

# ANNUAL REVIEW

2013-14



UNIVERSITY OF  
**BATH**



# Welcome from the Vice-Chancellor

**The University of Bath is well established as a nurturing environment for enterprising minds and our reputation goes from strength to strength as we pursue our mission to deliver world-class research and teaching.**

**In defining our current strategy, we identified the prized attributes that would enable us to achieve our objectives and it is with these characteristics in mind that we have reflected on 2013-14 and the successes achieved.**

## The determination to excel

We positioned ourselves for future excellence by setting ambitious goals and driving to achieve higher standards and greater international prominence. 2013-14 saw continuing success in Higher Education (HE) league tables and increasing interest from potential students. Applications rose (against a backdrop of falling numbers nationally) and student numbers increased. These increases were reflected in our staff numbers and placed us in a strong position to improve the volume, quality and profile of our research outputs.

We enjoyed significant research success, with our portfolio increasing to £122 million, as well as a strong success rate in doctoral training bids (leading to the establishment of new Bath-led centres as well as other collaborations with GW4 partners). We performed outstandingly well in the Research Excellence Framework (REF) 2014 and were placed 14th in the research quality ranking of UK universities. An impressive 87 per cent of our submitted research activity was deemed to be world-leading / internationally excellent.

## An enterprising approach

We aim to encourage creativity and entrepreneurship across the community; researching new ways to meet global challenges, developing problem-solving and enterprise skills, and introducing more effective business processes. We were delighted by the news that SETSquared, a collaboration between the universities of Bath, Bristol, Exeter, Southampton and Surrey, had been ranked as the top university business incubator in Europe by UBI Index. In a different vein, the development of the new HIVE facility at the Building Research Park in Wroughton offers an innovative alternative to traditional laboratory-based research, and will enable the testing of construction materials in real conditions, ensuring they are robust, resilient and sustainable for the future.

## An international perspective

Excellence in HE is increasingly defined by international reputation and Bath has been recognised by the *Times Higher Education* as one of the most international universities in the world. We are striving to improve our position, attracting the best staff and students from around the world, placing research and teaching in an international context and forming strategic alliances with leading international partners. We have forged a number of new partnerships with universities in the top 100 world rankings, and these will enable collaborative research across every discipline.

## A supportive culture

We aim to provide a welcoming, inclusive campus community that values the individual and supports the realisation of their potential. The University was ranked first for student satisfaction in the National Student Survey for the second year in a row, and was recognised as the 'Best Campus University in Britain' in *The Times and The Sunday Times Good University Guide 2014*. Our Open Day for prospective students was rated as the best in the UK by the annual Higher Expectations Survey of undergraduates.

## A collaborative style of working

We place a high value on our partnership with business, the professions, the public sector, the voluntary sector and other partners. The launch of the GW4 Alliance demonstrated our commitment to working with the universities of Bristol, Exeter and Cardiff to address key global challenges for the benefit of society and the economy. Closer to home, we negotiated the purchase of a property in the centre of Bath. This is an excellent opportunity to locate more of the University's activities in the city, to make an important contribution to the continued regeneration of the area, and further strengthen our partnerships within the local community.

Higher Education is becoming increasingly competitive, both within the UK and internationally, and we are witnessing fast-paced and complex changes to HE policy and sector regulation. It is particularly gratifying that, in spite of this challenging environment, 2013-14 was a year of continuing success for the University of Bath.

Bath has achieved a great deal, but we have ambitions to achieve even more as we celebrate our 50th anniversary in 2016. We are planning a range of activities and events to mark this important milestone in the University's history and to thank our staff, students, alumni and partners for their contribution to the University's success.



Professor Dame Glynis Breakwell DBE DL  
Vice-Chancellor

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# What makes Bath special?

## Standing out

**At Bath, our students have the unique opportunity to excel academically within a stimulating and supportive learning environment whilst gaining vital work experience and professional skills to help them once they graduate.**

Our interdisciplinary, world-class research benefits from the strong network of UK and international academic partners, businesses, voluntary and public sector bodies with whom we collaborate. Our Institute for Policy Research connects the worlds of research, policy, and professional practice to help address major UK and global policy challenges.

Based on an award-winning campus overlooking the beautiful World Heritage City of Bath, our students and staff enjoy state-of-the-art teaching, research, social and sports facilities. These attributes, along with our active Students' Union, combine to draw record numbers of students and world-leading academics here.

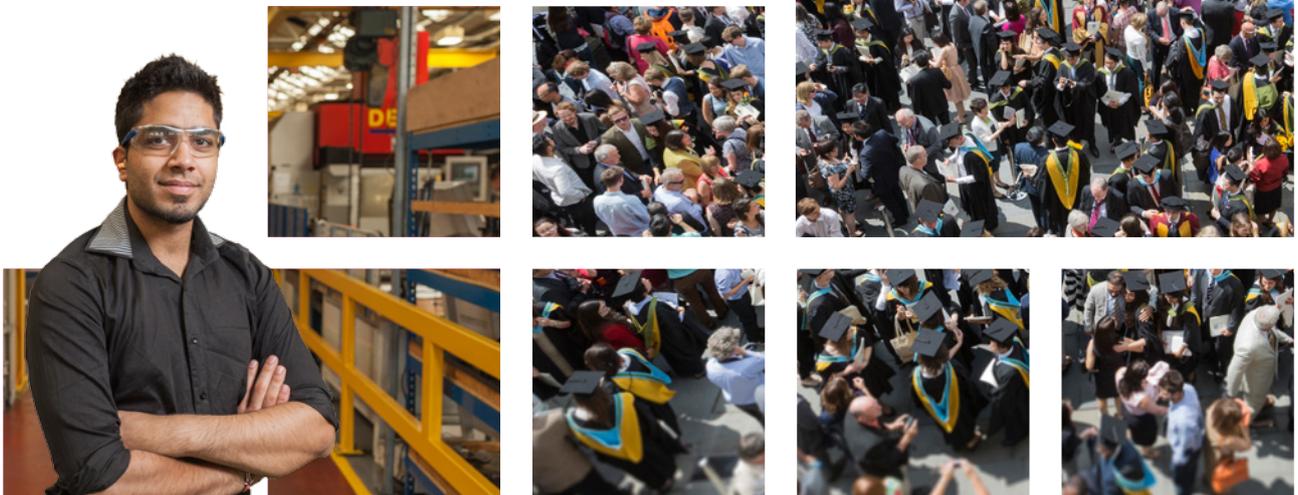
Our University is home to more than 15,000 students – of which around 10,000 are undergraduates and a third are international. As our international partnerships reach further into Asia, Africa, North and South America, we continue to share knowledge and mobilise the best talent around the globe to increase our impact.

On graduating, the opportunities for learning and networking continue. Our alumni can tap into a community of nearly 100,000 people working in a variety of fields across 162 countries worldwide. In Bath, our Innovation Centre delivers commercial skills and advice, and has helped many graduates turn their business ideas into balance sheet success stories.

## Achieving Success

We have an excellent reputation for teaching and learning which helps us rank consistently in the top ten of all UK national league tables.

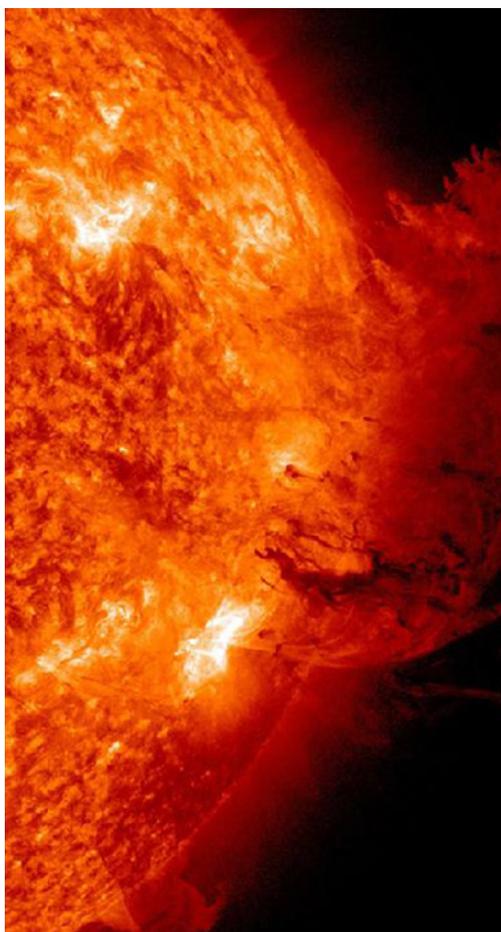
Our graduates are classic all-rounders who are highly sought after by employers. Thanks to our industry and public sector partnerships, nearly two thirds of our students undertake a placement during their time with us, helping 86 per cent of our employed graduates move into top level jobs with a starting salary £4,000 higher than the national average.



