

# Inspiring Challenging

# Spirited

# Ambitious

LIFE CHANGING World Shaping



## Life changing, world shaping

We believe the achievements of our people and the impact our research has on the world around us set us apart. As Vice-Chancellor, Professor Janet Beer, explains, we've identified four words – inspiring, challenging, spirited and ambitious – that capture the University's character and our aspirations for the future.

#### We are inspiring

Inspiring people to learn and achieve, we enable them to make the most of life. We provide a supportive and high-quality environment for our people across the University, and a range of initiatives ensure that there are equal opportunities for all, including our partnership with Athena SWAN, which celebrates good employment practice for women working in science, technology, engineering and medicine. Alongside our investment in accommodation and world-class facilities, we are committed to enhancing the student experience through our innovative teaching approaches, award-winning careers service and postgraduate opportunities.

#### We are challenging

By addressing some of the world's toughest issues, ground-breaking research across our three Faculties is helping to transform lives, as evidenced by our performance in the latest Research Excellence Framework (REF), where 81% of our research was ranked world leading or internationally excellent.

#### We are spirited

Like our city, we celebrate individuality, ingenuity and enterprise. The city shapes the University

through its pioneering spirit, global outlook and cultural opportunities, which attract students to Liverpool. Likewise, we shape the city through our extensive collaboration with local partners.

#### We are ambitious

The University's research has an impact on people across the world. Our global reach includes our joint venture in China, our partnership in Singapore, and our international online courses. The significant investment we have made in Liverpool, and in our new campus in London, is facilitating growth at the University as we work to enhance our dynamic reputation and performance in a rapidly evolving higher education environment.

It has been a remarkable 12 months for us, and this year promises to be just as exciting as we welcome more students than ever before to Liverpool following a 20% increase in applications. The value of our research awards has also exceeded £100 million in each of the past two years. This is a fantastic achievement as we look to build our reputation as a global, research-led university to even greater heights.



# Inspiring

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We are passionate about what we do, sparking enthusiasm in others and helping them to achieve their goals.

## Nurturing our talent

At the University we inspire people to learn and achieve and make the most out of life. We aim to provide our staff and students with the best intellectual, social and physical environment in which to conduct research, teach and learn. Executive Pro-Vice-Chancellor, Professor Ken Badcock, explains how we are supporting our people across the University.



he University is fundamentally about inspirational people and their achievements, enabled by a physical environment that is undergoing a ten-year programme of improvement, and an intellectual environment that encourages research and learning across disciplinary boundaries.

Education is supported by world-class facilities, such as modern laboratories for the sciencebased subjects, and the newly refurbished MBA suite in the Management School. Our talented staff, using flexible approaches, support and challenge our students to reach their full potential, helping them to become the leaders of the future. A key feature of our research is how the University is continually re-inventing its areas of investigation through changing collaborations in Institutes, Schools, Centres, Groups and Networks. This dynamism, mostly driven from the ground up, is very exciting.

We are also committed to developing all our staff through a range of initiatives supported by Human Resources. The Athena SWAN agenda provides an important framework to improve the environment for our female members of staff while other programmes are in place to help develop our early career staff and our leaders.

Efforts to strengthen the University's PhD programmes are crucial, as this is where our research and educational missions come together most strongly. Most of our Doctoral Training Centres are working with leading institutions and industrial partners from across the world, building on our research strengths, creating opportunities for students, and providing imaginative training programmes to run alongside the research project.

Our students go on to have remarkable careers, with our alumni including Poet Laureate, Carol Ann Duffy, and Rose Heilbron, the first woman to sit as a judge at the Old Bailey. Meeting our high-achieving graduates never fails to inspire me."

# Unprecedented popularity

The University's dedication to enhancing the student experience is attracting more applications than ever before.

Supported by a £600 million phased investment in our campus, the University is committed to continually improving the quality of our student experience, and our approach is already having a significant impact on our recruitment position.

The University topped the competitor set for student applications for 2015 entry, following an unprecedented surge in popularity of our undergraduate courses. At the first 2015 entry deadline, applications were up by 20.2%, surpassing both the University's competitor set (1.3%) and the UK-wide position (2.3%).

It is not only applications for our undergraduate courses that have increased; international postgraduate applications have also risen by more than 25%. We have a superb platform to build on, and we are considering further strategic initiatives, including an even more selective approach to recruitment, and carefully managed and resourced expansion.







20.2% increase in applications for 2015 entry

For more information, visit: www.liverpool.ac.uk/study (66)

The campus has changed virtually beyond recognition since I first arrived in 2011 and there's definitely more of a buzz now. The biggest change in the last 12 months has been the new Guild. In September, we re-opened the building after a £14 million refurbishment, making our students' union one of the best in the country. Investment in new accommodation has helped create much more of a student community feel and provides an environment that is fun, friendly and safe."

Harry Anderson President of the Guild of Students



## Where merit matters

As a UK leader in widening participation, we are inspiring people from all backgrounds to fulfil their potential.

he University was founded on the ethos, 'For advancement of learning and ennoblement of life', and it continues to guide us in everything we do. We believe that access to education and opportunities to learn should be made available to all, regardless of background, age or financial circumstances.

We have an extensive programme of widening participation (WP) activity which aims to raise

awareness of the life possibilities that university education offers children and adults in otherwise disadvantaged groups, and improve the recruitment, retention and success of students from disadvantaged backgrounds. Our programme of tuition, talks, events and mentoring includes an alumni mentoring programme for second- and third-year students from widening participation backgrounds, as well as a comprehensive package of financial support and advice for care leaver students.

