



UNIVERSITY OF LEEDS

ANNUAL REVIEW 2017–2018





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INTRODUCTION FROM

SIR ALAN LANGLANDS, VICE-CHANCELLOR



Sir Alan Langlands, Vice-Chancellor, speaking during the installation of the University's new Chancellor, Professor Dame Jane Francis, in July

The past year has been, by any measure, a turbulent one in higher education and beyond. Throughout this turbulence, the University has stuck resolutely to its core mission: to create knowledge and opportunity through sector-leading student education and globally-recognised research. And to do both in tandem, so that each reinforces the other, with an increasingly international focus.

On the first of these, the University is proud of its relationship with our students; one in which we always strive to put them front and centre, supporting them to become independent, critical thinkers through an unflinching commitment to research-based education.

The success of this approach has been reflected during the past year through the University's highest-ever rankings in a number of national surveys and assessments. This continues the overall upward trend in recent years, and is testament to both the dedication of our staff and our considerable investments in education infrastructure and support.

The University has continued to go from strength-to-strength in research during the past year, with particular success in areas linked to global challenges, enabling us to make a difference to some of the world's most vulnerable communities. More broadly, the bold and far-sighted investments we are making in

both future research talent and initiatives such as our Nexus innovation centre, the Sir William Henry Bragg Building for physical sciences and engineering, and our new Institute for High Speed Rail and System Integration, alongside our membership of a range of important national institutes, will provide the basis for future growth.

During recent years, we have worked to become more global in our outlook, through recruitment of international students and staff, boosting overseas research collaborations, and stepping up targeted engagement with alumni and partners around the world. It is heartening that this focus was reflected in a top 100 position in the QS World University Rankings this year.

Closer to home, we must never lose sight of our beginnings as a major civic university. This review gives a flavour of our desire to work with a wide range of partners and to enhance the future prosperity and well-being of the City of Leeds and the wider Yorkshire region. This underlines our commitment to improve people's lives and life chances that has served us well for the past 114 years and will continue to drive us forward.

A handwritten signature in black ink, appearing to read 'Alan Langlands'.



THE UNIVERSITY'S TIMELINE

August 2017

Plans for advancing engineering and physical sciences took a major step forward with a green light from Leeds City Council for the University's £97.8m Sir William Henry Bragg Building.

Two more academics at the University were awarded National Teaching Fellowships – one of the most prestigious awards for higher education teaching. This brings the tally for staff from Leeds to 26 – the highest of any university.

September 2017

Dr Tim Peakman was appointed Chief Operating Officer at Leeds. He is responsible for overseeing the effective operation of the University, ensuring all of its activities are properly aligned and managed to support its students and delivery of its overall academic mission.

A University-led Science and Innovation Audit – commissioned by the Department of Business, Energy and Industrial Strategy (BEIS) – showed that the Government, industry and the NHS need to invest between £200m and £250m in Leeds City Region's medical technology sector during the next five years to enable it to exploit opportunities in the global health market.



October 2017

Dr Martin Stow was appointed as the Director of Nexus, which will enable external partners to more easily access the University's world-class capabilities and expertise to drive forward collaborative innovation.



Leeds was revealed as one of three universities partnering in a £5m programme to help get academic research into business. Leeds and its partner institutions – Manchester and Sheffield – will jointly establish the Northern Triangle Initiative (NTI), which will help take novel research to market in areas such as advanced materials, medical technologies and computer science.

An £800,000 National Lottery grant will allow the University to update the most comprehensive survey of the dialects of England ever undertaken. The project will open up the extensive Leeds Archive of Vernacular Culture to the public and continue the work of the Survey of English Dialects (SED) and the Leeds Institute of Dialect and Folk Life Studies.

November 2017

The Institute for Medieval Studies (IMS) celebrated the launch of its 50th anniversary exhibition. Believed to be the oldest interdisciplinary centre at the University, the IMS has been home to an internationally-leading community of medievalists since 1967.

It was announced that Leeds is to become a partner of the UK's prestigious national institute for data science. Work with The Alan Turing Institute will be led by the Leeds Institute for Data Analytics (LIDA), with contributions from researchers and data scientists across the University.

December 2017

The School of Music celebrated its new coveted All-Steinway School status with the performance of a specially-composed piece of music – for 28 new pianos. The première marked the early morning arrival of 27 new Steinway pianos at the University's School of Music, joining a concert grand already there.



A multi-million pound investment secured the future of a joint University and NHS research centre specialising in rheumatology, musculoskeletal diseases and joint replacement. The research facility at Chapel Allerton Hospital has been recognised as a Biomedical Research Centre by the National Institute for Health Research (NIHR) – and comes with £7m of research funding.

January 2018



Ninety years after the Royal Television Society's inaugural meeting at the University, the Yorkshire Society unveiled a plaque to celebrate its anniversary. The Royal Television Society was founded in September 1927, originally as the Television Society, following a lecture at Leeds from one of the future inventors of television, John Logie Baird.

Senior regional business leaders visited the University to find out how Nexus will boost economic growth across the Leeds City Region and beyond.

February 2018

Business Secretary Greg Clark announced Leeds is to receive £6m in funding for additional PhD places, as part of a major investment in science and engineering in the UK through the Engineering and Physical Sciences Research Council (EPSRC).

Researchers from the University began contributing to a 30-month autonomous vehicle project that will culminate in the most complex journey ever attempted across the UK without driver input. The 'HumanDrive' project is led by Nissan's European Technical Centre, as part of Renault-Nissan Alliance research activities, and includes expertise from the Institute for Transport Studies at Leeds.

March 2018

Leeds came third in the UK – and the highest ranked among the Russell Group of research-intensive universities – in the Times Higher Education Student Experience Survey.

Leeds was recognised as one of the most international universities in a new Times Higher Education ranking, which places the institution 47th in the world – a rise of at least 103 places.

The personal archive of the woman who founded one of the world's most famous piano contests was presented to the University. The achievements of Dame Fanny Waterman DBE, co-founder of Leeds International Piano Competition, were celebrated with an afternoon of varied events at the University.

Leeds hosted a free, family-friendly event to showcase some of its world-leading research to the public. Be Curious focussed on how research makes a difference to the lives of people all over the world.

An artist who explores the meeting of human perception and Artificial Intelligence was selected as the winner of the 2018-19 DARE Art Prize. Working with scientists at the University, Anna Ridler is exploring the functions of memory and the roles of the left and right sides of the brain, and how their operation might be embodied in a work of art.



April 2018

A marriage of biology and physics resulted in two leading University academics – husband and wife team Professor Eileen Ingham (Faculty of Biological Sciences) and Professor John Fisher (Medical Engineering) – being shortlisted for the 2018 European Inventor of the Year award.



The University helped throw the spotlight on digital technology as a premier sponsor of Leeds Digital Festival. The two-week programme included talks, workshops, networking and live coding.

Six students and alumni won medals against some of the world's best athletes at the Gold Coast 2018 Commonwealth Games in Australia.



It was revealed that six northern universities are among more than 20 partners in the new £9.5m Grow MedTech project, led by Leeds, solving the challenges that hamper Yorkshire's medical technology experts when they attempt to bring innovative products to market.

May 2018

A Leeds City Region team – including the University – successfully secured a place on a prestigious leadership programme run by Massachusetts Institute of Technology (MIT), one of the world's top universities.

A cutting-edge 3D weaving loom – the only one of its kind in the UK – is at the heart of a new £1.75m textiles innovation centre at the University.

Drax Group plc announced it is to partner with C-Capture in a pilot project which, if successful, could make the renewable electricity produced at its North Yorkshire power station carbon negative. C-Capture is a spin-out company from the University's School of Chemistry.



June 2018

Leeds was positioned joint 93rd in the QS World University Rankings 2019, highlighting its growing reputation for research and education.

The University backed a major new initiative celebrating Yorkshire's status as a leading destination for modern and contemporary sculpture. The inaugural Yorkshire Sculpture International – the UK's largest event celebrating the art form – will take place across public spaces in Leeds and Wakefield in September 2019.

Leeds was revealed as a key university partner in the £103m Rosalind Franklin Institute – an initiative to develop new technologies that will revolutionise biology and medicine research and development.

July 2018



Former Dean of the Faculty of Environment, Professor Dame Jane Francis DCMG, was officially installed as the seventh Chancellor at Leeds. Dame Jane is a prominent polar scientist, who worked at Leeds for two decades until 2013, when she was appointed Director of the British Antarctic Survey.

The Transport Secretary confirmed that a new HS2 depot – which will maintain and service the project's brand new high speed trains – will sit alongside the University's £10m Institute for High Speed Rail and System Integration.

Sword-bearing knights, falconry and dragons were among the entertainment at this year's International Medieval Congress (IMC). The largest academic conference of its kind in Europe, the IMC celebrated its 25th year in 2018. About 2,900 researchers from 60 countries flocked to the campus during four days of events.



EXCELLENCE IN RESEARCH

by Professor Lisa Roberts, Deputy Vice-Chancellor: Research and Innovation

Much of our work at Leeds is focused on finding answers to intractable scientific, economic and societal challenges.

And we want our solutions to transform people's lives in some way.

The strength of our research is in making a real and telling difference to the world around us, by working across traditional boundaries to find innovative solutions to some of the greatest challenges facing us today.

