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THE OFFICIAL NEWSLETTER OF THE NORTH WEST FUND



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PROKYMA PARTNERS
WITH THE UNIVERSITY OF
LIVERPOOL TO DEVELOP
PIONEERING CANCER TEST

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DO YOU NEED FINANCE?



The North West Fund is a £155m investment fund, established to provide debt and equity funding from £50,000 to £2m to small and medium sized enterprises (SMEs) based in the North West of England.

The funding is provided jointly by the European Regional Development Fund and the European Investment Bank.



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ProKyma Technologies Ltd, which received investment from The North West Fund for Biomedical last year, is working with the University of Liverpool to develop a **ground-breaking** new cancer test.

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Dr Dale Heywood, Director of Studies, MSc Entrepreneurship at the **University of Liverpool Management School**, considers the importance of 'business and university' collaboration.

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WELCOME

to the summer edition of our INSPIRE Newsletter...

We move into the second half of the year having invested to date, over £97 million into more than 285 businesses. We anticipate reaching the £100 million investment mark towards the end of the summer, which will be a significant milestone for The North West Fund.



We are equally proud of the fact that this much needed capital will have been invested into more than 300 businesses in the region - inspiring entrepreneurs to grow their businesses, creating jobs and boosting the North West economy.

The North West Fund for Micro Loans will soon be open for business. Eligible businesses looking for smaller loans of £25,000-£50,000 are encouraged to keep checking our website for further information. We hope this fund will support even more North West SMEs looking for finance to grow their business.

The theme of this Newsletter is collaboration between the local universities and businesses. The North West region is privileged to be home to a number of successful universities and academics. Universities are a key economic contributor to the region and the Government has initiatives in place to encourage better working relationships between businesses and universities for example; the Technology Strategy Board will continue to support collaborative R&D projects bringing together businesses and academic partners on projects to develop

new products, processes and services. Statistics show that UK universities received £3.3 billion from working with businesses in 2011, more than double that of 2001, and this continues to grow.

At The North West Fund we actively encourage joint working with academic partners. This Newsletter will showcase some of our investments which have come from university spin outs or are working with universities in the region.

I hope you enjoy the Newsletter.

Kind regards

Cliff Maylor

CEO of North West Business Finance Ltd, which manages The North West Fund

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INSPIRING ENTREPRENEURS AND FINANCING AMBITION

Having invested over £18 million in the first six months of 2014 we are confident that we will reach our £100 million milestone before the end of the summer.

To date, we have supported more than **285 North West businesses** with over **£97 million**, creating and safeguarding more than 2,000 jobs in the region. Our investment has been matched by a further £50 million in private sector finance.

The entrepreneurial talent in the North West continues to impress us and our pipeline of investments remains strong. In the last quarter our fund managers have supported some excellent businesses with finance, highlights of which include;

- / A £150,000 investment from The North West Fund for Venture Capital into Liverpool-based **GeoGrafi** which specialises in geospatial and mapping technologies.
- / The North West Fund for Mezzanine's £1 million investment into Winning Pitch, the rapidly growing national coaching and business support specialist, headquartered in the North West.
- / A £750,000 loan from The North West Fund for Loans Plus into Cheadle-based leading hair extensions supplier, Beauty Works.
- / Manchester-based **Formisimo**, which measures and analyses consumer behaviour in online checkouts and online forms, secured an investment of **£350,000** from The North West Fund for Digital & Creative.
- / Merseyside-based **ULEMCo**, which retrofits diesel transit vans to enable them to run on commercially available hydrogen secured **£150,000** from The North West Fund for Energy & Environmental.
- / A £150,000 investment from The North West Fund for Biomedical into Gelexir Healthcare, a spin-out from the University of Manchester. They have developed a novel and proprietary injectable biomaterial technology for the treatment of chronic lower back pain caused by degenerative disc disease (DDD).

WORKING WITH NORTH WEST UNIVERSITIES

In the current, globally competitive, economic environment it is important that businesses, investors and universities collaborate to drive economic growth.

The North West is home to 14 Higher Education Institutions, all of which help to support businesses in different ways. Whether they are helping to generate the talented workforce of the future, driving innovation in product and service development or providing cutting-edge facilities and equipment for world-class research, it's clear that the region's universities play a significant role in economic development, both within the North West and nationally.

Enterprise zones and other incubators are also important in making the link between businesses, universities and investors. Sci-Tech Daresbury for example, is able to engage universities from across the region, not only encouraging collaboration between business and universities but also between the universities themselves.

At The North West Fund we encourage joint working with academic partners and many of our fund managers have already made successful investments into businesses which have spun out from universities or are working with the regions universities as part of on-going projects and research programmes.