#### **Developing the next generation**



# Enhancing employability

The University is one of the top 25 most targeted universities in the UK by leading graduate recruiters.



ur Careers & Employability team is dedicated to helping students achieve their aspirations through a blend of high-quality advice, guidance and training.

A key member of the Association of Graduate Careers Advisory Services and the Russell Group Careers Service Network, we offer innovative online support, webinars, face-to-face guidance, on-campus events and resources, and all of our activities are underpinned by our interactive careers website. Added to this, our students have access to an extensive range of local, national and international graduate recruiters and voluntary organisations.

More than 80% of our students use the Careers & Employability Service, which is testament to our approach and makes the service one of the most popular amongst the UK's top universities.

## Graduating to great things

We work hard to ensure our students form a relationship with the University that they will want to continue throughout their lives.

ith more than 40 active associations and networks, our global family of over 195,000 alumni continues to support the University long after graduation by volunteering as mentors, ambassadors and speakers, or providing internships and placements. In turn, we offer continued careers support, access to an exceptional global network of contacts, postgraduate study opportunities, free journal access, exclusive discounts, and an annual programme of events all over the world.

Alumni are some of the most powerful advocates we have and are testament to the outstanding education they received during their time at Liverpool. Our alumni include the first female Director of MI5, a Nobel Peace Prize winner, the first Chief Executive of Hong Kong and the founder of the Stirling Prize for Architecture.

We also award honorary degrees each year to individuals whose achievements have made a significant contribution to society. Last year we awarded an honorary degree to Bill Clinton, Founder of the Clinton Foundation and 42nd President of the United States, for his significant contributions to improving global health care and protecting the environment, as well as strengthening education and economies across the world.

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Although I now live in London, I remain closely connected to the University and the city. The Alumni team organise a great range of events so I can keep in touch with my friends and meet other graduates. I've been along to several of these in London and found them a fantastic way of catching up on old times and networking with other Liverpool alumni in the capital."

Joanna Robotham BA Hons Music/Popular Music 2002

For more information, visit: www.liverpool.ac.uk/alumni Watch our graduation film at: stream.liv.ac.uk



## A powerful driver for change

Our University has a long and proud history of philanthropy, firmly rooted in its foundations.

University and to influence the way that we, and future generations, live.

#### Supporting life-changing research

The University is creating a research and education facility on the site of the new and improved Alder Hey children's hospital, Alder Hey in the Park. The £25 million facility will build on the University's position as the UK's leading centre for research into medicines for children. Due to open this year in conjunction with a £237 million hospital development, the facility is being funded by generous donations from our donor community, including £1 million from the Wolfson Foundation charity.

#### Transforming the student experience

Over the last ten years, we have completed several large capital fundraising projects and raised in excess of £25 million to support first-rate research and teaching facilities.

Last year, alumnus Paul Brett (BA Geography 1965) made a generous gift to our Management School, which is enabling MBA students to benefit



from a new dedicated suite. A bequest from alumna Elizabeth Gidney (née Bushell) (BA Hons English Language & Literature 1938, Diploma in Education 1939), who was the oldest surviving Lady President of the Guild, has also helped to support the redevelopment of the Liverpool Guild of Students.

### Unlocking the potential of the most talented students

Scholarships make a direct difference to the lives of individual students and, due to the generosity of many graduates and friends, we have a proud tradition of helping talented students in this way.

Thanks to a £100,000 donation from the directors of our US Foundation, we are currently

supporting a new scholarship programme for undergraduate students which will help the most talented students access a University place. The Excellence Scholarships fund is aimed at students who have been predicted AAA at A Level but for whom finance might otherwise prove a barrier.

University supporter Barbara Ruddlesden has also left a generous legacy gift to support another of our programmes, the Sir Joseph Rotblat Alumni Scholarship, which enables us to retain our brightest academic talent.

Although Barbara was not an alumnus of the University herself, her older brother Ronald and younger sister Sheila both attended the University in the 1940s and she always held the view that those students who showed considerable promise but were less financially well-off should be assisted through scholarships. By leaving the bulk of her substantial estate to help talented students to undertake postgraduate studies, Barbara is helping us to nurture the potential Nobel Prize winners of the future.

For more information, visit: www.liverpool.ac.uk/giving

It's always been my ambition to become an academic researcher, but for me money was an obstacle. Generous donations from people like Barbara are allowing me to fulfil my dreams."

Dan Brown MA Archaeology 2012 Sir Joseph Rotblat Alumni Scholarship recipient





## Forward thinking

Our staff are pioneers in developing innovative, flexible teaching approaches.

ur students have the passion and curiosity to become absorbed in their subjects, and we are proud to offer a vibrant environment where teaching and learning are driven by research excellence and take place at the cutting edge of disciplines. The emphasis of our approach is on flexibility, breadth and providing students with a range of multidisciplinary skills that will help them to stand out when they graduate. We offer a range of creative and forward-thinking teaching methods to suit students at every stage of their career.

#### **Honours Select**

Students from the Faculty of Humanities and Social Sciences benefit from Honours Select, an innovative and flexible pathway that allows them to combine different subjects from across the Faculty. Honours Select offers students the

The Honours Select initiative is particularly important because the key to 21st-century employability lies in positioning yourself at the intersections between academic subject disciplines."

Diane Appleton Careers & Employability Service opportunity to design a degree tailored to suit their specific interests, academic strengths and career aspirations. Currently, individuals can choose to study one or two subjects from a growing selection of more than 30 academic areas, deciding for themselves how much weight each subject has within their programme.

