



UNIVERSITY OF
BIRMINGHAM

THE BIRMINGHAM EFFECT

Professor Sir David Eastwood, Vice-Chancellor and Principal
University Annual Meeting, 8 March 2018



RESEARCH THAT CHANGES THE WORLD
TEACHING THAT CHANGES LIVES
PARTNERSHIPS THAT CREATE NEW POSSIBILITIES



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Research that changes the world

The University has enjoyed a remarkably successful year in research. Let me highlight three areas in which our research is making a substantial difference to individuals, to industry, to the economy, and to major global challenges.

Railways

Energy

Life Sciences



Queen's Anniversary Prize

The Birmingham Railway Research and Education Centre is largest such centre in Europe, and works with 50 companies in more than 20 countries around the world.

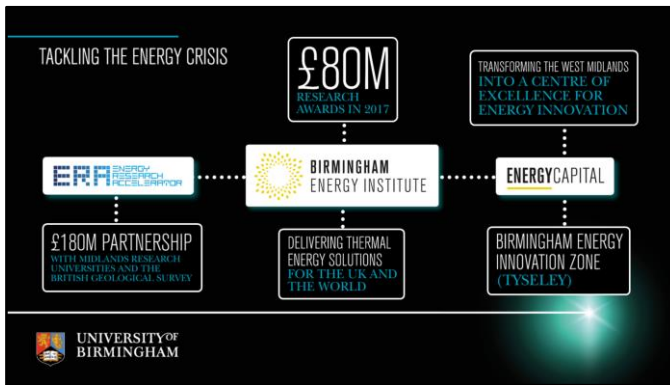
The team at the centre have enjoyed a remarkably successful year.

In October we were delighted to learn that the University had been awarded a Queen's Anniversary Prize.

- The highest form of honour available to a UK university
- Previous awards in 1996 and 2011
- The award recognises the real-world difference that our experts make to the UK and global railway industry, improving railway efficiency, reducing delays, and reducing the environmental impact of the railways.
- They are also a major provider of education programmes to the rail industry and have trained many of the leading railway executives around the world.

And this is a success that is set to continue: in July the Centre led a consortium of eight universities and 17 partners from across the rail industry to secure £92 million of government and industry investment to create the UK Rail Research and Innovation

Network. This is a partnership that will lead the way in digitising our railways for the future.



Tackling the energy crisis

We established the Birmingham Energy Institute in 2014:

- Led £80 million of successful bids in 2017 (including £42m for robotics for nuclear decommissioning and £20m Faraday Institute for Battery Recycling)
- Launched a joint research platform with Fraunhofer Institute for Environmental, Safety, and Energy Technology – unique.

In April 2016 the University led the development of the Energy Research Accelerator, a partnership across six Midlands Universities involving 500 academics and 1000 PhD students engaged in energy research – scale.

- Birmingham is leading the development of solutions to store hot and cold thermal energy: perhaps the biggest energy challenge facing the UK and the world.

We have worked with regional partners to develop Energy Capital and to make the case for regional Energy Innovation Zones. The findings of our policy commission will be launched in this building on 28th March, and we have committed as a University to investment in the Tyseley Energy Innovation Zone. This will also allow us to ground our research in practical solutions which make a difference locally.



Transforming life sciences (1/2)

The region's life sciences sector continues to grow, and we are delighted to play a central role.

The breadth of clinical training provided at the University is remarkable – doctors, nurses, physiotherapists, psychologists, pharmacists, dentists. We are the education provider for NHS management training schemes at both graduate and middle-senior management level.

- In all, we are training over 1,700 people to work in health each year and change the lives of all those who require the NHS.

We work in collaboration with the NHS through Birmingham Health Partners to create opportunities for transformative research.

- £90 million of new grants last year.
- Through BHP this year we have secured one of the Health Data Research UK sites to harness health data science at huge scale.
- We have also renewed our NIHR / Wellcome Trust Clinical Research Facility and secured £12 million to create a Biomedical Research Centre in Inflammatory Diseases.

In the last year we were delighted to secure land to create

Birmingham Life Sciences Park, which will allow us to work with partners to develop new treatments, from drug discovery through to real-world applications.



Transforming life sciences (2/2)

The life sciences park will build on our existing clinical trials infrastructure, which is already one of the largest in the UK. Awards in the last year include:

- £7 million to expedite the development of Rheumatology treatments jointly with the University of Oxford;
- The establishment of the Birmingham Cancer Research UK Centre to contribute to CRUK's target to increase cancer survival rates from 50% to 75% over the next 20 years.

