

BUILDING THE NEXUS COMMUNITY JUNE 2020



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ECOSYSTEM

"In our first year we have facilitated ground-breaking collaborations. Together we will crack some of our biggest economic and societal challenges."

As I write my introduction to this report, marking the first anniversary of Nexus, it provides an opportunity to not only celebrate our community's immense achievements but also to reflect on the vital role that Universities play in driving innovation and productivity; by connecting academia and business. These collaborations turn ideas into products, services and practices, and support the foundations of productivity. This was and still is our vision for Nexus and I'm proud of the outstanding collaborations we've helped to create in our first year.

The Nexus community is something I am immensely proud of. Consisting of some of the most disruptive entrepreneurs, start-ups, researchers and businesses from across the UK and abroad, who are making ground-breaking developments in health, data, environment and engineering.

In our first year we have facilitated new and impactful collaborations between our member businesses and the University of Leeds, who together have the potential to crack some of our biggest economic and societal challenges. At the current time there is no greater challenge than the need to solve the COVID-19 pandemic. To make the most of our specific skills and experience, we are bringing together healthcare professionals, scientists, researchers and members of the wider innovation community, to respond collectively to this emergency.

8 of our member businesses are working on this challenge and using their skills and experience, helping efforts to overcome the crisis.

Collaboration is nothing new to our members: together they've created 125+ new fulltime jobs, with an additional 350 planned over the coming vear. This includes 23 full-time positions for graduates from the University of Leeds. Members have successfully collaborated with the University on projects that have collectively secured £10.8m of grant funding and £8.7m in Angel or Venture Capital (VC) investment to boost their businesses and invest in Research & Development (R&D).

In this report you will hear from some of our members and learn about their new products and services, which have contributed to a £1.9m increase in collective turnover. We'll give you a glimpse of the 32+ collaborative projects they've been working on across the University and hear about the £3.5m investment by our members in R&D related activities.

The report also highlights how we have been working with senior stakeholders from across Leeds and the city region to develop a strategy to solve some of the region's most pressing economic business challenges.

Nexus has developed a reputation as a very successful innovation hub, not just as part of the University of Leeds, but also for the wider region and across the UK. Achieving this has helped to attract a number of prestigious events to our space, including the signing of the recent historic West Yorkshire Devolution Deal.

As our first year draws to an end, we wanted to identify the key issues our community face, so that we can focus on these in the coming years. The past few months have been incredibly challenging for so many businesses, but I've been truly inspired by our community's resilience and determination to continue to collaborate and innovate. Looking to the future in a rapidly changing world, it is by working together that we will achieve success on a regional, national and global level.

As we embark into uncertain economic times, my view is that innovation will be one of the key drivers to kick-start the UK economy and universities, in collaboration with businesses, will be essential in driving innovation forward. This is why our work in the last 12 months will prove so important; Nexus is now perfectly placed to tackle the business challenges that lie ahead.

DR MARTIN STOW Director, Nexus



Celebrating our first anniversary

In our first year we've had some truly impactful collaborations, achievements and events. Here are just a few of the highlights.

NEW FACES AT NEXUS

Dr Mark Tock Mark joined us in September 2019 as Operations Director. He brings a wealth of experience from the innovation and start-up landscape, having led a number of incubation and science park projects. Mark has a passion for supporting entrepreneurs to translate world-leading research into real world impact that changes lives.

Tom Oakes

Tom joined the Business Engagement team in July 2019. Having held roles in both public and private sector organisations previously, where he was responsible for helping deliver complex change programmes. Tom joined from PwC's technology consulting practice. He is also very familiar with the University of Leeds, having studied here for his first class honours degree in engineering.

Dennis Dokter

In November 2019 Dennis joined us as Relationship Officer, providing members with tailored support at key stages of their journey. A Maastricht University graduate, Dennis has worked in the research and funding field for the past four years and joined Nexus from Statistics Netherlands (CBS), where he worked as Grant Development Manager. He is incredibly passionate about research and innovation, and working on cutting-edge, cross-discipline projects.

WE ARE ONE - BUILDING THE NEXUS COMMUNITY

During our first year of operation, we've seen some new faces join the team and bring new skills and experience to strengthen the Nexus proposition.

12 MONTHS 112 EVENTS

Over the past 12 months we've had over 7,000 international attendees at a variety of different events hosted by Nexus. A few of our highlights include:

In May 2019 we officially launched Nexus and marked the occasion with an exclusive event in partnership with the Confederation of British Industry (CBI). Here we launched the joint report — The Changing Nature of R&D.

In November, and in collaboration with KPMG, we hosted the Times CEO Summit 2019. This nationwide event invited Chief Executives from across the region to discuss their insights and experiences around embracing disruption, driving innovation and debating new strategies for growth post-Brexit.

As we welcomed the start of 2020, we held our first Innovation Exchange exhibition. The event invited innovators and start-ups from across the region to connect and learn more about the organisations and support systems that make up our vibrant ecosystem here in Leeds.

STRONGER TOGETHER

Here at Nexus, we're really proud of our community. Their innovative mindset, agility and ambition never ceases to amaze us and we love nothing more than to share their achievements. Never has this been more apparent than over the past few months, here are just a few examples of some of their brilliant responses to the current COVID-19 crisis:

Itecho Health are accelerating and expanding their platform 'Ascelus', creating virtual clinics for the management of chronic diseases. This reduces the need for face-to-face outpatient appointments, in turn reducing pressure on the NHS. The company have also taken on 8 medical students from the University of Leeds who are working remotely from across the world to assist with the project.