So, it's with immense pride that we can reflect on yet another hugely successful year of research and innovation activities at Leeds.

We have seen a significant increase in new and larger research awards. *Research Fortnight* analysis of the Global Challenges Research Fund (GCRF) and Newton Fund schemes shows Leeds securing more than £36m in awards between 2014 and 2018 – more awards than any other university. Leeds also saw a £12m boost in research council awards during 2016/17, according to Times Higher Education (THE), taking our total to nearly £52.4m.

Of course, this success is down to our talented staff, and we need to ensure they have the right environment in which to thrive, through providing them with the best facilities and support.

Aligned with this, we have been making significant investments in our infrastructure to help deliver our ambitions. The £520m campus development programme and the expansion of our research infrastructure are clear evidence of this.

But, importantly, this investment in infrastructure has been matched by investment in people; I am extremely proud of our 250 Great Minds programme that has brought the next generation of research leaders to Leeds. The performance to date of our University Academic Fellows has surpassed our expectations.

Our success reflects the expertise and efforts of our entire research community and is well deserved.

Leeds is also demonstrating great ambition and increasing our research leadership within the UK. With projects like the UK's first dedicated Institute for High Speed Rail and System Integration, the Sir William Henry Bragg development and our Nexus innovation centre, we have genuine opportunities to forge ahead in presenting a unique offer to businesses to work with the University.

The launch of our new Business Engagement Framework will make partnership working even easier in the

future. This is already demonstrated by the Universities of Leeds, Manchester and Sheffield jointly establishing the £5m Northern Triangle Initiative, which will help take novel research to market and develop ideas based on innovations in areas such as advanced materials, medical technologies and computer science. And a new multi-million pound research project to boost creative innovation in the textile and fashion industry is being spearheaded by the University through the Arts and Humanities Research Council Creative Clusters programme.

Our passion for discovery and to make an impact is what drives us. And if we can harness that passion, align it to a clear-sighted vision for the future and a collective determination, belief and confidence, we can unlock the further potential we possess.



Professor Lisa Roberts, Deputy Vice-Chancellor: Research and Innovation

The strength of research at Leeds is making a telling difference to the world around us



Building a campus for the future

The University's commitment to delivering world-leading research and exceptional student education and experience continues to manifest itself in an ambitious plan to deliver a campus for the future.

Major capital projects currently underway include the £97.8m investment to create an integrated campus for Engineering and Physical Sciences – including the Sir William Henry Bragg Building – and the brand new £40m innovation centre, Nexus, which will provide opportunities for researchers to collaborate with businesses to tackle commercial, societal and environmental challenges.

The project will foster a culture of interdisciplinary working in the development of novel materials to address a range of 21st Century challenges in many areas, including energy-efficient computing,

telecommunications, sustainable magnetic materials, sensors for use in biological systems and extreme or remote environments, pharmaceutical formulations, 'smart foods' and medical technologies.

The facility will include first-class laboratory and specialised teaching spaces, enabling cutting-edge research and outstanding student experience, whilst enhancing the University's research power and strengthening collaboration with industry.

The space will also incorporate the Bragg Centre for Materials Research, establishing a world-leading centre to accelerate the impact of interdisciplinary materials research on society.

Nexus embodies the outward-facing approach the University is taking to grow and prosper in an increasingly competitive, inter-connected global environment.



A computer-generated image of how the new Sir William Henry Bragg Building will look when completed

The £40m state-of-the-art building will be a place where ideas, expertise and opportunity come together, creating new value and developing collaborative partnerships between entrepreneurs, businesses and world-leading researchers.

From accessing new sources of potential funding to delivering impact through the development of products and technologies, Nexus will provide the perfect opportunity to realise the full potential of our world-class research capabilities.

Professor Lisa Roberts, Deputy Vice-Chancellor: Research and Innovation, said: "Showcasing our ambitious future plans for Nexus is important, but it's also about reiterating the University's outstanding track record of supporting innovation, licensing and spin-out companies.

"This will be an exceptional opportunity, providing both physical and virtual communities, to make a further step change in the way we accelerate great ideas and help businesses build productivity and deliver a real commercial edge."



Roger Marsh OBE (Chair of LEP – Leeds City Region Enterprise Partnership), Professor Lisa Roberts (Deputy Vice-Chancellor: Research and Innovation), Andrew Wright (Chair of the LEP's Business, Innovation and Growth Panel), Dr Ceri Williams (Director of Research and Innovation Development) and Dr Martin Stow (Director of Nexus) during a visit by senior business leaders to the Nexus development on campus



Making a real and telling difference to the world around us

Increasing expertise in research growth areas – such as data science, medtech and life sciences – has ensured Leeds has laid the foundations for continued progress.

This is reflected, in part, through the University's membership of three prestigious national research institutes.

Work with The Alan Turing Institute will be led by the Leeds Institute for Data Analytics (LIDA), with contributions from researchers and data scientists across the University.

The work in LIDA sheds new light on health and human behaviour, as well as the action needed to tackle a wide range of health, social and environmental problems.

The University and The Alan Turing Institute have a shared commitment to make great leaps in data science research in order to change the world for the better.

The £103m Rosalind Franklin Institute is a national body, dedicated to bringing about transformative changes in life science through interdisciplinary research and technology development.

Leeds is one of 13 partners of the Institute, which brings together researchers in life sciences, physical sciences and engineering, mirroring the University's own highly interdisciplinary institutional approach to research, which is demonstrated in areas such as the Astbury Centre for Structural Molecular Biology.

The Sir Henry Royce Institute for Advanced

Materials is a £235m government investment, bringing together internationally-renowned academics from across the UK, and works closely with industry to ensure commercialisation of fundamental research.

Leeds is a key partner in the Institute, which will support the UK manufacturing base and reduce the time required to take new materials from invention to market.

Professor Lisa Roberts, the University's Deputy Vice-Chancellor: Research and Innovation, said: "Being a part of these institutes builds on Leeds' strengths in making a real and telling difference to the world around us, by working across traditional boundaries to find innovative solutions to some of the greatest challenges facing us today."

Climate change warnings

Major new studies from University academics are helping experts better understand climate change factors.

Research from scientists – including Professor Andrew Shepherd and Dr Anna Hogg at Leeds – has produced some alarming findings about global warming.

Monitoring Antarctica from space has revealed how its ice is being lost to the oceans, providing crucial insight into the continent's response to a warming climate.

Scientists from Leeds, the University of California San Diego and University of Maryland reviewed decades of satellite measurements to reveal how and why Antarctica's glaciers, ice shelves and sea ice are changing.

Their report explains how ice shelf thinning and collapse have triggered an increase in the continent's sea level contribution.

Lead author, Professor Andrew Shepherd, from the School of Earth and Environment at Leeds, said: "Antarctica is way too big to survey from the ground, and we can only truly understand the trends in its ice cover by looking at the continent from space."

Ice losses from Antarctica have increased global sea levels by 7.6 mm since 1992, with two fifths of this rise (3 mm) coming in the past five years alone.

The assessment, led by Professor Shepherd and Dr Erik Ivins at the US National Aeronautics and Space Administration's (NASA's) Jet Propulsion Laboratory in California, was supported by the European Space Agency and NASA.

Professor Shepherd said: "According to our analysis, there has been a steep increase in ice losses from Antarctica during the past decade, and the continent is causing sea levels to rise faster today than at any time in the past 25 years. This has to be a concern

for the governments we trust to protect our coastal cities and communities."

And a new study has also found Antarctica's great ice sheet is losing ground as it is eroded by warm ocean water circulating beneath its floating edge.


Research by the UK Centre for Polar Observation and Modelling at the University has produced the first complete map of how the ice sheet's submarine edge – or 'grounding line' – is shifting.

A study shows the Southern Ocean melted 1,463 km² of Antarctica's underwater ice between 2010 and 2016 – an area the size of Greater London.

Dr Anna Hogg, who was part of the research team, said: "We can now see that climate change is affecting the Antarctic far more than we previously believed. Inland glaciers will become unmoored from the seabed if melting continues at Antarctica's base, potentially causing serious consequences for global sea level rise."



University scientists ice coring at the George VI Ice Shelf in Antarctica. Picture: Ian Potten, British Antarctic Survey



Placing Leeds on the world stage for high speed rail research

The University is investing £10m to develop the UK's first dedicated centre for high speed rail technologies and system integration.

Offering a 'complete system' approach to high speed rail engineering, it will give the UK an unrivalled centre of excellence for planning, design, construction and manufacturing.

The Institute for High Speed Rail and System Integration will include a high speed railway infrastructure and vehicle system test facility. From foundations and track to traction systems, braking, energy harvesting, sensor technology and digital systems, the Institute aims to optimise the efficiency, performance and safety of high speed rail.

