how much time do you have to read them?

Easily over 50 . . . and that's just for Lightbox. I used to get a similar amount a day in relation to LoveBrum but these have reduced given that the charity now has four full-time members of staff.

Do you answer work calls or emails at home? What's the right work-life balance?

Unfortunately, yes. I am getting better at this, and as the business grows and sophisticates, striking the right balance should become a great deal easier. I have a young family and want to make sure I don't miss those important years. Family is what's most important to me after all. I suppose the small issue I have also is that I am a workaholic. I actually enjoy it.

How do you hope your colleagues would describe you? Genuine. I pride myself on my

honesty and integrity. Highlights of your career so far?

Co-founding LoveBrum. It is doing some truly amazing things. And, without a doubt, owning a share of

one of the best digital agencies in Birmingham.

Any particular faux pas or

embarrassing moments in your career you would prefer to forget?

When I was a solicitor, I addressed a court when I did not have the necessary rights of audience allowing me to do so. Doesn't sound much, but it was very, very, VERY embarrassing - and I got a right ticking off from the judge. Pet hates?

Laziness. If you decide to do something, commit yourself completely. Yes, ask for help if you need it, but don't be lazy. If you could go back and give your younger self some wise advice, what would it be?

Be nice, but don't trust everyone. I would have avoided a number of mini heartaches if I'd known this years

How do you relax away from work? I'm not verv good at this in all

truth. My happy place, however, is with my family. Just spending time with those that you love most in the whole world always does it for me: it's obviously even nicer if you are able to do this somewhere nice and hot! I also enjoy watching - and playing – golf and football. I used to read a lot and I would like to find more time to get back into my books. What do you believe is special about the Birmingham business community?

The people. If you ask another business/leader for help, for mentoring, for guidance, the answer is (99% of the time) yes. Tell us something about you that

most people probably wouldn't know.

I am covered in tattoos. Make of that what you will. Oh, and played football at a very good standard. You can take one book, one film and one CD onto a desert island - what would they be?

Papillon. Brilliant book. Film: Love Actually or Notting Hill. I actually just said that. CD: Old skool speed garage (takes me back to my youth). Your five dream dinner party guests, dead or alive?

My grandad Pete, my nanny Beatrice, Stephen Fry, Marilyn Monroe and probably Steve Jobs. What would you choose to eat for your last supper?

Starter: My mom's prawn cocktail. Main: My mom's spag bol. Dessert: My mom's millionnaire's

cheesecake with ice cream. You can probably tell that I loved

my mom's cooking.

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