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Introduction by Richard Beazley

Chairman of the Board of Governors



Here at the University of Hertfordshire we have had another remarkable year. Our 2020 Estates Vision continues to come to life, making our campuses ever more inspiring places to live and learn, while our graduate employment rate has reached a record high.

This year we celebrated the completion of our ambitious three-year accommodation development at College Lane. This huge project has created 2,500 new student bedrooms and refurbished 500 more, while achieving true carbon zero status. The work was deemed outstanding by BREEAM, the industry body who evaluate the procurement, design, construction and operation of significant construction projects worldwide.

In 2016 we also completed the building of our landmark new Science Building. A striking contemporary learning space at the heart of College Lane that will bring together all our labs, technology and research facilities under one roof, creating a state-of-the-art environment for our students.

This is a visionary statement and the key part of our estates project, which includes $\pounds50$ million investment in teaching facilities across our sites, an $\pounds18$ million refurbishment of the Main Building at College Lane, and a $\pounds5$ million social venue at de Havilland.

This ongoing investment in our students' learning experience, as well as the quality and relevance of our courses, is already having a real impact on our graduates' prospects. It is a crucial part of being a strong, forward-looking institution that embraces change.

This year we achieved a record employment rate, with 96.2% of our graduates securing jobs or starting further study within six months of graduating. That impressive figure means we have the best graduate employment rate in the East of England, and the 21st best in the UK, outscoring all of the Russell Group universities, including Oxford and Cambridge. It is something we should all be incredibly proud of.

The Teaching Excellence Framework (TEF) poses big questions of the University and the sector, in terms of measuring our teaching quality, and we intend to meet that challenge.

So, as we look back at the achievements we have made over the past year, I would like to say a very big thank you to our staff, students and the rest of the University Board. Once again, it has been an honour to serve as Chairman.

Richard Beazley November 2016

Vice-Chancellor's review of the year



In a rapidly changing world, we are proud to be creating graduates equipped to make a real difference. We are forging closer links with industry, tackling today's most pressing research questions and preparing for a positive post-Brexit future.

The landscape may be shifting, but the University of Hertfordshire has always and will always embrace change, be it in the landscape of education, business, or technology. Our focus remains firmly on high-quality, industry-relevant education that secures our reputation as the UK's leading business-facing university.

Our record employment rate of 96.2% of our graduates in work or further study six months after graduation is testament to our success, as are the results of the 2016 National Student Survey.

In this year's survey, students gave a number of our degree courses the highest possible score. International Business, Physics, Astrophysics, Radiotherapy and Oncology all scored 100% satisfaction while our BSc Dietetics became the highestrated nutrition degree in the country.

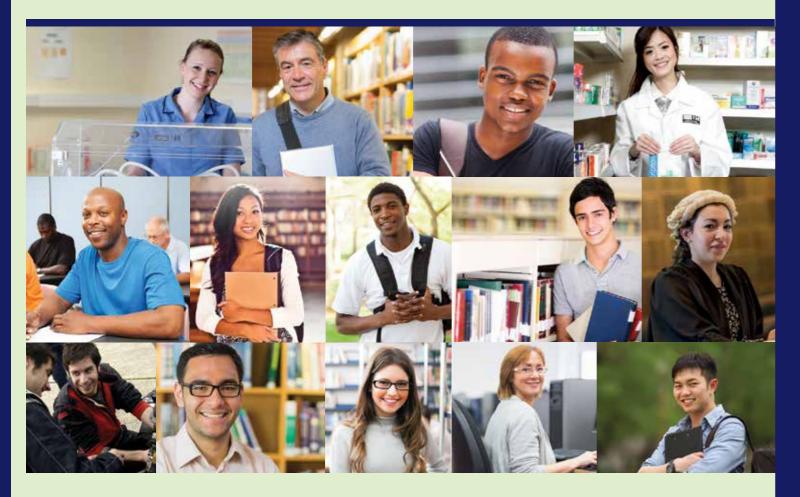
I thank the dedicated staff who have made these courses so successful, and the students who took time to give feedback across all our courses, which we take extremely seriously and will take on board. Our estate is being developed and it is the enhancement to the student teaching experience that is rightly at its heart. This year we unveil three new degree apprenticeships; Computing, Engineering and Technology, and Chartered Management starting in 2017. Designed to offer businesses bespoke development for their talented people, they empower both employers and employees, offering an alternative route to degree qualification.

Every one of our courses is underpinned not only by expert industry insight but also by the powerful research we are conducting here at the University. In 2016, we grouped this research into six focused themes, each one tackling some of the most pressing challenges of our times. From the global economy to information security, these themes enable us to explore in depth the issues businesses and communities will face in the years ahead.

While it is still unclear what the long-term results of Brexit will be, our work will continue to be outward and internationally facing, informing debate, advancing technologies, strengthening businesses, and securing bright futures for our students and partners worldwide.

Professor Quintin McKellar CBE

November 2016



Vision and values – strategic plan 2015-2020

During 2014-15, the University launched its new strategic plan and values for 2015-2020.

We are a further year into delivering our strategic plan, and our values are still vitally important principles by which we work.

The values are those which were most actively proposed during the consultation process and those which describe our University.

Our vision is to be 'internationally renowned as the UK's leading business-facing university'

Our values

The following core values will inform and sustain all of our activities. We aspire to be:

• Friendly

- Ambitious
- Collegiate
- Enterprising
- Student-focused

The easily remembered acronym (FACES) recognises that many people are involved in our business.

Public benefit

The University of Hertfordshire is an exempt charity under the Charities Act 2011.

We are regulated by the Higher Education Funding Council for England (HEFCE), the principal regulator of English higher education institutions that are exempt charities on behalf of the Charity Commission for England and Wales.

During 2015-16 the Board of Governors as Trustees of the University continued to have due regard to the Charity Commission's guidance on public benefit and the advancement of education.

The University seeks to deliver for the public good in all the work we do. As a primer for economic growth in Hertfordshire we seek to add value by providing expertise and insight and be a stimulus for business development both for the enhancement of business-facing skills in our students and to the benefit of the local and wider economy. In all areas we seek to offer a transformational experience to our students to improve their lives and opportunities.

aware, entrepreneurial leaders of the future is at the very heart of what the University of Hertfordshire does. Our Enterprise Fund turns brilliant business ideas into a reality. It offers talented students and graduates financial awards and support that helps to kick-start their businesses and grow their entrepreneurial ambition.

Through our outreach and widening participation work across Hertfordshire, including schools that the University has been involved in establishing, such as the Hatfield Community Free School and the Elstree University Technical College, we seek to widen participation and access to higher education.

We are proud of our achievements in raising aspirations and attainment in partnership with schools, which typically have high numbers of students receiving no history of attending university.

We acknowledge that accessing higher education is becoming increasingly challenging for young people in the UK and we seek to ensure that the very best students, no matter what their financial or social situation, can access higher education and all of the opportunities and experiences that it offers. The University Student Trust Fund, which is generously

supported by public donations, provides essential support so that no-one will be put off continuing their studies because of money worries, and ensures that as many opportunities as possible are open to students during their time at the University.

Via our Robotics in Therapy campaign, the University invests in research and development on the use of robots in care and therapy to secure the future of healthcare in crucial areas such as autism, diabetes and stroke rehabilitation.

Our key strategic objectives

We will deliver our vision by:

Providing expert teaching informed by

with global partners.

the curriculum.

professions.

and industry.

impact.

people.

community.

Helping students develop into commercially-

free school meals and whose families have



research, business and the professions. Offering workplace engagement and overseas learning opportunities. Creating and developing innovative ideas, products and processes. • Fostering and strengthening research

• Developing international partnerships. • Strengthening the global perspective in

• Developing students with the knowledge, skills and attributes to succeed in business and the

• Enhancing relationships with business

• Demonstrating and promoting our positive social, cultural and economic

Attracting and developing outstanding

• Strengthening the diversity of our

Consolidating financial sustainability.

The strategic plan is divided into seven strands

The University championed and created a unique space for itself by leading the way and shaping the next generation of business-facing universities. Our strategy will ensure that we will continue to be an exemplar in the sector and we will play a leading role in addressing the economic and social challenges facing the UK in increasingly competitive global markets.

Innovative, creative and enterprising are still defining characteristics of our University. We will continue to provide flexible and transformational learning and commit to adding value to our partners. We will deliver positive and productive engagements with business, industry and the professions.

The University recognises that this strategy cannot be delivered without our staff and has placed people at the heart of everything we do.

Key performance indicators

Key performance indicators have been agreed by the Board of Governors. The University believes these are appropriate in order to achieve its vision. These relate to:

- Teaching.
- Workplace learning / experience.
- Research outputs.
- International collaborative publications that can be submitted to the Research Excellence Framework (REF) that are jointly authored with international collaborative partners.
- Commercial income.
- Destination of Leavers from Higher Education (DLHE).
- Financial surplus.
- Income from overseas activity.
- Staff engagement.

Corporate structure

Full details of the corporate structure are given in the Statement of Corporate Governance on page 41.

The Vice-Chancellor, as Chief Executive and Academic Head of the University, has responsibility to the Board of Governors for the organisation, direction and management of the University.

Officers appointed by the Board

Vice-Chancellor Professor Quintin McKellar CBE

Deputy Vice-Chancellor **Professor Ian Campbell**

Secretary and Registrar Sue Grant

Group Finance Director Alistair Moffat

These positions, together with three Pro Vice-Chancellors, Deans of the 10 academic Schools (listed opposite), Head of Human Resources, Director of Estates, Chief Information Officer, Academic Registrar and the Dean of Students, form the Chief Executive's Group, which is responsible for the day-to-day management and leadership of the University.

Academic structure

Academic Schools

The University's academic provision is delivered by its 10 academic Schools:

- Hertfordshire Business School
- Computer Science
- Creative Arts
- Education
- Engineering and Technology
- Health and Social Work
- Humanities
- Law, Criminology and Political Science
- Life and Medical Sciences
- Physics, Astronomy and Mathematics

The University works in partnership with four regional further education colleges through the Hertfordshire Higher Education Consortium (HHEC) and offers distance learning through its UH Online provision.

Partner Institutions

The University also has a number of franchise arrangements with a variety of institutions spread across the world, including institutions in Malaysia, Russia, Canada, Singapore and Greece.

Research

Our research is focused across six research themes reflecting our interdisciplinary strengths in some of the key global challenge areas of the 21st century. These themes are:

- Food
- Global economy
- Health and wellbeing
- Heritage, cultures and communities
- Information and security
- Space

Officers appointed by the Board

Professor Quintin McKellar CBE

Vice-Chancellor BVMS PhD DVM DipECVPT FSB FRSA FRAgS MRCVS FRSE

Professor McKellar has been the Vice-Chancellor and Chief Executive of the University of Hertfordshire since 2011. His responsibilities include the day-to-day running of the institution, the delivery of strategic and operational plans, is currently engaged in all strategic and performance, its internal structure and organisation and its interface with external positioning and success of our University. bodies and agencies. He graduated from Glasgow University Veterinary School in 1981, and went on to gain a PhD in Veterinary Parasitology in 1984. In 1997 Professor McKellar took up the post of Scientific Director of the Moredun Research Institute and Chief Executive of the Moredun Foundation. In 2004, he was appointed Principal of The Royal Veterinary College of the University of London.

Professor McKellar is Chair of the Board of Trustees of The Pirbright Institute and a member of the Hertfordshire Local Enterprise Partnership. In 2015 he was elected as a Board member of Universities UK (UUK) and is Chair of the University Vocational Awards Council.

Professor McKellar was made a Commander of the Order of the British Empire (CBE) in 2011 for services to science. He has a reputation as a distinguished researcher with interests in the pharmacology of anti-infective and anti-inflammatory drugs in domestic animals

Professor Ian Campbell Deputy Vice-Chancellor BSc MSc PhD

Professor Campbell is a professor of applied physiology. He joined the University of Hertfordshire in September 2013 as Deputy Vice-Chancellor.

As the sole Deputy Vice-Chancellor, he operational decisions which underpin the He also regularly deputises for the Vice-Chancellor in relation to both internal and external affairs.

Professor Campbell has overall responsibility for the strategic development of all academic areas through his management of all Deans of School, his Chairmanship of the Academic Development Committee and his coordination of the annual University planning process.

Prior to coming the University, he had been Pro Vice-Chancellor at Brunel University since 2008, where he was responsible for a number of key functions including student experience, staff development, learning and teaching, and external relations.

Professor Campbell has an international research reputation relating to the 'physiology of the spinal cord injured (SCI) athlete'. He has a strong track record of international research outputs, and has been invited to give presentations in China, USA, Europe and the UK. His work has attracted external funding and media attention because of its impact.



Group left to right: Professor Ian Campbell, Professor Quintin McKellar CBE, Sue Grant, Alistair Moffat

Sue Grant

Secretary and Registrar **BSc FAUA**

Sue Grant joined the University of Hertfordshire in May 1983. She was the Academic Registrar from 2004 until her appointment as Secretary and Registrar in 2013. She is responsible for the management and operation of our Board of Governors and Academic Board. Sue has responsibility for legal and compliance matters relating to the University Group. She is the executive lead for Human Resources, Academic Registry, Dean of Students, Health and Safety, Audit, Equality. Planning Development and Internal Change, and is the Head of Administration.

At a national level, Sue has been Chair of the Academic Registrars Council, a position from which she stepped down on becoming Secretary and Registrar of the University. This involved working with higher education institutions across the sector and with the Department for Business, Innovation and Skills, Universities UK and the Home Office. She is currently the University's representative with the Association of Heads of University Administration. She is also a director of Uliving@Hertfordshire, Southern Universities Management Services and a member of the Board of Oaklands FE Corporation.

Alistair Moffat

Group Finance Director BA FCMA CGMA MIOD

Alistair Moffat was appointed Group Finance Director in 2009. He has responsibility for all aspects of financial management within the University Group, including financial control, statutory reporting, treasury, tax, insurance, procurement and commercial financial support for the academic community.

His role also incorporates Board responsibility for the management of the University's Estate. He is a director of UH Holdings Limited, which oversees the commercial subsidiaries in the Group, and is also a director of many of our subsidiary companies. He is a Fellow of the Chartered Institute of Management Accountants and joined the University from Monarch Airlines, where he was Chief Financial Officer. His other previous roles include Finance Director Scotland at First Group Plc and at Alstom Signalling Limited. Alistair was also Finance Director at Mainline Freight Limited, playing an important role during the rail privatisation process.

Education

Here at Hertfordshire, we are proud to be firmly focused on providing high-quality education for individuals and organisations, developing careers and improving lives.

Our powerful, practical courses are grounded in real-world industry needs, skills and experiences, giving our graduates the skills today's employers really need. They are created and delivered by highly regarded experts, dedicated to supporting our students' learning.

The 2016 National Student Survey saw exceptional results for several subjects, including outstanding 100% satisfaction scores for our Dietetics, Physics, Astrophysics, International Business, and Radiotherapy and Oncology courses. We also scored well above the sector average in many more areas, achieved impressive ratings for our learning resources and personal development and secured an overall satisfaction rating of 82%.

This year, we are proud to have introduced exciting, globally focused new courses in Law, Politics and Architecture, taught by internationally acclaimed experts. Our creative reputation has also continued to grow, with our design and crafts degrees making a major leap up the league tables, and students from across the UK visiting our pioneering Robot House.

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The University has a student community of over **24,600** on UK based programmes including more than 3,800 international students, and more than **6,400** students studying our courses outside the UK

In the 2016 National Student Survey, we saw exceptional results for many subjects, as well as learning resources and personal development reflecting this year's record student employment levels of **96.2**%

Student numbers

The following tables show an analysis of our student profile for 2015-16

Mode and level of study			
Full-time and sandwich	Postgraduate research Postgraduate taught First degree Foundation Other Undergraduate	230 1,320 15,310 550 70	
	Total	17,470	
Part-time	Postgraduate research Postgraduate taught First degree Foundation Other Undergraduate	290 3,810 1,220 430 1,440	
	Total	7,180	
Total students studying within the UK24,650			

Gender		
Female Male	14,120 10,530	57.3% 42.7%
Total	24,650	100.0%

Ethnicity		
White	12,250	50.2%
Asian or Asian British	4,740	19.4%
Black or Black British	4,100	15.7%
Chinese	880	3.6%
Other (including mixed race)	2,160	8.9%
Unknown/information refused	510	2.1%
Total	24,650	100.0%

Geographic region

England	20,540	83.2%
Wales	140	0.6%
Scotland	70	0.3%
Northern Ireland	60	0.2%
Guernsey, Jersey and the Isle of Man	20	0.1%
Other EU	840	3.4%
Non EU	2,940	11.9%
Total	24,650	100.0%

Student numbers represent head count not FTE (full time equivalent)

All student number figures are rounded to the nearest ten. Total figures are also rounded to the nearest ten. The sum of numbers in a table may not match the total shown

Subject area		
Medicine and dentistry	10	0.0%
Subjects allied to medicine	6,220	25.2%
Biological sciences	1,660	6.7%
Agriculture and related subjects	20	0.1%
Physical sciences	410	1.7%
Mathematical sciences	250	1.0%
Computer science	1,350	5.5%
Engineering and technology	1,590	6.4%
Architecture, building and planning	30	0.1%
Social studies	950	3.9%
Law	1,590	6.4%
Business and administrative studies	4,260	17.3%
Mass communications and documentation	180	0.7%
Languages	510	2.1%
Historical and philosophical studies	240	1.0%
Creative arts and design	2,760	11.2%
Education	2,430	9.9%
Combined	220	0.9%
Total	24,650	100.0%

Students from outside the UK - Top 10 countries				
China	490	2.0%		
Nigeria	480	1.9%		
Malaysia	340	1.4%		
Pakistan	240	1.0%		
India	210	0.9%		
Ireland	190	0.8%		
Saudi Arabia	110	0.4%		
Cyprus (European Union)	100	0.4%		
Bangladesh	70	0.3%		
Germany	60	0.2%		
Total	2,290	9.3%		

Students studying wholly outside the Uk	κ
Students on overseas franchise programmes Malaysia Russia Canada Singapore Greece Other countries	3,960 410 380 190 80 60
Total (students on overseas franchise programme	s) 5,080
Students on distance learning programmes outside of the UK (across 113 countries)	1,350
Total (students studying wholly outside the UK)	6,430

Creative arts courses ranked in top 10

Design and crafts courses at the University have risen to 10th in the national Guardian University League Table 2017.

The new ranking is a jump of 19 places compared to the 2016 table.

The design and crafts degree courses include those in graphic design, illustration, model design, interior architecture and design, industrial design, product design, textiles, jewellery, and ceramics and glass.

Graduates of these courses have gone on to work for Karen Millen, Fosters and Partners, Jaguar, Merlin Studios, Madame Tussauds, and design agencies such as The Partners and The Team. Some have worked on international blockbuster films such as Star Wars: The Force Awakens, Avengers: Age of Ultron, and the Harry Potter series.

The league table is put together using data from the National Student Survey and Higher Education Statistics Agency and covers course, teaching and feedback satisfaction, student-tostaff ratio, spend per student and graduate career prospects after six months.

The Destination of Leavers Higher Education survey 2014 shows that an average of 96.7% of students studying design and crafts courses at Hertfordshire are in employment or further study six months after graduation, with 100% of contemporary design and craft graduates in employment or further study.

Judy Glasman, Dean of the School of Creative Arts, says: 'I am delighted to see that our design and crafts courses continue to rise in the national rankings and that our students continue to benefit from our growing reputation. This year's Guardian league table results are a true reflection of the continuous hard work and dedication the creative arts team have put into improving the experiences students have.





Robot House opens its doors to students

Students from across the country were invited to the University's pioneering Robot House as part of UK Robotics week.

Scientists from the School of Computer Science ran workshops to give students the opportunity to see state-ofthe-art home robotics, as well as learn how to program a home companion robot.

The free workshops were open to all UK undergraduate and postgraduate students and no prior experience with robots or programming was required.

The Robot House is a normal residential house in a leafy street in Hatfield. The University purchased the house 11 years ago to observe how ordinary people get along with machines in everyday life. The house has several robots, each designed to care for people in their homes. Students who took part in the workshops learned to program a care robot to help an imaginary elderly person who lives alone.

Kerstin Dautenhahn, Professor of Artificial Intelligence, says: 'Sometimes people are unsure about living with robots so this was a great opportunity for people to learn more about the benefits of robots which are designed to care for people in the home."

Robot House shows how ordinary people get along with machines in everyday life.

School of Law, Criminology and Political Science launches three pioneering new courses

The School introduced three new courses in September 2016; BA (Hons) Politics and International Relations, **BA (Hons) Criminal Justice and** Criminology, and LLB (Hons) Criminal Justice.

The new courses reflect the University's commitment to providing students with the knowledge and understanding they need to pursue law-related careers or continue with academic study.