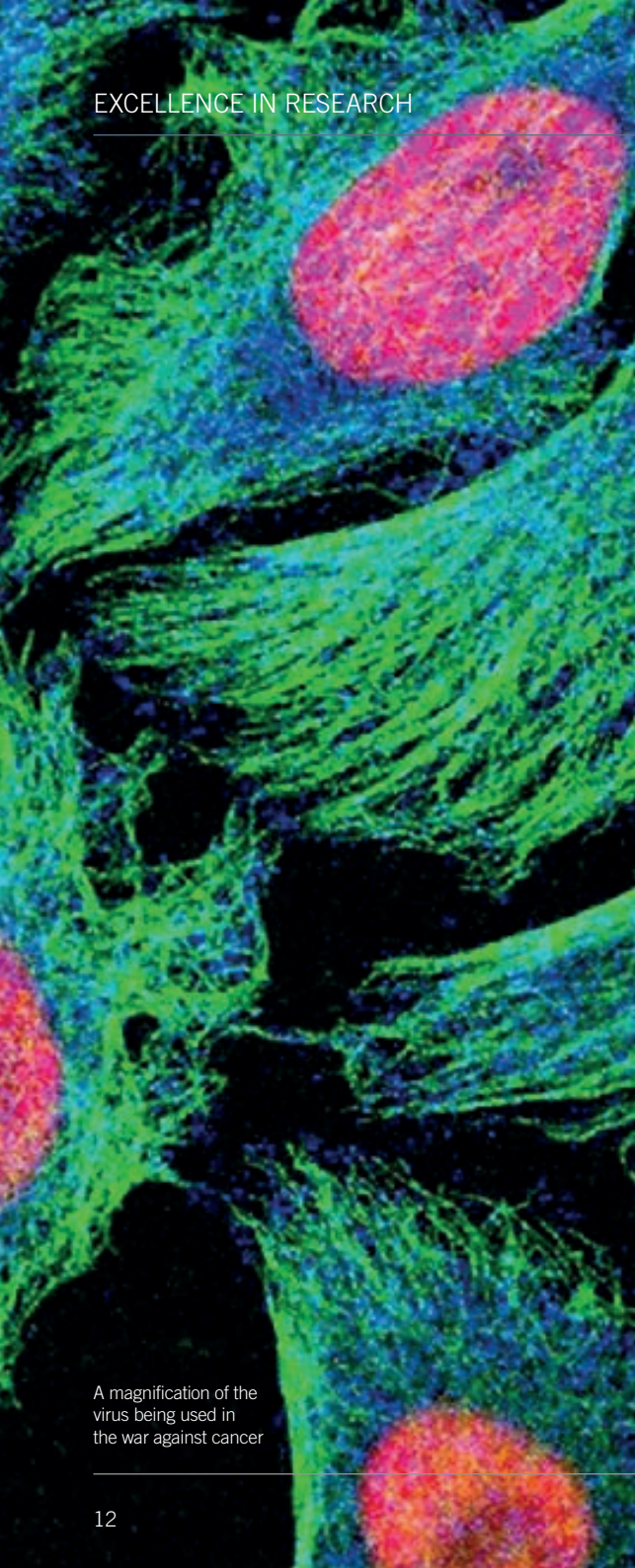
Working with other institutions in the north, it will also help address the skills gap to enable rail industry growth. Creating opportunities for people to study alongside experts, the University has launched a new MSc course in Railway Engineering with Project Management, as well as new PhD opportunities, to ensure a pipeline of skilled professionals for the industry.

The Institute's potential will be unlocked further still after the Transport Secretary confirmed the location of a new HS2 rolling stock depot – which will maintain and service the project's brand new high speed trains – will be alongside the £10m Institute, creating a "thriving hub" for future engineers.

Professor Lisa Roberts, Deputy Vice-Chancellor: Research and Innovation, said: "We now have a genuine opportunity to forge ahead and be a global leader in a high speed rail market that is expanding rapidly across the world."

Leading the Institute is Professor Peter Woodward, the University's new Chair in High Speed Rail Engineering. He said: "A system integration approach is possible because of the highly multi-disciplinary teams at Leeds and, combined with state-of-the-art test facilities, this investment will place Leeds on the world stage as the go-to place for high speed rail research."

The Institute will also work with a range of international partners, including SouthWest Jiaotong University – one of China's leading railway engineering universities, where Leeds has opened a joint school.



A magnification of the virus being used in the war against cancer

Potential new weapons in the war against cancer

Two new University studies could offer fresh hope in the fight against certain forms of cancer.

Early results from a small-scale clinical trial have revealed the potential of a virus to treat some advanced cancers.

And a second study at Leeds has shown aggressive brain tumour cells taken from patients were found to self-destruct after being exposed to a chemical in laboratory tests by researchers.

Findings presented by scientists from the University at the annual meeting of the American Society for Clinical Oncology revealed that a specifically-engineered virus was able to infiltrate tumour cells, begin to destroy them and also boost the body's immune system.

Dr Adel Samson, from the Leeds Institute of Cancer and Pathology, who is one of the investigators, said: "These initial findings are very exciting.

"They show the virus was very effective in being able to switch on the body's immune system, allowing a patient's own defence systems to target the cancer.

"In addition, there was evidence the virus itself was also destroying the tumour cells."

The effectiveness of the virus, called Pexa-Vec, is being tested

in a larger clinical trial involving patients with liver cancer.


Meanwhile, the study involving aggressive brain tumour cells could be the first step in tackling cancers such as glioblastoma, which led to Dame Tessa Jowell's death earlier this year.

The research, led by Leeds, found the synthetic chemical – named KHS101 – was able to cut the energy source of tumour cells from glioblastoma, leading to the death of the cells.

The research represents an important step forward in tackling this disease, which is one of the deadliest cancers, with a five-year survival rate of less than 5%.

Funded initially by the Medical Research Council, the new study has showed promising results, which may lead to the development of a therapy to fight brain cancer in years to come.

Dr Heiko Wurdak, from the University, is leading the international research team. He said: "This is the first step in a long process, but our findings pave the way for drug developers to start investigating the uses of this chemical, and we hope that one day it will be helping to extend people's lives in the clinic."



Research being conducted to measure the infrared spectrum

New technology could improve people's lives

A new generation of ultra-sensitive detectors has opened up the use of infrared wavelengths for a large number of new applications that could improve people's lives.

From uses in autonomous vehicles and communications to civil protection and environmental monitoring, the ability to measure the infrared spectrum more conveniently and in much greater detail than is currently possible is a major step forward.

This is according to the team that developed the detectors, which includes senior academics from Leeds, working with

colleagues at ETH Zurich in a project led by the University Paris Diderot.

Infrared light is invisible to the naked eye and can only be measured with the help of a detector. Although it is emitted by any object at room temperature, it is rarely exploited fully by scientists. This is because of a lack of functional detectors that can operate at room temperature, sufficiently quickly and with enough sensitivity.

Now, the research team has built and demonstrated a new technique that amplifies the performance of infrared detectors. They have used nano-fabrication

techniques to develop quantum structures that can operate in a useful way.

Professor Edmund Linfield, Chair of Terahertz Electronics at Leeds, said: "The applications of infrared radiation are potentially very numerous. This new technology we've developed with our international colleagues could quickly find applications in telecommunications or for the remote detection of pollutants."

Research programmes such as this are a prime example of the type of collaborative projects that will be delivered through the University's Bragg Centre for Materials Research.

Building partnerships to boost business

Forging closer links between universities and industry is a priority set out in the Government's Industrial Strategy green paper.

And two major investment programmes – Grow MedTech and the Northern Triangle Initiative (NTI) – are evidence this is already beginning to reap rewards.

Solving the challenges that hamper Yorkshire's medical technology experts when they attempt to bring innovative products to market is the focus of the first of these new partnerships.

Backed by £9.5m of funding, Grow MedTech will build on the distinctive cluster of medical technologies expertise in the Leeds and Sheffield city regions.

Six northern universities are among more than 20 partners in the three-year project, led by Leeds. It is part-funded by Research England and will be supported through Nexus, the University's new £40m innovation centre.

By financially supporting researchers and developers to take new products through the early stages of commercial development, the partnership expects to bring about 20 potentially life-enhancing devices into everyday use during the project's lifetime.

Dr Josephine Dixon-Hardy, Director of Medical Technologies Innovation at Leeds, is leading the delivery of the partnership. She said: "We are bringing the best minds in engineering, biological development, design and manufacturing together with industry to drive products into everyday use to improve the quality of life for people across the world."

Professor John Fisher, Director of the Engineering and Physical Sciences Research Council (EPSRC) Medical Technologies Innovation and Knowledge Centre at the University, is the project's academic lead. He said: "The rate of change associated with technology convergence at the moment is unprecedented, and the UK medtech sector needs to transform to exploit this opportunity. We aim to lead this change in the UK. The programme will deliver growth in the economy and benefits to the health and care services."

Leeds is also one of three universities partnering in a £5m programme to help get academic research into business.

The University and its partner institutions – Manchester and Sheffield – will jointly establish the NTI, which will help take novel research to market and develop ideas based on innovations in areas such as advanced materials, medical technologies and computer science.

Funded by the Higher Education Funding Council for England (HEFCE), the NTI aims to raise a further £350m in private finance to support university commercialisation, and to strengthen entrepreneurial activity in the North of England.

Leeds already has a strong track-record in commercialising its research, creating more than 110 spin-out companies since 1995, six of which are listed on the financial markets, and which currently employ in excess of 800 people.

Professor Lisa Roberts, Deputy Vice-Chancellor: Research and Innovation at

Leeds, said: "This is a great opportunity to build on our formidable reputation in commercialisation.