## Royal connections

Our fifth Chancellor, HRH The Prince Edward, The Earl of Wessex, is helping to elevate the profile of the University and our research both nationally and internationally.

Among other official duties in 2013-14, the Chancellor opened our new building materials research facility, the HIVE; toured our enhanced DisAbility and Sport Health facilities; and accompanied the Vice-Chancellor at an international alumni event in Seoul, South Korea.



## Our impact

- We are a key partner with the Met Office in the UK's first dedicated space weather forecast centre.
- We have tested and certified new low carbon construction materials that reduce energy bills for homes by 90 per cent.
- Our research has helped the NHS to save nearly £500 million enabling it to offer digital hearing aids to patients for free.
- We have developed a new microwave treatment which has been used to treat over 5,000 tumours in the liver, lung, kidney and bones – many of which were otherwise inoperable.
- Our new composite wing design for Airbus airliners saves 40,000 tonnes of fuel over the life of each aircraft.
- We have set up a £65 million education programme in Bangladesh to improve the lives of the poorest in society.

Find out more about our research: [www.bath.ac.uk/research](http://www.bath.ac.uk/research)

# Rankings & reputation

**The National Student Survey (NSS) 2014 results revealed that our students remain the most satisfied in the UK for a record second year.**

The overall satisfaction rate for University of Bath students is 93 per cent - seven points above the national average of 86 per cent. Only the Open University has previously managed to top the national table of over 150 universities (excluding small and specialist higher education institutions) for two years in a row, so the result is a matter of enormous pride for the whole University community.

Our students also rated the University first or equal first in the UK for four subjects: Business Studies, Chemical Engineering, Mechanical Engineering and Psychology, the latter three also ranking first with 100 per cent satisfaction. Architecture, Electronic & Electrical Engineering, and Italian Studies all achieved top three positions while our students again ranked their Students' Union among the top 10 in the country.

In *The Times and The Sunday Times Good University Guide 2015* the University was placed 10th out of 123 universities across the UK, with some of 'the most satisfied students' and 'best graduate prospects' in the country.

We also rose to a record high of fourth out of 116 universities and colleges in the *Guardian University Guide 2015*, with 'overall student satisfaction' and 'satisfaction with the teaching provided' ranked first and second respectively.

In the *Complete University Guide 2015* we ranked eighth overall out of 123 UK universities, scoring joint third for student satisfaction and fourth for graduate prospects. In individual subject rankings we scored in the top ten in 24 out of the 28 subjects offered here, with Architecture, Accounting & Finance, and Social Work topping their tables as the number one place to study the subject in the UK - a great indicator of the strength of our teaching.

Bath was ranked second overall out of 111 UK institutions in the new *Times Higher Education Student Experience Survey 2014*. The University's excellent academic, sports and social facilities, and its strong connections with industry were all praised in the survey of student satisfaction.

***"To have once again been ranked by our students as number one is wonderful news and shows the sustained effectiveness of the partnership between our students and our staff."***

Professor Dame Glynis Breakwell DBE DL  
Vice-Chancellor

Our School of Management's Executive MBA once again received world-wide recognition in *The Economist's* Which MBA table, where it was ranked 11th in the world, 5th in Europe and 2nd in the UK.

Our social work qualifying programme currently sits at the top of two of the most influential national subject league tables.

High quality teaching, the student experience and a world-class research output remain key to the University's strong performance in league tables and university guides over the past year.

Find out more about our rankings & reputation:  
[go.bath.ac.uk/ranking](http://go.bath.ac.uk/ranking)



# 1<sup>st</sup> FOR STUDENT SATISFACTION

NATIONAL STUDENT SURVEY

2013 2014



Guide	Year	Ranking	Institutions ranked	Location
Times Higher Education REF 2014 'Overall ranking of institutions'	2014	14	128	National
The Times & The Sunday Times Good University Guide	2015	10	123	National
The Guardian University Guide	2015	4	116	National
The Complete University Guide	2015	8	123	National
QS Top 50 under 50	2014	12	50	International
Times Higher Education '100 under 50'	2014	34	100	International
Times Higher Education '100 Most International'	2014	66	100	International
QS World University Rankings	2014-15	179	800	International
Leiden Ranking	2014	241	750	International
Times Higher Education World University Rankings	2014-15	301-350	400	International



# Investing in our future

Our thriving campus is continually evolving but this year in particular we have seen plenty of activity as new buildings bustle with life and ongoing projects take shape before our eyes. The University's multi-million pound investment programme has already resulted in superb new teaching space, but this has been added to with state-of-the-art student accommodation and catering facilities.

The Quads accommodation opened for undergraduate students arriving at Bath in September 2014, boasting 708 en-suite, wi-fi connected bedrooms set out as 78 flats over five blocks. Responding to feedback from students, each pair of flats shares a lounge in order to bring people together in a sociable, secure environment.

Adjoining The Quads is our brand new refectory, The Lime Tree, a bright spacious café, bar and delicatessen with a broad range of menu options for up to 350 diners. It is already proving very popular with students and staff alike.

To the east of campus is The Edge, a new arts and management building where the Institute of Contemporary Interdisciplinary Arts (ICIA) will be based from early 2015. The venue will host a vibrant programme of visual arts, theatre, dance and music, providing exciting facilities for our students as well as for the local community.

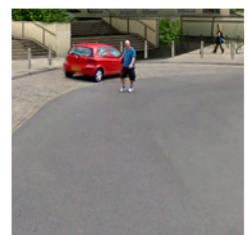
The building will also be home to our new Executive Education suite with its extended programme of short courses, masterclasses, speaker events and seminars from the School of Management.

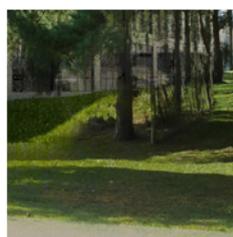
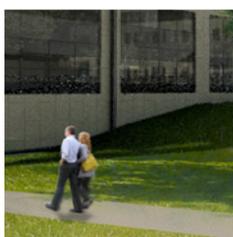
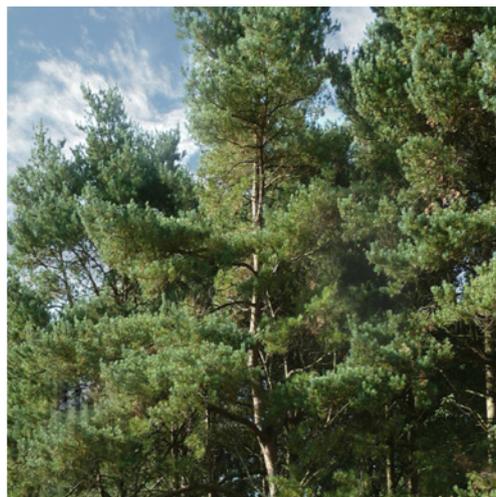
***“Our new building will provide a wonderful facility for the creative arts, not just for our students and staff, but for the city and wider region, and help establish Bath as a national arts hub.”***

Professor Dame Glynis Breakwell DBE DL  
Vice-Chancellor

Throughout 2013-14, work continued on the renovation and improvement of the 1 West building, directly benefitting our Faculty of Humanities & Social Sciences by offering new research and learning facilities, computer laboratories and offices.

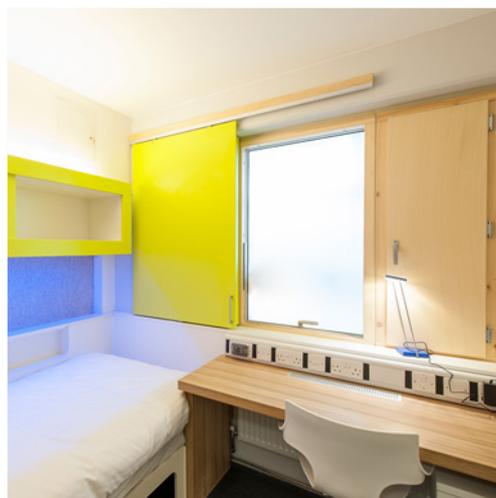
As the new academic year got underway two new academic buildings were moving into the construction phase. On the west side of campus a new teaching and research building will house the rapidly growing Department of Psychology, recently ranked number one in the UK for student satisfaction, and the University's Institute for Policy Research.





A second building, on the south side of the campus, will create state-of-the-art teaching space for the Faculty of Engineering & Design, and a cutting edge computing data centre. Both are scheduled for completion in 2016.

Away from the Claverton campus, our Chancellor officially opened the HIVE - the UK's first research facility designed specifically to support research into sustainable construction materials and systems at full-scale and in realistic, open-air conditions.



The £1 million HIVE building, based at the University's Building Research Park in Wroughton near Swindon, is funded by the Engineering and Physical Sciences Research Council. Construction companies and researchers across the globe can use it to test the energy efficiency, flood resilience and structural capability of future low-impact construction materials.

