

A LEARNING LIFELINE

Businesses have a rich seam of research to tap into at Yorkshire's 12 universities which generate £140m in contract research every year. **Alex Bell** reports



Researchers at the 3M Buckley Innovation Centre in Huddersfield

With a name like Innovate Orthopaedics, the husband and wife-run company should be able to demonstrate the value of innovation.

Alex Gutteridge and Hannah Longbottom's Huddersfield business creates solutions to existing problems in surgery, with a specific focus on sports injuries.

Working with surgeons, engineers, manufacturers, and academic institutions, and embracing new technology such as 3D printing, it successfully launched its first product in 2016 – a CE-marked interference screw for ligament surgery.

Should the United States Food and Drug Administration grant approval, it will begin exporting to the States soon – a move which could see it double in size.

When the pandemic hit, however – causing a halt to elective surgeries – Innovate's 40 per cent projected sales increase for 2020 disappeared in the blink of an eye. Its lifeline came from its long-time home and innovation partner the 3M Buckley Innovation Centre (3M BIC) in Huddersfield.

"It really was a lifeline for us, especially in those first three months," says Longbottom, whose team was able to continue operating in line with social distancing

guidelines when sending products to customers including to two of its main export markets New Zealand and Israel.

Following three demanding months, elective surgery restarted in the private sector, meaning business picked up.

Innovate is soon set to move to 3M BIC's sister building The Globe, in Slaithwaite, to accommodate its growth.

Longbottom says: "Our academic collaborations have been invaluable to our business. Having links with Imperial College, Sheffield University, Bradford

University, Liverpool University, and not forgetting our own local University of Huddersfield, has given us access to research facilities that would normally be out of our reach."

As she points out, advancement in technology such as 3D printing has enabled the business to turn around prototypes in double-quick time. "With the technology right on our doorstep we have been able to create, amend and reprint in a short space of time," adds Longbottom. "It's also perfect for low-volume production with



"Our academic collaborations have been invaluable to our business."

Hannah Longbottom

Innovate Orthopaedics



INNOVATIVE PARTNERSHIP WITH AWARD-WINNING DIGITAL MARKETING AGENCY

York Business School and Mediaworks create unique digital marketing education offer

In 2020 York Business School announced an innovative partnership with Mediaworks, the North-East based award-winning digital marketing agency. The partnership brought together market-leaders in the creation and delivery of online learning programmes for the Higher Education industry of the future.

This unique collaboration offers a cutting-edge online MSc in Digital Marketing and Data Analytics and is designed to provide students with the real-life tools and insights required for a successful career in today's data driven and digitally focused marketing industry. The co-branded programme offers students the reassurance of quality from a leading academic institution, coupled with cutting-edge industry insight of a leading full-service digital marketing agency.

During the first UK Lockdown the partnership also designed and delivered free of charge a 3-week taster version of the full MSc programme which was promoted to regional businesses to support online development work during the pandemic. In just 10 days, over 2,500 students enrolled onto the taster course from all corners of the globe – which Bob Gammie, Dean of York Business School, hailed as a record number, commenting that “We are blown away with the volume of applicants we have received for this short course.”



While people were staying at home they used the opportunity to up-skill their digital marketing knowledge and to date over 3000 people have engaged with the course and there will be more start dates for the short course coming soon.

Bob Gammie, Dean of the York Business School, commented: “Our Digital Marketing and Data Analytics MSc offers students a highly-unique and exciting blend of expert industry knowledge from one of the UK's leading digital marketing agencies, coupled with the world-class academic delivery from York Business School.”

The master's qualification, the UK's first digital marketing degree that blends academic and industry-specific teaching, will integrate traditional marketing strategies, such as building customer loyalty, with more contemporary aspects, including analysis of customer behaviour, customer journey mapping, and social media marketing.

Furthermore, the programme is delivered online, allowing participants to learn independently while also accessing the support of expert tutors. Students will be able to network with their peers through online community forums and regular residential events across the country.

Mediaworks' Chief Executive Officer, Brett Jacobson noted: “We are extremely proud to embark on this exciting project with YSJU that combines the best of both academic theory and leading practical experience. It makes perfect sense that we, as a full-service agency, would team up with a highly regarded academic institution such as York St John University to establish a programme to cater to the needs of today's digital marketing industry.” Jacobson went on to add: “York St John is an ever-developing University, and its general ethos and ambition matches that of Mediaworks.”