"The Universities of Leeds, Manchester and Sheffield are three research powerhouses in the North, and by working together we will have significant impact on the commercialisation of our research."



Research being conducted in the Institute of Medical and Biological Engineering (iMBE) MedTech lab



Dr Josephine Dixon-Hardy, Director of Medical Technologies Innovation at Leeds



Professor John Fisher, the Grow MedTech project lead, at work in the laboratory

EXCELLENCE IN STUDENT EDUCATION

by Professor Tom Ward, Deputy Vice-Chancellor: Student Education

‘To provide an outstanding education, which will attract, excite and retain high-quality students from diverse backgrounds, and equip them to succeed in a competitive global employment market and to make a difference.’

The University’s Strategic Plan clearly defines our steadfast commitment to achieving excellence in student education at Leeds.

And our superb performance during the past 12 months is a wonderful tribute to the staff and students that make Leeds what it is: a University that excels in the quality of its teaching, its research, its international offer and – as our results testify – in the way it nurtures its students by creating a supportive and friendly environment.

The excellent learning experience at Leeds is consistently recognised, through the National Student Survey, the Teaching Excellence Framework and success in key

rankings, including a top ten place in the Guardian University Guide this year and a top three in the Times Higher Education Student Experience Survey.

League tables can only provide a glimpse into what universities offer, but the fact that Leeds has moved up again in so many important rankings is a reflection of the world-class student experience we offer.

At Leeds, we provide a research-based education that emphasises the development of independent, critical thinkers.

We also recognise that we need to continue to match the expectations of a hugely diverse student population and community of learners, hence our ongoing investment in digital technology and cutting-edge facilities.

The development of our campus has seen a major refurbishment of libraries and lecture theatres, which are now award-winning.

And there is so much more to come.

Exciting new multi-million-pound projects are underway, with an expansion of the Leeds University Business School and the development of the Sir William Henry Bragg Building, which will provide an exceptional environment for students and support researchers from engineering and physical sciences to work together to tackle industry challenges.

Along with the opportunities that the city and the region offer as a whole, this makes Leeds a fantastic place to live and learn.



Professor Tom Ward, Deputy Vice-Chancellor: Student Education



Students celebrating their graduation





Leeds University Union has been significantly transformed with a multi-million-pound investment programme

State-of-the-art student union facilities

The £16.8m investment made in Leeds University Union (LUU) has significantly transformed the building.

It was an opportunity to provide state-of-the-art facilities, as well as improved access for all users.

This exciting project contributed towards the Union's strategic plans to remain one of the UK's biggest and best.

Environmental improvements were made to the building during the year-long upgrade, with improved and extended social and recreational space created. The result is a unique suite of venues under one roof and modern, well-equipped theatres with increased capacity.

Union Square is LUU's new marketplace for food and society stalls. Neighbouring it is Common Ground, a completely new café with a study and gaming area.

Another new addition is the Pyramid Theatre, one of only nine operational 'theatres in the round' in the UK, and a great space for society and external productions.

LUU Advice is now located in the foyer, helping students get the support they need, while the Terrace bar has been completely revamped, with a new menu and interior.

And four brand new dance studios are now available for use – Mango, Scarlett, Sky and Jade. These are equipped with full-length mirrors and spotlights – perfect for society sessions and rehearsals.

Chris Morris, Union Affairs Officer, said: "Our Union building is looking better than ever.

"We've got loads of new spaces, which are more multi-purpose, accessible and colourful than before. Everything has been designed with the ever-changing needs of our student body in mind, and it's great to see students are already feeling the benefits of these changes.

"The investment in the upgrade has had a hugely positive impact, and I am looking forward to the further improvements coming later this year."

Further works in summer 2018 included improvements to the north and south entrances together with a revamp of the Terrace outdoor area.

One of the best universities in the UK for student satisfaction

Students have once again consistently voted Leeds among the top universities in the UK.

The excellent learning experience on offer has been recognised with a string of successes in key rankings during the past 12 months.

Leeds entered the top three in The Times Higher Education Student Experience Survey for the first time this year.

It is also the highest ranked among the Russell Group of universities and scores particularly highly for its campus environment, facilities and extra-curricular activities.

The survey goes beyond the usual measures to ask about aspects of university life that matter most to students.

This superb performance was reinforced in the National Student Survey 2018 results, which ranked Leeds joint first in the Russell Group and joint top for teaching among these research-intensive universities.

The independent annual survey is one of the key indicators of how students rate their time at university, and was completed by more than 320,000 final-year students in the UK in 2018.

The University scored 88% for overall satisfaction, compared to a national average of 83%.

Leeds also climbed up the Complete University Guide for the sixth consecutive year, progressing to 13th. The Guide uses a range of criteria in the ranking, including student satisfaction, graduate prospects and completion, and investment in facilities.

And Leeds moved into the Guardian University Guide top ten for the first time, jumping four places and rising for the fourth consecutive year.

Professor Tom Ward, Deputy-Vice-Chancellor: Student Education, said: "I want to thank our students and staff for making Leeds a top university.

"This position is a fantastic tribute to them and highlights the excellence across the board that is on offer at Leeds.

"The key is working collaboratively at a local, national and international level. We prize this very much at Leeds and our success in these and other rankings is a testament to that."



Innovative lecture theatres are award winning

The University's three collaborative lecture theatres were announced as Education Project of the Year in the *AV (Audio Visual) News Awards* – recognised as the leading accolades in the AV sector.

The £2.8m innovative transformation project was submitted into the awards by Pure AV – which was commissioned by the University to manage the installation of the new audiovisual equipment – as part of the lecture theatres refurbishment in 2016.

Through working with Pure AV, the University was able to move away from traditional lecture theatre seating to a new style of collaborative booths. Each booth is embedded with digital technology to facilitate improved group working and accommodate a 'flipped' learning approach to large group teaching. The conventional notion of classroom-based teaching is inverted, so that students are introduced to the learning material before class, with classroom time being used to deepen understanding through discussion with peers and problem-solving activities.

The investment in the three lecture theatres – Dental LT, Mechanical Engineering LT B and Roger Stevens LT 8 – has significantly

transformed teaching spaces, and in turn resulted in a significant improvement in user experience. A survey shows students love the facilities, with overwhelming user satisfaction scores above 80%.

Professor Neil Morris, Director of Digital Learning, said: "It is fantastic to see the work of the colleagues and partners involved in creating the new collaborative lecture theatres being acknowledged through this very well-deserved award.

"The rooms have been very well received by staff and students, and this is due to the hard work of the many individuals involved in bringing to life a vision for collaborative, interactive and technology-enabled education spaces that support the University's blended learning approach."

Stewart Ross, Director, Commercial and Campus Support Services, said: "We are delighted to receive this award. It highlights something important for us – that Leeds is successfully innovating its teaching and learning spaces so they are genuinely meeting the needs of our students and staff. We have ambitious plans to continue this innovation and ensure our facilities are second to none."



One of the University's award-winning lecture theatres



Nurturing the next generation of skilled researchers

The Universities of Leeds, York and Sheffield have been awarded funding by the Arts and Humanities Research Council (AHRC) to support more than 250 PhD researchers.

The doctoral training programme will be provided by the White Rose College of the Arts and Humanities (WROCAH) – a collaboration between the three Yorkshire universities.

The award will support approximately 265 fully-funded PhD researchers in the arts and humanities over five years, with the first cohort starting in October 2019.

Funding will be supplemented by further investment from all three Russell Group universities.

PhD programmes offered by WROCAH are designed to foster a more collaborative and global approach to doctoral training, and will equip high-achieving individuals with the skills and experience to become leaders in their chosen fields.

Researchers will work closely with leading external organisations from sectors including museums, galleries, archives and libraries; arts and heritage organisations; the creative industries; design, manufacturing and retail; publishing and performing arts; media, charities and the public sector.

Professor Frank Finlay, Executive Dean of the Faculty of Arts, Humanities and Cultures at Leeds, said: “This generous funding from the AHRC is a great vote of confidence in WROCAH and the quality and range of research it is able to provide.

“The exceptionally talented postgraduate researchers we will be able to attract to all three universities will help shape our disciplines for the future.

“Our students will receive the best possible training and support, equipping them with the skills, experience, confidence and ambition to apply their innovative and exciting research in the wider world, generating socio-cultural, economic and other forms of public benefit.

“What is particularly exciting is the focus on fostering a collaborative, global approach to doctoral training. At Leeds, we do everything we can to encourage and support our staff and students to work with experts across the world. This includes those in the many world-renowned organisations that are our partners and collaborators.

“We are also fortunate to live and work in culturally-diverse communities, which contribute hugely to the excellence of our research and teaching.”

Leeds will share in the funding of 265 new PhD researchers



Creative work in the
School of Design

Massive R&D boost for UK's creative industries

Two multi-million pound projects are providing a massive boost to creative research on campus.

A cutting-edge 3D weaving loom – the only one of its kind in the UK – is at the heart of a new £1.75m textiles innovation centre at the University.

And Leeds will also benefit from Arts and Humanities Research Council (AHRC) funding to explore and develop new digital technologies to help improve high-value, luxury design processes in the textile and fashion industry.