#### LIFTUPP

The University's dental students have access to an innovative online assessment system, LIFTUPP, which helps them to plan their studies, review progress with lecturers, receive detailed feedback, and log their own e-portfolio of work. It gives students a real sense of responsibility for personal learning and progress, and for the management of their patients' care – all vital skills for their future career.

#### **Centre for New and International Writing**

The Centre for New and International Writing in the University's Department of English promotes a global literary dialogue through the study of creative writing. Our Miriam Allott Visiting Writers Series, held annually in the School of the Arts, has featured some of the most exciting writers and thinkers from across the world, including Singapore, India, France, Canada, Morocco, Finland and Iceland. In the true spirit of cultural exchange, the Centre aims to bring the best of both British writing and international writing to Liverpool, and allows students from all disciplines to explore their creativity, either as part of their studies or in addition to their course.

# Supporting the leaders of the future

We provide a supportive environment where all staff are encouraged to achieve their potential.

The University attracts the best and brightest early career researchers as we understand how important a supportive environment is for them to flourish and develop into leaders in their chosen field. We offer innovative programmes, support systems and training alongside mentoring schemes, networking opportunities and workshops to help individuals successfully establish themselves as independent researchers.

One of the University's support systems is the Female Early Career Researcher Network, which

we set up in response to evidence indicating that female researchers in the early stages of their career would benefit from additional help. The network creates a knowledge sharing environment where members can discuss the unique challenges and opportunities they face in their careers.

We are also proud to be a member of the Athena SWAN Charter, which recognises and celebrates good employment practice for women working in science, engineering and technology in higher education and research.



Dr Sophia Latham was recently appointed to a tenure track fellowship on a part-time basis at the University's Institute of Infection and Global Health, a few weeks after returning to work from maternity leave.

"My research explores how new technologies interact with the policy environment surrounding new and emerging infectious disease outbreaks. The fellowship is an incredibly exciting career opportunity for me, but also allows flexibility for raising a young family – a juggling act many people face.

Working part-time has its own challenges, particularly how to best prioritise in reduced hours. Ultimately, I hope to return to work full-time and continue to develop my crossdisciplinary research interests. The supportive environment I've experienced at the Institute makes this a realistic aim."



#### Our Doctoral Training Centres

The University leads 14 Doctoral Training Centres that are designed to give students the skills they need to address some of the world's toughest challenges – from climate change and energy to global health issues and social sciences.

Funded through various research councils, the centres enable postgraduate students to access a breadth of research across multiple institutions, helping to develop them into cutting-edge scientists who are capable of competing for the best jobs and research opportunities.

We also have Marie Curie Initial Training Networks and research student cohorts in major centres, such as the MRC Centre for Drug Safety Science, which bring together a critical mass of knowledge and technologies in order to advance understanding of adverse drug reactions.

# Challenging

We want to learn more, discover more and know more, so we immerse ourselves in the possibilities, question every assumption and relish the debate.

# Research with impact

The University engages in ground-breaking research that addresses some of the world's toughest challenges. Here, you can share ideas with your peers in our international network of partners. Pro-Vice-Chancellor, Professor Dinah Birch, explains how you can work with the University to learn in ways that will change your life, and the world we live in.



he University's research is 'Life Changing, World Shaping'. An example that illustrates this perfectly is the vaccination we developed for rotavirus, which substantially reduced the number of deaths from rotavirus infection in Sub-Saharan Africa. The impact of the vaccination programme was evident very quickly, and it is now part of routine vaccinations in the UK.

Our research has tangible effects on the world around us. The University performed remarkably well in the latest Research Excellence Framework (REF), which is a crucial benchmark for how we are performing internationally in comparison to our peers. We are excelling globally in research areas including material science, chemistry, computing science and clinical pharmacology, to name just a few.

Cross-disciplinary research is essential for solving major global challenges, and the University's

strength lies in bringing together academics from across our three Faculties. In regenerative medicine, for example, our stem cell research involves engineers and biologists as well as social scientists.

Joining a research-led university means students benefit from a high-quality education, learning from inspirational figures who challenge and encourage them. Students have the opportunity to work with people who have changed the world, and so they believe they can do it too. Like our staff, they are delivering research with impact. And with around 85% of our postgraduate students gaining employment in major UK and global organisations, we are fuelling industry at all levels in companies such as AstraZeneca and Sky TV.

If the University's research is relevant, it will attract industry, and therefore organisations will invest in our work. Our Knowledge Exchange programme is integral to our students' education and the research of our staff. For example, the University's collaboration with Unilever has seen huge benefits for the University and the wider economy of the region.

The University is competing in a crowded marketplace, so we need to ensure our environment has the quality that will continue to attract world-leading researchers. At Liverpool, our people have access to top-class facilities and networks of like-minded people. We will support our researchers to compete with the very best as they discover more, question the world around them and face global challenges head on."

## Unrivalled expertise

The Faculty of Health and Life Sciences ranks among the top 100 universities in the world for clinical, pre-clinical and health subjects.

e offer a first-rate research environment with unrivalled access to technology platforms and academic expertise, and our research continues to grow, with new funding awards increasing by more than a third to £73 million in 2013/14, including 14 awards valued at greater than £1 million.

Through our partnerships with the NHS, industry and academia, we have the scale and expertise to drive future growth, bringing economic benefits and delivering significant improvements in human and animal health.