In supporting these businesses with the finance they need, we are helping to drive economic growth in the region and inspire the entrepreneurs of the future.





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PROKYMA PARTNERS WITH THE UNIVERSITY OF LIVERPOOL TO DEVELOP PIONEERING CANCER TEST

ProKyma Technologies Ltd, which received investment from The North West Fund for Biomedical last year, is working with the University of Liverpool to develop a ground-breaking new cancer test.

The project is currently in the research phase but the team is working towards creating a personalised blood test to measure the level of cancer cells in a patient's blood.

If successful, the tests would enable doctors to determine in real time whether a course of treatment is working and whether a cancer has been completely eradicated from the patient's body. It may also allow milder or shorter cancer treatments as the clinician sees how the patient is responding.

The concept and the implications are so disruptive that, prior to receiving investment from The North West Fund, ProKyma had also been backed by the National Institute for Health Research (NIHR) with almost £500,000 in funding under their Invention for Innovation (i4i) Programme.

ProKyma, which is based at Liverpool Science Park, was founded by Chief Executive Damian Bond in 2006 and joined by Chairman Chris Stanley in 2009.

Once the research and testing phase is complete, ProKyma plans to recruit an operations team to produce testing kits, as well as sales and marketing staff to promote them to universities and pharmaceutical companies for use as part of their screening process for cancer drug candidates. The company plans to build a manufacturing base in Merseyside within three years.

Chief Executive, Damian Bond said: "The University of Liverpool has been a hugely supportive partner throughout the whole process. They have provided us with access to high quality, state-of-the-art equipment which many start-up businesses would struggle to afford. The level of expertise at the University is also world class, in particular their knowledge and experience in the field of pancreatic cancer.

"Investment from The North West Fund for Biomedical has helped to maintain a commercial focus to this project – all too often these projects can become academic driven and lose sight of critical features of a final product, such as pricing, performance and reproducibility. The team at The Fund are up-to-speed with the value of bioscience breakthroughs and fully understand what we are hoping to achieve as a company."

Penny Attridge, investment director at SPARK Impact, which manages The North West Fund for Biomedical, said: "ProKyma's pioneering work with the University of Liverpool is paving the way for cancer cell research and could potentially lead to significant changes in cancer detection, evaluation and treatment in the future."



CASE STUDY

3D PRINT FIRM AND NORTH WEST UNIVERSITY WORK TOGETHER AS PART OF INNOVATIVE NHS PROJECT

Burnley-based, FDM Digital Solutions is pioneering the use of 3D printing to produce made-to-measure insoles for the NHS.

Together with partners at the University of Salford and East Lancashire Hospitals NHS Trust the team is developing its supply chain with the support of funding from The North West Fund.

Having already won grants totalling almost £1 million from the Technology Strategy Board and EPSRC, the company also secured a £688,000 investment from The North West Fund for Venture Capital and £172,000 from Lancashire's Rosebud Finance.

This latest funding will enable the company to invest in its innovative 3D technology, to allow it to fulfil future orders and expand its team in Lancashire. A key part of this plan is now in place following the recent delivery of a 3D printer with a one metre print capability.

Using the system being developed by FDM Digital, hospitals will be able to scan a patient's foot shape and email it to the company, where the team will then print and deliver insoles to the exact specification within as little as 48 hours. The process will replace the traditional hand-made techniques and could revolutionise the way the NHS buys orthotics and other products.

Using 3D printing - or additive manufacturing as it is also known - objects are created layer by layer to replicate an exact design. In addition to its work in the medical sector, FDM Digital manufactures components for the aerospace, engineering, automotive and motor sports industries.

The company was established in 2011 by James Saunders, who has a background in operations management within the advanced materials sector, and Graeme Bond, who has over 10 years' experience of 3D print techniques.

James Saunders, Managing Director of FDM Digital, said: "This new system could improve quality and reduce consultants' time. It's great that Rosebud and The North West Fund for Venture Capital have seen its potential and are backing our vision. 3D printing could transform supply chains in the NHS as well as other industries.

"Salford University operates one of the leading orthotics centres in the UK. Working with the team at the University has enabled us to develop our technology for the benefit of NHS consultants and patients across the country. Our manufacturing techniques allow consultants to quickly provide lightweight, washable, fully bespoke alternatives to traditional casts and accurately model bones for prototyping."

Doug Stellman of Enterprise Ventures, which manages The North West Fund for Venture Capital, said: "3D printing allows a radically different approach to manufacturing as can be seen from the healthy order flow being generated from their existing customer base. We look forward to working with the team at FDM Digital, and their partners within Salford University and the NHS as they continue to develop their technology and grow their business."