Scaled Insights have been running a research study investigating behaviours and attitudes to provide data that will help organisations communicate more effectively and develop new support mechanisms for staff.

Keracol worked within a stretched supply chain adapting their usual workload to produce and package hand sanitiser, including stock for the Nexus community. Thank you!

And Tougher Minds, who have released their unique and award-winning range of habit-building resources, tools and master classes, to help people to be healthier, happier and more effective when working from home.



DEVOLUTION DEAL

In March 2020, Nexus was chosen as the location to sign the historic West Yorkshire Devolution Deal. We welcomed Chancellor of the Exchequer, Rishi Sunak and West Yorkshire council leaders as they committed to the agreement worth £1.8bn over the next 30 years. The deal, the biggest ever of its kind, will see huge investment in funding a mass transit system and gives West Yorkshire greater decision-making powers to set its own priorities while securing the economic success of its cities.

MINISTERIAL VISIT

January 2020 saw the then Minister of State for Universities, Science, Research and Innovation, Chris Skidmore, visit Nexus and the University of Leeds. Meeting talented early-career researchers and members Vet-AI and Scaled Insights. We welcomed the opportunity to highlight how our members' work is focused on solving some of the world's most challenging problems, whilst boosting private sector R&D, the creation of jobs and economic progress in Leeds.

WEB SUMMIT

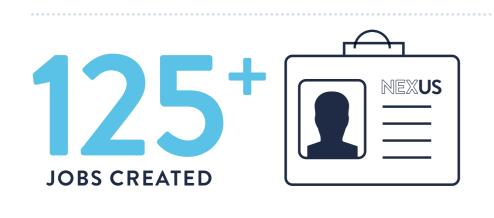
In November 2019, we attended Web Summit in Lisbon, with our partners KPMG and Nexus members Itecho Health and Vet-AI. The 3-day event attracts 70,000 delegates from 136 countries and brings together entrepreneurs, investors, multinationals and thought leaders to discuss and demonstrate the future of technology. Itecho Health and Vet-AI were invited to showcase their innovative technology on the KPMG Enterprise Growth Company Island. The event provided valuable business engagement opportunities with potential clients, partners and investors, which made the trip, the many miles walked across exhibition halls and the non-stop conversations really worthwhile.

MIT REAP

Having submitted a successful bid, in January 2020 Leeds was chosen to host the penultimate session in the globally renowned MIT (Massachusetts Institute of Technology) REAP (Regional Entrepreneurship Acceleration Programme) run by the Sloan School of Management. Nexus played a central role, hosting the 3-day workshop. The session provided leaders from 8 regions around the world with a behind the scenes look at our innovation ecosystem.



When we developed Nexus, our vision was to deliver impact on a regional, national and global level. We set ourselves some ambitious targets, and in our first year we've delivered some truly brilliant results.



OVER THE NEXT 12 MONTHS MEMBERS PLAN TO CREATE





E19 MILLION COLLECTIVE TURNOVER

MEMBERS HAVE INVESTED MORE IN R&D

%



MEMBERS WOULD RECOMMEND NEXUS

BUSINESS ENGAGEMENTS

MEMBERS FIND IT EASIER TO ACCESS NEW TALENT

THE COMMUNITY HAS **EMPLOYED & PLACED**

STUDENTS & GRADUATES

NEXUS UNIVERSITY OF LEEDS

£10.8 MILLION COLLABORATIVE

IMPROVEMENT IN MEMBERS' PRODUCTS **& SERVICES**



THE COMMUNITY

HAS IN PROGRESS

ACOMMUNITY CREATED

Bringing together the brightest minds from business, technology and academia.

One of our original goals for Nexus was to build a thriving community that existed within the building and beyond. We wanted to create an environment where people could get together and share ideas with like-minded people who may be at a similar stage in their business journey. Nexus was designed to enable businesses to access the expertise, talent, skills and facilities offered by the University of Leeds, to take an idea from concept to reality.

As the Collaboration Team, it's our role to build relationships with Nexus member businesses, gain an understanding of their commercial challenges and connect them to the people and organisations that will take their ideas to the next level. We've spent the last year supporting our members and building a growing community that is striving to deliver commercial impact and generate economic growth across the UK and globally.

Our community is at the heart of everything we do. With over 35 members joining since April 2019, we are incredibly proud of

community of entrepreneurs, start-ups and small and mediumsized enterprises (SMEs).

Over the past year, over 32 new collaborative projects have been established between Nexus members and the University of Leeds. Take innovation agency Pd-m for example. They have joined forces with academics at the University and experts from the Leeds Teaching Hospitals NHS Trust to develop a medical device that will transform keyhole surgery across the world. And vet-tech start-up, Vet-AI, which has formed a Knowledge Transfer Partnership (KTP) with University academics that has the potential to revolutionise the pet healthcare industry.

It's been rewarding to see our members supporting each other too. Over half are actively exploring ways and opportunities to collaborate and work with each other. This is something we don't believe happens enough in other innovation and co-working spaces and is testament to the community we've created.

Our community continue to grow and have generated a combined turnover increase of £1.9m, which is an outstanding

the strength and ambition of our achievement in just 12 months. And throughout the year, members have reaped the rewards of collaborating with the University, collectively securing £10.8m of grant funding.

> Our community has also played its part in boosting the region's R&D efforts. 60% of members have invested more in R&D spend since engaging with Nexus, with a total of £3.5m invested. We believe that Nexus businesses are investing more in R&D than other areas in the country because we've created an environment that facilitates this. Members are working alongside like-minded entrepreneurs who are doing the same and we're connecting them to funding opportunities which can often ease the pressure associated with this type of activity. We have also helped members to access talent and grow their teams, as well as connecting them to expert academics who can help them make their ideas become a reality and stand up to scientific scrutiny.