### £73 million in research funding

### **200 publications** classed as world leading in REF 2014

For more information, visit: www.liverpool.ac.uk/healthand-life-sciences

### Tsetse fly genetic code sequenced

#### Geneticists at the University



has successfully sequenced the genetic code of the tsetse fly, making major advances in disease control possible. Unique to Africa, the flies can infect people with sleeping sickness, which damages the nervous system and is fatal if left untreated, killing more than 250,000 people each year.

Traditional methods of control such as pesticide spraying are expensive and difficult to implement. The genetic information will allow researchers to develop alternative strategies to control the disease. Almost 140 scientists were involved in the sequencing and annotating of the tsetse fly, and the findings, called the International Glossina Genome Initiative, have been uploaded to a free genomic database so that scientists around the world can use them for research.

#### Identifying new drugs to treat Ebola

Researchers from the Institute of Infection and Global Health, in collaboration with Public Health England, have investigated new ways to identify drugs that could be used to treat Ebola virus infection.

The team looked at which proteins inside a cell are critical for the functions of Ebola virus and are 'hijacked' by the virus to promote infection. Identifying these proteins allowed them to find out whether any drugs were already in existence that could block the function of the particular protein. Their recently published research has shown how existing therapeutics can be identified and potentially repurposed for anti-viral therapy.



#### Developing nanomedicines for HIV therapy

An estimated 34 million people around the world are infected with HIV; however, global manufacturing capacity for some commonly used drugs is insufficient to meet the needs of all patients requiring therapy and there is a lack of suitable formulations for children.

To address this, a team from the Institute of Translational Medicine and the Department of Chemistry are applying nanomedicine formulation strategies to develop the antiretroviral medicines to combat HIV infection. This will enable reduced doses by increasing the amount of drug absorbed into the body. Nanomedicines can deliver small quantities of a drug, which has the potential for cost savings, fewer side-effects and the treatment of more patients with existing drug supplies.



## **True innovation**

The Faculty of Science and Engineering connects research strengths, technologies and experts from a unique, broad mix of disciplines. This allows us to develop innovative solutions and approaches to tackle many of today's complex social, economic and environmental challenges.

U in thriving research community enables our experts to explore novel concepts and take their research into new, ground-breaking directions. The outcome of REF 2014 demonstrated growth in world-leading research in the Faculty. Chemistry achieved a ranking of second in the sector, with half of its activity judged as world leading; Computer Science was fifth; and Earth and Ocean Sciences was eighth in the sector for the proportion of world-leading publications.



Solar electricity holds the promise of power generation with free fuel and zero CO2 emissions during operation. Yet the costs are high, and to stay in business, companies often have to sell solar panels at below cost price. The Stephenson Institute for Renewable Energy aims to change the physics and chemistry of solar cells to make them genuinely cheaper and to help create a self-sustaining market for costeffective photovoltaics.

We have also developed a new low-cost processing route for thin film solar cells that has been the subject of a patent and a paper in *Nature.* Our solar cell efficiency record of 16.5% is unequalled in the UK.



## State-of-the-art simulation software and facilities

Combining in-house and partner expertise with emerging technologies, the University's Virtual Engineering Centre is the only centre of its kind that fully supports and delivers the accelerated development of new products, technologies and processes across the product life-cycle, reducing risk and maximising efficiency and sustainability, and delivering powerful solutions to business and research organisations.

The Hydra Foundation also offers a revolutionary Immersive Simulation System to allow students to practise and improve decision making, communication and leadership skills in an environment that replicates the complexities of real critical incidents. High Performance Computing (HPC) facilities, available via the Hartree Centre and the Virtual Engineering Centre, also support the demand for complex, multi-physics simulations, driving real-time simulation and enabling thousands of different scenarios to be evaluated in shorter timescales.



## The Institute for Risk and Uncertainty

The nature and consequences of disasters and real world problems are becoming increasingly complex. To fully understand and address these challenges, we need to work together at the intersection of disciplines.

The Institute for Risk and Uncertainty brings together a multidisciplinary team to offer expertise and methodologies with which to quantify, mitigate and manage risk and uncertainty in many fields and industry sectors. One of its focus areas is the design of mechanisms and structures for optimal sharing of risks and benefits among various parties, for example in large energy projects. The results will provide a basis for informed investment, operating and policy decisions.

**637** *postgraduate research students* 

**5** ESPRC-funded Doctoral Training Centres

Highest Science and Technology Facilities Council grant portfolio in the UK

For more information, visit: www.liverpool.ac.uk/scienceand-engineering

## Challenging our world view

The Faculty of Humanities and Social Sciences is an important influencer in the social, political and cultural life of the city region and the UK, and makes a significant contribution to enhancing the University's research profile.

cross a broad range of disciplines, we explore the impact of human behaviour and structures on the past and the present from diverse viewpoints. We use our knowledge to imagine different futures and explore the choices communities, organisations and governments make. We deploy both intellectual and emotional arguments to communicate our findings, experiences and concerns to enrich and inform society and stimulate the debate on how we can change social, political, economic and cultural behaviour for the better.

Student numbers have grown by 50% between 2010 and 2015

More than **20%** of staff submitting to REF were early career researchers

#### The integrity of UK elections

Two studies by Dr Stuart Wilks-Heeg from the School of Histories, Languages and Cultures have explored electoral malpractice and electoral registration. The first study examined the 'modernisation' of UK electoral processes under the Labour government, including the introduction of postal voting on demand. The research demonstrated that electoral fraud was greater than had previously been recognised. Stuart also examined the UK's electoral register, establishing that there had been a long-term decline in the completeness and accuracy of the electoral registers nationally.