The Politics and International Relations course will be taught by internationally recognised experts, including Dr Thomas Dunk and Dr Francesca Batzella. Students will benefit from modern and engaging modules, including Local

Government and Political Systems within Contemporary British Politics.

They will gain an understanding of the interconnection between domestic and international politics and experience innovative teaching and varied assessment techniques.

The Criminal Justice and Criminology course combines areas of law with psychology and sociology. It deals with many prominent issues in crime and social policy, including cyberspace security, transnational crime, state crime and terrorism. Successful graduates could move into careers with the police, victim support, probation services, prison or youth offending services, forensic

World-famous architect launches exciting new course



A new commercial-facing architecture course will give students the chance to work on projects across the world.

three-year BA (Hons) Architecture course in 2016 with a lecture from globally renowned architect Sir Peter Cook.

As Hertfordshire is one of the top business-facing universities in the country, the aim of the course is to give students a professional portfolio and the skills they need to begin their careers.

The School of Creative Arts launched the Undergraduates will benefit from visits from some of the most prestigious architectural practices in the world. There will also be the opportunity to gain experience through placements.

> Dr Shaun Borstrock, Associate Dean and Head of Design and Innovation, says: 'Our students will benefit from working with our national and international

sciences, social work, academia and many more.

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The LLB focuses on understanding how the criminal justice system works, enabling students to think critically about the genesis of crime, its effects on society and the most effective strategies to fight against it. The course will provide students with a solid grounding in legal principles, which will embrace all the subject-specific abilities, transferable intellectual skills and key skills set down in the current Law Subject Benchmarks for England, Wales and Northern Ireland.



industry partners, and will explore the changing landscape as it evolves from the utopian ideal of the garden cities of the early 20th century, to the post-war new towns and future cities.

Students will work in a professional architecture environment, on projects ranging from houses all the way up to large urban landscapes.

They will also gain an understanding of how people, society, economics and politics fit in to architecture and design.

The sandwich programme will also allow students to take a 36-week professional placement, with some heading overseas.

The teaching team is led by Dr Silvio Carta, an experienced architect and contributing editor of C3 magazine; the award-winning Erica Liu; and landscape architect Dr Paul Cureton.

Research

Our research is wide ranging and far reaching. From new insights into Alzheimer's disease and obsessive compulsive disorder to deep-space discoveries and revolutionary robotics, we are proud to be making an impact on the way people live, work and think, all over the world.

In fact, this year saw the University launch a new set of six research themes with real global impact. Each theme is designed to focus our pioneering work on today's toughest research challenges.

We are proud to be conducting a whole range of fascinating, important studies which further our understanding of the world. ourselves and of the challenges to come.

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Microhome with moving walls designed to address housing crisis	1	6
Team discovers planet 1 trillion kilometres from its star	1	6
Professional environments and facilities to enhance educational experiences	1	7

We are home to more than 650 research students from all over the world

Research themes

Internationally recognised for our original, high-quality research, we are committed to finding inspiring, sustainable solutions to the 21st century's most fundamental global challenges. This year we launched our six research themes:



Food Securing a sustainable food supply for the Earth's expanding population is a huge challenge, and demands a careful balance of environmental, health and societal impacts. Our interdisciplinary research applies

science, technology, social and cultural investigation to food consumption and production, helping industry, policymakers and the public tackle it head on.

Global economy



Our research addresses major issues in the global economy, including innovation, development, energy and economic growth. By using inclusive,

sustainable processes and taking a historical approach to understanding the economy, our interdisciplinary work is informing policy at local, national, regional and international levels.



Health and wellbeing

Poor health impacts not only patients and their families, but also health systems and societies. Our research focuses on improving mental and physical

health and wellbeing across the human lifespan. Drawing on health science, biomedicine, biomedical engineering and medical humanities, we are informing healthcare policy and practice and making a difference to people's lives.



Heritage, cultures and communities

Within this theme, our work explores our cultural history and heritage and the ways that contemporary, interconnected communities create

identity and social cohesion. It encompasses a variety of human endeavour, from faith and ethics to transportation and innovation, drawing on past and present influences to help shape the future.



Information and security

In our rapidly changing world, information is vital to innovation. Advanced information technologies

create an ever increasing volume of data which can be used to address societal challenges, but which also needs to be secure. Our research spans robotics, artificial intelligence, algorithms, biocomputation, cyber security, biodefence and civil protection.



Our researchers work in the diverse areas of astrophysics, atmospheric physics and mathematics, expanding human knowledge

on scales ranging from microscopic quantum physics to the structure of the universe. Their work is helping to drive innovation in climate modelling, airborne pollution monitoring, bio-particle detection, computer science, visual representation and informatics.



Researchers develop 'social robot' with emotion and memory

Scientists at the University have developed a prototype of a robotic system that could help elderly people with carers to live more independently.

The robot uses a state-of-the-art service platform called Care-O-bot 3 and works within a smart-home environment.

Dr Farshid Amirabdollahian, a senior lecturer in adaptive systems, led a team of nine institutions from across Europe as part of the €4.8 million ACCOMPANY (Acceptable Robotics Companions for Ageing Years) project.

The team carried out a wide range of studies in the University's Robot House, monitoring the robots' ability to detect people's activity and remember and recall events. The robots were evaluated by elderly people and their carers across France, the Netherlands and the UK.

ACCOMPANY demonstrates that a social robot can potentially help prevent isolation and loneliness, offering stimulating activities while respecting autonomy and independence.

The project received 'excellent results' from its final review in Brussels.

Microhome with moving walls designed to address housing crisis



Microhome QB3 – part of the University's Cube Project into small, sustainable homes – has debuted at the Edinburgh International Science Festival.

The innovative QB3 has just 18m² of floor area, but uses two moving walls to switch different parts of the space between lounge, bedroom, kitchen and bathroom.

It is designed to provide a flexible, modern home for a single person or a couple and is optimised for energy use, with two heat pumps, heat-recovery ventilation, LED lighting, triple glazing and excellent insulation. An optional green roof with solar panels would make QB3 energy neutral over a typical year.

Dr Mike Page, Director of the Cube Project, says: 'Low-energy microhomes like QB3 can play a crucial role in providing affordable housing. There are plenty of small, underused spaces, especially in cities, in which these fun, practical buildings can play a useful role in addressing housing needs.'

Team discovers planet 1 trillion kilometres from its star

Astronomers from Hertfordshire, USA and Australia have found a planet in a huge orbit around its star.

Previously thought to be a free-floating planet, 2MASS J2126 is about 1 trillion kilometres from its star, known as TYC 9486-927-1. That's around 7,000 times the distance from the earth to the sun.

Lead author, Hertfordshire's Dr Niall Deacon, has spent the last few years searching for young stars with companions in wide orbits. The team found that TYC 9486-927-1 and 2MASS J2126 were moving through space together and were both about 104 light years from the sun, implying a link.

'This is the widest planet system found so far,' says Niall, 'but nobody had made the link between the objects before.'

Dr Simon Murphy of the Australian National University adds: 'How such a wide planetary system forms and survives remains an open question.'

Professional environments and facilities to enhance educational experiences

The University continues to make a significant investment in world-class facilities and bespoke educational resources that provide students with a simulated working environment.

1. Science Building

Our landmark Science Building offers highly specialised, state-of-the-art teaching and laboratory spaces for students in the fields of chemistry, biomedical sciences, physics and pharmaceuticals.

2. Law Court Building

Our replica Crown court allows law students to apply their legal knowledge in simulated cases, while the Mediation Centre offers real-life project experience. The building promotes multidisciplinary collaboration and is also used by drama, social work and journalism students, who benefit from the dedicated journalism suite.

3. War of Words

All students can use the courtroom by taking part in War of Words, a fun weekly activity that allows students to argue points of view – often controversial ones! The idea is to help students build their research, public speaking and critical reasoning skills.

4. Heritage Hub

The Hub pools our staff's heritage expertise across disciplines, fosters historical awareness in the community, and enhances students' employability through placements with heritage organisations.

5. Flight simulators

Several specially designed flight simulators provide students with flying experience in a variety of aircraft – including ones they've designed themselves.











Business

It has been another outstanding year for the University's partnerships with business and industry. By keeping our courses, research, knowledge exchange and commercial activities closely aligned, we are proud to be meeting the needs of business and society, long into the future.

The links between our courses and employers continue to grow. We are shaping modules to provide industry-relevant skills, as well as creating more opportunities for work placements, exchanges, volunteering and industry projects.

One of our biggest industry collaborations this year has been the development of three more innovative degree apprenticeships. Building on successful partnerships such as the one we have developed with leading European defence company MBDA (see page 20), they create a dedicated, loyal workforce with exactly the skills their employers need.

We also saw our BA (Hons) Fashion students begin exciting new careers at Graduate Fashion Week, invested £23,000 in budding entrepreneurs through our Flare competition and celebrated the growing international success of technology innovator and Hertfordshire alumnus. Tamie Salter.

In fact, our firm focus on employability means that this year our graduates have been more highly sought after than ever, with our employment rate reaching a record 96.2%.

Introducing the fashion designers of tomorrow	19
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It has been another outstanding year for the Business School, with **100%** of our students in work or further study after six months

Introducing the fashion designers of tomorrow

Hertfordshire students took their collections to the catwalk at Graduate Fashion Week 2016.

As the world's leading event celebrating student and graduate creativity in fashion, Graduate Fashion Week offers an unrivalled platform for new talent and bridges the gap between graduation and partners further boost employability. employment.

Many of our students have gained Fashion course, pursuing careers with industry partners including Hugo Boss, Karen Millen, River Island, Ted Baker, F&F, Ralph Lauren, Debenhams, Giles Deacon and many more.

Sasha Hodjati won the Ted Baker Award for Colour and Print for the ingenuity. originality and guirkiness of his prints. 'I kept believing in myself and worked on my strengths,' he says. 'It's important to find your own personal, unique quality your own stamp.'

Katarina Buttigieg, another of the University's fashion students, adds: 'I have grown and learnt so much on the course. Anything is achievable you just have to be prepared to push yourself to your limit.'

In an ever-changing and highly competitive industry, the University encourages students to develop as entrepreneurs and become confident fashion designers. Programmes focus on creativity and innovation within an industrial and commercial context, and collaborations with prominent industry

Programme Leader Tony Rosella says: 'Many of my students will have reached prestigious awards while on the BA (Hons) the end of their educational journeys, but this is the beginning of their futures and we are proud to have been a part of this. It's been a pleasure guiding and nurturing their talents and I would like to take this opportunity to wish them a successful onward journey.'

We encourage students to develop as entrepreneurs and become confident fashion designers.

Celebrating successful apprenticeships with MBDA

The University and MBDA, a leading European defence company, are celebrating the success of the students on their Apprenticeship degree programmes at Hertfordshire Business School.

The apprentices carry out work placements in a variety of MBDA departments in Stevenage. At the same time, they follow a tailored day-release programme to complete a BA (Hons) Business Studies course.

MBDA contributes to students' tuition fees as well as paying them a competitive salary, meaning the four-year degree is an excellent opportunity for students who want to combine work and study.

As well as their studies and job roles, all apprentices are actively involved in local school, college and community projects promoting STEM (science, technology, engineering and mathematics), the MBDA scheme and apprenticeships in general.

Many students on the MBDA programmes perform exceptionally well academically and excel in their work roles. For the last six years, all MBDA apprentices have graduated with a firstclass honours degree. More than 85% of apprentices have gone on to senior executive or management roles within MBDA, reinforcing the importance of the apprentice scheme to the organisation's long-term success.

Gareth Humphreys, HR Advisor at MDBA, says: 'In the past 20 years, our apprentices across both engineering and business have won 162 regional and national awards as well as presenting to cabinet ministers and actively engaging in VIP visits. Six of our apprentices have presented live on TV and others have been personally selected to present to directors and chief executives.

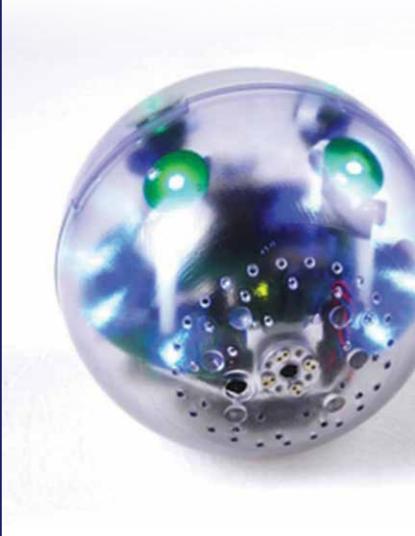
Over 85% of apprentices have gone on to senior executive or management roles.



Alumni-founded technology and robot company expands



'It's great to see how the business has grown over the past four years.'



Que Innovations, an alumni-founded business that develops products for autism therapy, has opened a new office in Canada

The business was launched in 2010 by Tamie Salter, who graduated with a BSc (Hons) in Computer Science in 2001 and a PhD in Robotics in 2007. Since then her company has proved successful in North America and Europe, and Tamie was named a laureate at the Heroes of Technology Awards, alongside the likes of Microsoft and Dell.

One of the company's biggest successes is the QueBall, an easy-to-use, interactive toy and learning aid that comes with a range of games. Used in hospitals, schools, therapy centres and homes, it helps develop cognitive potential as well as emotional and physical wellbeing. It has proved especially valuable for those with autism and related conditions.

Tamie says: 'It's great to see how the business has grown over the past four years. QueBall is now being used in the USA, Canada and Europe and has 10 interactive games, with more in development. Over 10 years of science, research and development has got us to this point, and it's exciting to consider what the next 10 years might bring.'

International

We are proud to be having a truly global impact, working with people and businesses all over the world from our thriving, contemporary home here in Hertfordshire.

Our campus community is culturally diverse and incredibly welcoming, with more than 3,800 students joining us from overseas. Together with our UK students, they explore courses filled with international perspectives and opportunities, reflecting the global nature of business today.

Collaborations with like-minded institutions all over the world add to this international reach, and this year our students and academics have been opening up new opportunities across the globe.

Pro Vice-Chancellor Julie Newlan has been exploring new partnerships in India with the British High Commissioner to India, Sir Dominic Asquith, building on our strong relationships with researchers, practitioners and institutions there. Meanwhile, Dr David Chau from our Department of Pharmacy has been sharing knowledge and building links with Vietnamese scientists in Ho Chi Minh City.

Our students have been competing on the international stage too, and this year saw UH Racing become the UK's most successful Formula Student team of all time, coming ninth out of 114 teams from 30 countries worldwide.

Forging relationships with India	23
Academic builds ties with Vietnamese scientists	24
UH Racing drives to top-10 finish for second year running	25

We are one of the **top 150** universities in the world under 50 years old.

Source: Times Higher Education 150 under 50 rankings 2016

Forging relationships with India

Pro Vice-Chancellor Julie Newlan has discussed business opportunities with Sir Dominic Asquith, British High Commissioner to India.

Along with other key members of staff, Julie attended the Confederation of British Industry (CBI) India Banquet, held at Stationers' Hall in London.

While enjoying the unique tastes and sounds of Indian culture, she explored opportunities to further grow and develop the University's relationships with potential partners and fellow leaders in India.

Julie says: 'Developing and sustaining long-term relationships with India is integral to our strategic approach. We already have joint collaborations in place with researchers and practitioners, and engage with other educational institutions there to help deliver our courses. However, we are always seeking additional opportunities to grow our global network of partnerships.'

Last year, British and Indian companies announced new collaborations worth a total of more than £9 billion. The partnership between the two countries is undeniable: India invests more in the UK than it does in the rest of the EU combined, while Britain is the largest investor in India among G20 countries





'Developing and sustaining long-term relationships with India is integral to our strategic approach.'



Academic builds ties with Vietnamese scientists



Dr David Chau of the University's Department of Pharmacy was awarded one of just 12 British Council bursaries to attend an international conference in Ho Chi Minh City.

The aim was to develop advanced biomaterials and medical devices. David was selected by the Newton Fund, on behalf of the British Council, to attend the 6th International Conference on the Development of Biomedical Engineering.

His knowledge in biotechnology and biomedical engineering earned him a full bursary to attend the conference and workshop to share his expertise, engage with fellow researchers and establish a collaborative network between the UK and Vietnam.

Researchers from several UK universities, the British Council and a number of funding bodies took part in the three-day workshop, which included a round-table discussion with 21 notable Vietnamese scientists and the 12 UK researchers.

The ultimate aim of the workshop was to develop and apply principles of advanced biomaterials and medical devices to improve the health outcomes of underserved populations.

Attendees enhanced their scientific knowledge in key areas and identified several international collaborative projects, paving the way for funding opportunities.

UH Racing drives to top-10 finish for second year running

University of Hertfordshire Racing has become the UK's most successful Formula Student team of all time.

The team was placed ninth out of 114 universities at the 2016 Formula Student competition held at Silverstone. The event, now in its 19th year, saw teams from 30 countries competing to be crowned champions in a number of static and dynamic events.

Run by the Institution of Mechanical Engineers and backed by industry and high-profile engineers, the competition brings together the world's best and brightest young engineers. Teams are challenged to design and build a single-seat racing car to demonstrate their understanding of all aspects of automotive engineering.

The Hertfordshire team, led by Thomas Minto, worked tirelessly on the project, with each student putting in an average of 1,800 hours into researching, designing and fabricating their racing car – all while studying full-time.

Thomas says: 'After a year of designing, manufacturing, building and testing, all of the hard work and sleepless nights paid off. I am so proud of the team for all of their dedication and effort.'



Impressively, the team secured a top-10 finish for the second year in a row. In the UK rankings, they came just behind rivals Bath, and were one of only three UK teams to be placed in the top 20.

Senior lecturer Dr Howard Ash comments: 'I am delighted with the team's achievement. The quality of the competition this year was noticeably higher than previous years, and their placement highlights the amazing work and effort the team has put in over the course of the year.'

The team came ninth out of 114 universities.

Sustainability

Everything we do is focused on creating the best possible future for our students, our staff, our community and our economy. That is why we manage our finances in a responsible, business-like way, giving ourselves the freedom to continuously improve, evolve and make a difference.

The Board considers that the Group remains in excellent financial health, given its recent record in generating surplus and its controls over investments. The group is well-placed to consider and make decisions in the interests of its stakeholders, most importantly its students.

The University has achieved financial surpluses in excess of £10 million in each of the past six years (before the restatement of the 2014-15 results under FRS 102). In 2013, we raised £50 million through the granting of a long lease over the residential area at the College Lane Campus. We have therefore been able to use such funds to invest in buildings, research and equipment for staff and students. Our forward plan is to maintain surpluses at this level to be able to continue such investments.

We have not increased external borrowing since 2009 and indeed have repaid nearly £15 million to lenders in that time, which reduces our gearing and our interest burden. The proportion of external borrowing to income has reduced to below 30%.

This year, we have made major investments in our campus and study environments as part of our ambitious, ongoing 2020 Estate Vision. These include the completion of our three-year campus accommodation development, providing 2,500 new student bedrooms, and the opening of our landmark new Science Building. We have also been able to invest in pioneering graduate start-ups and showcase innovative new technologies with real global impact. Graduate start-up shares benefits of sustainable growing

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Digital Hack lab drives innovation with 3D printing showcase

£10 million+ surplus for six years running*

We are recognised as one of the UK's **leading universities** for environmental performance

We have just opened our first true **Carbon zero** hall of residence, completely powered through **renewable energy** sources

Graduate start-up shares benefits of sustainable growing



A £2,000 grant from the University's Enterprise Fund helped graduate Ashley Lydiate turn his passion for sustainable food production into a successful start-up.

According to the Department for Business, Innovation and Skills, 20% of start-ups fail in the first year, rising to 50% after three years. As the UK's leading business-facing university, we are committed to giving students the skills – and resilience – they need to succeed.

Recent graduate Ashley is testament to this commitment. Ashley, who studied for a BSc (Hons) Environmental Management, founded The Blue-Sky Greenhouse in early 2015. He received a £2,000 grant through the University's Enterprise Fund, which helped him produce marketing material and meet set-up costs. The University's Enterprise Fund is open to current students and graduates up to three years after leaving.

Ashley also took advantage of Enterprise Launch Pad, a practical three-day event hosted by the University. He says: 'I highly recommend this event to other students who are thinking of starting their own businesses, even if they haven't got a solid plan. This event, combined with invaluable support from the Enterprise Team in the early stages, really helped to kick start my business.'

The Blue-Sky Greenhouse educates schools and community groups about new, soil-less systems – known as hydroponics – for growing food in cities. These methods are fast becoming recognised as among the most sustainable ways of growing food.

'There's strong evidence to suggest that children who engage in even basic gardening and horticultural activities show improved cognitive and affective skills,' says Ashley. 'It can also help those with behavioural issues and improve interpersonal and social skills.