Whilst R&D investment is key to driving innovation, it's not just about new pieces of work. We have also helped our member businesses to power their existing products and services

too. 82% of members have highlighted an improvement in the range, quality and value of their products and services since engaging with Nexus, which is testament to the expertise at Nexus and the University of Leeds.

From supporting start-ups in achieving round-one funding, to connecting scale-ups to the expertise to boost their product development, it's been an inspiring year and we cannot wait to see what our community does next.

DR HARRISON EVANS

Collaboration Manager, Nexus



RECRUITING TOPTALENT

Recruitment can be one of the biggest challenges facing start-ups and small businesses that want to scale at pace.

Delivering tailored support through that process is one of the hallmarks of Nexus; enabling member businesses to access talent at the University of Leeds and grow their teams through internships, consultancy, placements, apprenticeships and leadership development. The outstanding talent por available at the University through internships, consultancy, placements, including

So we're delighted that in our first year, over 110 students and graduates have benefited directly from interactions with our community, recruiting 58 students in part-time roles, internships and placements, a further 16 in consultancy projects and 23 full-time positions for graduates. We are proud to see our members supporting every level of student from first year undergraduate to final year postgraduate researcher.

The outstanding talent pool available at the University of Leeds – consistently in The Times' top 10 UK universities most targeted by leading employers – means that we've been able to draw upon skills across a broad spectrum of disciplines, including engineering, computing, biological sciences, chemistry, sports science, design, business, psychology, physics, data analytics, geography, french, media and medicine and health.

14 students have also been mentored by member businesses and hundreds more have benefited from the 31 guest lectures delivered by Nexus members. Bringing the curriculum to life with business examples and case studies, judging enterprise and innovation competitions, supporting skills development and showcasing future career opportunities.

We have been able to celebrate many individual success stories with members, including Ligentia, who have relocated their global software development function from Asia to Leeds, growing a team of 12. Maximising links with the University by recruiting top talent, they have been able to move at pace and build their Leeds team to deliver a digitally focused business plan.

We're also supporting Scaled Insights in their work with Leeds University Business

58 STUDENTS RECRUITED School, as they review student applications to work on a major research project to assess people's attitudes to AI (Artificial Intelligence) enabled software.

We're looking forward to continuing to make the right connections for businesses with the University, our thriving community and beyond, to access the right skills and talent at the right time to further boost innovation and business success.

JO HOWORTH

Engagement Ma<mark>nager:</mark> Talent & Skills, Nexus

19 INTERNSHIPS STARTED



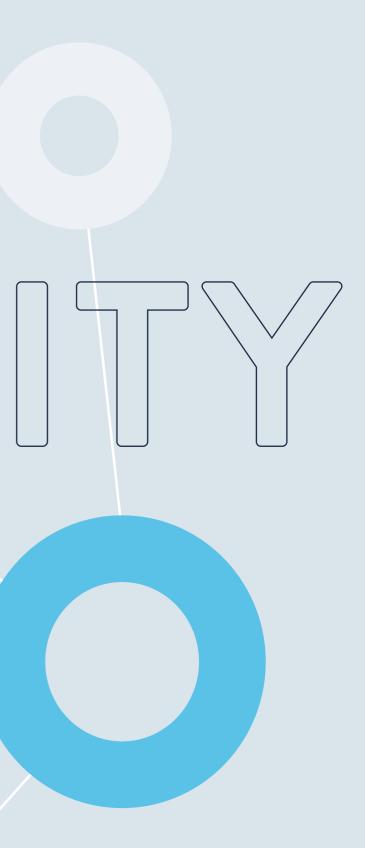




STORIES

Different perspectives

Our community is made up of lots of different audiences. Here we share some of their stories and highlight their successes this year, including insights from colleagues across the University, case studies from some of our businesses and details of a number of the key strategic partners who have contributed greatly to our community.



UNIVERSITY OF LEEDS PERSPECTIVE

Helen Hughes, Associate Professor, Leeds University Business School

"I was introduced to Dr David Wilkinson of Research Toolkit by the Nexus Engagement Team. It quickly became clear that we shared a mutual passion for creating impact through problemfocused research, with common interests in talent and skills development, and vocational education.

Research Toolkit publishes high quality tools to showcase research outputs. The conversations with David really stretched my own ideas about what was possible from my research and highlighted possibilities for collaboration to create genuine impact.

In our first collaboration, Research Toolkit is employing one of our MSc Business Psychology students as they complete their applied research project. The project seeks to understand how different stakeholders and professionals engage with research outputs, to try and improve impact and engagement. Our ambition is that this project will benefit Research Toolkit as they grow their business and contribute to building the academic evidence base on this topic."



"A SHARED PASSION FOR CREATING IMPACT THROUGH RESEARCH" "OUR AIM IS TO INCREASE THE IMPACT OF MY NATIONAL MULTIMORBIDITY RESEARCH"

Dr Marlous Hall, University of Leeds Academic Fellow & Sir Henry Wellcome Fellow

"I work with millions of electronic healthcare records from across England. This helps generate new knowledge and investigate patterns of disease and their outcomes. My research focuses particularly on the patterns of multiple chronic conditions occurring amongst individuals (multimorbidity).