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UNIVERSITY SPIN-OUT RELATIVE INSIGHT TURNS LANGUAGE INTO REVENUE

Relative Insight, a spin-out from Lancaster University, has secured further funding from The North West Fund for Venture Capital to accelerate the roll-out of its language analysis software to the branding and advertising world.

The company has already attracted significant attention, helping brands and agencies analyse all language associated with an organisation and determine how it resonates with key audiences.

Relative Insight has secured contracts in the last year with major brands and advertising agencies including; Microsoft Mobile, Saatchi & Saatchi, Havas, Ogilvy, and Manning Gottlieb OMD, and is looking to add many more.

Ben Hookway, CEO of the company, explained, "The software provides, for the first time, a standard against which a brand's language usage can be analysed. Major brands have begun to use this as a means of analysing consistency in branding across their organisation as well as comparison of language with competitor brands. We also work with consumer language; understanding the subtle differences that enable our clients to target the right message. The results have been quite revealing and have already led to changes in brand messaging by customers."

The company received its initial investment in 2012, from The North West Fund for Venture Capital and Lancashire's Rosebud Finance. This investment was used to further develop the core analysis technology and expand the management team, with the appointment of experienced executives; Patrick Jolly as chairman, Ben Hookway as CEO, and Rich Wilson as CMO. Versions of the software were already in use with international law enforcement agencies where it is used to investigate a range of cyber-crimes.

Based at Lancaster University's Infolab21, the company was founded in 2011 by the COO, Dr James Walkerdine and CTO, Dr Phil Greenwood who had previously worked together on a number of projects involving language analysis and online forensics. James said: "Lancaster University has a world leading Marketing Department which has been very supportive and helped introduce us to a number of key agencies and brands. This is a mutually beneficial relationship and going forward we can contribute to the various marketing courses run by the University and are already recruiting from their talented student pool as we expand."

"This investment will allow us to further develop our Relative Insight offerings and turn it into a successful global business. Whilst our attention is currently very much focused on marketing, the law enforcement development will continue as that area faces unique challenges as highlighted in recently reported cases."

Doug Stellman, Investment Director at Enterprise Ventures, which manages The North West Fund for Venture Capital said, "To have this business develop out of a University in the North West that leads the field in Computing, Language and Marketing is a real alignment of the stars."

"It has been a pleasure to watch the team's blend of commercial and technical skills deliver a novel product that major blue chip customers are genuinely excited about."

"I would hope we are looking at the early stages of another great example of the role that universities have in working with entrepreneurs to create a sustainable economy through providing world class skills and globally applicable innovation. It is a key role of The North West Fund for Venture Capital to then support university spin-out businesses with the finance they need to drive growth and inspire more entrepreneurs."







LIVERPOOL UNIVERSITY SPIN-OUT SECURES FUNDING FOR VETERINARY DEVICES

Fusion Implants, a spin-out from the University of Liverpool, has developed a surgical implant to cure lameness and restore mobility in dogs. Earlier this year, the company received a six-figure investment from The North West Fund for Venture Capital, managed by Enterprise Ventures.

The Liverpool-based business was launched in March 2013 to produce veterinary implants using the latest 3D printing techniques. The company brings together Dr Chris Sutcliffe and Dr Dan Jones from the School of Engineering and their colleagues Professor John Innes, Mr Rob Pettitt and Mr Ben Walton from the School of Veterinary Science.

Their new device, for use in canine knee reconstructions, is already being sold to veterinary practices in the North West and will be launched nationally within the coming months. Fusion Implants will use the funding to roll out its current product, employ a design engineer and finance new product development.

Rupture of the canine cranial cruciate ligament (CCL) remains the most common orthopaedic problem seen in veterinary practices around the world and can cause knee pain and lameness. CCL surgery involves a portion of bone being removed from the tibia to allow the restructuring of the angle of the knee joint, which is subsequently held in place by an implant.

The Fusion Implants team have devised a way to manufacture high-performance veterinary implants from titanium using 3D printing, or additive manufacturing as it is also known. Fusion Implants' technology - which is covered by extensive patent protection throughout Europe, the USA, Canada and Australia - allows the mass manufacture of porous titanium material. This enables the animal's bone to grow into the implant, forming a natural bond and improving performance considerably.

Dr Jones, General Manager, said: "The use of 3D printing gives greater design freedom than conventional manufacturing techniques and also allows us to combine solid and porous sections for optimum strength and biological performance. The University of Liverpool has been very supportive throughout the whole process and securing finance from The North West Fund will allow us to develop the product further.

"Our future plans include working closely with our veterinary surgeon customers to provide the next generation of animal implants. In particular we will be working on a range of hip implants to suit specific breeds."