'Employing modern, space-saving methods of growing can help connect those who would not usually have access to growing space, including marginalised members of urban societies.'

Digital Hack Lab drives innovation with 3D printing showcase

The event provided an opportunity to showcase 3D printing and inspire businesses.

The University's Digital Hack Lab held an exclusive event to show businesses how they could make use of exciting 3D printing technology.

In March 2016, Hertfordshire's Digital Hack Lab opened its doors to share the latest innovations around 3D printing and additive manufacturing. Visiting businesses learnt how the Lab could help them enhance business performance in a number of diverse areas, including product design, fashion, medicine, architecture and consumerrelated products.

Visitors met the Digital Hack Lab team and viewed some of the groundbreaking work they were involved in. This included the first 3D-printed Garden City: a model of the Welwyn Garden City landscape. The model forms a base onto which various data sets are projected, ranging from deprivation maps and census data to transport provision.

The Hack Lab team showcased Modushelter, an innovative, modular construction system designed to relieve the worldwide refugee crisis. The system combines sustainable materials with 3D-printing technology to allow refugees to design their own living spaces.

In the field of medicine, the team introduced a pioneering system that allows inhaler users to customise their device with a personalised plastic casing.

Also on display was a revolutionary new prototype collection of wearable 3D-printed clothes, Modeclix. These garments are the latest leap forward for the fashion industry and represent a huge breakthrough for garment technology and 3D printing. Visitors also had the opportunity to view a range of 3D-printed hats, including the award-winning Daisy Hat, which has been presented at fashion shows worldwide.

Community

At the University of Hertfordshire we are very much part of the community, proud to actively support the people, families and businesses that call our region home. We are always looking for new opportunities to collaborate with our neighbours and welcome local people on campus to explore what we do.

This year, community events included a family-friendly exhibition showcasing our research and sharing ideas. Also, Dr Angela Madden brought Café Scientifique to Hatfield, with a whole range of fascinating talks designed to promote public engagement with science.

We encourage our students to have a positive relationship with local people, recruiting volunteer resident reps and University ambassadors to support schools, inspire young people and encourage fellow students to be considerate neighbours.

This year has seen us continue our partnership with Santander, providing grants, awards and activities to students and the community. We were also proud to launch the Big Hit boxing initiative, teaching valuable life skills to vulnerable young people. Local visitors see
research first hand30Café Scientifique
brings free science
talks to Hatfield pub31Knockout launch for
boxing initiative Big
Hit32

Each year around 200 students volunteer as University ambassadors, encouraging young people in Hertfordshire to think about university study

Our students get involved in more than 700 volunteer opportunities every year

Both the Hertfordshire Sports Village and our innovative Learning Resources Centres are **Open** to the public, **Sharing** fantastic **facilities** with the local **community**

Local visitors see research first hand

Budding astronauts, health researchers and historians got a glimpse of our groundbreaking research at a showcase event held at the Galleria, Hatfield.

The family-friendly event featured fun, interactive exhibitions, giving visitors the opportunity to learn about the shrinking glaciers of the Himalayas and untold stories from World War I. They could journey through our solar system in a mobile planetarium, as well as learn about the pioneering health and wellbeing research taking place right on their doorstep.

Dr Catherine Manthorpe, Head of the Research Office, says: 'The event was a great success and we are always delighted to share our work with the local community. We hope it brought them inspiration and gave them a better understanding of the innovative research that takes place here.'



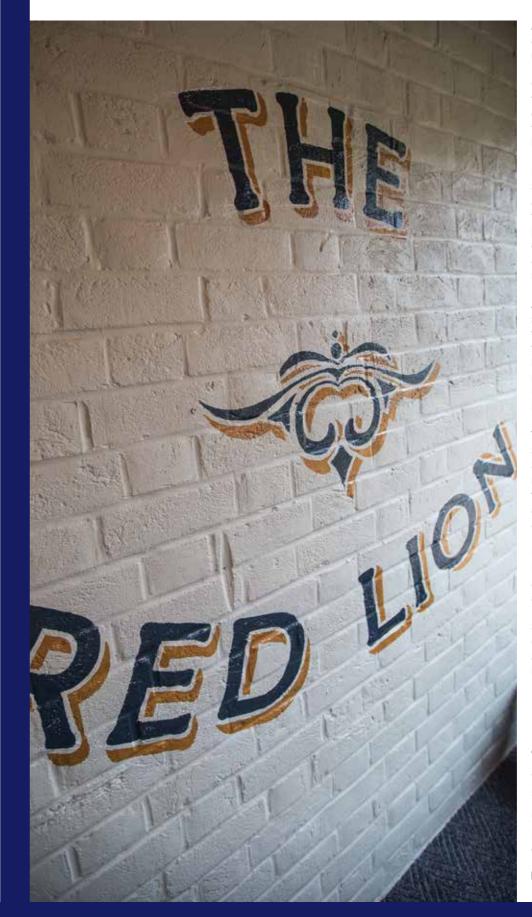








Café Scientifique brings free science talks to Hatfield pub





A University-organised event provides a forum for discussing science and research.

Global network Café Scientifique arranges free events to help promote public engagement with science, with meetings taking place around the world in cafés, bars, restaurants and even theatres.

Now, Hatfield has its own Café Scientifique event, organised by dietitian and nutritionist Dr Angela Madden from the University and held at the Red Lion pub on Great North Road. Events are open to anyone who wants to come along, and the programme features a range of speakers, not just University staff.

Angela says: 'This is a great opportunity to share ideas about science and research with people in Hatfield and invite them to get involved with discussions. We hope that Café Scientifique will spark new perspectives from those outside the University community that are well worth investigating.'

The first free event took place in September 2015 and was led by the School of Life and Medical Sciences nematologist, Dr Keith Davies. His talk, Art versus Science, delved into the differences and similarities between science and the arts in the 21st century.

In October, Psychology Professor Ben Fletcher followed up with The Thinking Trap, a discussion on how disconnected our actions can be from what we say and think.

Subsequent talks have covered topics as diverse as astronomy, computer hacking, and physical health symptoms with no medical explanation.

Sharing ideas with nonscientists is important and can lead to new perspectives that are well worth investigating.

Knockout launch for boxing initiative Big Hit



'The work that Box Cleva already do in local communities is fantastic.'



A new lottery-funded project aims to reduce antisocial behaviour in vulnerable 7-15 year-olds across Hertfordshire.

Hertfordshire's Big Hit initiative was founded by Hertfordshire Sports Partnership (HSP), the Community Sports Development arm of the University of Hertfordshire, to help teach valuable life skills to troubled young people.

The project received over £320,000 from the Big Lottery's Reaching Communities Fund and celebrated an official launch in July 2016. The event was attended by members of the HSP and representatives from all 10 of the Hertfordshire Local Authorities, as well as several high-profile guests.

Host Professor Ian Campbell, the University's Deputy Vice-Chancellor, admired the partnership's work in getting the project off the ground. Speaking at the launch he said: 'HSP is an excellent organisation and I am delighted that it is a part of the University of Hertfordshire. The work the team does is at the core of some of the University's strategic aims to support communities, raise aspirations and enrich lives."

Jane Shewring, HSP's Strategic Lead for Sport and the driving force behind Big Hit, gave some background to the project and how it will work in Hertfordshire's communities.

The highlight of the event was an appearance from John Conteh, a former World Boxing Council light-heavyweight champion and the patron of the project's delivery partner, Box Cleva.

John overcame considerable odds to become a successful boxer and urges others to believe that anything is possible. He said: 'The work that Box Cleva already do in local communities is fantastic and this Big Lottery Fund grant will let many more young people benefit from the programme. Non-contact boxing, coupled with life-skills training, gives the youngsters the discipline and direction that helps them go on to be anything they want to be.'

People

Our talented, committed people are the heart of our community, inspiring and supporting the thousands of students who live and learn with us. We value them and the work they do, providing a working environment with an ethos of fairness, inclusivity, courtesy and respect.

At Hertfordshire we share, explore and draw on our differences, celebrating each other's successes and supporting each other's work. This year, two of our lecturers secured prestigious British Library awards for their innovative research, and many more helped students secure valuable awards and competition wins that will pave the way for very bright futures.

In fields as diverse as accounting, software engineering, visual effects and competitive sports, students won national and international recognition thanks to their talents and the dedicated support of our staff.

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A flare for enterprise



A paramedic graduate who started a private ambulance service won the top prize at flare, our annual business start-up competition.

Dave Hawkins' company, MET Medical, provides specially trained medical staff for festivals and other events, and was awarded £8,000 in the Best Growth Business category.

Other winners were Dr Caezar Al-Jassar and Dr Kuly Heer for their company, Alley Cat Games, which produces sciencethemed games; photography graduate Olivia Berry for her business, Equia Marketing Solutions; and pharmacy student Ketan Ladva for his innovative app, Ourdose, which automatically reorders pharmacy medication when it is low. All received prizes of £5,000.

This is the 11th year of the flare competition. In that time more than 1,300 students and graduates have entered, with more than £170,000 being awarded to budding entrepreneurs.







MSc student secures grant for lecture notes app



Johnson's winning idea is based on the principle that our brains are better at processing images than words. His FunStudyApp leverages students' interests and hobbies to transform lecture notes into more memorable, sharable content, including animation, poetry, music, mnemonics and social network drama.

MSc Software Engineering student Johnson Oluwadele has won a national competition with his idea for a new study app to help bring lecture notes to life.

The competition, run by not-for-profit digital services organisation Jisc, invited students to present ideas for technology that could improve the student experience.

cture notes into mor narable content, inclubetry, music, mnemo etwork drama.

'Bertie the Elephant' wins film award

Two students from the University's Visual Effects for Television and Film course have won an Innovation in Film Award from animal rights organisation PETA.

Zak Boxall and Chris Turner's short film follows Bertie, a computer-generated baby elephant, on his journey to return a lost toy. It was praised by PETA for helping to prove that 'the use of abused captive animals on screen is obsolete'.

Zak says: 'We wanted to capture the beauty and innocence of a living elephant and looked to the work of various filmmakers and post-production houses for inspiration.'

Senior Lecturer Martin Bowman adds: 'Their film pushed the limits for the integration of a computer-generated animal with live-action footage. It also demonstrated that the film industry has no requirement to use live animals when



a digital version is visually identical.' Both Zak and Chris were offered employment within two weeks of graduating. They're now working for As one of just 15 winners, Johnson has been awarded £2,000 and will receive support from Jisc experts to work on his concepts during workshops. Jisc will also continue to support the most promising ideas and take them forward for development into products.



Industrial Light and Magic, the visualeffects company behind *Star Wars*, *Pirates of the Caribbean* and *Jurassic Park*.

Lucy lands international call-up

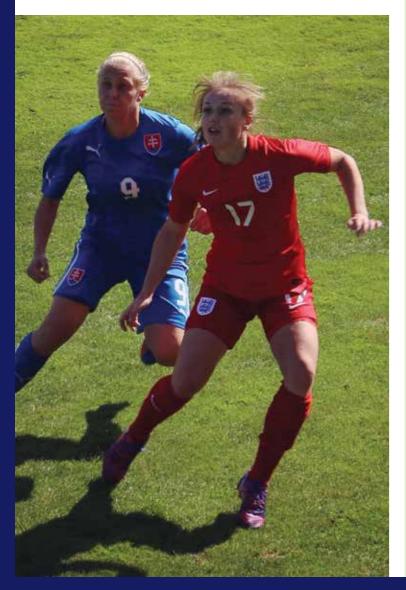
Lucy Loomes, 18, was excited to take on Italy as part of England's under-19s football squad.

Sports Studies student Lucy played the Italian team Montepulciano at the Stadio Comunale in a match held in November 2015.

Lucy, of Hatfield, is fast becoming a regular in the international side. She was selected for two games against Denmark in August, as well as a tournament in Slovakia.

'It's always an honour to represent my country and I'm just excited to get over there and play,' she said before the match. 'I've had non-stop help from the University trainers in the performance gym and we've got a great bunch of girls in the Uni team.'

Former Director of Sport Nick Brooking says: 'We now have an excellent sports performance programme to support talented athletes here at the University's Sports Village. Lucy is the latest of a number of women football players in recent years who have gained international honours while studying with us.'





Student wins England Rugby Player of the Year Award

England forward and first-year student Billy Vunipola was named The Old Mutual Wealth Player of the Year at the Rugby Players' Association (RPA) Awards 2016.

The RPA Players' Awards, held in association with England Rugby, have been an important feature of English rugby for the past 18 years. Previous winners include Owen Farrell, Jonathan Joseph and University of Hertfordshire graduate Steve Borthwick.

Billy is studying our Business and Sport Management online course, which is specifically designed for sports professionals and allows them to study part time around their careers. Billy says: 'I have thoroughly enjoyed my first year. It's been a great experience so far and has enabled me to start putting plans in place for my future.'

Programme Tutor Jarrod Lippiatt adds: 'Billy's achievements illustrate how this online programme allows athletes to excel both in their sport and academic study.'



Creative research honoured by British Library



Retrofitted arcade machines and a digital map portraying the history of democracy secured two prestigious British Library awards for University lecturers.

Dr Katrina Navickas, Senior Lecturer in History, and Dr Adam Crymble, Lecturer of Digital History, picked up the prizes at the British Library Labs Symposium.

Adam impressed the judges with his Crowdsourcing Objects project, which used 1980s arcade consoles to help classify scholarly images. The game will hopefully form the basis of future experiments where gamers' actions can train machines

Katrina was honoured for her Political Meetings Mapper, which brings the history

New film studios named after Hollywood greats



BAFTA Award-winning director Mike Newell and Academy Award-winning film editor and sound designer Walter Murch were the guests of honour at a December event to open two refurbished film studios on campus.

Mike directed the critically acclaimed Four Weddings and a Funeral and was the first Brit to direct a Harry Potter film with The Goblet of Fire. Walter, who

collaborated with Francis Ford Coppola on Apocalypse Now and The Godfather Part *II* and *Part III*, spoke of his special link to Hertfordshire. He first worked here in the



of popular protest to life using maps from the British Library collections. This project will develop a tool for text-mining and geolocating the records of political meetings.

Adam Farquhar, Head of Digital Scholarship at the British Library, described both winning projects as 'fantastic examples of creative and innovative research'.

1970s and returned a decade later to direct Return to Oz.

The newly refurbished Mike Newell Soundstage and Walter Murch Post-Production Lab are a key addition to the facilities at the School of Creative Arts, and will help to inspire a new generation of film talent.





Financial review and risks

Financial Review 2015-16

The group made a surplus of £17.4 million in the 2015-16 financial year, which was ahead of its long-term target. Income from HEFCE again reduced and tuition fee income rose to compensate for this. Annual tuition fees for UK and EU undergraduate students remained capped at £9,000 for the fourth consecutive year, although government has now advised that inflationary increases can be applied from 2017.

Control over costs has remained of significant importance as part of the Group's overall value-for-money agenda. Staff costs, though, do generally increase annually, even with modest pay awards, this year suffering also because of an increase in employers' national insurance contributions imposed by government to fund the single state pension. Actuarial reviews of the two final salary schemes are due in 2017, and the outputs from these will impact staff costs.

The new Science Building opened in September 2016 with the official opening ceremony in November 2016 attended by Prince Philip, Duke of Edinburgh, and it is hoped that it will transform the experiences of staff and students for the better in teaching and research. The final phase of the new student residences at College Lane also opened and represents an increase in both quantity and quality, taking on-campus capacity to nearly 4,700 beds. There has been, and will continue to be, an increase in income related to residences, catering and conferences as a result.

Investment has been made in teaching and research equipment, IT infrastructure and in supporting the new research themes. In total, nearly £21 million was spent on capital projects during the year.

Following a review of the Group's assets, an impairment in value has been suffered by two buildings, resulting in an overall write-down of £2.4 million. An outstanding s.106 obligation, relating to the park and ride facility at Angerland Common, was settled with the local

council, costing £1.4 million. A fund has been created by the council for the development of sports facilities to benefit the local community.

The subsidiary companies have experienced a difficult trading year. Metropolitan Enterprises Limited has been wound down during the year and has now ceased to trade, having made a loss of £2.4 million. Bio Park Hertfordshire Limited incurred substantial maintenance costs during the year, resulting in a loss of £0.3 million. Universitybus Limited made a small profit of £0.1 million despite large grant cuts by Hertfordshire County Council. It continues to provide a vital service to students, staff and the general public.

Following a large fall in corporate bond yields in July 2016, the deficit attaching to the Local Government Pension Scheme increased materially to £51 million. There is also a deficit of £0.9 million in respect of the Group's share of the Universities Superannuation Scheme. The actuarial loss for the year appears in the consolidated statement of comprehensive income and expenditure on page 47.

The Group monitors its financial performance against the key financial metrics as defined and required by HEFCE. The results for 2015-16 and restated for 2014-15 are as follows:

	Actual 2015-16	Actual 2014-15 restated	Sector mean 2014-15 restated
Surplus to income	6.8%	3.5%	3.2%
Staff costs to income	49.9%	51.5%	53.8%
Liquidity	125 days	114 days	131 days
Borrowing to income	28.0%	30.2%	29.6%
Reserves	82.1%	80.2%	81.0%
Cash flow	13.3%	10.4%	9.1%

£64m – income from diverse commercial operations.

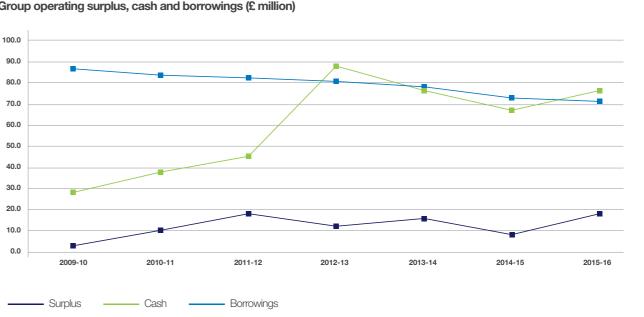
£10 million+ surplus for six years running*

* As originally reported before restatement of 2014-15 under FRS 102

Cash Flow

Cash, including short-term deposits, increased by £7.6 million, and so remains healthy and adequate to fund future investment. External debt of £2 million was repaid. It is not envisaged that further external borrowing will be needed in the foreseeable future.

Group operating surplus, cash and borrowings (£ million)



Changes to Financial Reporting – FRS 102

The Group has adopted FRS 102 for the first time in 2015-16, and has restated its accounts for 2014-15. A full explanation of the changes and the financial impact are explained in note 33.

The Group surplus for the year ended 31 July 2015 as originally reported was £12.9 million; under FRS 102 the restated surplus is £8.8 million. The significant adjustments under FRS 102 and impact on the 2014-15 surplus were as follows:

Surplus for the year Depreciation not cha

Changes to return or

Provision for deficit

Effect of capital gran

Other

Surplus for the year

£21m – capital investment in equipment and buildings.

	£'000
as previously reported	12,930
arged on assets reclassified as investment properties	488
on assets on Local Government Pension Scheme	(2,487)
recovery plan on Universities Superannuation Scheme	(603)
nts released at transition	(1,782)
	206
restated under FRS 102	8,752

£76m cash at year-end.

In order to ensure that the strategy and its key performance indicators can be achieved, the Board also identifies and closely monitors business risks.

The top strategic risks for the Group and measures taken to mitigate them are:

Risk	Mitigation
Poor student recruitment	 Strong focus on Marketing and Communications activity to support recruitment Effective messaging of the University's strong employability rates, academic excellence and values
Budget not achieved	 Close monitoring of financial position with robust forecasting and corrective action taken as necessary Financial management delegated to accountable senior staff
Poor NSS scores impacting on imminent TEF	 Close analysis of NSS 2016 scores and detailed feedback to Schools to understand and respond to any poor student feedback
Research Insufficient quality outputs that can contribute to Research Excellence Framework. Lack of profile and awareness of impact of UH research	 New research themes launched May 2016 to engender collaboration outputs and impact across the University High-level communications focus with strong media return Engagement with research bidding to secure funding
Brexit Withdrawal of the UK from the European Union	 Extensive briefing and reassurance to EU staff about their position at the University Messaging that the University is open for business and remains international in outlook Commitment to represent EU students and staff to Government in terms of work visas in liaison with partner bodies like University's Alliance Stress the international nature of the University Protect the status of loans and grants for EU students Advise researchers about collaborative projects with EU HE sector
Business University unable to maintain a high level of graduate employability	 Very strong DHLE figures in 2016 Strong focus throughout all courses on employability outcomes, work experience and graduate attributes
Failure to increase commercial income and loss of major contracts	 Close monitoring of activities and accounts Liaison with national bodies to monitor and influence developments Business to Business campaign promoting the business offer of the University focus on knowledge transfer consultancy Network of Business development staff
People Loss of key staff Poor succession planning	 New HR lead appointed and people strategy to be rolled out Identification of key risk areas and succession plan
Major accident or incident	Robust emergency and business continuity planning and strategyRegular audits, monitoring and scenario planning

Members of the executive team provide regular briefings to the Audit Committee and the Board, allowing Governors to monitor the assessment, mitigation and responses to these risks. Further details on the University's risk management procedures and policies are set out in the statement of corporate governance.