Find out more about our campus investments: [go.bath.ac.uk/campus](http://go.bath.ac.uk/campus)



Images clockwise from left: The Edge building; artist impressions of the buildings to the west and south of campus; inside our new Quads accommodation; the Lime Tree refectory



# Research-led teaching

**Our world-leading research informs our learning and teaching and equips our graduates with the latest thinking in their fields.**

## Achieving real-world impact

In our Government and industry-funded Centres for Doctoral Training (CDTs) at Bath, our students tackle global issues while gaining expertise, transferable skills and industrial links.

These programmes - which are either based solely at Bath or are multi-university collaborations – are developed in conjunction with external partners and deliver a much-needed pipeline of highly skilled, industry-ready science, social science and engineering graduates into the workplace.

Launched this year, our CDT in Statistical Applied Mathematics (SAMBa) promotes research at the interface of applied mathematics, statistics and probability; while the CDT in Decarbonisation of the Built Environment explores the potential for zero carbon homes. Our interdisciplinary Centre for Sustainable Chemical Technologies (CSCT), now in its seventh year, is developing new materials and processes across a wide spectrum of sectors, including renewable biofuels, sustainable energy and healthcare technologies.

We also partner with other UK universities offering CDTs in Condensed Matter Physics, Catalysis, Digital Entertainment and Photovoltaics.



## Innovations in learning & teaching

Industrial partnerships are also enhancing our teaching in innovative ways. New Dyson Chair of Design Engineering, Professor Gareth Jones, was previously Product Development Director at Dyson and now teaches our mechanical engineering undergraduates a creative approach to design and engineering that generates highly innovative solutions.

Student engagement is deeply embedded in our educational ethos, and our teaching methods continually evolve through feedback from students. As learning becomes an increasingly 24/7 activity, the availability of high quality online support is essential to our students' achievements. We introduced blended learning – where face-to-face tuition combines with specially developed online teaching resources – in response to student demand.

On campus students now benefit from our enhanced Academic Skills Centre (ASC), which provides coherent, comprehensive and easily accessible academic skills development and English language teaching for all our students. To help students get the most out of their studies the ASC offers tailored sessions in academic writing, critical reading and presentation skills, and is already delivering academic and professional communication skills in 18 programmes across 16 academic departments.

To widen the reach of our teaching, this year we partnered with FutureLearn to offer new Massive Open Online Courses (MOOCs) on cancer and sustainability. Nearly 20,000 learners have taken part in our courses to date. With no entry requirements and free to join, MOOCs offer a new means of flexible online learning for anyone who is interested, anywhere in the world. Our development of MOOCs has also provided valuable insights into this experimental approach to independent learning.

Find out more about the MOOCs we offer:  
[www.bath.ac.uk/study/moocs](http://www.bath.ac.uk/study/moocs)



## Could you run your car on coffee?

Researchers in our Centre for Sustainable Chemical Technologies (CSCT) are using their work converting waste coffee grounds to biodiesel which could power a car as part of their teaching.

In a process which researchers first trialled with students, oil is extracted from waste coffee grounds before being chemically transformed into biodiesel. When news of the team's research broke in June, the story attracted worldwide media attention. This work, which has formed part of a PhD project, has also been widely used in outreach activities for the CSCT.

***“Around 8 million tonnes of coffee are produced globally each year and ground waste coffee contains up to 20 per cent oil per unit weight. Using these, there’s potential to produce a truly sustainable second-generation biofuel.”***

Dr Chris Chuck,  
Whorrod Research Fellow,  
Department of Chemical Engineering

Find out more: [go.bath.ac.uk/biofuel-coffee](http://go.bath.ac.uk/biofuel-coffee)

# Student life

Through our award-winning Students' Union (SU), our students are developing teamwork, leadership, communication, commercial awareness and problem-solving skills, honing talents across the arts and in sport, and helping to make a difference both locally and further afield. For many, these extra-curricular activities are formally recognised through the well-established Bath Award Scheme, helping our graduates stand out from the crowd.

## Active and engaged

From the Amnesty International to People and Planet societies, our students are voicing their opinions about political and ethical issues.

This year's Model UN Summit - hosted at the University - provided students with a unique opportunity to practise diplomacy, negotiation and public speaking with delegates from all over Europe.

Supported by our Faculty of Humanities & Social Sciences, two of our undergraduate students, Alex Polkey and Nipuni Perera, attended this year's One Young World Summit in Dublin. The event encourages young people to develop solutions to some of the world's most pressing problems, and this year drew together world leaders with over 1,000 young delegates.

Commenting after the event, Alex said: "This opportunity has bolstered my conviction that deciding to go to Bath was one of the best decisions I have ever made."

Watch Alex's speech: [go.bath.ac.uk/one-young-world](http://go.bath.ac.uk/one-young-world)



At 19, Politics & International Relations student Alex Polkey was the youngest speaker at this year's One Young World Summit.

## Supportive and caring

Our student-led charity group RAG is providing practical support to a number of charities through its regular fundraising efforts on campus, in the city and around the UK. Over the past year, RAG members have raised over £100,000 for charity, over a quarter of which directly benefited four local organisations: Julian House, Bath MIND, Teenage Cancer Trust and SENSE.

This year RAG teamed up with Bath's Rotary Club to stage the annual fireworks display in the city centre. Their combined efforts helped to raise the profile of the event, increase turnout and raise more money for important local causes.

Such volunteering efforts are being recognised through the SU's dedicated Volunteer Recognition Scheme.

Find out more about volunteering at Bath: [youtu.be/Kx\\_0A6qEOPo](https://youtu.be/Kx_0A6qEOPo)

## Inclusive sporting opportunities

In 2013-14, 5,837 students were members of 48 student sports clubs participating in a diverse range of competitive and recreational activities.

In March, the SU worked with the Sports Department to organise our inaugural Disability Sports Day that saw students enjoying activities including wheelchair basketball and blind football. Following its success, we have become the regional centre for wheelchair basketball, helping to maintain our standing in inclusive sporting opportunities.

Our sports clubs are making a difference locally too, with student members volunteering to coach in schools and youth groups.

## Making radio waves

Following the success of our student radio station URB at this year's Student Radio Awards, station manager Jonty Usborne went on to achieve further recognition in the highly prestigious 2014 Radio Academy Awards.

Jonty's concept of a brand new listener-led tracklist was awarded bronze for 'Best Technical Innovation' and described by judges as "a great example of technical innovation creating listener benefit."

Listen to URB:  
[go.bath.ac.uk/1449am-urb](http://go.bath.ac.uk/1449am-urb)



## Alumni support fuels Team Bath Racing

Team Bath Racing is one of our student society success stories, made up of 100 undergraduate engineering students.

Previous alumni donations had enabled Team Bath Racing members to develop their advanced hybrid carbon-fibre and steel space-frame chassis that put them at the front of the grid. Now, M+W Group, led by 1989 graduate and motor racing fan Peter Greenhalgh, has made a significant gift to support their activities. This has helped Team Bath Racing to travel to races across Europe to compete with other leading university teams from around the world in the Formula Student championship.

Peter said: "M+W Group is proud of its links to the University of Bath. We both share a commitment to innovation and engineering excellence and we're delighted to be a core supporter of Team Bath Racing."

# Gaining real-world experience

**We work closely with industry and public sector partners to address real-world challenges with our research and to develop the practice-based learning we champion within our courses.**

A shining example of this is through our 30-year partnership with the Ford Motor Company. With Ford our Department of Mechanical Engineering's Powertrain and Vehicle Research Centre has worked on research into fuel economy, recently contributing to the development of the UK's number one 'downsized' mass-produced engine, the EcoBoost.

Find out more: [youtu.be/PyqM9A8IgOw](https://youtu.be/PyqM9A8IgOw)

## Record year

Almost two thirds of our undergraduates spend a placement year in the private, public or not-for-profit sector. Our highly-regarded placement programme includes many of the UK's leading employers such as Microsoft, Jaguar, L'Oréal, Disney, HM Treasury and Cancer Research UK.

Placements help to boost our students' career prospects, enabling them to apply the knowledge they have learnt at university to real challenges, working alongside professionals and gaining practical experience of the workplace.

Research from our School of Management found that UK students who undertook a placement were 12 times more likely to obtain a first class or upper second class degree.

Our placements can open the door to highly sought-after graduate jobs in a variety of high-profile UK and international settings.

"This year we secured 50 more student placements than we did the year before. Our students are highly prized by industry and this is testimony to the quality of the programmes that we deliver with a focus on practice-based learning," said Professor Gary Hawley, Dean of the Faculty of Engineering & Design.

Read more about the impact of placements on our students: [go.bath.ac.uk/placements-boost](https://go.bath.ac.uk/placements-boost)

***"Having an insight into how the workplace is run and what skills are valued is a real asset, giving me a huge advantage not only in my final year, but also undoubtedly benefitting my future career."***

John Wood, BSc (Hons) Social Policy,  
House of Commons placement student



## Banking experiences

Economics student, Michelle Ang, spent her placement year at the Bank of England conducting research analysis and writing, where she met both current and previous Governors of the Bank – Mark Carney and Mervyn King.