I was introduced to Barry Singleton at Scaled Insights – a start-up in behavioural AI based at Nexus. Our first meeting was scheduled as an informal chat and I went with an open mind having no idea if it would lead to anything – but within minutes we were chatting about a whole host of potential projects we could do together. Our aim is to increase the impact of my

Our aim is to increase the impact of my national multimorbidity research by finding ways for innovative translation through the Scaled Insight behavioural AI technology. We're in the process of formalising a number of research ideas and are applying for feasibility funding. Identifying appropriate industry partners that could form reliable partnerships

Identifying appropriate industry partners that could form reliable partnerships takes experience, know-how and a wide industry network. The dedicated team at Nexus continues to help academics from the University of Leeds and businesses like Scaled Insights make the right connections."

UNIVERSITY OF LEEDS PERSPECTIVE

David Hogg, Professor of Artificial Intelligence (AI)

"For many years, the University has led the way in seeking societal impact from research. Nexus has taken this commitment a step further in creating a new kind of campus-based location for research-rich companies and organisations.

Since opening, relationships with these organisations have been greatly enriched by almost daily interactions in the public spaces of Nexus. For my own research on AI, this has resulted in a close working relationship with two start-up companies (Vet-AI and Scaled Insights) now located in the complex. Both are developing exciting new product technologies, supported by a growing network of research relationships across the University."



"RELATIONSHIPS WITH **ORGANISATIONS HAVE BEEN** GREATLY **ENRICHED**"



"STUDENTS GAIN VALUABLE EXPERIENCE OUTSIDE OF ACADEMIA"

Hannah Crow, Business Partnerships Manager, Leeds Social Sciences Institute

"Being part of the Nexus community has greatly benefited me as Business Partnership Manager and Impact Acceleration Account Manager for the Social Sciences. Trying to engage new partners from the private sector can feel daunting and it's difficult to know where to start.

Nexus provides me with the ability to link-in with a variety of businesses on my doorstop, which then allows me to organise mutually beneficial opportunities such as the Postgraduate Placement Scheme.

Over the last year I have coordinated four placements with Nexus businesses and hopefully there will be more to come over the comina vear. The scheme allows our students to gain valuable experience outside of academia, whilst also providing the business with fresh insights and novel ideas. The placement scheme would have been much harder to get off the ground had Nexus not been so accessible."

"COLLABORATIVE WORKING IS BEHIND EVERY PROJECT WE UNDERTAKE AND PROVIDES SO MANY BENEFITS, THAT'S WHY PARTNERSHIP WITH THE UNIVERSITY OF LEEDS WAS FUNDAMENTAL TO OUR CHOICE TO MOVE OUR HEADQUARTERS FROM CANADA TO LEEDS. BEING PART OF THE COMMUNITY MEANS THAT OUR AI EXPERTISE CAN BE COMBINED WITH THE BRILLIANT ACADEMIC MINDS OF THE UNIVERSITY, OFTEN USING INTERDISCIPLINARY RESEARCH TO WORK IN TRUE COLLABORATION."



- Utilising talent pool
- Interdisciplinary working

STUART SHERMAN CEO, Scaled Insights

CALED INSIGHTS

AI innovators Scaled Insights are proof that collaboration between entrepreneurs and academics is beneficial. The company are collaborating widely across the University, and are reaping the rewards of the network of valuable connections available through Nexus.

Their most recent project, working with human behaviour specialists from the University, is conducting an in-depth analysis of our attitudes and behaviour in the face of the COVID-19 pandemic. The research is being led by Dr Stuart Flint, Associate Professor of Psychology at the University and Scaled Insights Company

President. Using natural language processing and machine learning to identify linguistic patterns and better understand how personality can influence our attitudes and behaviours, the survey aims to provide vital insights for policy makers and government.

Scaled Insights capitalised on the outstanding talent pool at the University with the appointment of Dr Flint. His expertise on attitude and behaviour change relating to obesity, smoking cessation and physical activity, is providing invaluable support to the team as they develop AI models as a tool to detect and

predict known health behaviours and outcomes. Collaboration is also fundamental to Scaled Insights' work with the University's School of Computing and School of Medicine on a learning and development project for Health Education England, which aims to better support and motivate NHS staff when using e-learning resources.

The project tests the perceived persuasiveness of different choice techniques and relates them to different user characteristics. such as demographics, thinking style and linguistic patterns. The study results will inform the creation of learner

models to drive personalisation that will enhance learner motivation across the healthcare industry. Scaled Insights' close collaboration with colleagues across the University also includes work to define and develop robust protocols for the collection, storage and processing of research data, which satisfies stringent University and NHS criteria. The company are also working with the next generation of talent at the University, providing mentoring for students at Leeds University Business School and recruiting candidates for a summer marketing consultancy project.

Working across Leeds and the city region Member to member collaboration

BUSINESS PERSPECTIVE

"BEING PART OF THE NEXUS COMMUNITY ALLOWS US TO HAVE REGULAR INTERACTIONS WITH WORLD-LEADING EXPERTS ACROSS A **RANGE OF FIELDS SUCH AS PSYCHOLOGY** AND ENVIRONMENTAL SCIENCE. FOR THE **'BREATHING CITY' PROJECT THIS HAS ADDED** VALUABLE INSIGHTS THAT WOULD HAVE BEEN **OTHERWISE CHALLENGING TO ARRANGE ALL UNDER ONE ROOF.**"

Interdisciplinary working Member to member collaboration Working across Leeds and the city region Benefiting from Nexus' strategic partnerships Collaborative research

DAVID MCKEE

CTO & Founder, Slingshot Simulations

SLINGSHOT SIMULATIONS

Following an introduction to Leeds City Council at a Nexus event, and also working with the Open Data Institute, Slingshot are confronting "what if" scenarios to expose the real impact of pollution and improve the health of people in cities without adversely affecting their day-to-day lives.