The textiles innovation centre, which will develop advanced prototypes for a wide range of sectors – from aerospace to healthcare – is part of a wider investment in facilities at the School of Design, cementing its place at the leading edge of both technical research and creativity.

As part of the £4.4m upgrade, new weaving, knitting, digital printing, coloration and colour communication facilities have enhanced the School's world-beating research and development capabilities.

From 3D weaving to innovative inks and digital printing, from pioneering progress in colour imaging and lighting to increasing sustainability in clothing, the year-long programme has also provided new laboratories, exhibition areas and student spaces.

Many of the improvements have taken place in the Clothworkers' South Building, opened as the Man-Made Fibres Building in 1956, which has long been home to major innovations in fabrics, colour science and printing – reflecting Yorkshire's rich textiles heritage.

Professor Chris Carr, Head of the School of Design, said: "The new equipment and facilities are a key part of the University's aim to invest in knowledge and opportunity – to provide the very best for our researchers and students and to enhance the excellent partnerships we have with the very best designers and industrialists across the region and indeed the world.

"Our investment will also help us continue to enhance productive relationships between design and technology."

The £5.4m AHRC-funded Future Fashion Factory project aims to increase productivity, shrink design process lead times, lower costs and, importantly, reduce waste.

Partners of the project include Yorkshire Textiles, the Royal College of Art, Burberry, Wools of New Zealand, Abraham Moon & Sons, The Textile Centre of Excellence, Camira and the British Fashion Council.

It will be led by Stephen Russell, Professor of Textile Materials and Technology in the University's School of Design. He said: "The vision is to transform the UK industry's capacity for new product innovation, and to reduce lead times and waste.

"Collaborative research and development by creative companies across the supply chain is fundamental to ensuring future growth, and harnessing UK design and manufacturing assets is central to our strategy."

New fashion design programmes will be created for undergraduate and postgraduate students and researchers at Leeds.

Industrial apprenticeship programmes are also being developed to address a skills gap in the industry for designers that can combine their art, design, science and technology skills.



President of luxury textiles firm Dormeuil, Dominic Dormeuil; Head of the School of Design, Professor Chris Carr, and Chair of Leeds City Region Enterprise Partnership, Roger Marsh OBE, see the new loom in action



Professor Hai-Sui Yu, Deputy
Vice-Chancellor: International

INTERNATIONAL LEADS

by Professor Hai-Sui Yu, Deputy Vice-Chancellor: International

We have made significant progress during the past 12 months towards achieving our ambitious international objectives.

This is evidenced by the fact the University has been named as the 47th most international institution in the world by the latest Times Higher Education (THE) World University Rankings – a rise of at least 103 places from last year. And Leeds has climbed eight

places to 93rd in the QS World University Rankings 2019.

A most important factor in this improvement has been a continued enhancement of our academic and employer reputation in the UK and especially internationally.

An extensive programme of high-level global engagement has also strengthened international partnerships and the University's increasing standing on the world stage.

A delegation to the US included visits to New York University, Columbia University and Massachusetts Institute of Technology (MIT), promoting Leeds and discussing future research collaborations.

As part of the University's preparations for the UK exiting the EU, delegations to high-ranking institutions in Germany, the Netherlands and Australia have been aimed at further strengthening existing research and student exchange agreements.

And the University has continued to develop its strong partnerships in China.

Leading a delegation to Shanghai Jiao Tong University (SJTU), one of China's elite C9 League of institutions, resulted in a two-year £200,000 research fund – aimed at creating

sustainable cities – being launched between the two universities. An earlier SJTU visit to Leeds witnessed the signing of a new partnership agreement to tackle global challenges in atmospheric change, water pollution, transport and sustainable development.

As we reflect on some of the major achievements of 2017-18 through the case studies outlined in the following pages, we also look forward to the challenges ahead with renewed optimism.

Leeds is a truly global university. We can contribute most effectively to sharing knowledge, innovation and education worldwide by building such productive, mutually-beneficial relationships with researchers, universities and other organisations in key countries.

Doing so creates opportunities to widen horizons and bring new perspectives to education, and it generates opportunities for academic staff and students at all levels to collaborate on new frontiers of research.

Above all, it ensures Leeds makes a difference to the world we live in.



Rankings success underlines our international vision

Leeds has been recognised as one of the most international universities in two key world rankings.

Results published by the Times Higher Education (THE) show Leeds has risen at least 103 places this year. It is now ranked number 47 in the most international universities in the world.

And Leeds is among the top 100 universities in the QS World University Rankings 2019. Its joint position of 93rd in this year's global league table highlights Leeds' growing reputation for research and education.



Professor Tom Ward, Deputy Vice-Chancellor: Student Education, signs an agreement with Shanghai Jiao Tong University

The University's international strategy, International Leads, has been led by Professor Hai-Sui Yu, Deputy Vice-Chancellor: International.

He said: "This year's QS ranking is an excellent result, but we will not be resting on our laurels and have work left to do. We will keep striving to enhance the University's international standing even further."

The University has been successful in launching research and development programmes backed by the Government's high-profile Global Challenges Research Fund and the Newton Fund. These projects have increased awareness in multiple countries of the University's strength and breadth of academic excellence.

Formal relationships have been signed with institutions from around the globe, including Shanghai Jiao Tong University in China, resulting in closer alignment in research into atmospheric change, water pollution, transport and sustainable development.

Further engagements with other leading universities in China, USA, Europe, Australia, India, Japan, Canada, Brazil and Saudi

Arabia have created closer partnerships and given individual academic staff the support to develop productive working relationships with colleagues from around the world.

The University's joint engineering school, hosted at South West Jiao Tong University in Chengdu, China, is a leading example of how two high-achieving universities can work together to improve research, teaching and student experience opportunities.

Among a number of activities aimed at embedding an international culture across the University, pro-deans for international have been appointed in all faculties and Leeds continues to focus on recruiting senior professors and early career researchers internationally.

In conjunction with building an international base of researchers, the brightest students from around the world are welcomed to Leeds, with support to help those coming from abroad.

This has seen the number of international students at Leeds rise consistently in recent years, with the total now exceeding 8,000.



Leeds' Vice-Chancellor, Sir Alan Langlands, signs a Memorandum of Understanding with President Yang Renshu, from the China University of Mining and Technology in Beijing



Ground-breaking course for businesswomen across the world

Leeds' Digital Education Service has designed and delivered an online course for female entrepreneurs across the world.

Supporting Goldman Sachs' 10,000 Women initiative, it provides female entrepreneurs with a global, digitised curriculum and interactive platform of fellow business owners.

It is offered in partnership with Coursera, the world's biggest online course provider.

Professor Neil Morris, Director of Digital Learning, said: "The Digital Education Service is proud to have a leading role in the creation of this ground-breaking course.

"We have taken our years of experience in online learning to create something unique and pedagogically sound for a global audience."

Designed by a global academic team, including Professor Sarah Underwood from Leeds University Business School, the course will provide world-class business and management education to female entrepreneurs worldwide.

The curriculum addresses topics fundamental for business owners, including finance, vision and culture, operations, marketing and sales, people development and negotiations.

At the end of the course, participants finalise a personalised Business Growth Plan to guide and drive their future growth.

Through 11 educational modules, the Digital Education Service has developed a highly interactive course that uses videos, exercises, discussion forums and case studies to build a peer-to-peer network and maintain strong engagement among participants.

Professor Morris added: "Leeds has been proud to partner with Goldman Sachs and the Goldman Sachs Foundation since 2010 to provide business and management education to ambitious entrepreneurs. We now look forward to continuing to work with the Goldman Sachs Foundation and Coursera and to see the positive impact of the course on female entrepreneurs globally."

The 10,000 Women initiative aims to support female entrepreneurs across the world

Chinese partnership to tackle environmental challenges

A new partnership agreement has been signed with Shanghai Jiao Tong University (SJTU) aimed at strengthening future research collaborations with Leeds.

A delegation from SJTU – a leading university in China – confirmed the agreement during a visit to Leeds. It will better align research ambitions to tackle global challenges in atmospheric change, water pollution, transport and sustainable development.

The two universities are also working towards establishing a joint institute for environmental research.

Leeds is already home to the highly-respected Priestley International Centre for Climate, led by Professor Piers Forster, and the relationship is likely to build on its existing work.

The visit to Leeds was led by Professor Zhongqin Lin, President of SJTU, who was joined by colleagues including Vice-President, Professor Lifeng Xi, and Deans from four schools.

They met Leeds' Vice-Chancellor, Sir Alan Langlands, and also had a detailed discussion with Deputy Vice-Chancellor: International, Professor Hai-Sui Yu.

The visitors were shown the University's extensive environmental research facilities by Professor Andy Dougill, Executive Dean for Environment.

As well as promoting joint research, the agreement also offers greater opportunities for student exchange visits between Master's students and PhD researchers.

The visit – which included signing a new Memorandum of Understanding – was brokered by Professor Yu.

He said: "We are an internationally-focused university and strengthening our relationship with Shanghai Jiao Tong University – one of the most significant institutions in China – is important for us.

"It also supports the Leeds City Region because of its cultural and industrial impact – through exchange trips for students and staff – and in terms of the quality and impact of our research."