Auditor

The appointment of the auditors, Grant Thornton UK LLP, comes to an end on 31 December 2016, following which, under the normal procurement regulations of the University, the Group will go out to tender to appoint auditors.

Statement of corporate governance

The following statement is provided to enable readers of the financial statements of the University of Hertfordshire to gain a to determine the educational character better understanding of the governance and legal structure of the institution.

Legal status

The University of Hertfordshire is an independent corporation, established as a Higher Education Corporation under the provisions of the Education Reform Act 1988 and the Further and Higher Education Act 1992. It is an exempt charity as defined under the Charities Act 2011 and is regulated by the Higher Education Funding Council for England (HEFCE).

The University conducts its business in accordance with the seven principles identified by the Nolan Committee on Standards in Public Life and with the guidance provided to Higher Education institutions by the Committee of University Chairs (CUC). The Board has adopted The Higher Education Code of Governance (CUC 2014) and is satisfied that it operates in compliance with the Code.

The University's objects, powers and the institutional governance framework are set in the Articles of Government. The Articles and any amendments to them must be approved by the Privy Council.

Governance structure

The Articles of Government require the University to establish a Board of Governors and an Academic Board, each with clearly defined functions and responsibilities, to oversee and manage its activities.

Board of Governors

The Board of Governors is the University's governing body and is unambiguously and collectively accountable for institutional activities, taking all final decisions on matters of fundamental concern. It is responsible

for the finance, property and staffing of the University. It is specifically required and mission of the University and to set its general strategic direction. The Board has a majority of Independent Members, selected in line with strict criteria contained in the legislation. It is customary for the Chairman of the Board to be elected from the Independent Members.

There is also provision for the appointment of a number of Co-opted Members (some of whom may be members of staff of the University) and for representatives of the Academic Board and of the student body. No members of the Board receive any remuneration for the work they do for the Board, although they are able to claim expenses incurred in the course of undertaking their duties. In 2015-16, the Board met on eight occasions and average attendance was 78%.

Members of the Board of Governors are listed on page 84. The University maintains a Register of Interests of members of the Board of Governors, the Boards of Directors of the subsidiary companies and designated officers of the Board which may be consulted by arrangement with the Secretary and Registrar.

Chief Executive

The Vice-Chancellor is the head of the University and is responsible to the Board for the organisation, direction and management of the University. Under the terms of the formal Memorandum of Assurance and Accountability between the University and HEFCE, the Vice-Chancellor is the designated accountable officer of the University and in that capacity can be summoned to appear before the Public Accounts Committee of the House of Commons.

Academic Board

Subject to the overall responsibility of the Board of Governors, the Academic

Board has oversight of the academic affairs of the University and draws its membership entirely from the staff and students of the University. It is particularly concerned with issues relating to the teaching and research work of the University. The Academic Board is chaired by the Vice-Chancellor.

Committees

Certain matters such as the approval of the strategic plan, the annual budget, major investments and the sale and purchase of land are reserved matters for the Board. However, much of its detailed work is handled initially by committee.

Finance Committee

The Finance Committee is responsible for the financial management and regulation of the Group. It also has oversight of financial policy and management and the progress of significant capital projects. The committee normally meets four times during each academic year.

Employment, Remunerations, Governance and Nominations Committee

This committee is responsible to the Board for the University's overarching HR policy framework, its component policies and changes or additions to these, and determines and reviews the remuneration and conditions of staff appointed by the Board itself. It also sets the framework of pay and conditions of those employees designated as Senior Managers and considers and oversees all matters relating to the good governance of the Board. Its role is distinct from that of the Audit Committee, described below. The Committee is established by the Board to act as the Appointments Committee in respect of all appointments made by the Board of Governors, except that final responsibility for the appointment of the Vice-Chancellor rests with the Board itself. The Committee meets three times per year.

Audit Committee

The Audit Committee normally meets five times each year, including a meeting with the external auditors to discuss audit findings. The committee considers the detailed internal audit report findings prepared by the University's internal audit service, reviews the effectiveness of the systems of internal control and monitors compliance with regulatory requirements. It reviews the annual financial statements prior to their consideration and approval by the Board together with the accounting policies. It ensures that the systems and processes for the preparation of statutory returns to HEFCE and the Higher Education Statistics Agency (HESA) are reviewed and that returns have received the required approval prior to submission.

Other than the Audit Committee, whose composition includes a staff governor nominated by the Board of Governors, these committees are composed of Independent and external Co-opted Members of the Board. The decisions of all of these committees are reported formally to the Board.

The Board of Governors conducts regular effectiveness reviews of itself and its committees. These reviews include an analysis of attendance, work undertaken and the views of members so that changes can be introduced as appropriate during the next cycle. As Chief Executive, the Vice-Chancellor exercises considerable influence upon the development of University strategy, the identification and planning of new developments and the shaping of the University ethos.

Members of the Office of the Vice-Chancellor (currently the Deputy Vice-Chancellor, the Group Finance Director and the Secretary and Registrar) all contribute in various ways to this aspect of the work. However, the Vice-Chancellor remains ultimately responsible to the Board in this regard.

In accordance with the Articles of Government, the University Secretary and Registrar has been designated Secretary to the Board and in that capacity provides independent advice on matters of governance to all Board members.

Going concern

The Board of Governors is satisfied that the University has adequate resources to continue in operation for the foreseeable future, and for this reason the Board consider that the accounts of the Group should be prepared on a going concern basis. The Group has made surpluses in each of the past five years and has cash reserves at a high level. The budget for 2016-17 is also indicating the achievement of a surplus and the medium and long-term cash forecasts demonstrate financial sustainability. In each of the past six years, more than six applications were made for each place for UK and EU based undergraduates.

Investments in fixed assets are carefully reviewed prior to approval. The Board only undertakes such investments with the knowledge that the Group will remain solvent, and are likely to add value as a result of the investment. Although no new external borrowing is likely to be required in the near term, the Board is confident that funding would be available from its lenders should the need arise.

Statement of internal control

The Board of Governors acknowledges its responsibility for ensuring that an effective system of internal financial control is maintained and operated by the University of Hertfordshire Group. The system can provide only reasonable and not absolute assurance that assets are safeguarded, transactions are authorised and properly recorded and that material errors or irregularities are either prevented or would be detected within a timely period. The system of internal financial control is based on a framework of regular management information, administrative procedures including the segregation of duties and a system of delegation and accountability. In particular, it includes:

- comprehensive budgeting systems with an annual budget which is reviewed and agreed by the Board;
- regular reviews by the Board of periodic and annual financial reports which indicate financial performance against budgets and forecasts;
- setting targets to measure financial and other performance using KPIs as appropriate;
- clearly defined capital investment control quidelines;
- the adoption of formal project management disciplines where appropriate.

The Board has established the processes for the identification, evaluation and management of risks the University faces. The Board has responsibility for maintaining a sound system of internal control that supports the achievement of policies, aims and objectives, while safeguarding the public and other funds and assets for which it is responsible. This is in accordance with the responsibilities assigned to the governing body in Instrument and Articles of Government and the Memorandum of Assurance and Accountability with HEFCE.

to manage rather than eliminate the risk of failure to achieve policies, aims and objectives; it can therefore only provide reasonable and not absolute assurance of effectiveness.

The system of internal control is based on an ongoing process designed to identify the principal risks to the achievement of policies, aims and objectives, to evaluate the nature and extent of those risks and to manage them efficiently, effectively and economically.

The Board has responsibility for reviewing the effectiveness of the system of internal control. The following processes have been established.

- The Board meets at regular intervals to consider performance reports, operational plans and the strategic direction of the University.
- The Board receives periodic reports from the Chairman of the Audit Committee concerning internal control and requires regular reports from managers on the steps they are taking to manage risks in their areas of responsibility, including progress reports on key projects.
- The Audit Committee provides an oversight of risk management and receives regular reports from the internal audit service, which includes the internal audit service's independent opinion on the adequacy and effectiveness of the institution's system of internal control, together with recommendations for improvement.
- A programme of risk awareness training has been completed and a system of key performance and risk indicators has been developed.
- A robust risk prioritisation methodology based on risk ranking and cost benefit analysis has been established.

- The system of internal control is designed An organisation-wide risk register is maintained
 - Procurement procedures are in place that promote economy and efficiency and ensure value for money.
 - Effective review processes are in place to provide assurance over the quality and completeness of data management.

Responsibilities of the Board of Governors

In accordance with the University's Instrument and Articles of Government, the Board of Governors is responsible for the administration and management of the affairs of the University and is required to present audited financial statements for each financial year. The Board of Governors is responsible for preparing the Strategic Report and the financial statements in accordance with applicable law and regulations.

The Board of Governors is required to prepare financial statements for each financial year in accordance with United Kingdom Generally Accepted Accounting Practice (United Kingdom Accounting Standards and applicable law) including FRS 102: The Financial Reporting Standard applicable in the UK and Republic of Ireland. In addition, the Board of Governors is required to prepare the financial statements in accordance with the terms and conditions of the HEFCE Memorandum of Assurance and Accountability (July 2016), through its accountable officer. At the University of Hertfordshire the designated accountable officer has been identified as the Vice-Chancellor. The Board of Governors must not approve the financial statements unless they are satisfied that they give a true and fair view of the state of affairs of the University and the Group and of the surplus or deficit, gains and losses, changes in reserves and cash flows of the University and the Group for that year.

In preparing the financial statements, the Board of Governors is required to:

- select suitable accounting policies and then apply them consistently;
- make judgements and accounting estimates that are reasonable and prudent;
- state whether applicable UK accounting standards have been followed, subject to any material departures disclosed and explained in the financial statements: and

• prepare the financial statements on the going concern basis unless it is inappropriate to presume that the Group will continue in business.

The Board of Governors is responsible for keeping adequate accounting records that are sufficient to show and explain the University's and Group's transactions and disclose with reasonable accuracy at any time the financial position of the University and the Group and enable it to ensure that the financial statements comply with the Instrument and Articles of Government, the Statement of Recommended Practice — Accounting for Further and Higher Education as issued in March 2014 and any subsequent amendments, the HEFCE Accounts Direction and other applicable regulations. They are also responsible for safeguarding the assets of the University and the Group and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

The Board of Governors has taken reasonable steps to:

- ensure that funds from HEFCE and other funding bodies are used only for the purposes for which they have been given and in accordance with the HEFCE Memorandum of Assurance and Accountability (July 2016) and any other conditions which the Funding Council may from time to time prescribe;
- ensure that there are appropriate financial management controls in place to safeguard public funds and funds from other sources;
- ensure that the University has a robust and comprehensive system of risk management, control and corporate governance, which includes the prevention and detection of corruption, fraud, bribery and irregularities; and
- secure the economic, efficient and effective management of the University's and the Group's resources and expenditure.

The Board of Governors is responsible for the maintenance and integrity of the corporate and financial information included on the University's website. Legislation in the United Kingdom governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

The Board of Governors confirm that:

- so far as each Governor is aware, there is no relevant audit information of which the University's auditor is unaware: and
- the Governors have taken all the steps that they ought to have taken in order to make themselves aware of any relevant audit information and to establish that the University's auditor is aware of that information.

Approved on behalf of the Board of Governors by:

Professor Q A McKellar Vice-Chancellor

Mr R Beazley

Chairman of the Board of Governors

Financial Statements



Report of the independent auditor to the Board of Governors of the University of Hertfordshire

Independent auditor's report to the Board of Governors of the University of Hertfordshire

We have audited the financial statements of the University of Hertfordshire (the 'University') for the year ended 31 July 2016 which comprise the consolidated and University statement of comprehensive income and expenditure, the consolidated and University statement of changes in reserves, the consolidated and University balance sheets, the consolidated cash flow and the related notes. The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice) including FRS 102: The Financial Reporting Standard applicable in the UK and Republic of Ireland.

This report is made solely to the University's Board of Governors, as a body, in accordance with the University's Articles of Government. Our audit work has been undertaken so that we might state to the University's Board of Governors those matters we are required to state to it in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the University and the University's Board of Governors as a body, for our audit work, for this report, or for the opinions we have formed.

Respective responsibilities of the Board of Governors and auditor

As explained more fully in the Statement of Responsibilities of the Board of Governors set out on page 44, the Board of Governors is responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view. Our responsibility is to audit and express an opinion on the financial statements in accordance with applicable law and International Standards on Auditing (UK and Ireland). Those standards require us to comply with the Auditing Practices Board's Ethical Standards for Auditors.

Scope of the audit of the financial statements

A description of the scope of an audit of financial statements is provided on the Financial Reporting Council's website at www.frc.org.uk/auditscopeukprivate.

Opinion on financial statements

In our opinion the financial statements:

- give a true and fair view of the state of the group's and the University's affairs as at 31 July 2016 and of the group's and University's income and expenditure, gains and losses, changes in reserves and cash flows for the year then ended in accordance with United Kingdom Generally Accepted Accounting Practice; and
- have been properly prepared in accordance with the Statement of Recommended Practice: Accounting for Further and Higher Education published in March 2014.

Opinion on other matters prescribed by HEFCE's Memorandum of Assurance and Accountability dated July 2016 and the funding agreement with the National College for Teaching and Leadership In our opinion, in all material respects:

- funds from whatever source administered by the University for specific purposes have been properly applied to those purposes and managed in accordance with the relevant legislation;
- funds provided by HEFCE and the National College for Teaching and Leadership have been applied in accordance with the Memorandum of Assurance and Accountability, the funding agreement with the National College for Teaching and Leadership and any other terms and conditions attached to them; and
- the requirements of HEFCE's accounts direction have been met.

Grant Thornton UK LLP Statutory Auditor, Chartered Accountants I ondon

Date: 25 November 2016

Consolidated and University statement of comprehensive income and expenditure for the year ended 31 July 2016

Income

Tuition fees and education contracts Funding body grants Research grants and contracts Other income Investment income Total income before other donations and endowments Donations and endowments Total income

Expenditure

Staff costs Other operating expenses Depreciation Interest and other finance costs **Total expenditure**

Surplus before other gains and losses and share of operating surplus of joint ventures

(Loss)/gain on disposal of fixed assets Loss on investments Share of operating surplus in joint ventures Surplus before tax Taxation

Surplus for the year

Actuarial loss in respect of pension schemes Change in fair value of hedging financial instruments Total comprehensive income for the year

Represented by:

Endowment comprehensive income for the year Restricted comprehensive income for the year Unrestricted comprehensive income for the year Revaluation reserve comprehensive income for the year

All results are from continuing operations.

The notes on pages 51 to 84 form an integral part of these financial statements.

Notes	2016 Group £'000	2016 University £'000	2015 Group £'000	2015 University £'000
1	159,880	159,759	146,812	146,740
2	21,809	21,809	23,218	23,218
3	9,409	8,525	10,766	8,794
4	63,852	40,019	65,610	36,345
5	1,306	1,180	647	444
	256,256	231,292	247,053	215,541
6	301	146	238	136
	256,557	231,438	247,291	215,677
7	128,082	110,174	127,416	108,591
	90,730	83,349	88,615	77,995
12	14,700	12,643	14,291	11,322
8	3,514	2,901	3,652	2,964
9	237,026	209,067	233,974	200,872
	19,531	22,371	13,317	14,805
	(5)		10	13
14	(3)	(3,193)	(4,873)	(3,769)
15	153	-	155	- (0,700)
10	17,425	19,178	8,609	11,049
10	23	-	143	-
	17,448	19,178	8,752	11,049
		-		
32	(34,106)	(33,002)	(5,136)	(4,954)
21	33	-	(297)	-
	(16,625)	(13,824)	3,319	6,095
	204	17	182	17
	204	(75)	(175)	5
	(16,762)	(13,495)	3,654	6,416
	(271)	(271)	(342)	(343)
	(16,625)	(13,824)	3,319	6,095

Consolidated and University statement of changes in reserves for the year ended 31 July 2016

E	Income and indowment	l expenditure a Restricted U		Revaluation reserve	Total
Group	£'000	£'000	£'000	£'000	£'000
Balance at 1 August 2014	2,442	383	189,466	41,943	234,234
Surplus from the income and expenditure statement	182	162	8,408	-	8,752
Other comprehensive income	-	(297)	(5,136)	-	(5,433)
Transfers between revaluation and income and expenditure re-	serve -	()	342	(342)	-
Release of restricted funds spent in year	-	(40)	40	-	-
Total comprehensive income for the year	182	(175)	3,654	(342)	3,319
Balance at 1 August 2015	2,624	208	193,120	41,601	237,553
Surplus from the income and expenditure statement	204	186	17,058	-	17,448
Other comprehensive income	-	33	(34,106)	-	(34,073)
Transfers between revaluation and income and expenditure res	serve -	-	271	(271)	-
Release of restricted funds spent in year	-	(15)	15	-	-
Total comprehensive income for the year	204	204	(16,762)	(271)	(16,625)
Balance at 31 July 2016	2,828	412	176,358	41,330	220,928
University					
Balance at 1 August 2014	673	248	199,290	40,803	241,014
Surplus from the income and expenditure statement	17	80	10,952		11,049
Other comprehensive income	-	-	(4,954)	-	(4,954)
Transfers between revaluation and income and expenditure re-	serve -		343	(343)	
Release of restricted funds spent in year	-	(75)	75	-	-
Total comprehensive income for the year	17	5	6,416	(343)	6,095
Polonee at 1 August 0015	690	253	00E 70C	10.460	047 100
Balance at 1 August 2015	17		205,706	40,460	247,109
Surplus from the income and expenditure statement Other comprehensive income	17	92	19,069 (33,002)	-	19,178 (33,002)
Transfers between revaluation and income and expenditure re-	- 2011/0	-	(33,002) 271	- (271)	(00,002)
Release of restricted funds spent in year		(167)	167	(۲۱) -	_
Total comprehensive income for the year	17	(107)	(13,495)	(271)	(13,824)
Polones at 04 July 0040	707	470	100.011	40.400	000 005
Balance at 31 July 2016	707	178	192,211	40,189	233,285

Consolidated and University balance sheets as at 31 July 2016

Non-current assets

Intangible assets Goodwill Fixed assets Investments Investment in joint ventures

Current assets

Stock Trade and other receivables Investments Cash and cash equivalents

Less: Creditors: amounts falling due within one year Net current assets

Total assets less current liabilities

Creditors: amounts falling due after more than one year

Provisions

Pension provisions Provisions for liabilities

Total net assets

Restricted reserves

Income and expenditure reserve - endowment reserve Income and expenditure reserve - restricted reserve Unrestricted reserves Income and expenditure reserve - unrestricted Revaluation reserve **Total reserves**

The Financial Statements were approved by the Board of Governors on 24 November 2016 and signed on its behalf by:

Mr R Beazley Chairman

Professor Q A McKellar Vice-Chancellor

	2016	2016	2015	2015
	Group	University	Group	University
Notes	£'000	£'000	£'000	£'000
11	36	-	38	-
11	1,030	-	1,119	-
12	310,653	266,265	304,788	259,209
14	35,294	81,321	36,855	83,915
15	507	-	282	-
	347,520	347,586	343,082	343,124
16	371	142	411	184
17	17,513	21,532	17,730	17,244
18	34,050	34,050	34,500	34,500
25	42,131	38,787	34,008	31,156
	94,065	94,511	86,649	83,084
19	(66,557)	(66,052)	(66,422)	(64,657)
	27,508	28,459	20,227	18,427
	375,028	376,045	363,309	361,551
20	(101,559)	(89,918)	(105,278)	(92,793)
22	(51,905)	(52,336)	(19,514)	(20,807)
22	(636)	(506)	(964)	(842)
	220,928	233,285	237,553	247,109
				,
23	2,828	707	2,624	690
24	412	178	208	253
	176,358	192,211	193,120	205,706
	41,330	40,189	41,601	40,460
	220,928	233,285	237,553	247,109

Mr A Moffat Group Finance Director

Consolidated cash flow for the year ended 31 July 2016

	Notes	2016 £'000	2015 £'000
Cash flow from operating activities			
Surplus for the year		17,448	8,752
Adjustment for non-cash items		-	
Depreciation	12	14,700	14,291
Amortisation of intangibles	11	2	2
Amortisation of goodwill	11	89	286
Gain on investments	14	2,254	4,873
Decrease in stock		40	121
Decrease/(increase) in debtors		388	(94)
Decrease/(increase) in creditors		(1,242)	4,631
Decrease in pension provision		(1,715)	(673)
Decrease in other provisions		(328)	(455)
Share of operating surplus in joint ventures	15	(153)	(155)
Adjustment for investing or financing activities			
Investment income	5	(1,306)	(647)
Interest payable		2,848	3,052
Endowment income	6	(65)	(1)
Loss/(profit) on the sale of fixed assets		5	(10)
Capital grant income		(2,543)	(2,909)
Net cash inflow from operating activities		30,422	31,064
Cash flows from investing activities			
Proceeds from sales of fixed assets		126	10
Capital grant receipts		1,580	1,903
Disposal of non-current asset investments		30	50
Withdrawal of deposits		32,500	20,000
Investment income		536	628
Payments made to acquire fixed assets		(18,917)	(36,099)
New non-current asset investments		(124)	(116)
New deposits		(32,050)	(32,500)
		(16,319)	(46,124)
Cash flows from financing activities			
Interest paid		(1,935)	(2,103)
Interest element of finance lease and service concession payments		(917)	(947)
Endowment cash received		65	1
Repayments of amounts borrowed		(2,296)	(2,242)
Capital element of finance lease and service concession payments		(897)	(865)
		(5,980)	(6,156)
Increase/(decrease) in cash for the year		8,123	(21,216)
Cook and cook or unalante at beginning of the woor		24 000	55.004
Cash and cash equivalents at beginning of the year	05	34,008	55,224
Cash and cash equivalents at end of the year	25	42,131	34,008

Statement of principal accounting policies

1. Basis of preparation

These financial statements have been prepared in accordance with the Statement of Recommended Practice (SORP): Accounting for Further and Higher Education 2015 and in accordance with FRS 102: The Financial Reporting Standard applicable in the UK and Republic of Ireland. The University is a public benefit entity and therefore has applied the relevant public benefit requirements of FRS 102. The financial statements are prepared in accordance with the historical cost convention (modified by the revaluation of fixed assets, investment properties and derivative financial instruments).