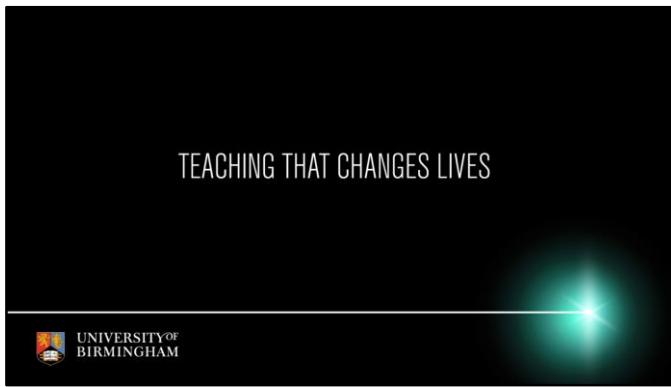
Our work has global impact, too.

- Our Global Health Research Unit on Global Surgery has been established to tackle surgical care, starting with a clinical trial to test interventions that reduce wound infections following abdominal surgery;
- Our work on global maternal health tackles areas as diverse as sepsis prevention, emergency transport, food security and nutrition, and community groups.

TRANSFORMING TRANSPLANTS



<https://youtu.be/Jxq6QlISX-k>



Teaching that changes lives

The twin pillars of a University like Birmingham are, of course, research and education.

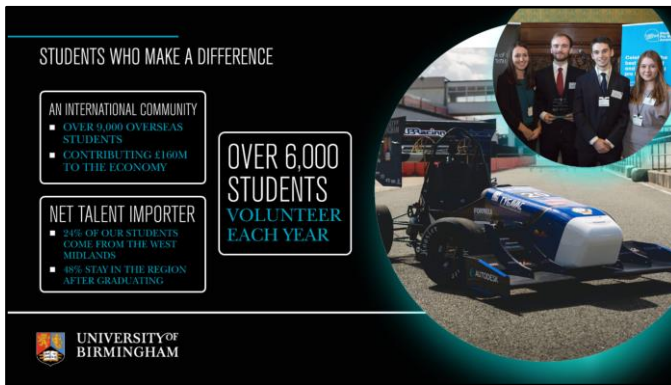
We are equally as proud of our educational achievements as we are of our research success.



Focused on teaching excellence

Gold in the inaugural Teaching Excellence Framework

- One of only 8 Russell Group universities to be rated Gold
- Reflects our focus on the quality of our teaching, and confirms the exceptional outcome of our Higher Education Review in 2016
- We work hard to deliver high levels of student satisfaction – 89% was the joint best in the Russell Group last year
- The number of our students going on to graduate-level jobs has remained consistently high, and we learnt recently that we are now the second most targeted university by graduate employers (having overtaken Cambridge, Oxford, Durham, UCL, and Bristol)



Students who make a difference

We want to provide our students with the very best education, but it is important to recognise that our students also make a big difference to the University community and to the wider community around them.

- They volunteer – over 6,000 students each year. From raising over £100,000 for charity through Carnival Rag, to providing pro bono legal advice to those in need, to delivering resuscitation training in local schools and at music festivals.
- Our UBRacing team is a training ground for high-level jobs in the automotive industry, and last year celebrated its twentieth anniversary in style by bringing home three trophies from the UK Formula Student competition.
- Our international students create a vibrant global community on campus, whilst contributing £160 million to the local economy.
- Our students stay on and contribute to the local economy – a quarter of our students are from the West Midlands, whilst nearly half stay here after graduating.



Investing in the student experience

For our part, we are committed to investing in the experience that our students receive whilst they are here.

Earlier this week we were delighted to welcome Princess Anne to officially open our £55 million Sports Centre, which opened its doors last May.

- It contains the city's only 50 metre swimming pool and already has nearly 7,000 student members;
- Overall the new centre has seen a 135% increase in membership compared to its predecessor, the Munrow Sports Centre.

This is also an important facility for the local community:

- Over 3,000 community and alumni members;
- 20 local schools use the swimming pool, and we have over 800 children on the Learn to Swim programme.

We are also now able to attract major sporting events to benefit the city:

- Commonwealth Games 2022, bringing major international profile to the city. The University is a major backer of the Games, including playing host to hockey and squash;
- Meanwhile, this summer will see the University play host to

3,000 participants for the UK Transplant Games.



Investing in the student experience

Our investment in Sport complements significant investment into academic facilities.

In 2016 we opened the largest new university library in a generation, with outstanding facilities.

Later this year, we will open our new Collaborative Teaching Laboratory, which will bring together practical teaching of STEM subjects in high-quality labs, meeting the needs of the next generation of scientists and engineers.