Applications are open now for the next MSc intake, which will begin in October 2021, to find out more and apply for the next MSc or next free short course visit <https://digital.yorks.ac.uk/>



the option to 3D print in plastic or metal, depending on our need.”

Longbottom also says long-term contract negotiations with South Africa and Australia are coming to fruition, as well as exciting product development plans in partnership with Liverpool University.

Sue Cooke, head of knowledge exchange and enterprise at the University of Huddersfield, and chief executive of 3M BIC, said: “Business successes like Innovate prove that academic and commercial collaborations really work.”

YORKSHIRE UNITED

The government’s new Innovation Strategy aims to boost annual public investment in R&D to a record £22bn. The strategy – designed to put the UK at the front of the global innovation race – takes lessons from successful public and private sector collaborations learned during the pandemic, such as the UK’s Vaccine Taskforce.

In a bid to drive further economic growth through university-business innovation the government announcement included a £25m boost through the Connecting Capability Fund.

Yorkshire Universities (YU) has been the regional voice for higher education since 1987; its 12 members being the universities of Bradford, Huddersfield, Hull, Leeds, Leeds Beckett, Leeds Trinity, Leeds Arts, Sheffield, Sheffield Hallam, York, and York St John, as well as the Leeds Conservatoire. Collectively, the universities contribute £2.9bn each year to the

“We use artificial intelligence to help people get to the bottom of what is preventing a good night’s sleep.”

Dr Ning Ma

University of Sheffield

region’s economy and play a critical role in generating jobs, creating innovation, talent, enterprise and driving productivity.

YU’s executive director Dr Peter O’Brien tells *Insider*: “We have some huge assets across Yorkshire that complement each other. Whether that’s Nexus at the University of Leeds, the work in Bradford around digital health through SMEs, or Huddersfield with the work 3M BIC are doing on supply chains.

“What we want to do is to build on those assets through the new innovation strategy and in particular get a much clearer and sharper place-based focus to that innovation landscape.”

Dr O’Brien says a key challenge is how to attract more investment and activity from the private sector in innovation. He believes individual universities have done a lot of work creating gateways so businesses know who to reach out to. YU is also helping in that.

In response to the record £22bn annual investment by the government, Dr O’Brien says: “The government has given a commitment but the public finances are under quite significant pressure. Those of us who

work in the innovation space have got to demonstrate very clearly that this additional public money will have real tangible benefits for the country, the economy, for people, communities and jobs. What’s very important is demonstrating the value of research and innovation while not leaving behind any communities and localities.”

GET A BETTER NIGHT’S SLEEP THANKS TO AI

Dr Ning Ma and Professor Guy Brown, both from the University of Sheffield’s Speech and Hearing Research Group, have developed artificial intelligence (AI) that has been commercialised through new app SoundSleep.

The app’s AI enables people to monitor sounds they make while sleeping through their smartphone. Snoring levels are tracked and the app also provides nightly reports to help people discover the causes, factors and solutions.

SoundSleep is the result of a collaboration between Passion For Life Healthcare (PFLH) and the University of Sheffield which started with a KTP (Knowledge Transfer Partnership) grant in 2014.

Having won another two-year KTP grant – utilising AI to develop software tools that will enable efficient sleep disorder assessment, by integrating acoustics and small, low-cost sensors that can be placed unobtrusively on the body in a unified approach – Dr Ma will be busy when further work kicks in next month.

Dr Ma says: “Getting a good night’s sleep is a problem that affects lots of people across the country – whether that’s because of a partner who snores loudly, an underlying health problem or a factor in a person’s lifestyle or night-time routine that is affecting how much sleep they get every night. We understand finding that secret to a good night’s sleep can seem stressful and confusing, so what we are trying to do is use artificial intelligence to help people get to the bottom of what is preventing them from getting a good night’s sleep.”

Iain Spray, project manager at PFLH, which manufactured the app, said: “This technology enabled us to develop an app that stands out in terms of innovation and performance; an app that could, unlike any other snoring management apps, be CE-marked as a medical device.” ■