Going concern

The Board of Governors is satisfied that the University and its subsidiary undertakings (the Group) has adequate resources to continue in operation for the foreseeable future and for this reason the Board consider that the consolidated financial statements of the Group should be prepared on a going concern basis.

2. Basis of consolidation

The consolidated financial statements include those of the University and its subsidiary undertakings and joint ventures for the year ended 31 July 2016. The results of subsidiaries acquired or disposed of during the period are included in the consolidated statement of comprehensive income and expenditure from the date of acquisition or up to the date of disposal. Intra-group sales and profits are eliminated on consolidation.

The consolidated financial statements do not include those of the University of Hertfordshire Students' Union as the University does not exert control or dominant influence over financial and operating policy decisions.

Associated companies and joint ventures are accounted for using the equity method.

3. Recognition of income

Income from the sale of goods or services is credited to the consolidated statement of comprehensive income and expenditure when the goods or services

are supplied or the terms of the contract have been satisfied.

Tuition fee income is credited to the consolidated statement of comprehensive income and expenditure over the period in which students are studying and is shown net of discounts for prompt payment. Bursaries and scholarships are accounted for as expenditure and not deducted from income.

Investment income is credited to the consolidated statement of comprehensive income and expenditure account on a receivable basis.

Funds the institution receives and disburses as paying agent on behalf of other bodies are excluded from the income and expenditure of the institution where the institution is exposed to minimal risk or enjoys minimal economic benefit related to the transaction.

Grant income

Government revenue grants including funding body block grants and research grants are recognised in income over the periods in which the Group recognises the related costs for which the grant is intended to compensate. Where part of a government grant is deferred, it is recognised as deferred income within creditors and allocated between creditors due within one year and due after more than one year as appropriate.

Grants (including research grants) from non-government sources are recognised in income when the Group is entitled to the income and performance-related conditions have been met. Income received in advance of performancerelated conditions being met is recognised as deferred income within creditors on the balance sheet and released to income as the conditions are met.

Government capital grants are recognised in income over the expected useful life of the asset. Other capital grants are recognised in income when the Group is entitled to the funds subject to any performance-related conditions being met.

Donations and endowments

Non exchange transactions without performance-related conditions are donations and endowments. Donations and endowments with donor-imposed restrictions are recognised in income when the Group is entitled to the funds. Income is retained within the restricted reserve until such time that it is utilised in line with the restrictions, at which point the income is released to unrestricted reserves through a reserve transfer.

Donations with no restrictions are recognised in income when the Group is entitled to the funds.

Investment income and appreciation of endowments is recorded in income in the year in which it arises and as either restricted or unrestricted income according to the terms applied to the individual endowment fund.

There are four main types of donations and endowments identified within reserves

- Restricted donations the donor i i has specified that the donation must be used for a particular objective.
- ii. Unrestricted permanent endowments - the donor has specified that the fund is to be permanently invested to generate an income.
- Restricted expendable endowments iii. - the donor has specified a particular objective other than the purchase or construction of tangible fixed assets, and the Group has the power to use the capital.
- Restricted permanent endowments iv. - the donor has specified that the fund is to be permanently invested to generate an income stream to be applied to a particular objective.

4. Accounting for retirement benefits

The two principal pension schemes for the Group's staff are the Teachers' Pension Scheme (TPS) and the Local Government Pension Scheme (LGPS). Additionally, the University has agreed with the Universities Superannuation Scheme (USS) that designated employees may be eligible to become members of that scheme.

Statement of principal accounting policies

These defined benefit schemes are externally funded and were contracted out of the State Second Pension until April 2016.

It is not possible to identify the University's share of the underlying assets and liabilities in the TPS and USS schemes and therefore the schemes are accounted for as if they were defined contribution schemes.

A liability is recorded within provisions for any contractual commitment to fund past deficits within the USS scheme.

Defined contribution plan

A defined contribution plan is a postemployment benefit plan under which the company pays fixed contributions into a separate entity and will have no legal or constructive obligation to pay further amounts. Obligations for contributions to defined contribution pension plans are recognised as an expense in the income statement in the periods during which services are rendered by employees.

Defined benefit plan

Defined benefit plans are postemployment benefit plans other than defined contribution plans. Under defined benefit plans, the Group's obligation is to provide the agreed benefits to current and former employees, and actuarial risk (that benefits will cost more or less than expected) and investment risk (that returns on assets set aside to fund the benefits will differ from expectations) are borne, in substance, by the Group. The Group should recognise a liability for its obligations under defined benefit plans net of plan assets. This net defined benefit liability is measured as the estimated amount of benefit that employees have earned in return for their service in the current and prior periods, discounted to determine its present value, less the fair value (at bid price) of plan assets. The calculation is performed by a qualified actuary using the projected unit credit method. Where the calculation results in a net asset, recognition of the asset is limited to the extent to which the Group is able to recover the surplus either through reduced contributions in the future or through refunds from the plan.

The LGPS figures include the University's unfunded pension liability, which relates to pension enhancements payable to staff who have taken early retirement.

Staff employed by the subsidiary companies are either members of the LGPS or of a defined contribution scheme, the costs of which are charged to the consolidated statement of comprehensive income and expenditure as incurred.

5. Employee benefits

Short-term employment benefits such as holiday pay and compensated absences are recognised as an expense in the year in which the employees render service to the Group. Any unused benefits are accrued and measured as the additional amount the Group expects to pay as a result of the unused entitlement.

6. Operating leases

Costs in respect of operating leases are charged on a straight-line basis over the lease term. Any lease premiums or incentives are spread over the minimum lease term.

7. Foreign currency transactions

Transactions denominated in foreign currencies are recorded at the rate of exchange ruling at the date of the transaction. Monetary assets and liabilities in foreign currencies are translated into sterling at the yearend rates and the resulting surplus or deficit transferred to the consolidated statement of comprehensive income and expenditure.

8. Fixed assets

Land and buildings

On adoption of FRS 102 the Group elected to measure part of its land at fair value and to use that fair value as its deemed cost at the date of transition. The Group has chosen not to adopt a policy of revaluation of these assets in the future. These values are retained subject to the requirement to test assets for impairment on an annual basis. Where there is evidence of impairment, fixed assets are written down to their recoverable amount. Any such write

down is charged to the consolidated statement of comprehensive income and expenditure unless it reverses previous revaluations which are dealt with through the revaluation reserve.

Depreciation on buildings is provided on a straight-line basis over the estimated useful lives as follows:

Freehold buildings	30–50 years
Refurbishments	3–50 years

Leasehold land and buildings are amortised over the life of the lease up to a maximum of 50 years.

Freehold land is not depreciated as it is considered to have an indefinite useful life.

Assets in the course of construction represent those assets which have not yet been brought into use. These assets are transferred to the relevant category of asset and depreciated from the date they are substantially complete at the appropriate rate for that category.

Borrowing costs are capitalised where they can be directly attributable to the construction of assets and only for the period of construction.

Equipment

Capitalised equipment is stated at cost and depreciated over its useful life on a straight line basis as follows:

Plant and machinery 2–15 years Fixtures, fittings and 3–15 years equipment

9 Leases

Leases in which the Group assumes substantially all the risks and rewards of ownership of the leased asset are classified as finance leases. Leased assets acquired by way of finance lease and the corresponding lease liabilities are initially recognised at an amount equal to the lower of their fair value and the present value of the minimum lease payments at inception of the lease.

Minimum lease payments are apportioned between the finance charge and the reduction of the outstanding

Statement of principal accounting policies

liability. The finance charge is allocated to each period during the lease term so as to produce a constant periodic rate of interest on the remaining balance of the liability.

10. Service concession arrangements

Fixed assets held under service concession arrangements are recognised on the balance sheet at the present value of the minimum lease payments when the assets are brought into use with a corresponding financial liability.

Payments under the service concession arrangement are allocated between service costs, finance charges and financial liability repayments to reduce the financial liability to nil over the life of the arrangement.

11. Intangible fixed assets and goodwill

Goodwill represents the difference between the cost of an acquired operation and the aggregate of the fair values of that operation's identifiable assets and liabilities. Positive purchased goodwill is capitalised and classified as an asset on the balance sheet. Goodwill is amortised over the estimated economic life of the assets to which the goodwill relates. Impairment tests are carried out at the end of the first year and thereafter subject to normal periodic reviews for indications of impairment.

Purchased patents, licences and other similar rights over assets are recognised on the balance sheet by capitalising the purchase cost and amortising over the useful economic life based on each individual contract.

12. Investments

Non-current investments that are not listed on a recognised stock exchange are carried at historical cost less any provision for impairment of their value.

Those that are listed are included at market value and any gains and losses on revaluations are recognised in the surplus or deficit.

Investments in joint ventures, associated and subsidiary undertakings are stated on the balance sheet at cost less provision for impairment. Impairment is assessed by comparing the carrying value of the investment against either an earnings-based or asset-based valuation of each entity as applicable to the business concerned.

Current asset investments are held at fair value with movements recognised in the surplus or deficit.

Investment properties

Investment properties are land and buildings held for rental income or capital appreciation rather than for use in delivering services. Investment properties are stated at fair value with an annual review and revaluation to reflect market conditions. Changes in fair value are recognised in the consolidated statement of comprehensive income and expenditure. Investment properties are not depreciated.

13. Stock

Stock is held at the lower of cost and net realisable value. Cost includes staff time, direct materials and attributable overheads. Where necessary, provision is made for obsolete, slow-moving and defective stock.

14. Cash and cash equivalents

Cash includes cash in hand, cash at bank, and deposits repayable on demand. Deposits are repayable on demand if they are available within 24 hours without penalty.

Cash equivalents are short-term, highly liquid investments that are readily convertible to known amounts of cash with insignificant risk of change in value. Short term investments placed for three months or less are accounted for as cash equivalents.

15. Provisions, contingent liabilities and contingent assets

Provisions are recognised when the institution has a present legal or constructive obligation as a result of a past event, it is probable that a transfer of economic benefit will be required to settle the obligation and a reliable

estimate can be made of the amount of the obligation.

A contingent liability arises from a past event that gives the Group a possible obligation whose existence will only be confirmed by the occurrence or otherwise of uncertain future events not wholly within the control of the Group. Contingent liabilities also arise in circumstances where a provision would otherwise be made but either it is not probable that an outflow of resources will be required or the amount of the obligation cannot be measured reliably.

A contingent asset arises where an event has taken place that gives the Group a possible asset whose existence will only be confirmed by the occurrence or otherwise of uncertain future events not wholly within the control of the Group.

Contingent assets and liabilities are not recognised in the balance sheet but are disclosed in the notes.

16. Taxation

The University is an exempt charity within the meaning of Schedule 3 of the Charities Act 2011 and as such a charity within the meaning of Para 1 of Schedule 6 to the Finance Act 2010. Accordingly, the University is potentially exempt from taxation in respect of income or capital gains received within categories covered by sections 478-488 of the Corporation Taxes Act 2010 or section 256 of the Taxation of Chargeable Gains Act 1992 to the extent that such income or gains are applied to exclusively charitable purposes.

The University receives no similar exemption in respect of Value Added Tax (VAT). Irrecoverable VAT on inputs is included in the costs of such inputs including the cost of fixed assets.

The University's subsidiary and joint venture companies (excluding UH Trust) are liable to corporation tax and VAT in the same way as any other commercial organisation. UH Trust is exempt from corporation tax on its charitable activities but receives no similar exemption in respect of VAT.

Statement of principal accounting policies

Deferred tax is provided in full on timing differences which result in an obligation at the balance sheet date to pay more tax, or a right to pay less tax at a future date, at rates expected to apply when they crystallise based on current rates and law. Timing differences arise from the inclusion of items of income and expenditure in taxation computations in periods different from those in which they are included in financial statements. Deferred tax assets are recognised to the extent they are regarded as more likely than not that they will be recovered. Deferred tax assets and liabilities are not discounted.

17. Derivatives

One of the subsidiary companies in the Group uses commodity swaps to reduce exposure to changes in fuel prices to acceptable levels. These derivatives are initially measured at fair value on the date that the contract is entered into and are subsequently held on the balance sheet at fair value. The Group has adopted and complied with the requirements of hedge accounting and as a result movements in fair value are recorded within other comprehensive income.

18. Reserves

Reserves are classified as restricted or unrestricted. Restricted endowment reserves include balances which, through endowment to the Group, are held as permanently restricted funds which the Group must hold in perpetuity.

Other restricted reserves include balances where the donor has designated a specific purpose and therefore the Group is restricted in the use of these funds.

19. Transition to 2015 SORP

The Group is preparing its financial statements in accordance with FRS 102 for the first time and consequently has applied the first time adoption requirements. An explanation of how the transition to the SORP: Accounting for Further and Higher Education 2015 has affected the reported financial position, financial performance and cash flows of the consolidated results of the Group is provided in note 33.

Application of first time adoption grants certain exemptions from the full requirements of the SORP: Accounting for Further and Higher Education 2015 in the transition period. In this regard the Group has elected to measure part of its land at fair value and to use that fair value as its deemed cost at the date of transition being 1 August 2014.

The Group has adopted new accounting policies, as outlined above, for financial derivatives and hedge accounting; service concession arrangements; employee benefits and the recognition of non-government grant income.

20. Significant accounting judgements and key sources of estimation uncertainty

In the application of its accounting policies, the Group is required to make judgements, estimates and assumptions about the carrying values of assets and liabilities that are not readily apparent from other sources. The estimates and underlying assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from these estimates and assumptions.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised if the revision affects only that period, or in the period of revision and future periods if the revision affects both current and future periods.

The key sources of accounting judgement and estimation uncertainty that have a significant effect on the amounts recognised in the financial statements are described below.

Retirement benefit obligation valuations

In determining the valuation of defined benefit scheme assets and liabilities, a number of key assumptions have been made in terms of inflation rates, life expectancy, discount rates and salary growth. The key assumptions, which are detailed in note 32, are largely

dependent on factors outside the control of the Group. The Group is exposed to risks if actual experience differs to the assumptions used and through volatility in plan assets. The defined benefit obligation recognised in the financial statements is based on an independent actuarial valuation as detailed in note 32.

Fair value measurement

A number of assets and liabilities included in the Group's financial statements require measurement at fair value. This measurement uses market observable inputs and data as far as possible. The Group measures the following items at fair value:

- investment property
- derivative financial instruments
- retirement benefit obligations

On transition to FRS 102 part of the land owned by the Group was revalued and the fair value used as its deemed cost at the date of transition. These valuations were obtained from an independent surveyor.

Classification of property

A degree of judgement is also required over whether property held by the Group is treated as a tangible fixed asset or investment property. Investment property is property which is held to earn rentals or for capital appreciation or both and is held at fair value as disclosed in note 14. Property held by the Group for the provision of education, and therefore social benefit, is treated as a tangible fixed asset and measured using the depreciated cost model. Tangible fixed assets are disclosed in note 12.

Provision for impairments

Investments and tangible fixed assets are reviewed for signs of impairment each year and written down accordingly. Property, plant and equipment is reviewed by the University's Director of Estates in conjunction with market data and other relevant information. The carrying value of non-current investments is reviewed in accordance with the accounting policy outlined above

Notes to the accounts

1. Tuition fees and education contracts

Full-time home and EU students Full-time international students Part-time students Education contracts

2. Funding body grants

Recurrent grant

Higher Education Funding Council Capital grant

Specific grant

Higher Education Innovation Fund Higher Education Funding Council

3. Research grants and contracts

Research councils Research charities Government (UK and overseas) Industry and commerce Other grants and contracts

4. Other income

Residences, catering and conferences Other services rendered Other capital grants Other income

2016	2016	2015	2015
Group	University	Group	University
£'000	£'000	£'000	£'000
104,208	104,208	91,280	91,280
25,011	25,011	25,316	25,316
9,863	9,742	9,924	9,852
20,798	20,798	20,292	20,292
159,880	159,759	146,812	146,740
2016	2016	2015	2015
Group	University	Group	University
£'000	£'000	£'000	£'000
2 000	2000	2 000	2 000
16,168	16,168	16,753	16,753
2,435	2,435	2,805	2,805
3,013	3,013	3,008	3,008
193	193	652	652
21,809	21,809	23,218	23,218
2016	2016	2015	2015
Group	University	Group	University
£'000	£'000	£'000	£'000
2 000	2000	2 000	2.000
2,088	2,088	1,576	1,576
368	368	434	419
4,167	4,024	6,357	4,985
980	273	907	322
1,806	1,772	1,492	1,492
9,409	8,525	10,766	8,794
0010	0010	0015	0015
2016	2016	2015	2015
Group	University	Group	University
£'000	£'000	£'000	£'000
26,710	25,696	21,691	21,062
28,976	5,015	34,447	5,076
108	-	52	
8,058	9,308	9,420	10,207
63,852	40,019	65,610	36,345
			,

5. Investment income

		2016	2016	2015	2015
		Group	University	Group	University
	Notes	£'000	£'000	£'000	£'000
Investment income on endowments	23	59	9	58	8
Other investment income		1,247	1,171	589	436
		1,306	1,180	647	444
6. Donations and endowments					
		2016	2016	2015	2015
		Group	University	Group	University
	Notes	£'000	£'000	£'000	£'000
New endowments	23	65	-	1	-
Donations with restrictions		235	62	225	65
Unrestricted donations		1	84	12	71
		301	146	238	136
7. Staff costs					
		2016	2016	2015	2015
		Group	University	Group	University
	Notes	£'000	£'000	£'000	£'000
Salaries		103,663	88,323	104,069	87,771

Social security costs		9,180	7,800	8,607	7,243	
Movement on pension provision	32	(2,381)	(2,216)	(1,274)	(1,225)	
Other pension costs	32	16,697	15,477	15,543	14,363	
Restructuring costs		923	790	471	439	
		128,082	110,174	127,416	108,591	

Emoluments of the Vice-Chancellor (excluding national insurance contributions):

	2016	2015
	£'000	£'000
Salary	255	250
Performance-related bonus	35	35
Benefits in kind	1	1
	291	286
Pension contributions	43	40
	334	326

The University's pension contributions are paid at the same rate for the Vice-Chancellor as for other staff.

The University granted a loan of £300,000 to the Vice-Chancellor as part of his relocation package. This loan is subject to the interest rate determined by Her Majesty's Revenue and Customs ('the Official Rate'). Interest paid on the loan in the year to 31 July 2016 amounted to £1,000 (2015: £1,000) and the balance of the loan outstanding at that date was £50,000 (2015: £50,000).

Notes to the accounts

7. Staff costs (continued)

benefits, fall within the following bands:

£100,000 - £110,000	
£110,001 - £120,000	
£120,001 - £130,000	
£130,001 - £140,000	
£140,001 - £150,000	
£150,001 - £160,000	
£180,001 - £190,000	
£190,001 - £200,000	

The average number of full time equivalent (FTE) employees (incl

Academic		
Research		
Professional		
Technical		
Other		

Compensation for loss of office payable to a senior post-holder:

Compensation payable recorded within staff costs

Key management personnel

Key management personnel compensation

Key management personnel are those persons having authority and responsibility for planning, directing and controlling the activities of the University and include the members of the Chief Executive's Group that are Officers appointed by the Board as detailed on page 9 of the Strategic Report. Staff costs, disclosed above, include compensation paid to key management personnel.