Slingshot are leading a pollutiontackling 'Breathing City' project which was born from a collaborative presentation with fellow Nexus members: Scaled Insights, GMAP

Analytics and Edge Analytics at the Smart City Expo World Congress 2019 in Barcelona. The Barcelona 'Breathing City' project utilised their combined data and technologies to help present a better future for cities and citizens around the world.

Slingshot, supported by the University of Leeds, has been focusing on Neville Street, in Leeds, one of the most polluted streets in the UK, and together the team are exploring ways to reduce NOx levels. The project looks at how we

predict and influence demographic change; through simulations via a 'Digital Twin' of the city – a living digital model of a real-world entity or system – the team then simulates different scenarios, such as air quality, using multiple open data sources.

The work focuses on the use of electric vehicles, specifically around gaining a deeper understanding of the barriers to use and how to overcome them. In partnership with Scaled Insights the project plans to

consider what motivates the general population to make changes and what social cues are required to encourage late adopters to opt for electric vehicles.

The 'Breathing City' project will help Leeds City Council to understand how they can meet their air quality targets and inform key decision makers.

BUSINESS PERSPECTIVE

"NEXUS IS THE BEST PLACE TO GROW A TECH BUSINESS IN THE REGION, BECAUSE IT BRIDGES THE IMPORTANT GAP BETWEEN VISION, **INDUSTRY AND ACADEMIC VALIDATION WITH** THE UNIVERSITY OF LEEDS. WITH NEXUS, WE ARE ABLE TO TAKE OUR TECHNOLOGY AND GAIN THE REQUIRED SUPPORT TO TURN IT INTO A GLOBAL BUSINESS."

Interdisciplinary working Collaborative research Utilising talent pool Working across Leeds and the city region Benefiting from Nexus' strategic partnerships

PAUL HALLETT

Co-founder, Vet-AI

VET-AI

One of the UK's most exciting vettech start-ups, Vet-AI is an excellent example of how Nexus is supporting regional businesses to grow.

This fast-growing, disruptive start-up in the digital veterinary sector has won numerous awards including Top 5 B2B start-up in Europe (TechCrunch/Google). It has also been identified as a Tech Nation Rising Star and since February 2020, its app has gained over 50,000 users. Vet-AI has secured £2.3m in funding to date and now employ over 50 clinical experts and have a team of 75.

Nexus' strategic approach to working with Vet-AI has helped to generate substantial benefits for both business and the University of Leeds. Through offering seamless access to skills and talent across the University, Vet-AI has recruited three MSc students to re-design the company's flagship app. The business has also taken advantage of Nexus' connections with world-leading academics, which led to the recently formed Knowledge Transfer Partnership which promises to revolutionise the pet healthcare industry through integrating AI into new products.

Our support has helped the company invest £300,000 into local R&D projects over the past 12 months. Further plans exist for Vet-AI to collaborate with the University to strengthen their ambition of going global, with Australia, the US, Europe and Asia identified as key markets for expansion.

AT THE HEART OF THE LEEDS INNOVATION ECOSYSTEM

The Engagement Team at Nexus work closely with the business community to understand their innovation journeys and match them to the skills and expertise of the University.

In this sense we're the translational layer between business and academia – making connections between the two worlds to drive opportunities to collaborate and innovate on new ways of thinking and solving challenges. This really is the essence of what Nexus is all about, bringing the business and academic worlds together to solve real-world challenges. We've been lucky enough to help over 500 businesses since opening, from entrepreneurs with an initial concept to corporates starting out on their digital transformation journeys.

As a central player in the regional innovation ecosystem, alongside connections to research and innovation, we're also able to connect businesses to organisations across our networks – whether that's advice on investment or linking like-minded entrepreneurs and businesses to support networks. Leeds is a fantastic vibrant ecosystem that genuinely wants to help businesses and it's great to be a part of that.

One way the vibrancy of our ecosystem came to light over the last year was through hosting the Innovation Exchange in January 2020. The Exchange was an interactive exhibition

introducing early-stage entrepreneurs to the wide variety of business support and advice networks available across Leeds. Entrepreneurs were able to connect with other innovators, regional business and innovation support offerings and also meet with others who are further on in their journeys, who offered support and advice. Feedback from delegates and exhibitors was overwhelmingly positive and we're looking at plans to make this an annual event. Initiatives like this really demonstrate the power of these networks – something that is a real differentiator for Leeds.

Leeds is a hub of innovation, internationally renowned for its cutting-edge healthcare developments and world-leading life sciences. It's also home to some of the UK's leading data and digital firms and has the largest financial centre outside of London. And we have the potential to do so much more. Especially as 2020 brought the exciting news of devolution for our region, bringing greater control in setting out our own priorities for economic success.

To further strengthen our region, the University of Leeds and Nexus have been proud to be part of the team representing Leeds in one of the world's most prestigious leadership programmes, the Massachusetts Institute for Technology (MIT) Regional Entrepreneurship Acceleration Programme (REAP).

This programme is incredibly exciting for our region. It's great for Nexus to be playing such a key role and helping to put Leeds on the map, as a city with a well-structured approach to help businesses nurture new ideas and connect with the right support and help to validate and strengthen those ideas into viable business ventures. It's an opportunity for us to take what we've learnt from engaging with businesses at Nexus and to think more strategically about how we work together as a region to

continue to create and nurture new, innovative ventures.