SJTU President, Professor Lin, also expressed his happiness with the signing: "Shanghai Jiao Tong University highly cherishes its partnership with Leeds and we are extremely pleased to be able to extend our collaboration to the field of environmental science, which is key to the world surrounding us. I believe our joint institute will make due contributions to finding solutions to the earth's problems."

Leeds' Vice-Chancellor, Sir Alan Langlands, signing a Memorandum of Understanding with Professor Zhongqin Lin, President of Shanghai Jiao Tong University





Eric Lu, winner of the Leeds International Piano Competition 2018, performs at the Finals



Lang Lang receives his honorary degree from the University's Vice-Chancellor, Sir Alan Langlands. Pictures: Simon Wilkinson Photography

Leeds International Piano Competition goes global

The latest instalment of the eagerly-awaited Leeds International Piano Competition proved to be a huge hit with audiences across the world.

For the first time, The Leeds, as it is affectionately known, went on a road trip – taking the competition to the competitors!

The initial round of the triennial contest got underway in three sessions spanning the globe – Berlin, Singapore and New York – also acting as the perfect showcase for the city.

Professor Frank Finlay, Director of the Cultural Institute and Executive Dean of the Faculty of Arts, Humanities and Cultures, said: “Each city is celebrated as a hub for classical piano teaching and performance, and each is serving as a backdrop to promote the University to overseas stakeholders and alumni – as well as the city of Leeds, with its vibrant and diverse culture.”

The competition – open to pianists under 30 from around the world – has enjoyed a close relationship with the University since its earliest days in 1961.

Pianists who successfully progressed to subsequent rounds of The Leeds performed at the University's Great Hall, while the beautifully-restored Clothworkers' Centenary Concert Hall hosted numerous masterclasses and talks with competitors and competition alumni.

These were fitting locations given the University's School of Music recently joined prestigious international institutions around the world in securing All-Steinway School status – the first member of the Russell Group of research-intensive UK universities to do so.

For avid classical music lovers, those new to the genre and those who are simply curious, another innovation this year was Leeds Piano Festival in May.

The first of an annual event, it included a series of performances in London's Wigmore Hall, as well as the Howard Assembly Room in Leeds.

Featuring distinguished past winners and alumni of the competition, as well as performances by the young scholars of the Lang Lang International Music Foundation, the festival included an extensive programme of outreach activities.

Eric Lu, 20, from the US, went on to claim first place at The Leeds.

Globally-renowned pianist, educator and philanthropist, Lang Lang, presented the prizes following the last concerto final at Leeds Town Hall, having himself received an honorary degree from the University as part of the evening's proceedings.

The next competition will take place in 2021.

Finding solutions to some of the greatest global challenges

Leeds has been ranked in the top three UK universities for global funding success, according to *Research Fortnight*.

Awards from the Global Challenges Research Fund (GCRF) and the Newton Fund show Leeds securing more than £36m between 2014 and 2018.

The funding supports research to improve the quality of life for people in developing countries, through building communities, developing skills and tackling diseases.

Research Fortnight analysed 1,140 GCRF and Newton Fund grants awarded by UK research councils to compile the figures.

With research strengths across a range of disciplines, Leeds is able to draw on novel combinations of expertise for the funding schemes, and joins the University of Oxford and the London School of Hygiene and Tropical Medicine in the top three.

Professor Lisa Roberts, Deputy Vice-Chancellor: Research and Innovation at Leeds, said: “Our researchers have spent many years building relationships with NGOs, governments and civil organisations in countries like Bangladesh, Nepal and in sub-Saharan Africa.

“We have learnt what these countries need to do to thrive, and have harnessed our exceptional breadth and commitment to working across traditional boundaries, to support them with solutions to some of the greatest global challenges facing humankind today.”

One example of the University’s global reach is the £9.2m research programme it is leading, which is focused on improving productivity of African farming systems and their resilience to shocks caused by climate change.

The programme, called Agricultural and Food-system Resilience: Increasing Capacity and Advising Policy (AFRICAP), will conduct its research activities in South Africa, Tanzania, Zambia and Malawi, as well as the UK.

AFRICAP is led by Leeds, in partnership with the Food, Agriculture and Natural Resources Policy Analysis Network (FANRPAN), a pan-African policy network, with the aim of generating evidence-based policy to transform agriculture and food systems in the continent. This is critical given agriculture’s key role in Africa’s economy, contributing about 15% of continental GDP.





Smallholdings constitute about 80% of all farms in sub-Saharan Africa, employing approximately 175 million people directly and having significant impact on the environment.

Funded by GCRF, AFRICAP will also assess how food, agriculture and natural resources policies can be developed so they support the United Nations' Sustainable Development Goals.

Lead researcher, Professor Tim Benton, from Leeds, who is the UK's former Global Food Security Champion, said: "This is about weather, climate, agriculture, economic growth, sustainability and

livelihoods, with the end-game being how best to design policy for African growth that is climate smart and sustainable."



Developing the skills of radio astronomers in sub-Saharan Africa is one of the University's global funding research projects

A CIVIC UNIVERSITY

by Sir Alan Langlands, Vice-Chancellor

Leeds is a University intent on making a difference.

We not only do this here in the great city of Leeds, but around the globe.

Our track record of economic, social, cultural and environmental development is one we are proud of. It is embedded in the very fabric of what we do and who we are.

Of course, we are also acutely aware there is much more that still needs to be done.

The University is part of a worldwide endeavour to tackle the challenges of global health; energy, food and water security; climate and cities. We also understand the importance of culture and social justice in tackling the inequalities inherent in these challenges.

Closer to home, our leadership of the successful Leeds City Region bid for a place on the prestigious development programme run by Massachusetts Institute of Technology (MIT) will provide expert, evidence-base guidance to stimulate significant economic and social change in the region.

The University also continues to play an important role in helping improve the health and wellbeing of the people in Leeds. We are a key partner in the Leeds Academic Health Partnership (LAHP) and we educate and train the health professionals of the future.

Sustainability is a major priority on campus and I am proud that our students are active champions of this. As a University, we have an important role to increase knowledge and opportunity for the benefit of society. Our graduates are testament to this; they understand global challenges, have a keen sense of ethics and responsibility and are eager to make a difference in the world.

We are also prepared to practice what we preach. The University's innovative Leeds Living Lab brings together students and staff to research and test sustainable solutions on our own doorstep. In further support of this pioneering project, we have signed the Clean Air Leeds pledge, demonstrating the University's commitment to improving air quality in the city.

Our strong civic ethos is echoed by the inspiring actions of our selfless students, with more than 3,700 volunteering through 150 local charities. As part of this programme, we place more than 300 students in some of the region's most disadvantaged schools each year to provide tutoring, mentoring and outreach support.

The cultural contribution is evidenced by the University's role as principal partner of the world-renowned Leeds International Piano Competition, our ground-breaking partnership with Opera North through the Dare Scholarships, and as Higher Education Partner of the Ilkley Literature Festival – the oldest and largest festival of its kind in the North of England. Our Cultural Institute also links to a wide range of community arts groups.

I look forward to yet another year of challenging ourselves, and others, to tackle these global challenges, and to ensuring that the University plays a leading role in building an exciting future for the city and the wider region.



Sustainability Project Officer, Claire Booth, and Sir Alan Langlands, Vice-Chancellor, signing the Clean Air Leeds pledge



Solving real world challenges

Sustainable solutions to real world challenges achieved through collaboration are celebrated in a new report.

Sustainability Services has produced the document to mark the first anniversary since the launch of the University's Leeds Living Lab.

Driven by the University's commitment to embedding sustainability through knowledge, engagement, collaboration and innovation, the Living Lab draws together students, academic and operational staff to research and test sustainable solutions,

enhance the curriculum and solve real world challenges, using the University as both a testbed for innovation and a space for co-created research-led teaching.

Projects to date have ranged from monitoring and mapping air quality across campus to trialling food waste solutions. It is hoped the outputs will drive sustainable improvements at the University and that these will be scalable to our communities, the city and beyond.

Improving the city's air quality is a key target for the University, with Vice-Chancellor, Sir Alan Langlands, signing the Clean Air Leeds pledge earlier this year.

The scheme is part of Leeds City Council's campaign to raise awareness of air quality issues and to encourage behaviour change at both organisational and individual levels.

Dr Louise Ellis, Director for Sustainability Services, said: "Improving air quality is vital for the city and something we all have a role in achieving; and something we are committed to doing. As part of our wider commitment to having a positive impact on society, the University will be changing both our operations and infrastructure, supporting our staff, students and visitors to travel more sustainably and carrying out research that will inform our activities as a city."

The University is also one of 24 Leeds businesses and organisations joining forces to encourage investment in low-carbon, climate-resilient development.

It is working alongside organisations – ranging from Yorkshire Water and the NHS to housebuilders, transport providers and community groups – following the formation of the Leeds Climate Commission.

Led by the University and Leeds City Council, the Commission aims to foster collaboration on projects that result in measurable contributions towards meeting the city's climate reduction targets and the delivery of enhanced climate resilience, particularly in the area of flood risk.

It will also act as a forum where organisations can exchange ideas, research findings, information and best practice.



Mapping air quality across campus, as part of the Leeds Living Lab programme

Major progress in sustainability

Huge strides have been taken towards further embedding sustainability in schools, faculties and services at Leeds.