The members of the Board of Governors received no remuneration during the year (2015: £nil). Total expenses of £1,900 (2015: £1,800) were paid to three members of the governing body. This represents travel and subsistence expenses incurred in attending committee meetings and other events in their official capacity.

Mr J Heywood, a member of the Board of Governors of the University of Hertfordshire until 31 August 2015, was appointed as Chairman of the Board of Exemplas Holdings Limited, a wholly owned subsidiary of the University, on 1 October 2015 for which he received remuneration of £30,000.

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Remuneration of other higher paid staff, excluding employer's pension and national insurance contributions but including

2016	2015
Number	Number
2	2
2	1
2	4
- 1	1
-	1
1	-
-	1
1	-
9	10
·	10
luding senior post-holders) during the year was:	
2016	2015
Number	Number
894	872
106	114
919	934
104	107
473	513
2,496	2,540
2,100	2,010
2016	2015
£'000	£'000
2000	2 000

-	-
2016	2015
£'000	£'000
916	899
	£'000 899

8. Interest and other finance costs

	2016	2016	2015	2015
	Group	University	Group	University
	£'000	£'000	£'000	£'000
Loan interest	1,909	1,887	1,939	1,900
Finance lease and service concession interest	917	270	963	285
Exchange differences	22	1	148	115
Net charge on pension schemes	666	743	600	664
Other interest payable	-	-	2	-
	3,514	2,901	3,652	2,964

9. Analysis of total expenditure by activity

		2016	2016	2015	2015
		Group	University	Group	University
	Notes	£'000	£'000	£'000	£'000
Academic departments		84,515	84,581	80,423	80,243
Academic services		15,693	17,521	15,774	17,555
Administration		46,968	51,549	45,862	50,516
Premises		20,715	19,639	21,261	20,210
Residences, catering and conferences		28,453	27,203	24,157	23,518
Research grants and contracts		7,812	7,370	9,285	7,734
Other expenses		32,870	1,204	37,212	1,096
		237,026	209,067	233,974	200,872

Other operating expenses include:

Current tax (credit)/charge

outer operating expenses include.		2016 Group £'000	2016	2015	2015
			University	Group	University
			£'000	£'000	£'000
External auditors remuneration in respect of audit services		80	40	79	38
External auditors remuneration in respect of non-audit services		48	17	58	24
Operating lease rentals – land and buildings	27	11,764	11,764	7,593	7,593
10. Taxation					
				2016	2015
				Group	Group
				£'000	£'000
UK corporation tax on surplus for the year				(30)	29
Adjustment in respect of prior years				-	-

Notes to the accounts

10. Taxation (continued)

Origination and reversal of timing differences Recognition of previously unrecognised tax losses Deferred tax

Tax on surplus on ordinary activities

Tax reconciliation:

Surplus on ordinary activities before tax Surplus on ordinary activities multiplied by standard rate in the UI Effects of: Depreciation for the period in excess of capital allowances Non-taxable income/expenditure Expenses not deductible for tax purposes Group relief Gift Aid in respect of prior years Tax losses not utilised Other timing differences Deferred tax not recognised Timing differences relating to pension liability FRS 102 restatement – not taxable in period FRS 102 restatement - tax relief due to change in accounting policy Tax credit for the year

The above taxation credit relates to the profits of a number of the subsidiary and joint venture companies.

11. Intangible assets

Other

(30)

29

At 1 August 2015 Amortisation At 31 July 2016

Goodwill At 1 August 2015 Amortisation At 31 July 2016

The goodwill relates to an acquisition of trade and assets by a subsidiary undertaking in 2007 and is being amortised over a period of 20 years. Other intangibles comprise a patent that was purchased in 2013 and which is being amortised over 20 years. There are no intangible assets on the University balance sheet.

	2016 Group £'000	2015 Group £'000
	7	(172)
	- 7	(172)
	(23)	(143)
JK (20%) (2015: 20.67%)	17,425 3,485	8,609 1,779
	(93) (4,292)	(156) (628)
	885	892
	(29) (60)	(26) (56)
	62	35 2
	420	-
	(295)	(809) (1,176)
	(106) (23)	(143)
	(20)	(1-0)

Group £'000
38 (2) 36
(2)
36
1,119
(89)
1,119 (89) 1,030

12. Fixed assets

	I	Land and build	lings			
		Service	Assets in the	Fixtures	Plant	
		concession	course of	fittings and	and	
	Freehold	arrangement	construction	equipment	machinery	Total
Group	£'000	£'000	£'000	£'000	£'000	£'000
Cost or valuation						
At 1 August 2015	318,852	8,178	37,187	54,347	12,134	430,698
Additions at cost	5,793	-	8,635	4,222	2,056	20,706
Transfers	33,457	-	(37,223)	3,607	159	-
Less disposals in year	-	-	(17)	(105)	(795)	(917)
At 31 July 2016	358,102	8,178	8,582	62,071	13,554	450,487
Depreciation						
At 1 August 2015	88,084	1,635	-	30,800	5,391	125,910
Charge for the year	6,901	136	-	6,621	1,042	14,700
Less disposals in year	-	-	-	-	(776)	(776)
At 31 July 2016	94,985	1,771	-	37,421	5,657	139,834
Net book value						
At 31 July 2016	263,117	6,407	8,582	24,650	7,897	310,653
At 31 July 2015	230,768	6,543	37,187	23,547	6,743	304,788

The net book value of assets held by the Group under finance leases at 31 July was:

	2016	2016	2015	2015
		Plant and		Plant and
	Buildings	machinery	Buildings	machinery
	£'000	£'000	£'000	£'000
Cost	15,940	1,184	15,940	1,184
Accumulated depreciation brought forward	(4,318)	(467)	(4,012)	(388)
Charge for the year	(306)	(79)	(306)	(79)
Net book value	11,316	638	11,622	717

Notes to the accounts

12. Fixed assets (continued)

	Lan	d and build	ings			
		Service	Assets in the	Fixtures	Plant	
	c	oncession	course of	fittings and	and	
	Freehold an	angement	construction	equipment	machinery	Total
University	£'000	£'000	£'000	£'000	£'000	£'000
Cost or valuation						
At 1 August 2015	259,228	8,178	37,170	51,832	3,070	359,478
Additions at cost	5,722	-	8,520	4,148	1,311	19,701
Transfers	33,457	-	(37,223)	3,607	159	-
At 31 July 2016	298,407	8,178	8,467	59,587	4,540	379,179
Depreciation						
At 1 August 2015	69,158	1,635	-	28,971	507	100,271
Charge for the year	5,732	136	-	6,434	341	12,643
At 31 July 2016	74,890	1,771	-	35,405	848	112,914
Net book value						
At 31 July 2016	223,517	6,407	8,467	24,182	3,692	266,265
At 31 July 2015	190,070	6,543	37,170	22,862	2,563	259,209

The University held no assets under finance leases at 31 July.

The major site at Hatfield, east of College Lane, is subject to a deed of gift and conveyance dated 12 December 1946 for the purposes of education to the charity called Hatfield Polytechnic. The charity is part of the assets transferred from Hertfordshire County Council and trusteeship now rests with the Board of Governors of the University. Any proposed change in use or ownership is subject to the agreement of the Charity Commission.

Buildings with a cost of £82.8 million have been partly funded from Treasury sources. Should these particular buildings be sold, the University would either have to surrender part of the proceeds to the Treasury or use them in accordance with HEFCE Memorandum of Assurance and Accountability.

The amount of finance costs capitalised in the year amounts to £nil (2015: £nil). There were no assets constructed during the year financed by loan capital. The accumulated amount of capitalised finance costs is £1.8 million which is included in freehold land and buildings.

Land and buildings includes £55.6m of land which is not depreciated (2015: £33.0m).

Transition to FRS 102

As part of the transition to FRS 102, a number of the premises owned by the Group have been identified as investment properties and have been restated as such within the Financial Statements. As at the date of transition these premises were revalued, and subsequent review has been carried out on an annual basis since then. Gains and losses relating to these properties have been recognised in accordance with FRS 102 and details are provided within note 14 (non-current asset investments).

At the date of transition to FRS 102 the Group elected to measure part of the land on and adjacent to the estate at its fair value and use that fair value as the deemed cost at the date of transition. The Group has not adopted a policy of revaluation of these assets in the future. The revaluation was carried out by an independent, qualified surveyor. The revaluation amount has been reflected in the revaluation reserve on the face of the balance sheet.

12. Fixed assets (continued)

During the year ended 31 July 2016 a review was also undertaken of the value of the remaining estate belonging to the University and its subsidiary companies. The review considered the current value in use of all buildings not already assessed under FRS 102 and was conducted by the University's Director of Estates. All properties, other than the investment properties as detailed in note 14, were still suitable for current activities and no impairment was required.

Private Finance Initiative Schemes

During 1999 the University entered into a Private Finance Initiative scheme with a contractor for the construction of residential and sports facilities, and for the facilities management of those premises for a period of 30 years. Construction was completed in 2003 and under the terms of the scheme the contractor raised the finance for the construction of buildings. This scheme has been reviewed under FRS 102, and both residential and sports facilities are now reflected on the balance sheet, whereas in previous years the residential operation has remained off balance sheet. Further information is provided within note 13 (Service concession arrangements).

In May 2013 the University disposed of its remaining residential accommodation on the College Lane campus to ULiving@ Hertfordshire plc, a third party property developer and operator under a contract to demolish the existing accommodation and construct 3,000 student bedrooms over a three-year period. ULiving@Hertfordshire plc will then operate the residential accommodation until 2063, at which point the facilities will revert back to University ownership. The University does not recognise an asset in its financial statements as the majority of the risk and rewards lie with ULiving@Hertfordshire plc.

13. Service concession arrangements

The Group and University has one on balance sheet arrangement where service delivery has commenced. This is classified as a service concession arrangement (SCA). This arrangement covers student accommodation at the de Havilland campus.

Movement in service concession arrangement assets

The asset value of the service concession included in the balance sheet as at 31 July 2016 is £6,407,000 (2015: £6,543,000). The reduction of £136,000 is as a result of depreciation.

Movement in service concession arrangement liabilities

The total liabilities relating to the service concession included in the balance sheet as at 31 July 2016 were £4,633,000 (2015: £4,906,000). The difference is principal repaid of £273,000 during the year.

Future commitments

The following table analyses the University's future commitments in relation to service concessions arrangements.

Group and University	Payable within 1 year £'000	Payable in 1-5 years £'000	Payable in 6-10 years £'000	Total £'000
Liability repayments	273	1,090	3,270	4,633
Finance charge	255	870	1,169	2,294
Service charge	3,830	15,320	45,960	65,110
	4,358	17,280	50,399	72,037

Notes to the accounts

13. Service concession arrangements (continued)

The notes below give more information on the University's current service concession arrangements:

i) On balance sheet service concession arrangements

On 6 February 2002 the University entered into a 30-year contract with a third party provider for the provision and maintenance of on-campus halls at the de Havilland campus, providing accommodation to 1,600 students. The assets and liabilities relating to this scheme are recognised on the University's balance sheet. Service commenced on 1 August 2003 and the contract will finish on 31 July 2033. The University has an annual occupancy guarantee amounting to committed annual payments of £4.7 million (subject to annual RPI inflation) recorded within other operating expenses.

ii) Off balance sheet service concession arrangements

The University also has one-off balance sheet arrangement for student accommodation at College Lane campus which commenced in 2014. Unlike the SCA above, the University does not incur a minimum guaranteed payment, and demand risk and a high level of control have transferred to a third party outside of the Group. Therefore the University has no asset or liability to recognise on the balance sheet. This arrangement has been defined, under FRS 102, as an operating lease.

14. Non-current investments

Group

At 1 August 2015 Additions Disposals (Loss)/gain on revaluation At 31 July 2016

Universitv

At 1 August 2015 Additions (Loss)/gain on revaluation At 31 July 2016

Other non-current investments consist of: Group

Uliving@Hertfordshire plc **COIF** Charities Investment Fund Other investments At 31 July 2016

University

Uliving@Hertfordshire plc **COIF** Charities Investment Fund Other investments At 31 July 2016

Subsidiary companies £'000	Investment properties £'000	Other fixed asset investments £'000	Total £'000
-	27,150	9,705	36,855
-	-	723 (30)	723 (30)
-	(2,400)	(30) 146	(30)
-	24,750	10,544	35,294
	,	- / -	,
£'000	£'000	£'000	£'000
62,920	14,665	6,330	83,915
-	-	599	599
(1,801)	(1,400)	8	(3,193)
61,119	13,265	6,937	81,321
			Total £'000
			6,797
			2,607
			1,140
			10,544
			Total £'000
			6,797
			95
			45
			6,937

14. Non-current investments (continued)

Non-current investments have been valued at market value.

The value of investment properties at 31 July 2016 was assessed by the University's Director of Estates. The review concluded that two of the University Group's properties had suffered a permanent diminution in value reflecting the current state of the premises and with consideration of possible future options with regard to the sites in guestion. The impairment has resulted in a charge to the group income and expenditure account of £2.4 million. All other properties were still suitable for current activities and no further impairment was required.

The University's subsidiary companies are listed in note 30. The impairment during the year in the University's balance sheet is to the carrying value of a subsidiary company whose net assets have reduced following a loss on revaluation of an investment property at 31 July 2016.

The University holds £6,796,806 of Class B Loan Notes in Uliving@Hertfordshire plc, the company which developed and operates the student residential accommodation on the College Lane campus. Interest accrued at 0% until 31 March 2015 and then at RPI plus 6% until the target internal rate of return is reached and at RPI plus 9% thereafter. The carrying amount of the investment includes £598,925 of accrued capitalised interest at the balance sheet date. The loan notes are redeemable in accordance with a payment schedule commencing 31 January 2017 until 2063.

15. Investment in joint ventures

The University, through its subsidiary companies, holds the following investments in joint ventures:

UH Holdings Limited holds 300,000 'A' ordinary shares in University Campus St Albans Limited and 51 'B' ordinary shares. This is a joint venture between the University of Hertfordshire and Oaklands College Further Education Corporation and its principal activity is the delivery of flexible degree level education.

Universitybus Limited owns 49,999 'A' ordinary shares in Uno Buses (Northampton) Limited, a joint venture that operates bus services in the Northampton area. The remaining 50,001 'B' ordinary shares are held by the University of Northampton.

Exemplas Holdings Limited also has a 50% shareholding in Enterprise Growth Solutions Limited.

The above investments are treated as joint ventures and are accounted for using the equity method with 50% of the gross assets and liabilities of each entity being recorded in the consolidated balance sheet and 50% of its net income reported in the consolidated statement of comprehensive income and expenditure.

CampusBusesGrowthSt Albans(Northampton)SolutionsLimitedLimitedLimited2016201620162000£'000£'000Statement of comprehensive income1911,194Income1911,1941,899Surplus before tax(4)6151Balance sheet-91-Fixed assets-91-Current assets205348843Creditors: amounts falling due within one year(145)(356)(356)Creditors: amounts falling due after more than one year-(60)(38)Provision for liabilities and charges-(25)-Share of net assets-(25)-		University	Uno	Enterprise	
LimitedLimitedLimitedLimitedGroup201620162016Statement of comprehensive income£'000£'000Income1911,1941,899Surplus before tax(4)6151Balance sheet-91-Fixed assets-91-Current assets205348843Creditors: amounts falling due within one year(145)(356)(356)Creditors: amounts falling due after more than one year-(60)(38)Provision for liabilities and charges-(25)-		Campus	Buses	Growth	
Comp2016 £'0002016 £'0002016 £'000Statement of comprehensive incomeIncomeIncomeSurplus before tax(4)Balance sheetFixed assets-91-Current assets2053488433Creditors: amounts falling due within one year(145)(356)Creditors: amounts falling due after more than one year-(60)(38)Provision for liabilities and charges-(25)-		St Albans	(Northampton)	Solutions	
Group£'000£'000£'000Statement of comprehensive incomeIncomeIncomeSurplus before tax(4)Balance sheetFixed assets-91-Current assets205348843Creditors: amounts falling due within one year(145)(356)Creditors: amounts falling due after more than one year-(25)-(25)-(25)-(25)-(25)-(25)(25)-		Limited	Limited	Limited	Total
Statement of comprehensive incomeIncome1911,1941,899Surplus before tax(4)6151Balance sheetFixed assets-91-Current assets205348843Creditors: amounts falling due within one year(145)(356)(356)Creditors: amounts falling due after more than one year-(60)(38)Provision for liabilities and charges-(25)-		2016	2016	2016	2016
Income1911,1941,899Surplus before tax(4)6151Balance sheet-91-Fixed assets-91-Current assets205348843Creditors: amounts falling due within one year(145)(356)(356)Creditors: amounts falling due after more than one year-600(38)Provision for liabilities and charges-(25)-	Group	£'000	£'000	£'000	£'000
Surplus before tax(4)6151Balance sheetFixed assets-91-Current assets205348843Creditors: amounts falling due within one year(145)(356)(356)Creditors: amounts falling due after more than one year-(60)(38)Provision for liabilities and charges-(25)-	Statement of comprehensive income				
Balance sheetFixed assets-Gurrent assets205205348600(356)Creditors: amounts falling due within one year(145)Creditors: amounts falling due after more than one year-Provision for liabilities and charges-205205205348205348205348205-	Income	191	1,194	1,899	3,283
Fixed assets-91-Current assets205348843Creditors: amounts falling due within one year(145)(356)(356)Creditors: amounts falling due after more than one year-(60)(38)Provision for liabilities and charges-(25)-	Surplus before tax	(4)	6	151	153
Current assets205348843Creditors: amounts falling due within one year(145)(356)(356)Creditors: amounts falling due after more than one year-(60)(38)Provision for liabilities and charges-(25)-	Balance sheet				
Creditors: amounts falling due within one year(145)(356)(356)Creditors: amounts falling due after more than one year-(60)(38)Provision for liabilities and charges-(25)-	Fixed assets	-	91	-	91
Creditors: amounts falling due after more than one year-(60)(38)Provision for liabilities and charges-(25)-	Current assets	205	348	843	1,396
Provision for liabilities and charges - (25) -	Creditors: amounts falling due within one year	(145)	(356)	(356)	(857)
	Creditors: amounts falling due after more than one year	-	(60)	(38)	(98)
Share of net assets 60 (2) 449	Provision for liabilities and charges	-	(25)	-	(25)
	Share of net assets	60	(2)	449	507

Notes to the accounts

15. Investment in joint ventures (continued)

Group

Statement of comprehensive income Income Surplus before tax

Balance sheet

Fixed assets Current assets Creditors: amounts falling due within one year Creditors: amounts falling due after more than one year Provision for liabilities and charges Share of net assets

16. Stock and work in progress

Finished goods

17. Trade and other receivables

No

Amounts falling due within one year:

Research grants receivable Other trade receivables Other receivables Deferred tax Prepayments and accrued income Amounts due from subsidiary companies Amounts due from related undertakings Derivatives

Amounts falling due after more than one year: Amounts due from subsidiary companies Other receivables

	University Campus	Uno Buses	Enterprise Growth	
	St Albans	(Northampton)	Solutions	
	Limited	Limited	Limited	Total
	2015	2015	2015	2015
	£'000	£'000	£'000	£'000
	2 000	2.000	2 000	2 000
	94	980	1,384	2,458
	(66)	71	150	155
	-	82	-	82
	86	273	601	959
	(123)	(278)	(237)	(637)
	-	(60)	(38)	(97)
		(25)	-	(25)
	(37)	(8)	327	282
	2016	2016	2015	2015
	Group	University	Group	University
	£'000	£'000	0,000	£'000
	£ 000	£ 000	£'000	£ 000
	371	142	411	184
	371	142	411	184
	371	142 142 2016	411 411 2015	184 184 2015
	371 371 2016 Group	142 142 2016 University	411 411 2015 Group	184 184 2015 University
otes	371 371 2016	142 142 2016	411 411 2015	184 184 2015
otes	371 371 2016 Group	142 142 2016 University	411 411 2015 Group	184 184 2015 University
otes	371 371 2016 Group	142 142 2016 University	411 411 2015 Group	184 184 2015 University
otes	371 371 2016 Group £'000	142 142 2016 University £'000	411 411 2015 Group £'000	184 184 2015 University £'000
otes	371 371 2016 Group £'000 1,194	142 142 2016 University £'000 1,149	411 411 2015 Group £'000 1,327	184 184 2015 University £'000 1,279
otes	371 371 2016 Group £'000 1,194 8,486	142 142 2016 University £'000 1,149 6,433	411 411 2015 Group £'000 1,327 7,536	184 184 2015 University £'000 1,279 6,116
otes	371 371 2016 Group £'000 1,194 8,486	142 142 2016 University £'000 1,149 6,433	411 411 2015 Group £'000 1,327 7,536 287	184 184 2015 University £'000 1,279 6,116
otes	371 371 2016 Group £'000 1,194 8,486 362	142 142 2016 University £'000 1,149 6,433 61	411 411 2015 Group £'000 1,327 7,536 287 10	184 184 2015 University £'000 1,279 6,116 74
	371 371 2016 Group £'000 1,194 8,486 362	142 142 2016 University £'000 1,149 6,433 61 - 4,943	411 411 2015 Group £'000 1,327 7,536 287 10	184 184 2015 University £'000 1,279 6,116 74 - 4,383
otes 21	371 371 2016 Group £'000 1,194 8,486 362 - 6,711 - 119 81	142 142 2016 University £'000 1,149 6,433 61 - 4,943 8,945 1 -	411 411 2015 Group £'000 1,327 7,536 287 10 7,623 - 227 -	184 184 2015 University £'000 1,279 6,116 74 - 4,383 5,336 30 -
	371 371 2016 Group £'000 1,194 8,486 362 - 6,711 - 119	142 142 2016 University £'000 1,149 6,433 61 - 4,943 8,945	411 411 2015 Group £'000 1,327 7,536 287 10 7,623	184 184 2015 University £'000 1,279 6,116 74 - 4,383 5,336
	371 371 2016 Group £'000 1,194 8,486 362 - 6,711 - 119 81	142 142 2016 University £'000 1,149 6,433 61 - 4,943 8,945 1 -	411 411 2015 Group £'000 1,327 7,536 287 10 7,623 - 227 -	184 184 2015 University £'000 1,279 6,116 74 - 4,383 5,336 30 - 17,218
	371 371 2016 Group £'000 1,194 8,486 362 - 6,711 - 119 81 16,953	142 142 2016 University £'000 1,149 6,433 61 - 4,943 8,945 1 -	411 411 2015 Group £'000 1,327 7,536 287 10 7,623 - 227 - 227 - 17,010	184 184 2015 University £'000 1,279 6,116 74 - 4,383 5,336 30 -
	371 371 2016 Group £'000 1,194 8,486 362 - 6,711 - 119 81	142 142 2016 University £'000 1,149 6,433 61 - 4,943 8,945 1 -	411 411 2015 Group £'000 1,327 7,536 287 10 7,623 - 227 -	184 184 2015 University £'000 1,279 6,116 74 - 4,383 5,336 30 - 17,218

17. Trade and other receivables (continued)

The Group other receivable due after more than one year relates to a loan made by a subsidiary company to a third party for £1 million in July 2014 for the purchase of assets. The loan is repayable over five years and interest is charged at a rate of 5% and is payable monthly on the outstanding loan balance. As security, the Group has first fixed charge and ownership of the goods in the event of any default in repayment of the loan. The total balance at 31 July 2016 was £720,000 (2015: £880,000).