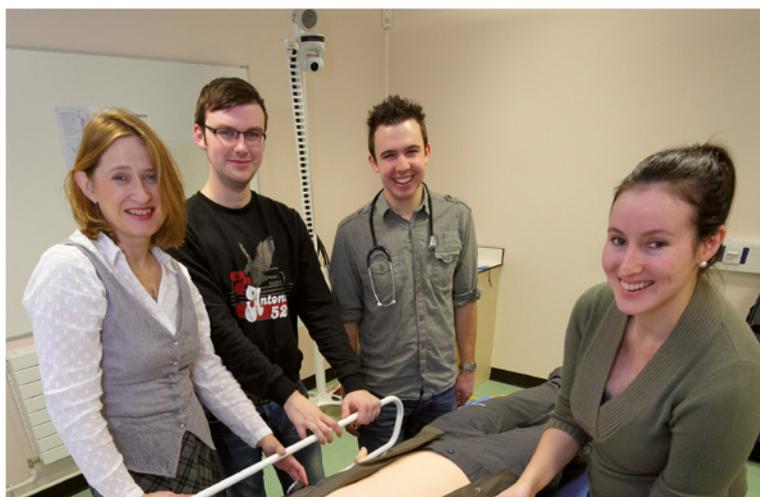
She said: “There is something to be said about being able to work at such an important and historic institution, and coming out of it knowing that your work has been appreciated and respected by your seniors. I truly feel an enormous sense of achievement after working as a Research Assistant at the Bank of England.”

## Practice-based learning

Aside from learning professional skills in their placements off campus, students also benefit from Bath’s strong ethos of practice-based learning on campus. Pharmacy & Pharmacology students are taught using a ‘robotic patient’ called SimMan 3G - a life-sized model that talks, breathes and reacts to medicines like a real human.

Bath was one of the first university pharmacy departments in the UK to own a SimMan 3G, offering students first-hand experience of dealing with a patient and the opportunity to develop clinical and consultation skills required in their future career. SimMan 3G is based within a new state-of-the-art clinical practice teaching suite set up like a real pharmacy, with a dispensary and patient consulting rooms.

Find out more about SimMan 3G: [go.bath.ac.uk/simman](http://go.bath.ac.uk/simman)



Images above left and right: MSc students on the Innovation & Technology Management programme; and Pharmacy & Pharmacology students work together to treat SimMan 3G

# Fostering innovation & talent

Entrepreneurial spirit and innovation live strong at Bath. Our University of Bath Innovation Centre (UBIC) helps entrepreneurs whose ideas initiated here by giving them the inspiration, work space and support to become high growth companies. This year UBIC helped entrepreneurs to raise over £12.5 million in investment, while social entrepreneurs also benefited from a new programme offering in-depth advice to those setting up a business with a social purpose.

UBIC is part of the SETSquared enterprise collaboration between the universities of Bath, Bristol, Exeter, Southampton and Surrey, which is the number one university business incubator in Europe and the number two globally.

## Student enterprise

Students at Bath with an eye for enterprise have enviable opportunities. Our Students' Union's business competitions provide expert tuition and mentoring, alongside experience of planning, pitching and heading up a business. This commercial exposure is career-enhancing and a safe stepping stone to real world entrepreneurship.

For the winning team of AppsCrunch, our student competition to design and market an app, this year's prize was an inspirational trip to California's Silicon Valley to meet Bath alumni now based at leading tech companies including Google and Facebook.

Find out more about AppsCrunch:  
[go.bath.ac.uk/apps-crunch](http://go.bath.ac.uk/apps-crunch)

Our new MSc in Entrepreneurship and Management gives students the chance to develop their entrepreneurial mind-set and capabilities in an academic context. Some students will go on to start their own business or enhance existing enterprises, while others will take their skills into a role within a consultancy or large organisation.

Find out more about the programme:  
[go.bath.ac.uk/entrepreneurship](http://go.bath.ac.uk/entrepreneurship)

## Project to product

Students' final year projects can often develop into viable and thriving businesses. For example, Tim Morgan, an Innovation & Engineering Design graduate, saw a gap in the market for an off-road wheelchair which he then designed as his final year project. The Mountain Trike has been in production for three years and enables wheelchair users to travel off the beaten track.



Tim Morgan, Managing Director and Inventor of the Mountain Trike

Mountain Trike is now being used by the British Army to assist with the rehabilitation of injured troops returning from frontline service, and has picked up a string of industry accolades including the coveted Silver Medal Award for outstanding commercial success from the Royal Academy of Engineering in 2013.

Watch Tim's pitch to BBC's Dragons' Den for investment into Mountain Trike:  
<http://vimeo.com/74232932>



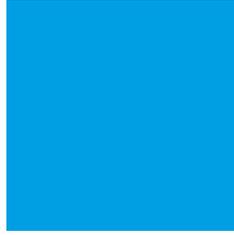
## Spin-out success

CiteAb Ltd exemplifies how innovation at Bath is having global impact. Dr Andrew Chalmers, a cancer researcher from our Department of Biology & Biochemistry, saw the need for an antibody search engine to make it easier for researchers to find the right antibodies for their experiments.

He collaborated with web development agency Storm, set up by Bath graduates, and created a unique web service which allows researchers to find antibodies cited in academic papers.

CiteAb 'spun out' as a company in January 2014 and added its two millionth antibody just a few months later, becoming the world's largest antibody search engine.

The company is already trading globally and is now the leading company for insight and market analysis in the antibody world.



## In partnership with industry

University expertise is helping to detect and protect marine mammals in the depths of the ocean. Dr Philippe Blondel, Department of Physics, and Dr Manuchehr Soleimani, Department of Electronic & Electrical Engineering, saw an opportunity to use the loud sounds produced by seismic surveys to also detect animals below the sea.

The Knowledge Transfer Partnership with Seiche Measurement Ltd is using underwater acoustics and tomographic imaging to help offshore energy providers comply with marine mammal exclusion zones. The project will also inform our knowledge of animal behaviour in the wild, guiding future protection efforts.

Find out more about our partnership with Seiche: [go.bath.ac.uk/seiche](http://go.bath.ac.uk/seiche)

# Internationalisation

**Investment in our internationalisation strategy is bearing fruit and we now have a strong network of research-led university partnerships around the world, delivering results on a number of levels. Major research grants, research publications, academic, industry and alumni links, conferences, student mobility and increased profile abroad are just some of the positive outcomes to come from our strategic approach to internationalisation.**

On campus, our multicultural student and staff population is a vibrant example of how our international links bring talented people to the University. We now have students from 126 different nationalities studying at Bath at all levels and across many disciplines. Within our Faculties and the School of Management, teaching and research is boosted by regular visiting academics and students from our valued partner institutions abroad.

Between 2011-14, the number of Bath students travelling overseas on work or study placements increased by 25 per cent.



Our Chancellor speaking at an alumni event in Seoul, South Korea

## Forging new partnerships

We are establishing new international relationships in Brazil with the National Institute for Pure and Applied Maths (IMPA) and the Getúlio Vargas Foundation (FGV) in Rio de Janeiro. IMPA recently celebrated its first Fields Medallist, the world's most prestigious distinction in mathematics, whilst FGV is the leading business school in the region.

In the Middle East, we are now developing a partnership with the leading Turkish research institution Koç University and exploring links with Kadir Has University (KHU) in Istanbul, and Bilkent University in Ankara.

Our partnerships with funding councils in Mexico, Brazil, Indonesia and Colombia continue to provide support to increase staff and student mobility, enabling international PhD students to come to Bath, bringing new research skills, knowledge and experience. In Colombia, our agreement with the State Research Funding Council, Colciencias, means Colombian students can now benefit from fully funded PhD scholarships – as such we are the only university in the UK to offer this opportunity.

Internationalisation was firmly on the agenda at the Universia Conference in Rio attended by the Vice-Chancellor and the Pro-Vice-Chancellor (Internationalisation) in July, which provided an excellent opportunity to deepen relationships with 1,400 other university leaders from as far afield as China and Singapore.

This year the Deans of Engineering & Design and Science joined our Vice-Chancellor and Pro-Vice-Chancellor (Internationalisation) on a visit to our preferred partners Zhejiang University in China, and Yonsei University in South Korea. Zhejiang University is China's third largest university, with whom we have links in a wide range of subjects, while we collaborate with Yonsei on materials science, politics, management and social policy.

## Internationalisation on campus

During a visit to Bath in March, the then EU Commissioner with responsibility for Research, Innovation and Science, Máire Geoghegan-Quinn saw first-hand how EU-funded Horizon 2020 research seeks to tackle important global challenges.