The University's Annual Sustainability Report highlights the many success stories achieved during the past 12 months.

Leeds is also the second highest in the Russell Group for sustainability and joint 16th overall, according to the People and Planet University League – an independent league table of UK universities that ranks institutions by environmental and ethical performance.

The University has now linked its approach and commitments to the United Nations' Sustainable Development Goals, demonstrating how we can all play our part in a global solution.

Sir Alan Langlands, Vice-Chancellor, said: "The University has once again proved its commitment to a sustainable

future through a whole series of activities, innovations, research and policies. There have been some challenges – political uncertainties and a growing campus – but sustainability has remained a key priority for us throughout.

"I am particularly proud of the fact that, through continuing to integrate sustainability into our curriculum, we are graduating students who are responsible global citizens. As a University, we have an important role to increase knowledge and opportunity for the benefit of society. Our graduates are testament to this; they understand global challenges and are eager to be part of the solutions."

Dr Louise Ellis, Director of Sustainability at the University, said: "We're extremely proud in what we've achieved. We still have work to do – to be truly sustainable we must focus on long-term aims and commitments, something we have outlined in our vision for a 2050 sustainable university."

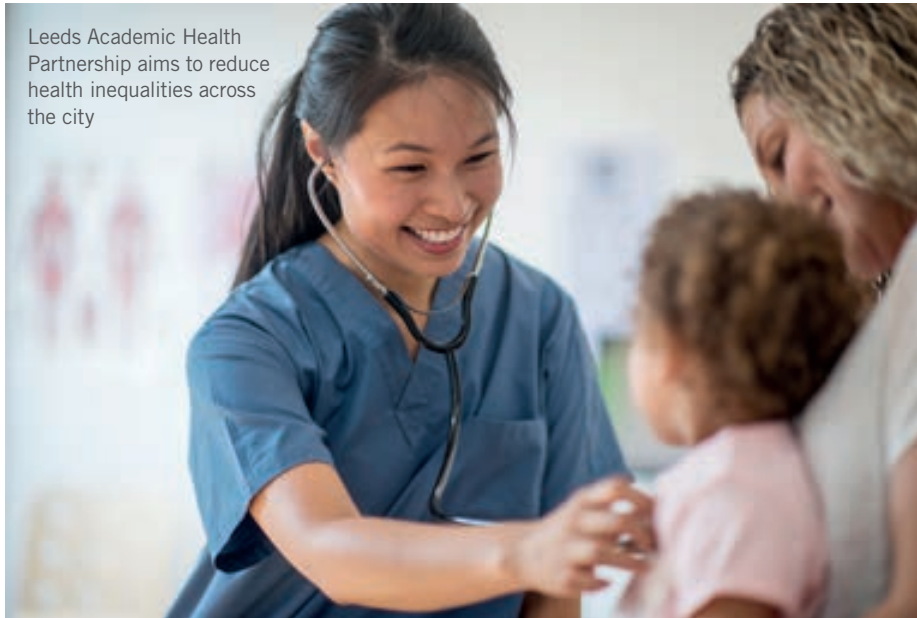
Some key highlights from the report include:

- 5,700 students completed sustainability modules
- more than 129,000 people benefited from the University's outreach programme
- Leeds worked with more than 260 Third Sector organisations
- more than 7,000 people attended sustainability events; and
- 96% of students travelled to the University sustainably.

Particularly praiseworthy projects include:

- Reuse@Leeds, which aims to get the best value out of surplus resources on campus
- the Green Impact programme, which brings together staff and students to play an active role in making the workplace more sustainable
- the Positive Impact Partners programme, which brings together University colleagues with a wide range of Third Sector partners to form new partnerships, designed to bring mutual benefit; and
- the Living Lab programme (see Page 34).

An electric vehicle charging point on campus



Leeds Academic Health Partnership aims to reduce health inequalities across the city

Working in partnership to drive healthcare innovation for Leeds

The University continues to play an important role in helping improve the health and wellbeing of the city.

It is a founding member of the Leeds Academic Health Partnership (LAHP), which brings together leading expertise from all the NHS organisations in Leeds, three of the city's universities and Leeds City Council.

With the health and care system in England facing some of the biggest challenges in its history, the situation requires innovation to find transformative, sustainable solutions.

The Partnership – one of the biggest of its kind in the UK – identifies and implements

innovation and attracts inward investment that responds to the challenges facing health and care, including reducing health inequalities across the city.

As a collaborative partnership, LAHP has world-class expertise at its fingertips. It discovers solutions that operate at the limits of science, uniting the full research and educational expertise of universities such as Leeds with the strengths of the health and care system.

For example, the Leeds Centre for Personalised Medicine and Health is a LAHP project, which the University hosts.

Personalised medicine moves away from a 'one size fits all' approach in treating

and caring for people with a particular condition. It harnesses technological and medical advances to enable more informed decisions, so therapies can be carefully targeted for each person. That means a health condition can be prevented, managed or treated in an individual, or 'personalised', way specific to their needs.

It focuses on improving the speed and quality at which new health and care technologies are evaluated and adopted into the NHS.

The University is also working closely on another LAHP project currently in development: the Leeds Health and Care Academy. Underpinning Leeds' ambition to be the best city for health, the Academy will bring under single management the training and professional development of the 57,000-strong Leeds health and care workforce.

This will help position the Academy at the forefront of digitally-enabled learning, with a curriculum based on world-leading evidence and research.

Jo-Anne Wass, Chief Operating Officer for LAHP, said: "The University of Leeds is an invaluable partner in helping us achieve our aims to drive healthcare innovation, quality and efficiency, to reduce health inequalities and to attract inclusive economic investment for our city and city region.

"Our transformational projects are testament to the strength of collaboration and consensus across the partnership in which we are ultimately working to help people live healthier lives for longer."

New chapter with Ilkley Literature Festival

The University has announced a new partnership with the North's oldest and largest literature festival.

As well as becoming Higher Education Partner for Ilkley Literature Festival, the University was principal partner for its off-shoot Words in the City poetry and spoken word festival in May, which took place in Leeds for the first time this year.

Professor Frank Finlay, Director of the University's Cultural Institute and Executive Dean of the Faculty of Arts, Humanities and Cultures, said: "For many years, staff and students from the University have enjoyed attending – and participating in – fantastic events organised by the festival team.

"We're really pleased to herald a new era of collaboration, as part of this more formal arrangement of support. It's a perfect fit with the Cultural Institute's key aims of widening engagement and increasing partnerships across the region, as well as building the skills of our students."

The School of English is also offering a new creative writing programme for students.

Rachel Feldberg, Festival Director, said: "We are very proud to be working with the University on both Words in the City and the main festival. This new partnership will provide exciting opportunities for our audiences to connect with University staff and students in new ways."

As part of the new partnership, 20 University academics featured in the Festival programme alongside a host of celebrities, including world-renowned Yorkshire-based poet Simon Armitage, the University's newly-appointed Professor of Poetry.

The University's Professor of Poetry, Simon Armitage, who held events as part of Words in the City and Ilkley Literature Festival



Leeds City Region team to REAP rewards from MIT leadership programme

A Leeds City Region team has successfully secured a place on a prestigious leadership programme run by Massachusetts Institute of Technology (MIT) – one of the world’s top universities.

The two-year Regional Entrepreneurship Acceleration Programme (REAP) provides expert, evidence-based guidance for teams to bring about significant economic and social change in their region.

MIT selects up to nine regional teams each year from around the world, involving leaders from government, business and industry, academia, finance and representatives from the entrepreneurial community.

The Leeds City team includes leaders from the University, Nexus, the Leeds City Region Enterprise Partnership (LEP) and West Yorkshire Combined Authority, Leeds City Council, KPMG, Arup and Leeds Academic Health Partnership, together with entrepreneurs Adam Beaumont and Ben Ziff.

Professor Lisa Roberts, Deputy Vice-Chancellor: Research and Innovation at the University, heads the Leeds cohort and is the team ‘champion’ for the programme. She said: “This is a significant opportunity for us to come together as a collective force to further develop our ambitious innovation and growth plans.

“MIT has clearly identified the region as having key strengths to support the UK economy, in particular the Government’s plans for boosting growth and productivity.

“We have clear challenges that need to be addressed if we are to help drive economic growth. This includes supporting existing transformational projects, like the University’s new innovation centre, Nexus, which could act as a catalyst for developing the Innovation District in Leeds, as well as supporting skills, increasing connectivity, growing business spend on research and development, and boosting productivity and exports.

“Above all, this is also about driving positive social change for the region, ensuring innovation and enterprise initiatives support all residents, and that everyone benefits and shares in the city’s economic success.”

With three million people, Leeds is the UK’s largest city region outside London and generates more than five per cent of the UK’s economic outputs. While it has achieved strong economic progress in recent years, which mirrors national trends, like other northern economies, it has experienced growth at a slower rate.

Its potential includes more than 125,000 businesses, with strengths in medtech, health innovation, creative and digital sectors, and Leeds also represents the largest financial services sector in the UK outside London.

Other teams in the 2018 cohort include Campania (Italy), Central Denmark, Guangzhou (China), Guayaquil (Ecuador), Kentucky (USA), Monterrey (Mexico), Oslo and Akershus (Norway) and Sydney (Australia).