A deferred tax asset of £1,037,000 (2015: £847,000) in relation to tax losses has not been recognised due to uncertainty as to the extent and timing of relief. Management will continue to assess this situation on an annual basis and update their estimate as appropriate.

18. Current investments

	2016	2016	2015	2015
	Group	University	Group	University
	£'000	£'000	£'000	£'000
Short-term deposits	34.050	34.050	34,500	34,500
	34,050	34,050	34,500	34,500

19. Creditors: amounts falling due within one year

		2016	2016	2015	2015
		Group	University	Group	University
	Notes	£'000	£'000	£'000	£'000
Secured loans		280	-	408	-
Unsecured loans		1,919	1,919	1,888	1,888
Obligation under finance leases		464	-	624	-
Service concession arrangements	13	273	273	273	273
Trade payables		10,813	9,844	11,200	9,386
Other payables		3,801	3,319	3,803	3,508
Social security and other taxation payable		3,066	2,640	2,571	2,143
Amounts due to subsidiaries		-	8,317	-	8,895
Amounts due to related undertakings		144	73	58	-
Accruals and deferred income		45,715	39,667	45,334	38,564
Derivatives	21	82	-	263	-
		66,557	66,052	66,422	64,657

Deferred income

Included within accruals and deferred income are the following items of income which have been deferred until specific performance-related conditions have been met:

	2016	2016	2015	2015
	Group	University	Group	University
	£'000	£'000	£'000	£'000
Research grants received on account	557	557	634	634
Other grant income	110	110	103	103
	667	667	737	737

Notes to the accounts

20. Creditors: amounts falling due after more than one year

Deferred income Service concession arrangements Obligation under finance leases Derivatives Secured loans Unsecured loans

Deferred income

Deferred income represents government grants received in respect of the acquisition or construction of fixed assets that are being recognised in income over the expected useful life of the relevant asset.

Analysis of secured and unsecured loans:

Due within one year or on demand
Due within one and two years
Due between two and five years
Due in five years or more
Due after more than one year
Total secured and unsecured loans
Secured loans repayable by 2017
Unsecured loans repayable by 2043

Included within loans are the following items:

Secured loans

Total secured loans

Unsecured loans

Total unsecured loans Total secured and unsecured loans

Notes	2016 Group £'000	2016 University £'000	2015 Group £'000	2015 University £'000
	28,106	27,818	28,817	28,501
13	4,360	4,360	4,633	4,633
10	11,353	-,500	11,817	4,000
	-		34	-
	-	-	318	_
	57,740	57,740	59,659	59,659
	101,559	89,918	105,278	92,793

0001.				
	2016	2016	2015	2015
	Group	University	Group	University
	£'000	£'000	£'000	£'000
	2,199	1,919	2,296	1,888
	1,969	1,969	2,238	1,920
	6,135	6,135	6,096	6,096
	49,636	49,636	51,643	51,643
	57,740	57,740	59,977	59,659
	59,939	59,659	62,273	61,547
	280	-	726	-
	59,659	59,659	61,547	61,547
Lender	Amount	Term	Interest	Borrower
	£'000		rate %	
Develo	000	0017	0.00	Universitybus
Bank	280	2017	2.60	Limited
	280			
Bank	4,707	2032	5.44	University
Bank	3,330	2032	Base + 0.16	University
Bank	7,332	2030	5.39	-
Bank	-	2042	5.39	University
	2,061	2042		University
Bank	40 400	0040		
Davela	18,139	2042	4.54	University
Bank	18,167	2043	Libor + 0.60	University
Bank Bank	18,167 5,923			-
	18,167	2043	Libor + 0.60	University

20. Creditors: amounts falling due after more than one year (continued)

Analysis of finance lease obligations:

	2016 Group £'000	2016 University £'000	2015 Group £'000	2015 University £'000
Due within one year or on demand	464	-	624	-
Due within one and two years	447	-	464	-
Due between two and five years	1,588	-	1,487	-
Due in five years or more	9,318	-	9,866	-
Due after more than one year	11,353	-	11,817	-
Total obligations under finance lease	11,817	-	12,441	-

The above represents the finance lease in respect of the Hertfordshire Sports Village and hire purchase agreements for a number of buses.

21. Derivative financial instruments

A subsidiary company, Universitybus Limited, has entered into commodity swaps for the period to December 2018. The swaps give rise to monthly cash flow exchanges with counterparties to offset the underlying settlement of floating fuel price costs. Gains or losses on fuel derivatives are recycled from reserves to the consolidated statement of comprehensive income on qualifying hedges to achieve fixed rate fuel costs within operating results.

Financial instruments represent commodity swaps that are designated and effective as hedging instruments. They are measured at fair value and are included in the financial statements as follows:

Group	Notes	2016 £'000	2015 £'000
Creditors: amounts falling due within one year	19	82	263
Creditors: amounts falling due after more than one year	20	-	34
Debtors	17	81	-

Reserves

The hedging reserve records the movement on designated hedging items and is included in restricted reserves (note 24). The movements in the hedging reserve were as follows:

	2016 £'000	2015 £'000
Balance at 1 August	297	68
Changes in fair value	(33)	297
Losses transferred to income statement	(263)	(68)
At 31 July	1	297

The losses transferred from reserves into the consolidated statement of comprehensive income and expenditure during the year are included within other operating expenses.

Notes to the accounts

22. Provision for liabilities

Group	Obligation to fund deficit on USS pension £'000	Defined benefit obligation £'000	Total pension provisions £'000	Other provisions £'000	Total £'000
At 1 August 2015	930	18,584	19,514	964	20,478
Utilised in year	(25)	(8,526)	(8,551)	(458)	(9,009)
Increase in provision	79	40,863	40,942	130	41,072
At 31 July 2016	984	50,921	51,905	636	52,541
University					
At 1 August 2015	930	19,877	20,807	842	21,649
Utilised in year	(25)	(8,283)	(8,308)	(336)	(8,644)
Increase in provision	79	39,758	39,837	-	39,837
At 31 July 2016	984	51,352	52,336	506	52,842

Universities Superannuation Scheme deficit (USS)

The obligation to fund the past deficit on the USS arises from the contractual obligation with the pension scheme for total payments relating to benefits arising from past performance. Management have assessed future growth in the number of employees within the USS scheme and salary payment over the period of the contracted obligation in assessing the value of this provision.

Defined benefit obligation

This obligation is in respect of the Local Government Pension Scheme, further details can be found in note 32.

Other provisions

The balance carried forward at 31 July 2016 represents the VAT capital goods scheme provision and reflects the current estimate of the VAT liability payable over the next ten years on costs incurred in the construction and refurbishment of various properties within the Group's estate.

The long-term maintenance and insurance provisions held at 1 August 2015 have been utilised in the year.

23. Endowments

Group
Balance at 1 August Capital
Accumulated income
New endowments
Investment income Expenditure
Increase in market value of investments
Balance at 31 July

Notes	Restricted permanent £'000	Unrestricted permanent £'000	2016 Total £'000	2015 Total £'000
	1,762	543	2,305	2,156
	172	147	319	287
	1,934	690	2,624	2,443
6	65	-	65	1
5	50	9	59	58
	(30)	-	(30)	(26)
	102	8	110	148
	2,121	707	2,828	2,624

23. Endowments (continued)

	Restricted	Unrestricted	2016	2015
	permanent	permanent	Total	Total
Group	£'000	£'000	£'000	£'000
Represented by:				
Capital	1,929	551	2,480	2,305
Accumulated income	192	156	348	319
Total	2,121	707	2,828	2,624
Analysis by type or purpose: Scholarships and bursaries General	1,702 419	- 707	1,702 1,126	1,560 1,064
	2,121	707	2,828	2,624
Analysis by asset:				
Current and non-current investments	1,839	95	1,934	1,759
Cash and cash equivalents	282	612	894	865
	2,121	707	2,828	2,624

		restricted	2016	2015
		ermanent	Total	Total
Jniversity	Notes	£'000	£'000	£'000
Balance at 1 August				
Capital		543	543	534
Accumulated income		147	147	139
		690	690	673
New endowments		-	-	-
Investment income	5	9	9	8
Expenditure		-	-	-
Increase in market value of investments		8	8	9
Balance at 31 July		707	707	690
Represented by:				
Capital		551	551	543
Accumulated income		156	156	147
Total		707	707	690
Analysis by type or purpose:				
General		707	707	690
Udildia		707	707	690
Analysis by asset:				
Current and non-current investments		95	95	87
Cash and cash equivalents		612	612	603
		707	707	690

Notes to the accounts

24. Restricted reserves

Group

Balance at 1 August

Donations Expenditure Change in fair value of hedging financial instruments Gains/losses on hedging transferred to income statement Total restricted comprehensive income for the year

Balance at 31 July

Analysis of donations by type or purpose: Scholarships and bursaries Research support Other

University

Balance at 1 August

Donations Expenditure Total restricted comprehensive income for the year

Balance at 31 July

Analysis of donations by type or purpose: Research support Other

25. Cash and cash equivalents

Group

Cash and cash equivalents

Notes	Hedging reserve £'000	Donations £'000	2016 Total £'000	2015 Total £'000
	(297)	505	208	383
	-	428	428	275
	-	(520)	(520)	(221)
21	33	-	33	(297)
21	263	-	263	68
	296	(92)	204	(175)
	(1)	413	412	208
		235	235	252
		178	178	232
		-	-	21
		413	413	505
			2016	2015
		Donations	Total	Total
		£'000	£'000	£'000
		253	253	248
		124	124	115
		(199)	(199)	(110)
		(75)	(75)	5
		178	178	253
		178	178 -	232 21
		178	178	253
		At 1 August	Cash	At 31 July

2015	flows 2016
£'000	£'000 £'000
34,008	8,123 42,131
34,008	8,123 42,131

26. Capital commitments

Provision has not been made for the following capital commitments:

	2016	2016	2015	2015
	Group	University	Group	University
	£'000	£'000	£'000	£'000
Contracted at 31 July	1,069	1,069	10,814	10,789
	1,069	1,069	10,814	10,789

27. Lease obligations

Total rentals payable under operating leases in respect of land and buildings:

	2016	2015
Group and University	£'000	£'000
Payable during the year	11,764	7,593
Future minimum lease payments due:		
Within one year	18,015	11,771
Between two and five years	-	418
Total lease payments due	18,015	12,189

28. Access to Learning Fund

	2016	2016	2015	2015
	Group	University	Group	University
	£'000	£'000	£'000	£'000
Balance at 1 August	-	-	17	17
Disbursed to students	-	-	(17)	(17)
Balance at 31 July	-	-	-	-

The Access to Learning Fund is available solely for students; the University acts only as paying agent. The grants and related disbursements are accounted for as an agency arrangement and are therefore excluded from the income and expenditure account. The fund was closed during 2015 and the remaining balance disbursed to students.

29. Related party transactions

Owing to the nature of the University's operations and the composition of the Board of Governors (many of whom are involved with other local public and private sector organisations), there are transactions with organisations in which a member of the Board of Governors or senior staff may have an interest. All such transactions are conducted at arm's length and in accordance with the University's Financial Regulations. Members of the Board of Governors and the subsidiary companies' Boards of Directors are required to declare any outside interest. When an item arises in which a member has a pecuniary, business, family or other personal interest, it must be declared and the member concerned may not take part in the consideration of the matter nor vote on it.

During the year the University incurred expenditure with the University of Hertfordshire Students' Union to the value of £1,510,000 (2015: £1,733,000). This includes the 2015-16 Students' Union Subvention of £755,000 (2015: £755,000), and the balance in respect of facilities and student ambassadors. Income earned from the University of Hertfordshire Students' Union during the year amounted to £880,000 (2015: £999,000) in respect of rent and recharge of other services. The balance sheet as at 31 July 2016 includes a debtor of £44,000 (2015: £13,000) and a creditor of £5,000 (2015: £7,000) due from/to the Students' Union.

The Vice-Chancellor has a loan from the University; details are shown in note 7.

Notes to the accounts

29. Related party transactions (continued)

The consolidated financial statements include sales to the Group's joint venture undertakings of £632,000 (2015: £511,000) and purchases from them of £621,000 (2015: £500,000). The balance sheet as at 31 July 2016 includes a debtor of £36,000 (2015: £183,000) and a creditor of £58,000 (2015: £58,000) due from/to the Group's joint venture undertakings.

Mr S Clayton, a director of Universitybus Limited a wholly owned subsidiary of the University, is a director of Alexander Dennis plc from which the Group purchased goods and services in the year of £781,000 (2015: £759,000). The amount owed from the Group to Alexander Dennis plc at 31 July 2016 was £8,000 (2015: £10,000).

The University has applied the exemption in FRS 102 and has not disclosed transactions with wholly owned subsidiary companies.

30. Subsidiary undertakings

The University's subsidiaries (all of which are registered in England and Wales) are wholly owned or effectively controlled by the University and are as follows:

Company
UH Holdings Limited
Student Forum Limited
UH Trust

Nature of business Holding company Dormant Charity

The value of the investment in subsidiary undertakings in note 14 held by the University of £61,119,000, relates solely to UH Holdings Limited.

The subsidiary companies of UH Holdings Limited are all registered in England and Wales except UH Global Education (Asia-Pacific) Sdn Bhd (registered in Malaysia) and Corporate Fit Science Limited (registered in Scotland). These companies are wholly owned or effectively controlled by UH Holdings and are as follows:

Company	Nature of business	% shareholding
UH Ventures Limited	Training, consultancy and conference services	100%
Universitybus Limited	Transport services	100%
Exemplas Holdings Limited	Business advice and support	100%
Polyfield Property Limited	Provision of property services and sports facilities	100%
UH Global Education (Asia-Pacific) Sdn Bhd	Overseas student recruitment	100%
EValu8 Transport Innovations Limited	Research and consultancy in area of low-emission vehicles	Limited by
		guarantee
Corporate Fit Science Limited	Dormant	100%
Cimtech Limited	Dormant	100%
Fit Corporation Limited	Dormant	100%
Unisecure Limited	Dormant	100%
UH Recordings Limited	Dormant	100%
Uno Buses (Hertfordshire) Limited	Dormant	100%

UH Holdings Limited owns three redeemable preference shares in Cimtech Limited.

% shareholding

100% 100% Limited by guarantee

30. Subsidiary undertakings (continued)

The subsidiary companies of Exemplas Holdings Limited (all of which are registered in England and Wales) are wholly owned and are as follows:

Company	Nature of business	% shareholding
Exemplas Limited	Provision of services to business	100%
Bio Park Hertfordshire Limited	Provision of facilities management	100%
Metropolitan Enterprises Limited	Provision of services to business	100%
Exemplas Trade Services Limited	Provision of services to business	100%
East of England Business Links Limited	Dormant	100%

All of the above subsidiaries are consolidated in the Group accounts. As noted in the Strategic Report, Metropolitan Enterprises Limited ceased trading during the year.

31. Connected charitable institutions

UH Trust and the University of Hertfordshire Charitable Trust are connected charitable institutions of the University of Hertfordshire and under paragraph 28 of Schedule 3 to the Charities Act 2011 are exempt from registration with the Charity Commission.

UH Trust, a company limited by guarantee, started its operations on 10 February 2014 upon the transfer of the assets and business from the University of Hertfordshire Charitable Trust. The permanent endowments were not transferred and have remained in the University of Hertfordshire Charitable Trust with UH Trust as its sole trustee.

The charities were established to raise funds and make awards of grants, scholarships, bursaries and prizes that advance and further education, learning and research at the University of Hertfordshire and that assist in the provision of buildings and facilities at the University.

The activities of UH Trust and the University of Hertfordshire Charitable Trust, as summarised below, are consolidated into the Group accounts.

				Change	
At 1	August			in market	At 31 July
	2015	Income	Expenditure	value	2016
	£'000	£'000	£'000	£'000	£'000
UH Trust	2,892	441	(447)	139	3,025

Major donors to the Group during the year include:

Dato' Azmil Khalid Mr John Hughes Santander Universities UK The Estate of Mr Paul Lidgett The Hobson Charity The Paul Foundation The Worshipful Company of Leathersellers Warner Brothers Entertainment UK Limited

Notes to the accounts

32. Pension schemes

The two principal pension schemes for the University's staff are the Teachers' Pension Scheme (TPS) and the Local Government Pension Scheme (LGPS). Additionally, the University has agreed with the Universities Superannuation Scheme (USS) that designated employees may be eligible to become members of that scheme. The assets of the schemes are held in separately administered funds.

Summary of pension scheme costs

,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Employer	Provision		Employer	Provision	
	contributions	movement	Total co	ontributions	movement	Total
	2016	2016	2016	2015	2015	2015
	£'000	£'000	£'000	£'000	£'000	£'000
TPS	7,399	-	7,399	6,311	-	6,311
LGPS	8,526	(2,411)	6,115	8,474	(1,864)	6,610
USS	398	30	428	349	590	939
Other	374	-	374	409	-	409
	16,697	(2,381)	14,316	15,543	(1,274)	14,269

Teachers' Pension Scheme (TPS)

The TPS is a statutory, contributory, defined benefit scheme. The regulations under which the TPS operates are the Teachers' Pensions Regulations 2010 (as amended), and the Teachers' Pensions Regulations 2014 (as amended). Contributions are credited to the Exchequer on a 'pay-as-you-go' basis under arrangements governed by the Superannuation Act 1972.

The Government Actuary conducts a formal actuarial review of the TPS not less than every four years. The aim of the review is to specify the level of future contributions. The latest actuarial valuation of the scheme was carried out as at 31 March 2012 using the projected unit methodology.

The total liabilities of the scheme (pensions currently in payment and the estimated cost of future benefits) amounted to £191,500 million. The value of the assets (estimated future contributions together with the proceeds from the notional investments held at the valuation date) was £176,600 million.