Over the past year, the team, made up of leaders from across our region, has been taking an evidence-based approach, using MIT methodology, to map the current regional innovation ecosystem and engage with a broad range of stakeholders. Based on these findings, the team has developed a long-term strategy, aligned to the overall mission, to make Leeds globally recognised as a place where those with the most innovative ideas can solve societal problems and create new market opportunities.

This programme has already proven very valuable to the future of our city. Not only does it help us understand more about our region's strengths and ambitions, but it also positions Leeds and the city region at the forefront of the Government's drive for national growth and increased competitiveness.

CHELSEA BOOTHROYD

Engagement Manager, Nexus



THE POWER OF PARTNERSHIPS

"Nexus has developed numerous strategic and commercial partnerships to connect our members to the most appropriate expertise and support."

DR MARTIN STOW Director, Nexus



The Government's Industrial Strategy recognises the role science, research and innovation plays in driving productivity and growth. Having a UK measurement system that focuses on excellence and is better connected to its end-users is critical in achieving this ambition.

Alongside the University, Nexus has partnered with the National Measurement Laboratory (NML@LGC) in a strategic effort to promote the incorporation of high-quality measurement science in research and innovation. By establishing specialist training gualifications and increased connectivity to industry partners, this new partnership will help develop opportunities for academics, students and industry across Leeds and the city region and the North of England.

Nexus has been pivotal in shaping this relationship and will continue to be a focal point for all interactions across the University and with business partners across the region. To date, Nexus has brokered over 30 meetings between academics at the University and NML@LGC to discuss the impact of metrology in their current fields.

The topics covered in these discussions have been broad, with an emphasis in building a long-term research roadmap for the partnership – leading to a Centre of Excellence in Measurements for Clinical Science. A few examples are: collaborations to address standardisation of RNA-Seg based pipelines; developing 'fit for purpose' pre-analytical and analytical validation protocols to support industry and NHS; robust analysis of microplastics in environmental samples; amongst others.

We're also developing joint plans with NML@LGC to raise awareness of metrology across the scientific and business community through regional workshops and conferences. Earlier this year, one of NML@LGC's science leads delivered a lecture on Digital PCR analytical methods at Nexus. This was followed by one-to-one discussions with academics from the Leeds Omics group as well as Post-docs and PHDs who are working at the frontier of genomics science at the University.

With time, this partnership will help the NML@LGC, Nexus and the University of Leed tailor the right opportunities to develop 'the next generation of metrologists in the

"The new partnership has grown and developed opportunities for academics, students and industry across Leeds and the city region and promoted the incorporation of high-quality measurement science in research and innovation."

PROFESSOR JULIAN BRAYBROOK

UK Government Chemist and Director of Measurement Science, National Measurement Laboratory





Nexus continues to collaborate with one of the world's leading professional services firms, KPMG, to bring business expertise to our community of startups, SMEs and entrepreneurs. KPMG's onsite team work on a 1-2-1 basis with Nexus members to identify where support and guidance is needed. The KPMG team are helping our members to grow, from the very early stages of a business concept, right through to exit strategies.

Our relationship with KPMG is part of their long-term strategy of embedding themselves into the regional innovation ecosystem and is a demonstration of their commitment to building lasting strategic relationships with start-up and fast-growth businesses. The SME sector is the growth engine of the UK economy, so by partnering with Nexus, KPMG can help support these businesses to unlock their growth ambitions, working together with them in a way they may not previously have considered.

We've collaborated with KPMG on a range of projects over the last 12 months including a joint workshop series tailored to the needs and interests of members covering subjects as diverse as R&D tax credits, recruitment and incentives, fundraising and liquidity. We also joined forces to map the entrepreneurial ecosystem in Leeds and the city region, providing early stage businesses with a vital short cut to the spectrum of support available on their doorstep.

This strategic relationship has ensured businesses within our community have readily available access to leading industry knowledge as well as KPMG's excellent network and resources. The Nexus KPMG team have proved invaluable for our members looking to translate ideas into real business opportunities.

"It's been an exciting year for KPMG as a key Nexus partner. During the year, we've hugely enjoyed the privilege of supporting an ambitious group of entrepreneurs as they transform and grow their ventures, and we look forward to continuing our journey with them."

EUAN WEST

Office Senior Partner, KPMG, Leeds





WYCA & LEP

As part of the funding for Nexus, a £3m investment was received from West Yorkshire Combined Authority (WYCA) and the Leeds City Region Enterprise Partnership (LEP) through the Leeds City Region Growth Deal – a £1bn package of government investment to accelerate growth and create jobs across Leeds and the city region. Both WYCA and the LEP remain important partners for us.

A good example of this is the wide range of business support and advice that can be accessed through the LEP Growth Service, delivered in partnership by the LEP and the local authorities in the region.

Our strategic relationship with the LEP Growth Service means 'exus members have access to a dedicated growth manager, se role is to better connect them to the wealth of business 't and advice available.

"We know that successful regional economies are those that create a culture of innovation that enables SMEs to create, accelerate, champion and retain innovation. We have built strong relationships across the region with universities and innovation hubs to support business innovation and invested £3m into Nexus. With the support of Nexus, we continue to drive innovative projects between SMEs and academia to help them become more productive and competitive."

ROGER MARSH OBE DL Chair of the LEP and NP11



INNOVATE **UK**

Nexus has formed a partnership with national innovation agency, Innovate UK, to further boost innovation-led business growth across the region. Delivering a coordinated approach to supporting Nexus businesses and engaging with world-class research talent at the University of Leeds.

The partnership delivers new opportunities for collaboration including feasibility studies, collaborative research and development projects and Knowledge Transfer Partnerships – particularly in the health, engineering, environment and data sectors. Innovate UK is also sharing upto-date intelligence on its own funding schemes and the wider UK and international funding landscape.