Our researchers explained how their projects – ranging from the development of new generation solar cells for more efficient energy production, to understanding the biomarkers that might predict prostate cancer, and the importance of social innovation – were addressing major societal and global challenges.

Read more about the Commissioner's visit:  
[go.bath.ac.uk/horizon-2020](http://go.bath.ac.uk/horizon-2020)

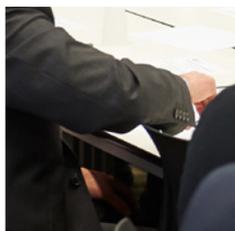
***“I am confident the University of Bath can over the coming years play an ever increasing role in the kind of research and innovation that creates jobs and tackles key global challenges.”***

Former EU Commissioner  
Máire Geoghegan-Quinn

## Looking ahead

As we approach our 50th anniversary in 2016, we continue to consolidate our international partnerships, delivering important long-term results both at the University and for our partners right across the world.

Images clockwise from left: Former EU Commissioner Geoghegan-Quinn briefing researchers on Horizon 2020; our research through Horizon 2020 is helping to develop new generation solar cells; international delegates at the Institute for Policy Research international partners policy symposium in September





# Lifelong networks

**Across the world, our alumni are coming together to network, share expertise and support their University. Whether by attending alumni events, mentoring, volunteering or making gifts, each year that passes sees a strengthening of their engagement with us.**

This year almost 100 alumni events took place – more than half of which were overseas. As we build towards our 50th anniversary celebrations in 2016, we anticipate many more such occasions through which we can bring our alumni together.

Our community is eager to support those who follow in their footsteps. This year alumni and friends gave more than £3 million to good causes here at Bath, which is having a huge impact. Not only do their gifts allow more students access to a Bath education through scholarships than ever before, they also enable our brightest minds to undertake daring research, which could lead to medical breakthroughs or new ways to alleviate poverty.

Alumni also play an increasingly important role in developing our students' potential. Campus-wide competitions, such as Dragons' Den (now in its fourth year), and Apps Crunch (which requires contenders to design, build and market a computer app), help our budding business leaders, across all disciplines, turn their aspirations into viable new commercial enterprises.

Year on year, gifts from our alumni and friends are also establishing Innovation awards, which give outstanding students the opportunity to develop final year projects into successful products. Alumni support for programmes such as these – through funding and mentoring – is invaluable in helping undergraduates bring their business ideas to fruition.

As our students take on more placements and go further afield in their careers than ever before, we are helping to meet the increasing need for support and advice. All alumni now have the chance to volunteer their expertise to current students and recent graduates through our new Bath Connection programme.

This bespoke online portal – exclusively for the Bath network – enables those seeking advice to connect directly with 'Alumni Experts' who have relevant experience in a similar industry or sector, wherever they are in the world.

From asking a quick question about working for a particular company or organisation, to requesting ongoing support, students can learn from the experiences of people who have 'been there already', are proud of their connection with the University and want to help others succeed too.

We would like to thank all alumni who, in whatever way, are supporting the next generation to become successful Bath graduates. In time, we are confident that these beneficiaries will pass on the generosity that has been extended to them, thereby strengthening our lifelong network in the years to come.

## Mentoring opens doors

Looking for a way to reconnect with Bath, alumnus Laurence James (BSc Statistics 1976, and now Chair of Severn Vale Housing Society) leapt at the opportunity to mentor three fresh graduates with their business plans.

With Laurence's guidance, the group launched an innovative gourmet snack box company, which a year later won the University Business Plan Competition. In June they claimed their prize: a trip to New York to meet and network with some of the best alumni brains in the business.

"We met people who know more about the food business than we thought possible. We swapped notes with graduates just a few years older than us," commented group member Giles Mitchell (BSc Business Administration 2013).

"We asked one of the world's most respected Chief Marketing Officers what she would do in our shoes – casually, over dinner. It really was a 'money-can't-buy' experience."

Find out more about our alumni activities:  
[www.bath.ac.uk/alumni](http://www.bath.ac.uk/alumni)

Left to right: Giles Mitchell, Laurence James, Charles Arnold, Joe Seager



# Engaging with policy makers

Officially launched in 2013, our Institute for Policy Research (IPR) has since expanded its programme of activities, made key appointments and achieved a number of significant policy impacts across its major themes. These cover society; the economy and labour market; environment; health; as well as conflict and security.

Under the Directorship of Professor Hugh Lauder, in May 2014 the IPR appointed Lord John Eatwell as Chair of its new Advisory Board which now includes the heads of think tanks Centre Forum and the Institute for Public Policy Research, as well as leading academics and senior civil servants.

## Impact & engagement

Through a variety of channels the IPR seeks to increase impact and engagement with our research among policy audiences. This includes producing and disseminating research through the IPR Policy Brief Series, which are targeted to key policy individuals or groups. Policy Briefs from this year covered an array of topics from funeral poverty in the UK to social protection in the Middle East.

In 2013-14 the IPR has fostered new links between our researchers and policy makers, via work-shadowing opportunities, to enable a greater understanding of the policy workplace and the opportunities for future research collaboration.

A packed series of stimulating policy events has also been delivered by eminent speakers. Topics ranged from the future of the NHS to protecting against major environmental challenges in the 21st Century.

At a local level, the IPR is working with Bath & North East Somerset Council on a 'big data' project related to the sharing of information around housing, health and welfare.



***“Policy makers need to learn how to make better use of university research, and universities need to learn how better to translate ideas into policy.”***

Lord John Eatwell,  
Chair of the IPR Advisory Board

## International networks

In September we welcomed delegates from nine of our international partner institutions across Asia, Africa, North and South America for the inaugural IPR international partners policy symposium, debating 'Lost Youth in the 21st Century'. Over two days our researchers shared learning and issues around marginalisation for young people in society, social mobility and child poverty. The symposium provided an important forum for our researchers to interact with international colleagues and will lead to exciting future collaborations.

In addition, the IPR secured British Council Researcher Links grants to initiate an international network of researchers focused on issues of urbanisation and development, helping to develop the IPR international network 'Cities in a Connected World' (CITICON). CITICON workshops have since taken place in Bangladesh, Nigeria and Argentina. With additional funding from the Council for British Research in the Levant this year we also established an international Middle East and North Africa (MENA) Social Policy network.

## Professional development

The IPR now offers a rolling programme of International Visiting Fellow and Visiting Policy Fellow Awards - opportunities available to academics and policy makers from overseas to spend up to three months with the IPR.

Our international partners symposium was followed by a dedicated PhD week, enabling early career researchers from Bath and from our international partner institutions to network, share their findings, and collectively consider ways to make their research more policy-relevant and applicable.

The IPR has launched a Professional Doctorate in Policy & Practice which will see its first intake of students in September 2015. The Professional Doctorate is designed to enable experienced professionals working in a range of policy arenas, locally, nationally and globally, to develop their policy analysis expertise without having to take a full career break. Combining advanced training in policy research and analysis with a thesis based on original research, it is centred on a cohort model and can be spread out over up to six years.



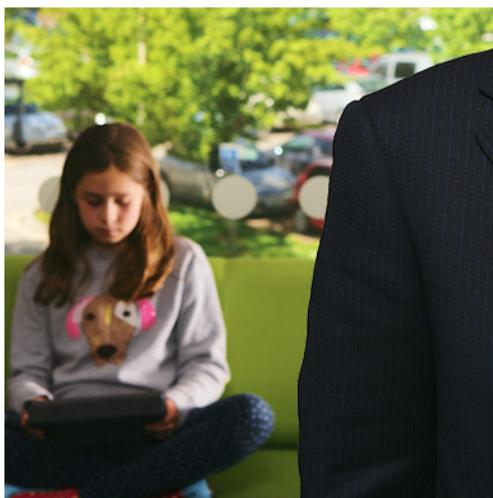
## New rules on advergames

'Advergames' refer to the use of online computer games by companies to promote their products and brands to children, in a subtle form of advertising. Our IPR Policy Brief 'Advergames: It's not child's play' challenged the Government to recognise and address the issue that while advertising of unhealthy products for children is banned, the use of online games for such promotion is not.

The release of our IPR Policy Brief attracted significant national media attention, with lead researcher Dr Haiming Hang from our School of Management appearing on BBC Breakfast and Channel 4 News, along with other media.

Dr Hang's research suggested this loop-hole is being exploited by companies to advertise via 'fun' online games or apps, and that children as old as 15 are unable to recognise such games as advertising.

Find out more: [go.bath.ac.uk/ipr-advergames](http://go.bath.ac.uk/ipr-advergames)



For more on the IPR: [www.bath.ac.uk/ipr](http://www.bath.ac.uk/ipr)

# Research matters

Research at Bath is making a real difference around the world in many ways.

Our interdisciplinary approach, boosted by strong international partnerships, industry connections and investments on campus, is helping to shape policy, deliver healthcare, promote innovation and entrepreneurship, provide practical low-carbon solutions to our energy needs, and develop the materials for the future.