HONOURS AND AWARDS

Professor John Plane, from the School of Chemistry, has been elected as a Fellow of the American Geophysical Union for his work in space physics and aeronomy.

Dr Konstantinos Tsavdaridis has been made a Fellow of the Institution of Civil Engineers, receiving Chartered Engineer status in recognition of his outstanding contribution to the field, particularly for his work on perforated steel beams.

Professor of Nanomanufacturing Innovation, Terry Wilkins, has become a Fellow at the Royal Academy of Engineering for his innovation of novel, game-changing technologies that significantly impact on the healthcare and advanced materials industries.

Dr Katie Field, Associate Professor in the School of Biology, and **Professor Pinar Akman**, Director of the Centre for Business Law and Practice, have been awarded prestigious Philip Leverhulme Trust Prizes. Dr Field's research focuses on the symbiotic relationships between plants and mycorrhizal fungi. Professor Akman will use the Prize to further her research, particularly in the area of competition law and online technology markets.

Professor Michael Baynham, Emeritus Professor of TESOL, has been conferred as a Fellow of the Academy of Social Sciences. He is a leading figure in the study of literacy, language and the sociolinguistics of migration and mobility.

World-renowned poet **Simon Armitage** has been announced as the University's first Professor of Poetry. Professor Armitage returns to the School of English 20 years after

taking up his first academic post, when he taught creative writing to Leeds students.

International artists **Kat Austen, Christophe de Bezenac** and **Dave Lynch** have been named as Cultural Institute Fellows.

Professor Julia Newton Bishop has been awarded the 2017 Lifetime Achievement Award by the Society for Melanoma Research for her major contribution to this field of study.

Rory O'Connor, Charterhouse Professor of Rehabilitation Medicine at Leeds, has become one of only 50 academics elected as a member of the European Academy of Rehabilitation Medicine.

Louise Banahene, Head of Educational Engagement, was awarded an MBE in the New Year's Honours list for her services to Higher Education. Louise's responsibilities at the University include widening participation to maximise progression to, and success in, Higher Education, regardless of background.

Professor Alison Heppenstall, from the School of Geography, has been awarded a joint fellowship to improve the understanding of 'smart' and 'happy' cities. This joint fellowship, from the Economic and Social Research Council and The Alan Turing Institute, aims to build collaboration between the social sciences and data science.

Professor Helen Miller was elected President of the British Society of Animal Science (BSAS). The professor of animal bioscience is also managing director of the University Farm.

Three Leeds academics have been awarded prestigious funding from the British Academy.

Dr Laura Loyola-Hernández and **Dr Tess Somervell** were awarded Postdoctoral Fellowships to conduct a significant piece of research – leading to publication – during a three-year period. And **Professor Peter Buckley OBE** is to undertake a major research project for the British Academy.

Professor David Stocker has joined the board of the National Heritage Memorial Fund, which is responsible for managing the distribution of grants from the Heritage Lottery Fund. He was appointed by the Prime Minister.

Professor Adam Nelson, Deputy Director of the Astbury Centre for Structural Molecular Biology at Leeds, has won the European Federation for Medicinal Chemistry's 2018 UCB-Ehrlich Award for Excellence in Medicinal Chemistry.

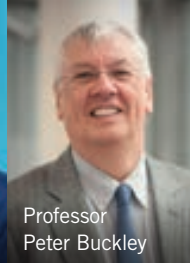
Lydia Bleasdale, from the School of Law, is officially the Law Teacher of the Year 2018. The prestigious award, sponsored by Oxford University Press, recognises the vital role teachers play in educating the next generation of lawyers, as well as rewarding outstanding achievement in teaching.

Dr Lorna Dougan, of the Astbury Centre for Structural Molecular Biology and School of Physics and Astronomy, has won the 2018 British Biophysical Society Young Investigator Award. Dr Dougan was honoured for her research on the physics of living systems.

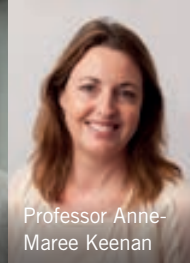
Dr Bernadette Moore, Associate Professor in the School of Food Science and Nutrition, has been awarded the prestigious Nutrition Society Silver Medal for her research 'From



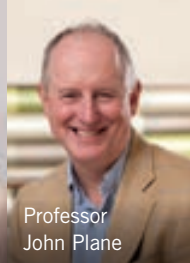
Professor
Mike Baynham



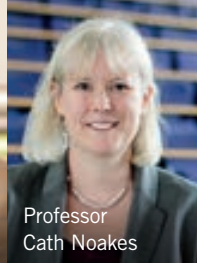
Professor
Peter Buckley



Professor Anne-
Maree Keenan



Professor
John Plane



Professor
Cath Noakes

Sugar to Liver Fat and Public Health: Systems Biology Driven Studies in Understanding Non-Alcoholic Fatty Liver Disease Pathogenesis'.

Stuart Egginton, Professor of Exercise Science, School of Biomedical Sciences, has received a Fellowship from The Physiological Society for demonstrating excellent career progression, professionalism and commitment to physiology and the Society, of which he has been a member since 1986.

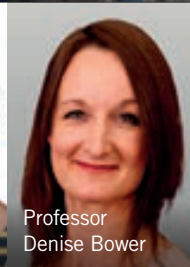
Four leading academics from the University celebrated being recognised in The Queen's Birthday Honours. OBEs were awarded to **Professor Denise Bower** (School of Civil Engineering, Faculty of Engineering), **Professor Anne-Maree Keenan** (School of Healthcare, Faculty of Medicine and Health) and **Professor Paul Emery** (Institute of Rheumatology and Musculoskeletal Medicine), while **Professor Emeritus Christopher Collier** (National Centre for Atmospheric Science) received an MBE.

Professor Peter Buckley OBE has been nominated for an Honorary Doctorate of Business Administration by the Open University of Hong Kong (OUHK). The Professor of International Business at Leeds University Business School is one of eight Global PhD Supervisors in The Lee Shau Kee School of Business and Administration at the OUHK.

Catherine Noakes, Professor of Environmental Engineering for Buildings, has been conferred as a Fellow of the International Society of Indoor Air Quality and Climate in recognition of her contributions to this field of research.



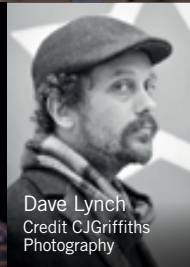
Dr Lorna Dougan



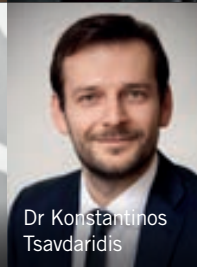
Professor
Denise Bower



Dr Katie Field



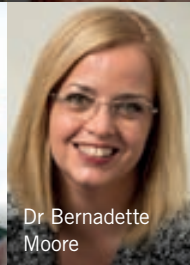
Dave Lynch
Credit CJGriffiths
Photography



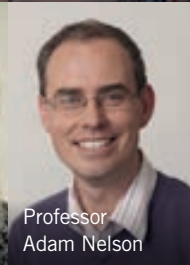
Dr Konstantinos
Tsavdaridis



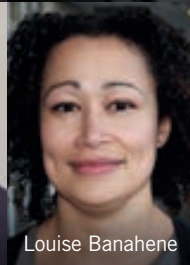
Professor
Helen Miller



Dr Bernadette
Moore



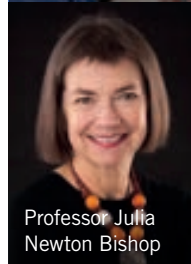
Professor
Adam Nelson



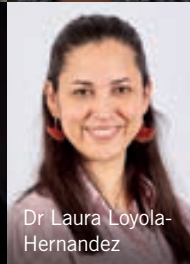
Louise Banahene



Lydia
Bleasdale



Professor Julia
Newton Bishop



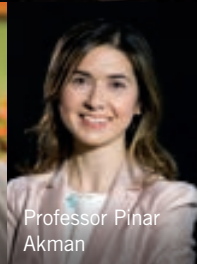
Dr Laura Loyola-
Hernandez



Kat Austen



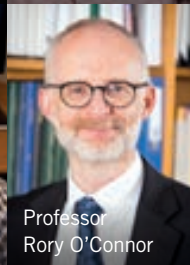
Professor Chris
Collier



Professor Pinar
Akman



Professor Stuart
Egginton



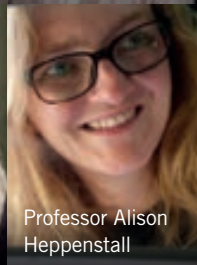
Professor
Rory O'Connor



Professor
Simon Armitage



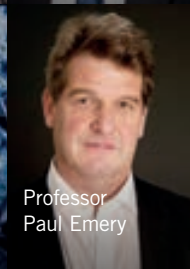
Dr Tess Somervell



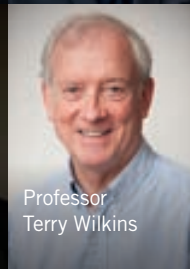
Professor Alison
Heppenstall



Christophe
de Bezenac



Professor
Paul Emery



Professor
Terry Wilkins



Professor
David Stocker

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