The findings were discussed and cited in Parliament Select Committee reports and by government ministers during the passage of the Electoral Registration and Administration Act through Parliament in 2011–13.

#### Microfinance policy in rural India

Research undertaken by Dr Supriya Garikipati from the Management School has identified that microfinance is most beneficial to women when it enables them to enhance their livelihoods and participate in the local enterprise economy. It also highlighted that more than 80% of the loans in Andhra Pradesh, India, did not meet these conditions.

Using these research findings, Supriya directly lobbied the government of Andhra Pradesh. This has had an impact on banking organisations and other stakeholders within the microfinance industry and led to the introduction of the Livelihood Enhancement Plan (LEP), used at the time of loan application. Supriya's research impacts 500,000 women per year who join the programme, enabling participants to enhance their livelihoods.



#### Archaeology: Castell Henllys and the Pembrokeshire Coast National Park

Within Pembrokeshire Coast National Park, Castell Henllys is a visitor centre that turns the clock back to the Iron Age. The park has been on the archaeological radar since Dr Harold Mytum, the University's Director of the Centre for Manx Studies, started excavating its grounds in 1982. The project lasted 26 years and included the design and completion of three archaeologically supported, reconstructed roundhouses and one four-post structure. The research and reconstructions benefited the park through integration of the results into its visitor resources, educational programmes and management plans, developed with guidance from the Castell Henllys project. As the Celts are a feature of the national history curriculum at Key Stage 2, the Castell Henllys facility has now been included as part of the history component of the new curriculum for Wales and the previously unvisited site has become a major educational centre and local tourist attraction.

For more information, visit: www.liverpool.ac.uk/humanities-and-social-sciences

## Collaborative thinking

We are committed to making our research and technology available to our partners for the benefit of regional and national economies.



s one of the UK's top research-led universities, we are actively engaged with a wide range of private, public and third-sector organisations.

The Business Gateway is the first port of call for companies who wish to benefit from the University's vast breadth of expertise. Our experienced team help organisations to achieve their objectives through collaborations and access to appropriate areas of the University. We can help transform ideas into creative solutions, new technologies, strategies, policies, applications, products or skills.

#### Helping businesses to thrive

The University's Knowledge Transfer Partnerships help businesses to work in a mutually beneficial, grant-funded partnership with our academics or researchers to achieve their strategic goals. We also offer worldclass shared research facilities through the Technology Directorate, providing the resources businesses need to help turn good ideas into ground-breaking research.

#### Supporting clinical trials

Our Clinical Trials Research Centre provides a support and advice service to NHS professionals and academic researchers for NHS research. Clinical trials units provide expertise in trial design, costing, contracts, conduct, analysis, information systems, randomisation, patient/public involvement and health economics, regulations and publications at each stage of the trial process.

#### The Heseltine Institute

Responding to new challenges and opportunities in an environment of uncertainty and diminishing resources demands intelligent, collaborative thinking. The Heseltine Institute connects policymakers and practitioners to the best of the University's policy research and the full breadth of its local, national and international networks. Our goal is to help build prosperous and sustainable futures for places and enable them to manage the impacts of global economic, environmental, social and cultural change.

#### Nano Investigation Centre

Supported by the Northwest European Regional Development Fund, the Nano Investigation Centre at Liverpool provides regional SMEs access to the University's most advanced and powerful electron microscopy facilities. We also offer advice and full technical support from our experienced analysts and material scientists. The Centre is key in solving the day-to-day issues that often prevent companies from developing novel products and processes.

#### **Centre for Global Eco-Innovation**

A UK market leader for SME-led innovation and high-level skills development in the areas of low carbon, sustainability and energy, the Centre for Global Eco-Innovation brings together research and expertise from the University of Liverpool, Lancaster University and Inventya Limited with SMEs in the development of energy and resource-efficient products and services.

For more information, visit: www.liverpool.ac.uk/business

# Spirited

We share the same restless curiosity and creativity, the same energy and enterprise that drive our great city.

## A pioneering university

The University is at the centre of one of the UK's most dynamic cities. Like Liverpool's many pioneers before us, we are driven by a quest for knowledge and share the same energy, curiosity and determination that define the city. Executive Pro-Vice-Chancellor, Professor Fiona Beveridge, explains how the University's connection to our city impacts the lives of those around us.



t the University we have a talented pool of individuals who have the freedom to explore new ideas. A sense of invention and creativity informs many of our disciplines so that students can apply their education in ways that make a difference to society.

The University's research is likewise outward looking and relevant to the world around us. We help organisations to understand the impact of their activities, for example we evaluate the Liverpool Philharmonic Orchestra's influential outreach programme; a spin-out from the University runs reading groups in hospitals and prisons to bring the health benefits of reading to patients and prisoners; and the University's collaboration with the city's museums has led to a number of interactive exhibitions that have a direct relevance to local people. It is vital to share our work with the public. Our staff and students contribute to local communities, and we also have links with primary and secondary schools to engage young people and raise awareness of the opportunities higher education brings.

Liverpool has the fastest-growing economy in the UK outside of London, and the University has played a huge role in contributing to this. The Management School is focused on working with businesses to develop business know-how and leadership skills. The University's active research community has also helped to attract SMEs and we have close links with larger organisations.

The city's law and accountancy firms draw heavily on the University for recruitment and our students benefit from placements and further opportunities with local cultural organisations. One of our biggest challenges is to continue to attract employers and support the development of highly skilled jobs in the region. Our students love the city, and they are eager to remain in Liverpool long after they graduate.