The results of REF 2014 confirmed the quality of the research carried out at Bath. An impressive 87 per cent of our research submitted was graded 4\*/3\*, defined as 'world leading / internationally excellent', and 32 per cent achieved the highest possible classification, defined as 'world leading' in terms of originality, significance and rigour.

Find out more about REF 2014 and how our research is having an impact: [go.bath.ac.uk/performance](http://go.bath.ac.uk/performance)

## Flood proofing homes of the future

**Global warming has increased the threat of flooding and it is estimated that over five million homes are now at risk in the UK. Against this backdrop, the country also faces a severe shortage of housing.**

While timber frame construction presents a cheap, fast, high quality and environmentally-friendly method of house building, it is not known exactly how flooding affects the durability of timber-built homes. Water is known to weaken and manipulate timber structures. Furthermore, a poorly dried-out building is at greater risk of mould and rot, which could lead to further reductions in strength.

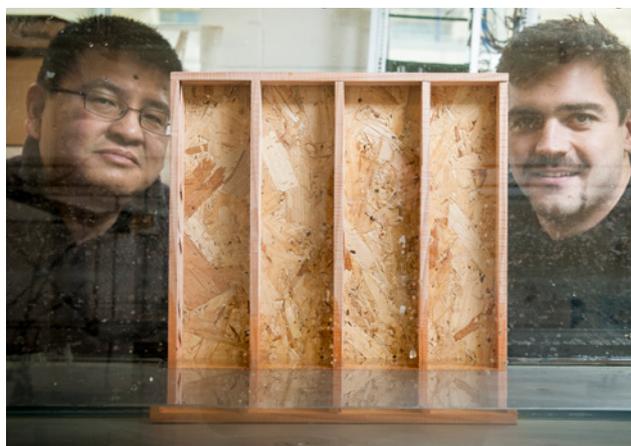
To understand the impact of flooding on timber and the best ways to mitigate against its effects, researchers from our Department of Architecture & Civil Engineering have been testing timber frames at the innovative HIVE building at the University's Building Research Park in Wroughton, near Swindon.

The HIVE's ground-breaking open-air design includes a flood cell in which full-size timber walls can be installed then submerged in rainwater. Next the water is drained away, the timber dried, and its structural strength tested on site.

The research has found that to conserve maximum strength, a timber frame must be dried within an environment of 38°C and 40 per cent relative humidity. Through optimised drying, the research has shown that a timber frame can recover 67 per cent of its original, pre-flood strength.

Dr Mike Lawrence, Director of the Building Research Park said: "The outcomes of this research will enable a greater understanding of flood-resilience. This is just one of many sustainability and resilience tests to be conducted at the HIVE."

Learn more: [go.bath.ac.uk/hive-opening](http://go.bath.ac.uk/hive-opening)



Dr Wen-Shao Chang and Alistair Bradley, Department of Architecture & Civil Engineering, demonstrate how our research is improving flood resilience in timber frame buildings

## The crucial role of school governors

**As the education sector undergoes a period of widespread reform, the largest ever report on school governance has revealed the increasingly vital role of the unpaid school governor.**

Working alongside the National Governors' Association, the report from our Department of Education highlighted that schools are struggling to recruit governors, with greatest need in disadvantaged schools suffering from low pupil attainment, poor Ofsted ratings or a bad reputation.

The report cited the enormous contribution made by governors as well as the autonomy they hold over school budgets. Volunteer school governors contribute in excess of £1 billion to the education budget in England and are responsible for up to £46 billion in education spending, the research found.

Whilst overall the report suggested governing in England is working well, it raised concerns about demographics and specific skillsets typical to governors, stating more could be done to recruit younger workers to bring their skills to bear in the role.

***“School governors have a crucial role to play in the education system, more so now in view of recent reforms.”***

Professor Chris James,  
Lead Author,  
Department of Education

The report was referenced widely in the national media when it launched, and cited in a House of Commons debate into school governance.

Learn more:  
[go.bath.ac.uk/school-governors](http://go.bath.ac.uk/school-governors)





## Is breakfast important?

The first results of the three-year Bath Breakfast Project were unveiled this year, challenging claims over the extent to which eating breakfast sets you up for the day.

In the world's first randomised controlled trial examining the effect of breakfast versus fasting on energy balance, researchers from our Department for Health found that those who did eat breakfast would expend more energy during the day. However, contrary to popular belief, they found little impact of eating breakfast on snacking or portion sizes throughout the day or that it 'kick-started' metabolism.



As part of the study, people aged between 21 and 60-years-old were randomly assigned either to a breakfast group (who consumed at least 700 kcal by 11 am) or to a 'fasting group' (who ate nothing until lunchtime for six weeks). Portable monitors were used to accurately measure the daily activities of both groups.

***“Our randomised controlled trial allowed us to find out whether breakfast is a cause, an effect, or simply a marker of good health.”***

Dr James Betts,  
Principal Investigator,  
Department for Health

Published in the American Journal of Clinical Nutrition, the study attracted worldwide media attention around its launch and was featured in the *New York Times*, *TIME Magazine* and *Huffington Post*. The second phase of the trial will analyse the effect of eating breakfast on an obese population.

Learn more: [go.bath.ac.uk/breakfast](http://go.bath.ac.uk/breakfast)

## Tracking illicit drug use through Europe's sewage system

**Chemists from our Centre for Sustainable Chemical Technologies have used highly-sensitive mass spectroscopy techniques to measure tiny traces of drugs in the sewage system.**

In the largest multi-city European study to monitor illicit drug use, waste water from approximately eight million people in over 40 European cities was assessed for a one-week period. This was then compared to previous years to explore how the drug-taking habits of these populations had changed.

The team searched for biomarkers for cocaine, amphetamine, methamphetamine, ecstasy and cannabis in the waste water and found marked regional variations in drug use. Cocaine use was higher in western and some southern cities but lower in northern and eastern cities. Use of amphetamine showed the highest levels in the north and northwest of Europe.

Use of cocaine and ecstasy rose sharply at weekends in most cities, while methamphetamine and cannabis use was more evenly distributed throughout the week.

Dr Barbara Kasprzyk-Hordern, lead investigator on the study in Bath, said: "Analysing sewage for estimating drug use has huge potential for monitoring the health of populations. Unlike traditional methods which rely on surveys and are time consuming, expensive and often inaccurate, waste water profiling can provide data in real time with a large sample. It also has potential to provide data on diseases such as infectious disease or cancer and could be a really powerful tool for improving public health."

Learn more: [go.bath.ac.uk/drugs-sewage](http://go.bath.ac.uk/drugs-sewage)



Dr Barbara Kasprzyk-Hordern uses mass spectroscopy techniques in her multi-city analysis of drug usage patterns

## Developing trustworthy leadership

**Integrity and benevolence are the hallmarks of trusted leaders, and recruiters overlook these qualities at their peril, according to research from our School of Management.**

A three-year study carried out in conjunction with the Chartered Institute for Personnel Development (CIPD), analysed 22 significant public and private sector organisations including the John Lewis Partnership, Unilever, BAE, BBC Worldwide and the NHS. It found that Human Resources departments often favoured results-driven competence and abilities in their recruitment, selection and development programmes, and neglected softer 'whole person' qualities such as benevolence and integrity.

According to the findings, being personable and straight-talking are the strongest attributes associated with being a trustworthy leader, with one of the main recommendations being that leaders step away from the 'uniform of leadership' from time to time in order to reveal their personal side and show their own weakness and vulnerability. This, and a commitment to face-to-face communication, made others trust them more. Two-way trust was also identified as crucial: if leaders minimise monitoring and micromanaging employees they generate high levels of trust in their leadership.

Professor Veronica Hope Hailey, Dean of the School of Management, said: "Our research shows that throughout the aftermath of the financial crisis, through waves of downsizing and restructuring, salary cuts and divestments, there were individual

leaders and organisations that kept and cultivated the trust of their customers and employees despite all those around them losing ground. Their high levels of integrity delivered tangible business benefits to their organisations but their motivations for the display of that integrity lay beyond the bottom line."

The research, jointly funded by the CIPD and the University of Bath Higher Education Impact Fund, produced three reports and was presented to employers, HR professionals, policy makers and researchers at a conference in Bath.