These are just the highlights of a major programme of capital investment in the coming years that we are embarking on for the benefit of our students, academics, and for the community around us.

CULTURAL CONTRIBUTIONS



<https://youtu.be/gWDYsaxHMrM>

On International Women's Day, it is worth highlighting three notable women who have played an important role in the recent history of the Birmingham Quran manuscript.

- It was the work of **Dr Fedeli** during her PhD studies at Birmingham that confirmed the importance of these leaves, which were hidden inside a later manuscript.
- It was **Helen Loveday**, an independent conservator and specialist in Arabic manuscripts, who carefully separated and conserved the two Qur'an manuscripts.
- And **Dr Fiona Brock** of the University of Oxford's Radiocarbon Accelerator Unit who carried out the analysis for us and dated it with 95.4% accuracy.

The latest chapter in the story of the Qu'ran has been its display in the Middle East as part of the UK/UAE Year of Culture Collaboration – and which ends with our final exhibition in Dubai in April.



Taking Birmingham to Dubai

Last week we officially launched our new campus in Dubai.

Phase 1 opens in September, teaching Business, Economics, Computer Science, Mechanical Engineering, and Primary and Secondary Teacher Education.

In 2020, our full campus will open to take the full Birmingham experience to Dubai, as we grow our global footprint.



PARTNERSHIPS THAT CREATE NEW POSSIBILITIES

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Partnerships that create new possibilities

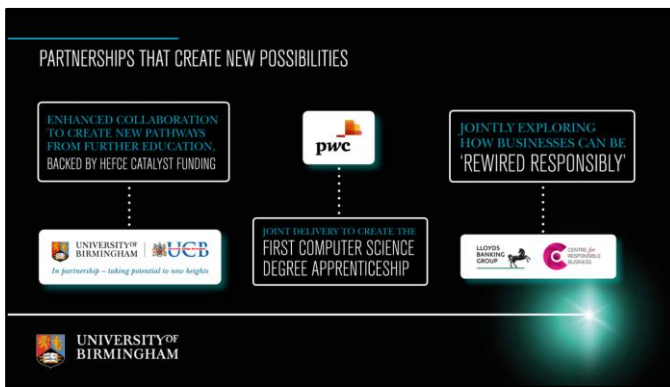
A University's role is also to convene, to make connections, to create new possibilities.



International collaboration

Global partnerships provide a means for us to address global challenges and create opportunities for our students.

- In China, we have well-established research projects addressing childhood obesity, primary care training, and civil nuclear energy.
- In India, we are exploring ways to tackle air pollution, studying women's cancer, and empowering young people to help change lives in Delhi.
- We have launched joint PhD fellowships with the University of Melbourne in Engineering.



Partnerships that create new possibilities

By creating new partnerships, we can open doors and develop new approaches.

The three examples on screen:

- Our partnership with University College Birmingham stretches back over 23 years. In the last year we have secured national funding to develop new programmes that bridge the gap between vocational further education courses and degree programmes at the University of Birmingham – increasing access for students who would not normally access our programmes.
- Our partnership with PWC has allowed us to create the first Computer Science degree apprenticeship.
- Our partnership with Lloyds Banking Group allows us to combine leading academic thinking with practical application to spearhead new approaches to business sustainability and transformation.



Changing 10,000 lives (1/2)

We also look to draw on our alumni and local communities to make a difference to young lives.

- 10,000 Lives is an ambitious new appeal aiming to change 10,000 young lives through fundraising and volunteering.
- The UK's first university appeal to measure lives changed, not funds raised.
- Providing a full cycle of support for students aged 11-25 through scholarships, bursaries, internships, mentoring, and outreach work with local schools.



Changing 10,000 lives (2/2)

Achievements since launch in autumn 2017:

- Changed 1,012 lives
- Raised more than £520,000 in gifts and pledges
- Accumulated more than 3,500 volunteer hours

If you would like to contribute, we would be delighted to hear from you.



Transferring new knowledge

Our final partnership is that which occurs when we transfer the new discoveries and innovations created at the University into commercial use.

University of Birmingham Enterprise (formerly Alta Innovations)

- We are the 4th in the UK for intellectual property
- 8th for investment spinouts
- And Reuters' 9th most innovative university in Europe!

Our Research Park hosts 40 companies employing 450 staff.

Engagement with our BioHub and BizzInn incubators has led directly to the creation of 150 new jobs locally, and many more indirectly.

There is a real opportunity for us to work together with other Midlands research universities to accelerate our impact, and we expect to announce a major funding award in this area in the coming weeks.

QUANTUM APPLICATIONS



<https://youtu.be/M2fpfrCdV0M>

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