Doug Stellman of Enterprise Ventures, which manages The North West Fund for Venture Capital, said: "3D printing is a disruptive technology which could radically change supply chains in many industries, not just the medical sector. It is important that the North West, with its strong manufacturing heritage, takes full advantage of this new technique. Working closely with the region's universities and providing companies, like Fusion Implants, with finance to invest in new products and equipment is a key part of that."

THE IMPORTANCE OF 'BUSINESS AND UNIVERSITY' COLLABORATION

Dr Dale Heywood is Director of Studies, MSc Entrepreneurship at the University of Liverpool Management School. Here Dale draws on her combined experience as an entrepreneur and a university lecturer, to consider the importance of 'business and university' collaboration...

TRIPLE HELIX

Businesses + University + Government collaborative projects are often referred to as one of the solutions to regional development. This trio partner perspective is known as the Triple Helix model. Almost half a century ago the possible benefits of universities and industry working together more closely was put forward and an array of policy incentives were introduced. Here in the North West of England there are many successful examples of how to create the dynamic environment that is required to bring industry and higher education institutions together, to co-operate on innovations, on research and on knowledge transfers that benefit all institutional sectors.

BUSINESSES AND UNIVERSITIES MISUNDERSTOOD EACH OTHER

I was an entrepreneur for 30 years and only in 2012 did I become what you may regard as 'an academic' so I know how business people can form the wrong impression of universities and of their value. I thought everyone who worked in a university must be a genius! Only some are. It is this artificial separation that compounds the barriers to collaboration between industry and universities. The language is different; the culture is different; the expectations are different. These myths pervade both business and academia but it needn't be this way.

UNIVERSITIES AND INDUSTRY ADVANTAGES

Universities can serve their local community business neighbours through many established initiatives. Some have graduate placement and internship opportunities, work based projects, consultancy projects and industry problem identification projects. These are the sort of things students now expect to be involved with as part of their higher education experience and learning. All these require local businesses both large and small to be open to having students working in, or on their businesses to find solutions to problems the owners may not have even recognised.

SMALL BUSINESS CHARTER

Four North West University business schools have very recently been acknowledged for their work in helping small and medium sized firms in their areas and successfully gained the prestigious Small Business Charter (SBC) status. These were awarded by the Department of Business, Innovation and Skills. Some of the criteria for SBC is specific to the on-going relationships between HEIs and small businesses. This is just one measure which shows universities have been successfully paying increased additional attention towards smaller businesses. This has the potential to have maximum impact in the North West.

'THERE ARE FORMAL METHODS WHERE KNOWLEDGE TRANSFER DEPARTMENTS CAN GUIDE YOU TO THE BEST PEOPLE. THESE ARE ALL VERY EASY TO FIND WITH A QUICK WEB SEARCH'.

HIGHER EDUCATION HAS EVOLVED

Increasingly students expect some work experience built into their degree programmes and universities have been very good at accommodating this. It's not just MBAs; we have architects, engineers, lawyers, historians, geologists and accountancy placements to find. Doctoral research students also want a more practical entrepreneurial element in their education. Perhaps the rate of change within the Higher Education sector has escaped many established businesses so now is the time to reopen the conversation with a mutual language of economic prosperity for the North West and a shared purpose of keeping the North West of England the innovation heartland it has been for centuries. There is nowhere more entrepreneurial and creative than right here. We have become reluctant to acknowledge that over the past 50 years so its significance has been overlooked. That has perhaps contributed to universities and industry competing against each other instead of collaborating as partners.

START THE CONVERSATION

Conversations have to be started by someone and should be multi directional. You talk, I listen, I talk and you listen. It sounds simple because actually it is very simple. Access points for businesses interested in opening up a dialogue with universities are well supported. There are formal methods where knowledge transfer departments can guide you to the best people. These are all very easy to find with a quick web search. Many universities have Business Development Managers in post to make it easier to locate the people best able to help any business. There is also the option of calling someone up or following up after a meeting.

NETWORKS AND TALENT SHARING

Industry and universities have a huge diversity of people with vastly different interests. In many cases, universities are the largest employer in their area. The researchers and scholars that are employed in our universities are of course from a vast array of specialisms and disciplines. Universities can be thought of as the intellectual supermarkets, there to solve business problems across any sector and every intellectual department. Businesses both large and small, can equally be thought of as socio-economic pioneers furthering the region's growth and innovation through job creation.

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DOES YOUR BUSINESS NEED FINANCE?

We have already supported more than **285 businesses** with over **£97 million** of funding and we're looking for more businesses like yours.

So whether you are just starting up or seeking funding to help take your company to the next level, investment of between £50,000 and £2 million from The North West Fund could be what you need to help your business flourish.

Interested?

Find out more at: www.thenorthwestfund.co.uk



Could you be our next investment?

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