Learn more:  
[go.bath.ac.uk/trustworthy-leaders](http://go.bath.ac.uk/trustworthy-leaders)



Professor Veronica Hope Hailey, Dean of the School of Management (third from the left), with some of the leading contributors to the research project



## Cars of the future will be smaller, greener but just as powerful

**Researchers working with Jaguar Land Rover have developed and tested a powerful, highly efficient concept engine that promises enhanced performance alongside significantly reduced carbon dioxide (CO<sub>2</sub>) emissions.**

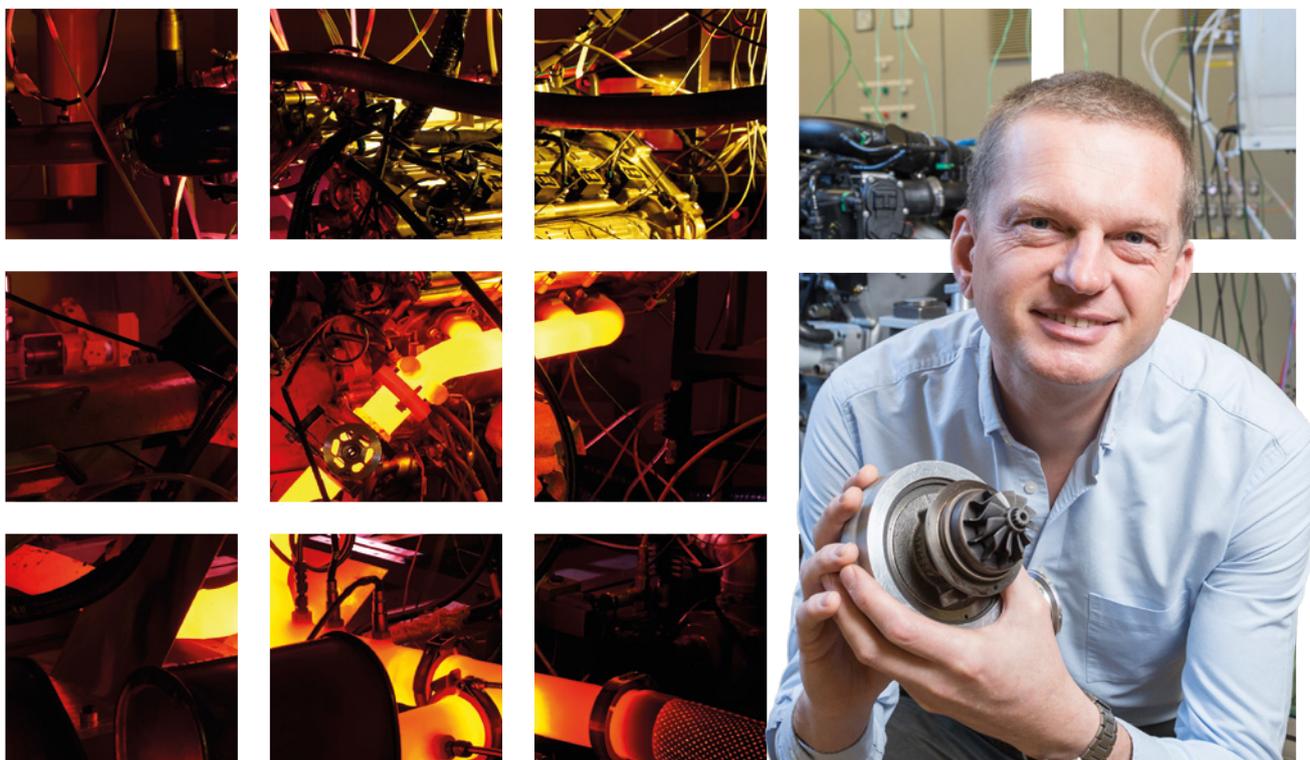
The automotive industry is increasingly focused on meeting consumer demand for engines that offer greater fuel efficiency and reduced emissions, without any compromise in power delivery or vehicle noise. This ground-breaking research proves it is now possible to reduce engine size and CO<sub>2</sub> emissions without impacting an engine's performance. In tests, the 60 per cent downsized, highly pressure-charged 2.0 litre petrol engine maintained the performance of Jaguar's current 5.0 litre V8 engine, while reducing its CO<sub>2</sub> emissions by more than a third (36 per cent).

The University's Powertrain and Vehicle Research Centre (PVRC) is a world-leading automotive research facility, where engines and complete powertrain systems can be analysed and optimised in controlled environments that closely replicate on-road conditions.

Professor Gary Hawley, Head of the PVRC, said: "This exciting collaboration between industry and academia has used engineering, design and combustion modelling skills to create a new concept engine that combines gasoline levels of engine refinement with diesel-like fuel economy. This research is pushing internal combustion engine technology to new limits in fuel efficiency."

Ron Lee, Director of Powertrain at lead partner Jaguar Land Rover, said: "Ultraboost is a flagship research project for Jaguar Land Rover. The contribution of the University of Bath's Powertrain and Vehicle Research Centre has been in the development of the boosting thermal systems to achieve extreme levels of downsizing from which significant levels of fuel economy improvement follow. We are now looking at the potential for incorporating some of the learnings from this project into future engine designs."

Learn more: [go.bath.ac.uk/downsized-engine](http://go.bath.ac.uk/downsized-engine)



# Reaching out

A variety of events such as school workshops, science fairs and summer camps introduce people of all ages and backgrounds to university life.

This year the Bath Taps into Science festival brought 1,600 young people onto campus to experience hands-on exhibits including our humanoid robot Nao, used by our Department of Psychology to study how humans interact with robots.

In July, 120 sixth formers met staff, students and graduates from the universities of Bath, Cardiff, Oxford, Reading and Southampton at the first Universities Network (UNet) Conference where they learned about selecting a course, writing personal statements and student budgeting.

In the two-day Salters' Festivals of Chemistry, teams of 11 to 13-year-olds from 24 different schools across the region had their scientific knowledge challenged in a series of practical activities.

The University also offers a two-year 'On Track to Bath' programme giving sixth formers from under-represented groups in Higher Education a real insight into university life. The students benefit from regular campus visits and a residential course, after which they undertake an independent research project.



Year 12 pupils take part in a workshop during our 'On Track to Bath' programme

***"This whole programme has helped me to realise what I want to do as a career... and now that I know what I want to do, it has given me the motivation to work harder."***

'On Track to Bath' sixth-form student

## Summer schools

Residential summer schools are a great opportunity for school and college students to explore a subject in more depth and develop new skills.

The Year 12 Summer School in July was free of charge to academically able students in the fields of engineering and science and designed to complement the A-level curriculum.

Watch our Year 12 Summer School video:  
<http://youtu.be/rsphSOqYZ5M>

A different course aimed at engaging school children via their teachers drew secondary school teachers from as far afield as Thailand to participate. In a series of workshops, academics from the Department of Chemistry shared the latest research solutions to global issues around energy and the environment aiming to inform and inspire the teachers once back in the classroom.

Young people on the autism spectrum can struggle with university life and the changes it brings. A free residential course was developed by our Department of Psychology in partnership with the Widening Participation Office, to familiarise them with university life and encourage prospective students to apply.

Read about our autism summer school in this *Guardian* article: [gu.com/p/4xb7n/stw](http://gu.com/p/4xb7n/stw)

## Public engagement

The Public Engagement Unit helps academics involve the local community in their research in a variety of ways – whether sharing the results of research or using community input to shape its content through patient panels, advisory groups and even National Trust exhibits.

This year researchers have presented their work in Bath pubs through the Pint of Science and Bath Café Scientifique events, while the Images of Research competition has showcased research through visual displays at the Fringe Arts Bath Festival and the Royal United Hospital.

See our Images of Research: [go.bath.ac.uk/images-of-research](http://go.bath.ac.uk/images-of-research)

The first Vice-Chancellor's Awards for Public Engagement with Research were awarded to Dr Paul Shepherd (Department of Architecture & Civil Engineering) and Lisa Sergeant (Department of Chemical Engineering) who demonstrated their ability to engage a wide range of audiences in and with their engineering and biofuels research.



Researchers from our Departments of Psychology and Biology & Biochemistry take part in the annual 'Pint of Science' event



## Art of the Brain

A collaboration between local artist Stephen Magrath and researchers in our Department of Pharmacy & Pharmacology aimed to stimulate public discussion and raise awareness of our world-leading brain research.

The partnership resulted in an exhibition, lectures and a children's workshop at the Bath Royal Literary and Scientific Institute and provoked widespread debate and interest in the neuro-research findings.

***“I really enjoyed the art and would like to be involved in more events like this. I think it would be interesting to try to incorporate art from patients suffering from illnesses to see how they express their feelings.”***

Postgraduate researcher

# Sporting success

**The University enjoyed another sporting year to remember with campus based athletes competing at a number of high profile national and international events.**

## Success in Sochi

At the 2014 Olympic Winter Games, University-based athletes Lizzy Yarnold and Dominic Parsons represented Team GB in the skeleton events. As part of British Skeleton's squad, who have their headquarters at the University, Lizzy became the second Bath-based athlete to claim gold in the event following the success of Amy Williams back in 2010. Mechanical Engineering PhD student Dominic came tenth in the men's event.

This triumph was crowned by the achievement of Mathematics graduate, Kelly Gallagher, who won an historic gold in the Visually Impaired 'Super G' giant slalom at the Paralympic Winter Games.