"We have a passion for innovation and are committed to Leeds and the City Region to help grow the West Yorkshire Innovation Network. We have great synergy with Nexus and are looking forward to getting to know its community of vibrant businesses, working closely with the Nexus team to help members thrive in the wider regional innovation ecosystem."

LEE VINEY

Regional Manager, Innovate UK



NORTHINVEST

We've partnered with angel investment network, NorthInvest, to connect start-ups and SMEs within our community to investment advice and funding support.

By joining forces with Northern Powerhouse-backed NorthInvest, we have the potential to connect early-stage tech start-ups to investment through angel networks and funds, giving them the opportunity to scale-up and grow.

"NorthInvest is delighted to work with Nexus to provide crucial support and guidance for highpotential tech and digital start-ups emerging from the University of Leeds and beyond.

Their collaborative approach and positioning at the heart of the Leeds tech ecosystem provides a much-needed intermediary between the academic, public and private sectors and nurtures a pipeline of high-potential early stage investor-ready businesses that we can connect with our investor networks. We believe it's the nurturing of this pipeline of early stage start-ups and subsequent investment. that is crucial to keeping talent in the region and to stimulating the Northern digital economy.

Nexus has also been invaluable, providing NorthInvest with opportunities to host and speak at events at the innovation hub. These opportunities to share insights and investor readiness advice with start-ups has helped us share our investment offer with a number of promising entrepreneurs."

HELEN OLDHAM

Founding Board Director and Head of Operations, NorthInvest



PROPELOYH

Our partnership with Yorkshire-based Propel@YH is helping SMEs to innovate and grow, bringing innovative digital health and patient solutions to the region's population and the wider health economy.

As a Community Partner of Propel@YH, Nexus will host a six-month accelerator programme and provide the cohort with Nexus community access. This new partnership means we'll be supporting the development of the Yorkshire health tech ecosystem and play a significant role in helping these organisations achieve real impact – creating jobs, research collaborations and new digital products for the benefit of patients and the NHS.

"As a newcomer to the healthcare system with no clinical experience, I found the whole programme to be invaluable. The masterclasses were incredibly informative and gave me a greater understanding of how the system works.

For any start-up or scale-up company seeking to better understand how to navigate the NHS, to understand its complexity and the amount of evidence that is required in order to work towards gaining adoption of new technology, Propel@YH will deliver everything you need and more."

BARRY SINGLETON

Chief Relationship Officer, Scaled Insights





Leeds and the University has a history of world-changing ideas, with many of the innovations having a positive economic and societal impact across the world. Today, the work continues at Nexus and the University of Leeds, where our community is already making significant impact on the modern world. The new decade may have brought with it a period of change, but out of this will come great opportunities and the innovative and adaptable businesses within our region will be integral to capitalise on these.

It has been a truly inspiring first year of innovation and development for our members – who have the potential to be the pioneers and change makers of the future. We continually work with them to explore new ways of adding value to their businesses by facilitating more collaboration between our entrepreneurs. the brilliant academic minds at the University, the wider region and beyond.

Leeds and the city region is already a good place for businesses to start-up and scale, and Nexus has a key role to play in creating a vibrant ecosystem that delivers economic makes Leeds and the city region an and societal value. Positive signs, such as the West Yorkshire Devolution Deal, already indicate that our region has all the elements needed to do this.

Universities have a vital role to play in driving this innovation and productivity, even more so as we rebuild our economy after COVID-19, helping businesses harness new growth opportunities and competitive advantages that can be gained by embedding innovation in their core strategy. These businesses are at the very heart of the vibrant innovation community continually developing in Leeds.

Continued investment in developing this ecosystem, as well as the businesses, skills and expertise that are part of this, attractive proposition for new funding and investment opportunities, which in turn drives economic growth. As part of the wider ecosystem, Nexus and the University of Leeds will be a catalyst to ensure that vital research and development brings about societal and economic impact. In utilising the University's ground-breaking research we are driving our region's strengths in health innovation, medtech, advanced manufacturing, advanced materials, data and energy. Helping businesses to tackle real-world problems on a varying scale; regionally or globally.

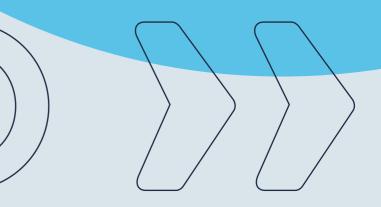
impact.

Our vision is for the University of Leeds and Nexus to become an even stronger powerhouse for innovation, recognised

nationally and internationally as a benchmark for how universities should collaborate with businesses to deliver

The wealth of connections and resources available at our fingertips, provides a great opportunity for us to continue to develop a first class talent pool, which includes talent acquisition as well as supporting the upskilling of employees for fast growing firms in the region.

Thanks to the brightest entrepreneurial and academic minds, our community is fast-forwarding our vision with some truly innovative and ground-breaking results. We can't wait to see the amazing achievements and impact of our community over the next 12 months.





Universities are key drivers of innovation and ideas and even more powerful when they work in collaboration with others. This is why the University of Leeds and Nexus' commitment to the MIT REAP programme is pivotal and our valuable partnerships with senior stakeholders across the region are so important.

The University of Leeds are leading the programme for the region with Nexus forming an integral part of the core team.

The team have developed a long-term strategy aligned to our mission to make Leeds and the city region globally recognised as a place where those with the most innovative ideas can solve societal problems, and create new market opportunities.