The University's innovation and creativity have contributed to our city's recent renaissance. Our people are positive, friendly and dynamic, and they are full of ideas. We will always strive to be what our city needs."

## How we shape Liverpool

The University is committed to driving knowledge and supporting trade and investment in our city.

The University is driving the city's knowledge economy through close collaboration with fellow universities, industry and the NHS, helping the Liverpool City Region compete in the global business world. The city's research base alone is engaged in delivering £470 million of research activity per year alongside worldwide partners. We also play a huge part in the city region's economic development organisations, holding key positions in the Local Enterprise Partnership, the Mayor's Knowledge Quarter Development Zone Board and Daresbury Science Park, to name but a few.

Liverpool's reputation as a city of culture helps us to attract many of our students, and likewise, we are committed to working in our local community to enhance Liverpool's reputation both here in the UK and globally.









Our collaborations with local authorities, fellow universities and NHS partners have led to significant developments in our city, with profound effects on the health and welfare of patients.

#### Tackling health inequalities

The University's Institute of Psychology, Health and Society, including the National Institute for Health Research (NIHR)-funded Collaborations for Leadership in Applied Health Research and Care North West Coast (CLAHRC NWC), led by Professor Mark Gabbay, is at the forefront of a new initiative that will adopt a revolutionary approach to improving services for all patients.

The NIHR CLAHRC NWC brings together the NHS, local authorities and the universities of Liverpool, Lancaster and Central Lancashire. Its aim is to undertake high-quality research and accelerate the translation of its findings into service improvements, generate wealth, and engage industry to improve patient health and care. Liverpool has some of the most demanding health challenges in England. This funding ensures we can meet these challenges head on, and start to plan effective interventions and policies which will greatly improve the quality of life of patients.

### Connecting SMEs to an innovative scientific infrastructure

Located in the city's Knowledge Quarter, the new Liverpool Bio Innovation Hub (LBIH) will help SMEs working in the area of personalised medicines. The University was awarded £20.47 million by the European Regional Development Fund (ERDF) to create the contemporary 6,200 square metre incubator space, which will include laboratories and offices and allow commercial access to the latest biobank technologies and equipment. The Hub will foster collaborative working between researchers at the University, NHS partners and SMEs to ensure that medical research is translated into tangible benefits for patients.

## Driving knowledge exchange

We have a culture of support and collaboration that influences and helps the communities in which we operate.

University's expertise through contract and collaborative research, student projects and placements, volunteering, and access to world-class facilities.

#### Interchange

Interchange is a registered charity based at the University which links student researchers and Voluntary Community Organisations (VCOs) from Greater Merseyside in participatory work-based research projects.

The initiative offers students the opportunity to conduct 'live' projects such as field research, feasibility studies or project coordination as part of their curriculum for VCOs in sectors including housing, family, and health and social care. At the same time, these organisations are given access to a talented pool of individuals and are often provided with project reports giving evidence of social impact, which is frequently needed for successful funding applications.

#### **Sensor City**

The University and Liverpool John Moores University have successfully bid to create one of four University Enterprise Zones in the UK, with £5 million match funding from the UK government. The £15 million hi-tech business hub, Sensor City, will house and support companies as they develop novel sensor systems integrating sensors, firmware and advanced algorithms.

Sensor City will position Liverpool as an internationally leading centre for the development, manufacture and spin-out of new sensor systems. Backed by the Liverpool City Region Local Enterprise Partnership (LEP), the project is set to create a cluster of 300 new businesses and more than 1,000 jobs in emerging technologies over the next ten years.

### The Centre for Architecture and the Visual Arts (CAVA)

Interdisciplinary research by CAVA and its cultural partners, which include FACT, Tate Liverpool, National Museums of Liverpool and English Heritage, investigates the role of digitality (such as computer-aided design, audio-visual quality of space or moving image visualisations) on the design of contemporary urban spaces. Using a range of methods and techniques, including mapping, filming, projecting, 3D animations and augmented reality, the aim is to provide insight into the representation of and engagement with architectural and urban forms, narratives and practices.



The Liverpool Network of Knowledge Exchange (LiNK) is a pioneering training programme designed specifically for postgraduate students to develop their research, professional and interpersonal skills by undertaking short placements with key cultural partners in the city.

The scheme provides opportunities for both the University and the cultural industries to collaborate in the mentoring and training of new researchers and to participate actively in the co-production of knowledge and sustainable impact.

**Liverpool Network** 

of Knowledge Exchange (LiNK)

The LiNK placement was a great opportunity for me to engage in an actualised project, realising unseen aspects of my research, and brought up new ideas for my PhD."

Pooya Sanjari PhD Student Architecture

# Ambitious

Our ambition sets us apart as we expand our global reach, invest in our future, and influence the world around us.

## A global attitude

Liverpool staff, students and graduates are ambassadors for ambitious and original thinking, and the University gives you the confidence to succeed. Deputy Vice-Chancellor, Patrick Hackett, talks about how the University's global attitude and commitment to our people sets us apart.



ur ambition is to exceed the expectations of our students, staff and partners. We aim to provide the best environment and support, and to empower our staff and students to be the best they can possibly be.

Investment is critical to achieving our strategic objectives. In addition to recruiting 400 additional staff since 2012/13, we have enhanced the quality of the University's estate, facilities and public spaces. The significant investment in our campus is contributing to an enhanced sense of wellbeing, which is also leading to better outcomes in our research activity and facilitating growth in students – 30% since 2008/09.