## Going for gold

At the Glasgow 2014 Commonwealth Games more than 70 athletes linked to the University were selected to compete for ten countries, across 11 different sports. Their impressive collective performance reaped five gold, 14 silver and eight bronze medals.

Among the highest achievers were Chris Walker-Hebborn who won double gold in the pool, and fellow swimmer Siobhan-Marie O'Connor whose six-medal haul included one gold. Chris and Siobhan-Marie both train at British Swimming's National Training Centre here at the University. Among other events, Team Bath judo player Megan Fletcher took gold in the women's under-70kg class; Zoe Smith claimed gold in weightlifting; Eilidh Child collected silver in the 400m hurdles; and Kristian Callaghan took bronze in the shooting.

In August, Bath-based swimmer Stephanie Millward celebrated an unprecedented seven-medal haul at the IPC European Championships in Holland, whilst London 2012 Paralympic Games double medallist Paul Blake claimed silver and bronze at the IPC European Championships in Swansea.

More success followed in early September at the World Rowing Championships, where Bath graduate Heather Stanning added the World Championship title to her Olympic Games gold, and at the Modern Pentathlon World Championships in Warsaw, where Bath alumna Samantha Murray became World Champion. In August 2015 the University will host the Modern Pentathlon European Championships.

## Victory in the Rugby Sevens

In May, the University claimed its first ever British Universities & Colleges Sports rugby title when the Men's Sevens triumphed in Bristol. The prize for winning saw the team represent England in the European competition in early summer, where their winning streak continued. One player, Sports Performance student Freddie Clarke, was selected to play for the British team that went on to win the World University Rugby Sevens Championship in Brazil.

The University is delighted to have been chosen as the base for the Australian national rugby team during the IRB Rugby World Cup in autumn 2015.



## World-class facilities

At the end of this academic year, work started on a major upgrade of our 50m swimming pool in the Sports Training Village. With the support of Sport England, we will install one of the state-of-the-art legacy pools from the London 2012 Olympic and Paralympic Games, bolstering the facilities we can offer elite athletes, students, staff and the local community.

Learn more: [go.bath.ac.uk/sports-facilities](http://go.bath.ac.uk/sports-facilities)



## Disability sport

Our DisAbility Sport & Health (DASH) Centre has this year conducted important research into how exercise at home can benefit the health of wheelchair users.

The findings have important applications for military amputees as soldiers with life-changing injuries face multiple challenges in maintaining physical fitness.

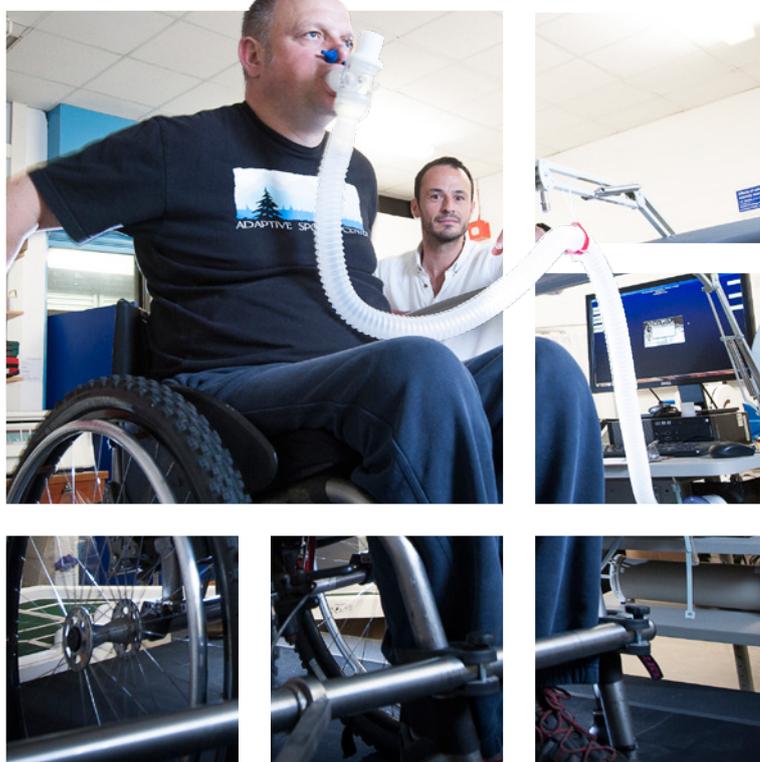
The latest study, led by DASH at the Defence Medical Rehabilitation Centre in Headley Court, will focus on improving physical activity and reducing the risk of obesity for ex-servicemen and women.

Find out more about DASH:  
[go.bath.ac.uk/dash](http://go.bath.ac.uk/dash)

© PA/AP images

750 million people worldwide live with limiting long-term impairments or disabilities - 11 million are in the UK.

People with spinal cord injuries have a 60 per cent increased risk of cardiovascular disease and are four times as likely to develop Type II diabetes.



# Accounts

## Consolidated income and expenditure account for year ended 31 July 2014

	Consolidated	
	2014	2013
	£000	£000
<b>Income</b>		
Funding council grants	41,032	49,020
Tuition fees and education contracts	106,577	88,839
Research grants and contracts	30,719	27,389
Other income	42,746	40,460
Endowment and investment income	1,699	2,431
<b>Total income</b>	<b>222,773</b>	<b>208,139</b>
<b>Expenditure</b>		
Staff costs	117,061	110,064
Other operating expenses	70,272	67,876
Depreciation	13,413	11,123
Interest payable	4,828	2,819
<b>Total expenditure</b>	<b>205,574</b>	<b>191,882</b>
Surplus after depreciation of tangible fixed assets at cost/valuation and before exceptional items	<b>17,199</b>	16,257
Exceptional Items : (Loss)/Surplus on disposal of fixed assets	(475)	22
Surplus on continuing operations after depreciation of assets at cost/valuation, exceptional items and tax	<b>16,724</b>	<b>16,279</b>
Transfer from accumulated income in endowment funds	141	88
Surplus for year retained within general reserves	<b>16,865</b>	<b>16,367</b>

## Balance sheet as at 31 July 2014

	Consolidated		University	
	2014	2013	2014	2013
	£000	£000	£000	£000
<b>Fixed Assets</b>				
Tangible assets	569,470	260,330	571,472	262,833
Investments	775	919	775	919
<b>Total fixed assets</b>	<b>570,245</b>	<b>261,249</b>	<b>572,247</b>	<b>263,752</b>
<b>Endowment Asset Investments</b>	<b>4,785</b>	<b>4,641</b>	<b>4,785</b>	<b>4,641</b>
<b>Current Assets</b>				
Stock	746	686	746	686
Debtors	14,084	12,782	14,084	12,782
Investments	111,252	73,615	111,252	73,615
Cash at bank and in hand	10,833	10,781	10,729	10,768
	136,915	97,864	136,811	97,851
<b>Creditors: Amounts Falling Due Within One Year</b>	<b>(49,633)</b>	<b>(46,263)</b>	<b>(49,633)</b>	<b>(46,263)</b>
<b>Net Current Assets</b>	<b>87,282</b>	<b>51,601</b>	<b>87,178</b>	<b>51,588</b>
<b>Total Assets Less Current Liabilities</b>	<b>662,312</b>	<b>317,491</b>	<b>664,210</b>	<b>319,981</b>
<b>Creditors: Amounts Falling Due After More Than One Year</b>	<b>(161,720)</b>	<b>(98,800)</b>	<b>(161,720)</b>	<b>(98,800)</b>
<b>Net Assets Excluding Pension Liability</b>	<b>500,592</b>	<b>218,691</b>	<b>502,490</b>	<b>221,181</b>
<b>Net Pension Liability</b>	<b>(26,047)</b>	<b>(26,737)</b>	<b>(26,047)</b>	<b>(26,737)</b>
<b>Net Assets Including Pension Liability</b>	<b>474,545</b>	<b>191,954</b>	<b>476,443</b>	<b>194,444</b>
<b>Deferred Capital Grants</b>	<b>85,820</b>	<b>91,910</b>	<b>85,716</b>	<b>91,795</b>
<b>Endowments</b>				
Expendable	2,943	2,854	2,943	2,854
Permanent	1,842	1,787	1,842	1,787
	<b>4,785</b>	<b>4,641</b>	<b>4,785</b>	<b>4,641</b>
<b>Reserves</b>				
Revaluation Reserve	271,934	-	271,934	-
Income and expenditure account excluding pension reserve	138,053	122,140	140,055	124,745
Pension reserve	(26,047)	(26,737)	(26,047)	(26,737)
Income and expenditure account including pension reserve	<b>383,940</b>	<b>95,403</b>	<b>385,942</b>	<b>98,008</b>
<b>Total Funds</b>	<b>474,545</b>	<b>191,954</b>	<b>476,443</b>	<b>194,444</b>



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