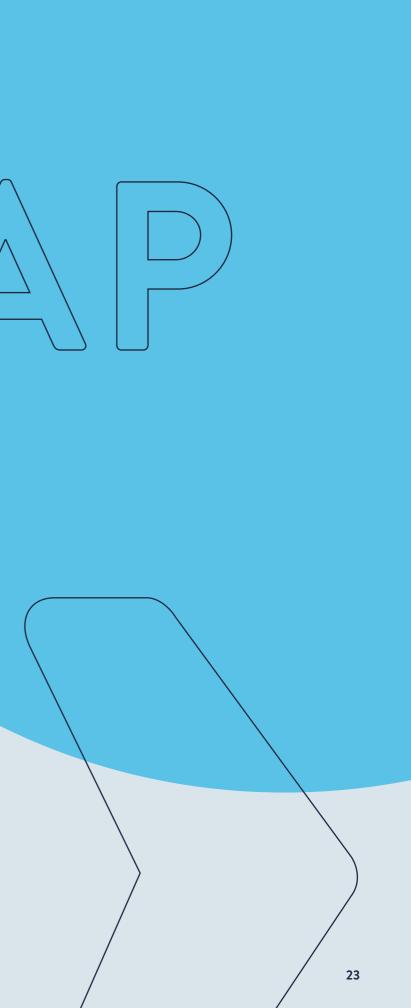
Key to this will be Innovation Driven Enterprises (IDEs). IDEs have a disproportionately high impact on economic growth, so naturally in Leeds we want to create an innovation ecosystem that not only provides a wellstructured programme of support for them but one that can create more.

These high-growth, generally technology focused, businesses will attract further investment and funding opportunities to the region as well as creating a pool of highly skilled jobs. And every one of those highly skilled jobs can have a multiplying factor of between 8 and 10 additional jobs, across other varying sectors.

As part of Team Leeds, we've applied the knowledge and expertise we've gained at Nexus of working with early stage businesses to translate their needs and challenges to ensure the strategy focuses on addressing the true needs from an entrepreneur's perspective.

Nexus demonstrates the potential of IDEs in delivering wide-reaching economic growth. Our membership base is made up of these very companies, who are attracting investment and funding into their businesses and scaling fast. Our members have created a significant number of highly skilled jobs within Leeds, as well as delivering a wealth of products and services that deliver societal impact. They're focusing more on R&D and innovation than the regional average, and are reaping the benefits because of this – something which we want to make sure other businesses in the region can take advantage of.

It's essential there's a strong pipeline of entrepreneurs with great ideas, and that they have the support networks in place to help them thrive. This in turn will drive regional economic growth, delivering job creation and solutions that are societally useful and commercially viable.



COMMUNITY

In order to support start-ups and boost early innovation, we've launched a new Community Membership package. This will provide many of the benefits of being part of the Nexus community, including access to research and innovation at the University and advice and networking, for those who don't have a space requirement. Focused on start-ups with a clear commitment to research and innovation, the membership also includes invitations to community events, connection to the wider ecosystem and access to the collaboration areas to work alongside our members.

MICHAEL BEVERLEY INNOVATION FELLOWSHIP

Providing a boost for innovation engagement across targeted cohorts of early career researchers, this unique fellowship programme will develop the next generation of academic entrepreneurs and help further embed commercialisation within the Leeds academic community.

We're also expanding our new mentoring service (NVMS) to support this programme, with external experts and senior academic mentors supporting the fellows in the translation and implementation of their research.

Our aim is to further build the reputations of both the University of Leeds and the city region as destinations where entrepreneurs can thrive.

MENTORING TO INNOVATE

We're also introducing the Nexus Venture Mentoring Service (NVMS) to support the leaders of our high-growth tech-based member businesses to develop, grow and expand their network.

Based on the Massachusetts Institute of Technology VMS model, NVMS shares the belief that start-up businesses are far more likely to thrive when they can draw on the advice and guidance of a group of mentors with proven skills and experience. Celebrating our thriving community of innovation-led entrepreneurs and further strengthening the University of Leeds' role as a leader in innovation and business engagement, NVMS will be piloted with Nexus member businesses across late summer/early autumn 2020.

PARTNERING WITH PROFESSIONAL SERVICES

We're expanding our member businesses' access to the best professional services advice and support and are delighted to announce two new strategic partnerships.

Squire Patton Boggs will be joining the Nexus community as our new legal partners and HGF are joining as IP partners, offering access to a wealth of support services for our members. We look forward to welcoming them as Nexus partners and working together over the coming months. 08/ OUR MEMBERS

THE FOLLOWING ORGANISATIONS MAKE UP THE NEXUS COMMUNITY

APEX Evangelists Innovative Solutions	ASSETCOOL THERMAL METAPHOTONICS	Betalin THERAPEUTICS	CAPUT ENERGY	
excelled a Sorobot A Content of C	EXODUS TECHNOLOGIES LTD	Flavr	Fundamentals <u>First</u>	GMAP analytic
Innotech Insights	Innovate UK	ITECHƏ HEALTH	Jiuli 久立特材	Functional, natural, sustainable cosme
KPMG	Leeds City Region Enterprise Partnership	ligentia next generation freight		my food
NORTH INVEST	Overlap Associates_	P&G	PC	pinpoir
Research Toolkit Research Training - Evaluation	SCALED INSIGHTS	SIMULATIONS	Spark University of Leeds Business Start-up Support at the Careers Centre	THOUGHT BEA
Tracsis plc	⊌∩ıphy	VET-AI animal technologies		



Ready to join our community? Get in touch.



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- @nexusunileeds Nexus Leeds nexusleeds.co.uk