Our student applications have increased by 20% this year, in addition to an 18% increase last year. We are confident the investment we have made, along with excellent marketing and communications activity, has directly contributed to this rise in demand. Our students are taught by world-leading researchers at the forefront of their academic disciplines and they have access to award-winning facilities. This research-led approach to learning and teaching makes us distinctive, while the increase in student numbers enables us to invest even more in our staff, facilities and key services.

The University's global attitude also distinguishes us from our competitors. Our students have the opportunity to be mobile and experience different cultures, which helps to prepare them for the global marketplace. Our joint venture university in China, Xi'an Jiaotong-Liverpool University (XJTLU), our wide range of online master's and doctoral programmes, along with our campus in London, have given us a competitive edge and a sense of distinctiveness. I want us to be ambitious and continue to build on and create new, exciting partnerships. Our global strategy also contributes to the diversity of our campus in Liverpool, thereby enhancing the cultural experience of staff and students.

For the first time, the value of our research awards has exceeded £100 million in each of the last two years. This and our success in REF 2014 support our long-term vision. Higher education is increasingly competitive, particularly if you want to be a globally successful university. I believe the next ten years will be transformative, presenting us with many new opportunities. Universities are a force for good and benefit society, the economy and the individual. We will continue to be a globally competitive, research-led university that offers a truly rewarding student experience. We have an opportunity here to really make a difference, now and in the future."

## Investing in our campus

We are committed to ensuring that we offer a truly world-class student experience, investing £600 million in our teaching, research and residential estate over a ten-year period.



ur modern, 100-acre campus is situated in the heart of Liverpool's Knowledge Quarter near the city centre. We also have a second campus for our School of Veterinary Science at Leahurst in Cheshire, with two working farms, a world-leading equine hospital and a small animal teaching hospital.

In Liverpool, our Harold Cohen Library is undergoing a £2.6 million refurbishment, while a £1 million pound investment in the Sydney Jones Library has funded new self-service areas to make it easier for visitors to access its collections.

The teaching environment for science-based subjects has also been transformed with an investment of £23 million in centralised teaching laboratories. This new facility has enhanced the overall student experience through the creation of a modern, high-quality and vibrant laboratory environment. Supporting interdisciplinary science, the laboratories are an innovation in the HE sector and are transforming teaching in the physical sciences, including Physics, Chemistry, Environmental Sciences and Archaeology.

The University, Unilever and the Higher Education Funding Council for England (HEFCE) are also co-investing £65 million to establish the Materials Innovation Factory – a new type of 'knowledge factory' based on a strong partnership between industry and academia. The new facility, which is expected to be fully operational by the summer of 2016, will provide unparalleled open access to a suite of advanced equipment, technical staff and academic expertise at the forefront of materials chemistry research. The University's Management School has also been transformed through the creation of a dedicated suite in the new Brett Building, which features the latest audio-visual equipment, break-out spaces, careers interview rooms, exhibition spaces and social zones to support our MBA students.

It is not only our teaching and research spaces that have benefited; we have also invested £250 million in high-quality accommodation, both on and off campus. We recently finished building new sustainable accommodation at our city centre campus, and we are currently developing a self-contained student village at our Greenbank site in Aigburth, which will include catering and sports facilities.

£23 million investment in teaching laboratories

£250 million investment in student accommodation

# A global university

Here, you can conduct research that has a positive impact on people and the planet and expand your world view with our international network of academic partners.

The programmes, we have connections across the world, offering staff and students incredible opportunities to study and work abroad.

Ranked in the top 125 of universities in the world by the QS World University Rankings, we have partnerships with overseas governments, research institutions and industrial partners which create a platform to work with the best in the world. By pooling resources and expertise with our partners, we are actively embracing innovation and addressing some of the world's most pressing challenges.

We will continue to expand our global reach, and offer new opportunities and challenges to future generations of graduates and academics.

**7,400** international and EU students from 115 countries currently studying at Liverpool



### Achieving your career goals with online learning

As Europe's largest provider of online degrees through our partnership with Laureate Online, we offer 25 fully online master's and doctoral degrees in a flexible, international and collaborative learning environment aimed at helping global working professionals to enhance their career prospects.



10,000 students study online One of our students is entrepreneur Jim Wagstaff (MBA 2013) from Alabama, who is Managing Director of the Singapore-based Jam Factory management consultancy, and is currently studying an online DBA.

I chose to study with Liverpool because the idea of accessing such a prestigious university through an online vehicle was very attractive. I could do it in any place, at any time, and pretty much from any device.

The programme was challenging, but you have access to great resources and I was able to put into practice what I was learning immediately."

Jim Wagstaff MBA 2013



## Our partner in China

Our focus is on building partnerships with leading institutions across the globe that can provide the best opportunities for collaborative research and study.

n 2006 the University opened Xi'an Jiaotong-Liverpool University (XJTLU) in partnership with Xi'an Jiaotong University – a top ten university in China.

XJTLU has been a phenomenal success and has grown rapidly since it was established nine years ago, with more than 7,400 students now studying subjects including Computing, Maths, Engineering, Architecture, Biological and Chemical Sciences, Business and Civic Design. XJTLU offers a unique international educational experience, and brings together excellent research practice and expertise from both institutions, giving students the skills and knowledge they need to secure careers in a global marketplace.

XJTLU is based in the world heritage city of Suzhou, which has a population of four million and is located half an hour from Shanghai by bullet train. The campus is located in Suzhou Industrial Park (SIP), one of Asia's most successful business parks – a hub for foreign investors, and home to 3,300 international organisations, including 84 Fortune 500 companies. XJTLU has a number of research priorities, such as health technologies, sustainable urbanisation, and nanotechnology, and SIP provides opportunities for extensive research and knowledge exchange initiatives.

There are currently almost 1,000 undergraduates from XJTLU completing part of their degree at Liverpool, while the number of postgraduates at Liverpool from XJTLU has almost trebled in the last year, bringing a fantastic international flavour to our campus. Our relationship with XJTLU also gives our students the opportunity to gain experience in the world's second-largest economy by replacing a year or a semester in Liverpool with one in China.

What's more, we are developing an exciting new programme in which students can follow a China Studies programme as part of their regular Liverpool degree. Staff and students in Liverpool can also learn Mandarin and experience a taste of Chinese culture at our Confucius Institute – a focal point for all China-related activity in Merseyside.

## A global network

Our partnerships help students around the world access high-quality, internationally recognised qualifications.

ogether with our global research collaborations, the University has achieved a strong overseas presence through the development of a growing network of teaching partnerships. The University will continue to build on these foundations to expand our global presence further, providing even more access to our programmes worldwide.

#### International Partnership Programmes

The University has developed a number of programmes that enable PhD students to spend up to two years at an international partner institution during their studies. Partners include some of the world's most prestigious universities and research institutes including the Agency for Science, Technology and Research (A\*STAR), Singapore; National Tsing Hua University, Taiwan; RIKEN Institute, Japan; and Xi'an Jiaotong University, China.

#### **Science without Borders**

The \$3 billion 'Science without Borders' scheme aims to boost science and technology in Brazil by sending 75,000 Brazilians overseas on year-long student placements. More than 300 Brazilian students have already chosen Liverpool through the programme, making us one of the most successful universities in the UK.

#### India Fellowship Programme

The India Fellowship Programme offers opportunities for up to ten outstanding early career and established researchers from India to strengthen their experience of research and teaching at the University in an international research-enriched environment, further strengthening our strong links with institutions in the cities of Bangalore, Hyderabad, Kolkata and New Delhi.

#### Links with European partners

Institutions in the EU are among the most frequent collaborators with the University, supported by more than €80 billion of funding from the EU's flagship research and innovation programme, Horizon 2020. Designed to drive growth and new jobs in Europe, Horizon 2020 supports research and development across universities and industry with an emphasis on excellent science, industrial leadership and tackling societal challenges.

#### Criminology in Singapore

When Rachel Toh graduated in 2010 with a Diploma in Accountancy, she realised she wanted a job that felt meaningful, so she joined the Singapore Police Force. Her passion and hard work soon paid off and she was awarded a sponsorship to pursue a BA Honours in Criminology and Security with the University.



The programme is the result of a partnership between the University of Liverpool, the Singapore Institute of Technology (SIT) and Singapore's Home Affairs Ministry, and is the first undergraduate degree in Criminology to be offered in Singapore.

## 

The programme enhances my analytical and decision-making skills and has allowed me to gain a comprehensive and deeper understanding about the nature of crime, the reasons for its occurrence, as well as the relationship between policing and crime.

When I return to work I will be offered a chance to assume a leadership position as a Senior Officer. I have no doubt that the skills and knowledge I obtain in my three years of study will prepare me for the higher level of work I will be expected to perform."

Rachel Toh Criminology and Security student

## Bringing Liverpool to London

#### Our new campus in London offers an exciting range of professional and industry-focused opportunities in the heart of the capital.

lose to the financial centre of the city, the University of Liverpool's London campus is another key hub in a global network, and a global attitude, that has already delivered pioneering activities in China and online.

It is perfectly located to strengthen the University's links with the professions; staff can take advantage of premium facilities that provide a fantastic environment to bring together academic



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thought leaders, industry professionals, students,
alumni and those seeking to drive their career
or business forward to network, study and
work together.

Students are already benefiting from a suite of vocationally focused programmes in, for example, Accounting, Finance and Architecture; excellent links to the professions and industry; opportunities for placements; and enhanced career support from one of the UK's leading employability teams. The very first cohort of London-based Accounting students graduated recently, with many finding roles with leading organisations such as Deloitte, Grant Thornton and the Bank of East Asia.

The University of Liverpool in London is open for business, ideas and innovation. As well as offering executive and postgraduate education informed by the latest leading research, as you would expect from a Russell Group institution, we can provide employers with bespoke, agile and responsive short course training to help meet immediate needs.

#### Find out more at: www.liverpool.ac.uk/london

Small conferences, seminars, meetings and networking events are supported through a dedicated events team. For more information contact: **Idnevent@liverpool.ac.uk** 



#### Our London campus is ...

#### Professional

Students can boost their employability through a portfolio of professionally orientated and industry informed programmes. In Accounting and Finance, our unique blend of professional and academic qualifications enables students to fast-track their future.

#### Global

The campus is another key hub in the University's global network and attitude. Close to the City, it is perfectly located for professionals.

### Connected

Our staff and students can benefit from excellent links with and access to Londonbased employers, industry and third-sector institutions, exemplified by support from the Institute of Chartered Accountants in England and Wales (ICAEW) for our flagship Accounting programme.

#### Premium

Learning and networking opportunities at Finsbury Square are supported by premium facilities, developed with the professions in mind.

#### **Career focused**

Our students have access to a range of careers support from an award-winning Careers & Employability team, including webinars, on-site events and training, all designed to help our students' aspirations become a reality.





Want to know more? Contact us now and see what we can do for you.

www.liverpool.ac.uk

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