As from 1 April 2015, and as part of the cost-sharing agreement between employers' and teachers' representatives, the standard contribution rate was assessed at 20.4%, and the supplementary contribution rate was assessed to be 5.6% (to balance assets and liabilities as required by the regulations within 15 years). This resulted in a total contribution rate of 26.0%, which translated into an average employee contribution rate of 9.6% and employer contribution rate of 16.48%. The cost-sharing agreement also introduced a 10.9% cap on employer contributions payable.

Financial assumptions

Gross rate of return Real rate of return Long-term salary growth

The full actuarial report can be found at https://www.teacherspensions.co.uk/reform/employers/reform-training-and-resources/regulations.aspx

3% pa 3% pa 4.75%, 2.75% in excess of assumed CPI

32. Pension schemes (continued)

Universities Superannuation Scheme (USS)

The USS is a defined benefit scheme which is externally funded and contracted out of the State Second Pension. The scheme is a multi-employer scheme and, given the mutual nature of the scheme, it is not possible to identify the University's share of the underlying assets and liabilities in the scheme. Using the exemption under FRS 102, contributions to the scheme are accounted for as if it were a defined contribution scheme and as a result, the amount charged to the consolidated statement of comprehensive income represents the contributions payable to the scheme in respect of the accounting period.

Since the institution has entered into an agreement (the Recovery Plan that determines how each employer within the scheme will fund the overall deficit), the institution recognises a liability for the contributions payable that arise from the agreement to the extent that they relate to the deficit and the resulting expense in the consolidated statement of comprehensive income. The provision for the recovery plan is shown in note 22.

The latest available triennial actuarial valuation of the scheme was at 31 March 2014 ('the valuation date'), which was carried out using the projected unit method. Since the institution cannot identify its share of scheme assets and liabilities, the following disclosures reflect those relevant for the scheme as a whole.

The 2014 valuation was the third valuation for USS under the scheme-specific funding regime introduced by the Pensions Act 2004, which requires schemes to adopt a statutory funding objective, which is to have sufficient and appropriate assets to cover their technical provisions. At the valuation date, the value of the assets of the scheme was £41.6 billion and the value of the scheme's technical provisions was £46.9 billion indicating a shortfall of £5.3 billion. The assets therefore were sufficient to cover 89% of the benefits which had accrued to members after allowing for expected future increases in earnings. Based on this 2014 valuation employer contributions increased to 18% from 1 April 2016. Prior to this date the employer contribution was 16%.

Changes are being made to the USS in 2016. The first set of changes are effective from 1 April 2016 and this involves the closure of the final salary section of the scheme. From 1 October 2016, for members of the scheme whose pensionable salary is above £55,000, the USS will no longer be an entirely defined benefit scheme. The USS will become a hybrid scheme for these members and contributions from their salary above £55,000 will be directed to a defined contribution arrangement.

Financial assumptions	2016	2015
Discount rate	3.6%	3.3
Pensionable salary growth	n/a	3.5% in the first year
		and 4.0% thereafter
Price inflation (CPI)	2.2%	2.2%

Mortality assumptions

The main demographic assumption used relates to the mortality assumptions. Mortality in retirement is assumed to be in line with the Continuous Mortality Investigation's (CMI) S1NA tables as follows:

Male members' mortality 98% of S1NA ['light'] YoB tables - No age rating Female members' mortality 99% of S1NA ['light'] YoB tables - rated down 1 year

Use of these mortality tables reasonably reflects the actual USS experience. To allow for further improvements in mortality rates the CMI 2014 projections with a 1.5% pa long-term rate were also adopted. The current life expectancies on retirement at age 65 are:

	2016	2015
Males currently aged 65 (years)	24.3	24.2
Females currently aged 65 (years)	26.5	26.4
Males currently aged 45 (years)	26.4	26.3
Females currently aged 45 (years)	28.8	28.7
Females currently aged 45 (years)	28.8	28.7

Notes to the accounts

32. Pension schemes (continued)

Scheme values

Scheme assets Total scheme liabilities FRS 102 total scheme deficit FRS 102 total funding level

Local Government Pension Scheme (LGPS)

The LGPS is regulated by statute, with separate regulations for (a) England and Wales and (b) Scotland. The benefits of the LGPS are determined nationally by regulation and meet the definition of a defined benefit scheme. It is a funded scheme, with some 99 separate funds administered locally by administering authorities. Each fund has many employing authorities. Hertfordshire County Council is the administering authority with the District Councils in their county, and other bodies, for example the University, being employing authorities within that scheme. The University's wholly owned subsidiaries, Universitybus Limited and Exemplas Holdings Limited, are both admitted bodies to the fund, and a number of employees of these companies are members of the LGPS. With effect from 1 April 2016, the assets and liabilities of the Exemplas Holdings Limited scheme have been subsumed by the University of Hertfordshire and therefore Exemplas Holdings Limited no longer has any active members within the LGPS under its own admission agreement, these have been transferred to the University of Hertfordshire scheme. All other subsidiary companies contribute to the scheme through the University.

The LGPS is not therefore a national multi-employer scheme, but each separate LGPS fund is a multi-employer scheme.

Changes to the LGPS permit employees retiring on or after 6 April 2006 to take an increase in their lump sum payment on retirement in exchange for a reduction in their future annual pension. An allowance is included for future retirements to elect to take 50% of the maximum additional tax-free cash up to HMRC limits for pre-April 2008 service and 75% of the maximum tax-free cash for post-April 2008 service.

In calculating the scheme assets and liabilities, the fund's actuaries had to make a number of assumptions about events and circumstances in the future. These assumptions represent the best estimate of expected outcomes but it is possible that actual outcomes will differ from those included in the accounts. Any differences between expected and actual outcomes are reported through experience gains and losses.

The LGPS widened its eligibility rules involving casual members of staff. The University commenced automatically enrolling qualifying casual members of staff from 1 July 2013.

Employer contributions are affected by a surplus or deficit in the scheme. All new entrants to the fund are now single status employees and there is no longer any classification of officer and manual employees. The contribution rates for the year were:

```
University of Hertfordshire
Universitybus Limited:
  Employer - weekly paid staff*
  Employer - monthly paid staff
Employees
```

*For weekly paid staff there is an additional annual lump sum payable by the employer of £30,000 in 2016 rising to £31,000 in 2017.

The estimated employer contribution payable for the year ending 31 July 2017 is £7,947,000.

The following information is based upon a full actuarial valuation of the Fund at 31 March 2013, updated to 31 July 2016 by a qualified independent actuary.

2016	2015
£49.8bn £58.3bn £8.5bn 85%	£49.1bn £60.2bn £11.1bn 85%

23.70%

21.90% 23.70% 5.50% - 12.50%

32. Pension schemes (continued)

Financial assumptions	2016	2015	2014
Inflation and rate of increase in pension	1.84%	2.10%	2.30%
Rate of increase in salaries	1.90%	2.10%	2.10%
Expected return on assets	2.60%	3.80%	5.80%
Discount rate for liabilities	2.60%	3.80%	4.30%

Mortality assumptions

The current mortality assumptions include sufficient allowance for future improvements in mortality rates. The assumed life expectancy on retirement at age 65 are:

Life expectancy from age 65 (years)	Males	Females
University		
Current pensioners	22.1 years	25.1 years
Future pensioners (currently aged 45)	23.2 years	26.1 years
Universitybus Limited		
Current pensioners	17 years	19 years
Future pensioners (currently aged 45)	18 years	20 years

The assets in the scheme (of which the Group's share is 5.3%) and the expected rates of return were:

	2016 £'000	2015 £'000	2014 £'000
Equities	2,495,360	2,112,000	2,270,000
Bonds	1,052,700	950,400	515,000
Property	272,930	281,600	151,000
Cash	77,980	176,000	91,000
Total market value of assets	3,898,970	3,520,000	3,027,000
	2016	2015	2014
Weighted average expected long-term rates of return	2.6%	3.8%	5.8%

Under FRS 102 the expected rates of return are equal to the discount rate. Prior to 2015, expected rates of return on the fund were estimated based on the actual fund returns as provided by the administering authority (Hertfordshire County Council) and index returns where necessary.

The pension scheme liability detailed below also takes account of the University's unfunded pension liability, which relates to pension enhancements payable to staff who have taken early retirement.

Notes to the accounts

32. Pension schemes (continued)

Analysis of the amount shown in the balance sheet

Present value of scheme liabilities Fair value of scheme assets (bid value) Deficit in the scheme Effect of cap on surplus Adjusted deficit in the scheme - net pension liability recorded with

The pension scheme deficit for the University was £51,352,000 as a

The amounts recognised in the surplus for the year

Current service cost Past service cost (including curtailments) Settlements Total operating charge

Interest on obligation Expected return on scheme assets Effect of cap on pension surplus Net charge on pension scheme

Total charged to the surplus for the year

Analysis of other comprehensive income

Actual return less expected return on pension scheme assets Experience gains and losses arising on the scheme liabilities Change in assumptions underlying present value of the scheme Effect of cap on pension surplus Total other comprehensive income

	2016	2015
	£'000	£'000
	(256,231)	(204,138)
	205,310	186,637
	(50,921)	(17,501)
	-	(1,083)
thin pension provisions (note 22)	(50,921)	(18,584)
	(00,021)	(10,001)
at 31 July 2016 (2015: £19,877,000).		
at of only 2010 (2010, 210,011,000).		
	2016	2015
	£'000	£'000
	2000	2 000
	7,108	6,436
	75	90
	15	84
	7,198	6,610
	1,100	0,010
	7,808	7,869
	(7,166)	(7,318)
	-	37
	642	588
	0.2	000
	7,840	7,198
	,	,
	2016	2015
	£'000	£'000
	7,927	7,371
	1,913	844
	(43,946)	(13,285)
	-	(66)
	(34,106)	(5,136)
	,	

32. Pension schemes (continued)

Analysis of movement in the scheme deficit

	2016	2015
	£'000	£'000
Deficit in scheme at 1 August	(17,501)	(13,744)
Effect of cap on pension surplus	(1,083)	(980)
Adjusted pension deficit at 1 August	(18,584)	(14,724)
Movement in period:		
Current service cost	(7,108)	(6,436)
Employer contributions	8,526	8,474
Past service costs	(75)	(90)
Effect of settlements	(15)	(84)
Net interest on assets	(642)	(551)
Pooling of pension schemes	1,083	-
Actuarial loss	(34,106)	(5,070)
Deficit in scheme at 31 July	(50,921)	(18,481)
Effect of cap on pension surplus	-	(103)
Adjusted pension deficit at 31 July	(50,921)	(18,584)

The pension asset within Exemplas Holdings Limited has been capped in accordance with the guidance in FRS 102 and following advice from the actuary.

Analysis of the movement in the fair value of scheme liabilities

	2016	2015
	£'000	£'000
Defined benefit obligation at 1 August	204,138	182,336
Current service cost	7,108	6,436
Past service costs	75	90
Liabilities extinguished on settlements	(606)	(250)
Interest cost	7,808	7,869
Actuarial loss	42,033	12,441
Estimated unfunded benefits paid	(511)	(519)
Estimated funded benefits paid	(6,206)	(6,653)
Contributions by members	2,392	2,388
Defined benefit obligation at 31 July	256,231	204,138

Notes to the accounts

32. Pension schemes (continued)

Analysis of the movement in the fair value of scheme assets

Fair value of scheme assets at 1 August
Expected return on scheme assets
Actuarial gains
Contributions by employer
Contributions in respect of unfunded benefits
Assets distributed on settlements
Contributions by members
Estimated unfunded benefits paid
Estimated funded benefits paid
Eair value of scheme assets at 31 July

				2016 £'000	2015 £'000
Fair value of scheme assets at 1 August				186,637	168,592
Expected return on scheme assets				7,166	7,318
Actuarial gains				7,927	7,371
Contributions by employer				8,015	7,955
Contributions in respect of unfunded benefits				511	519
Assets distributed on settlements				(621)	(334)
Contributions by members				2,392	2,388
Estimated unfunded benefits paid				(511)	(519)
Estimated funded benefits paid				(6,206)	(6,653)
Fair value of scheme assets at 31 July				205,310	186,637
History of experience gains and losses Difference between the expected and actual return on assets % of scheme assets	2016 £'000 7,927 3.9%	2015 £'000 7,371 3.9%	2014 £'000 11,161 6.6%	2013 £'000 16,575 11.4%	2012 £'000 (3,248) 2.7%
Experience gains/(losses) on scheme liabilities % of scheme liabilities	1,913 (0.7)%	844 (0.4)%	(6,541) 3.6%	535 (40.0)%	(2,305) 1.5%
Actual return on scheme assets					
				2016	2015
				£'000	£'000
Expected return on scheme assets				7,166	7,318
Asset gain				7,927	7,371
Actual return on scheme assets				15,093	14,689

The amount of the actuarial loss relating to changes in financial assumptions for the year ended 31 July 2016 is £43,946,000 (2015: £13,285,000). The cumulative actuarial loss recognised in other comprehensive income as at 31 July 2016 is £47,424,000 (2015: £13,318,000).

Other pension schemes

Exemplas Holdings Limited operates a group administered personal pension plan, for those employees who are not members of LGPS, which is a defined contribution scheme.

Universitybus Limited participates in NEST, a qualifying pension scheme established by law to support the introduction of automatic enrolment. It is a national multi-employer defined contribution scheme. The company also provides a group Life Assurance Scheme for employees who are not members of the LGPS.

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33. Transition to FRS 102 and SORP 2015

As explained in the accounting policies, these are the first financial statements for the University and the Group prepared under FRS 102 and the SORP 2015. The accounting policies have been applied in preparing the financial statements for the year ended 31 July 2016, the comparative information presented in these financial statements for the year ended 31 July 2015 and in the preparation of an opening FRS 102 Statement of Financial Position at 1 August 2014. In preparing its FRS 102 and SORP 2015 based Statement of Financial Position, the Group has adjusted amounts reported previously in financial statements prepared in accordance with its old basis of accounting (SORP 2007). An explanation of the impact of the transition to FRS 102 and SORP 2015 on the Group's financial position, financial performance and cash flows is shown in the tables below.

Explanations of transition adjustments

i. Revaluation of land: The Group elected to measure part of the land on and adjacent to its estate at fair value and use that fair value as the deemed cost at the date of transition. The Group has not adopted a policy of revaluation of these assets in the future. The revaluation amount has been reflected in the revaluation reserve on the face of the balance sheet of both the Group and the University.

ii. Investment property reclassification: Prior to applying FRS 102, properties rented to other members of the same group could not be accounted for as investment properties. The definition in FRS 102 contains no such exemption and as such properties rented by, to and from other Group members have now been accounted for as investment properties except to the extent that they are used within the University's main activities of teaching and research. Under FRS 102 these properties are measured on a fair value basis, with revaluation gains and losses recognised in the statement of comprehensive income and expenditure, and they are not depreciated. One such property had been partly funded by a capital grant on acquisition and as such this grant was released in full at the date of transition. The grant release is included in adjustment vii below.

iii. Service concession arrangements: The Group reviewed its infrastructure operating arrangements and identified one arrangement to be classified as a service concession arrangement under FRS 102. The assets are held on the balance sheet within tangible fixed assets with a corresponding liability in creditors due within or after more than one year as appropriate. Details are provided in note 13.

iv. USS pension provision: The Group and University have an obligation to fund the past deficit on this scheme and as such a provision has been recorded on the balance sheet with the movement on the provision charged to surplus for the year.

v. Donations and other non-exchange transactions: The Group and University have recognised income in respect of nonexchange transactions which had previously been deferred. This related to transactions both prior to transition and during 2014-15.

vi. Reclassification of capital grants: Prior to FRS 102 capital grants were shown in the funds section of the Group and University balance sheets; under the new guidance they are shown in creditors as deferred income split between less than and more than one year as applicable.

vii. Release of capital grants: Prior to FRS 102 capital grants received from non-government sources were released to income over the useful economic life of the asset to which they related. Under FRS 102 these are recognised in income when the performance conditions have been met. Accordingly a number of such grants were released in full on transition and a corresponding adjustment was made to the 2014-15 surplus to reverse the annual release under the old accounting rules for these grants.

viii. Gift Aid: Where applicable, the subsidiary companies in the Group have agreed to pay Gift Aid equivalent to their taxable profits to the University (the ultimate parent). Prior to FRS 102 Gift Aid receivable in the University's financial statements was accounted for in the year in which the taxable profits were earned by the company. Under FRS 102 Gift Aid is accounted for in the year in which it is received by the University. Deferred tax has been accounted for arising from the timing difference in respect of Gift Aid payments.

ix. Employee leave accrual: Prior to applying FRS 102, the Group and University did not accrue for holiday earned but not taken prior to the year-end. FRS 102 requires short-term employee benefits to be charged to the consolidated statement of comprehensive income and expenditure as the employee service is received.

Notes to the accounts

33. Transition to FRS 102 and SORP 2015 (continued)

x. Derivative financial instruments: Under FRS 102 the commodity fuel swaps are held on the balance sheet at fair value. The Group has adopted and complied with the requirements of hedge accounting and as a result changes in fair value are recognised in other comprehensive income.

xi. Actuarial loss on defined benefit pension scheme: Under FRS 102 the expected return on pension scheme assets is calculated using the discount rate applied to the pension liabilities. Although there is no resulting change to the value of the overall pension liability, there is a reduction in the amount credited to other finance income and a corresponding reduction in the actuarial loss shown in other comprehensive income, previously included in the statement of recognised gains and losses.

Impact on financial position

Explar

Total funds under 2007 SORP Transition adjustments: Revaluation of land Investment property reclassification Service concession arrangements - asset Service concession arrangements - liability USS pension provision Donations and other non-exchange transactions Reclassification of capital grants Release of capital grants Gift Aid and deferred tax thereon Employee leave accrual Derivative financial instruments Total effect of transition Total funds under 2015 SORP

Impact on financial performance

Surplus for the year under 2007 SORP Transition adjustments: Investment property reclassification Service concession arrangements USS pension provision Donations and other non-exchange transactions Release of capital grants Gift Aid and deferred tax thereon Employee leave accrual Derivative financial instruments Actuarial loss on defined benefit pension scheme Total effect of transition Total comprehensive income for the year under 2015 SORP

Cash flows

Under FRS 102 short-term investments placed for three months or less have been reclassified from current investments to cash equivalents

	At 31 July 2015		At 1 August 2014	
nations	Group	University	Group	University
	£'000	£'000	£'000	£'000
	245,657	256,147	242,967	250,539
i	24,576	24,576	24,576	24,576
ii	2,187	1,211	1,699	1,189
iii	6,543	6,543	6,679	6,679
iii	(4,906)	(4,906)	(5,179)	(5,179)
iv	(930)	(930)	(327)	(327)
V	913	253	822	248
vi	(37,332)	(37,282)	(40,099)	(39,996)
Vİİ	6,127	6,346	7,907	8,128
VIII	(60)	(288)	(116)	(518)
ix	(4,925)	(4,561)	(4,627)	(4,325)
Х	(297)	-	(68)	-
	(8,104)	(9,038)	(8,733)	(9,525)
	237,553	247,109	234,234	241,014

Explanations	Year ended 3 Group £'000	31 July 2015 University £'000
	12,930	15,647
ii	488	22
iii	137	137
iv	(603)	(603)
V	243	15
vi	(1,782)	(1,782)
vii	56	230
Viii	(298)	(236)
ix	(229)	-
xi	(7,623)	(7,335)
	(9,611)	(9,552)
	3,319	6,095

Governors and advisers

Independent Members

Mr R Beazley (Chairman) Ms Y Batliwala (to 31/08/2016) Mr R Calvert (to 28/10/2016) Mr D J Goodridge Mr C J Gordon (to 31/08/2015) Mr J K Heywood (to 31/08/2015) Professor A J Hunter Dr J M Knott Mr D Konotey-Ahulu Miss J L McCue (to 31/08/2016) Mr G Morrison Ms I Nisbet Mr J Steel (from 01/09/2016) Mr R Voss (from 01/09/2016)

Vice-Chancellor

Professor Q A McKellar

Member nominated by the Academic Board Dr L Mitchell

Students' Union Mr J Amos (to 30/06/2016) Miss G O'Monghain (from 01/07/2016)

Co-opted members

Professor Sir Graeme Davies Mr R I N Gordon (to 31/08/2016) Mrs P M Morton

During the year, the following committees had a direct responsibility for the financial activities of the University:

Audit Committee

Mr D J Goodridge (Chairman) Ms Y Batliwala (to 31/08/2016) Mr R Calvert (to 28/10/2016) Dr J M Knott Dr L Mitchell Mr J Steel (from 01/09/2016)

Employment, Remunerations, Governance and Nominations Committee

Mr R Beazley (Chairman) Professor Sir Graeme Davies Mr D J Goodridge Dr J M Knott (from 01/09/2016) Professor Q A McKellar Mr G Morrison Ms I Nisbet

Finance Committee

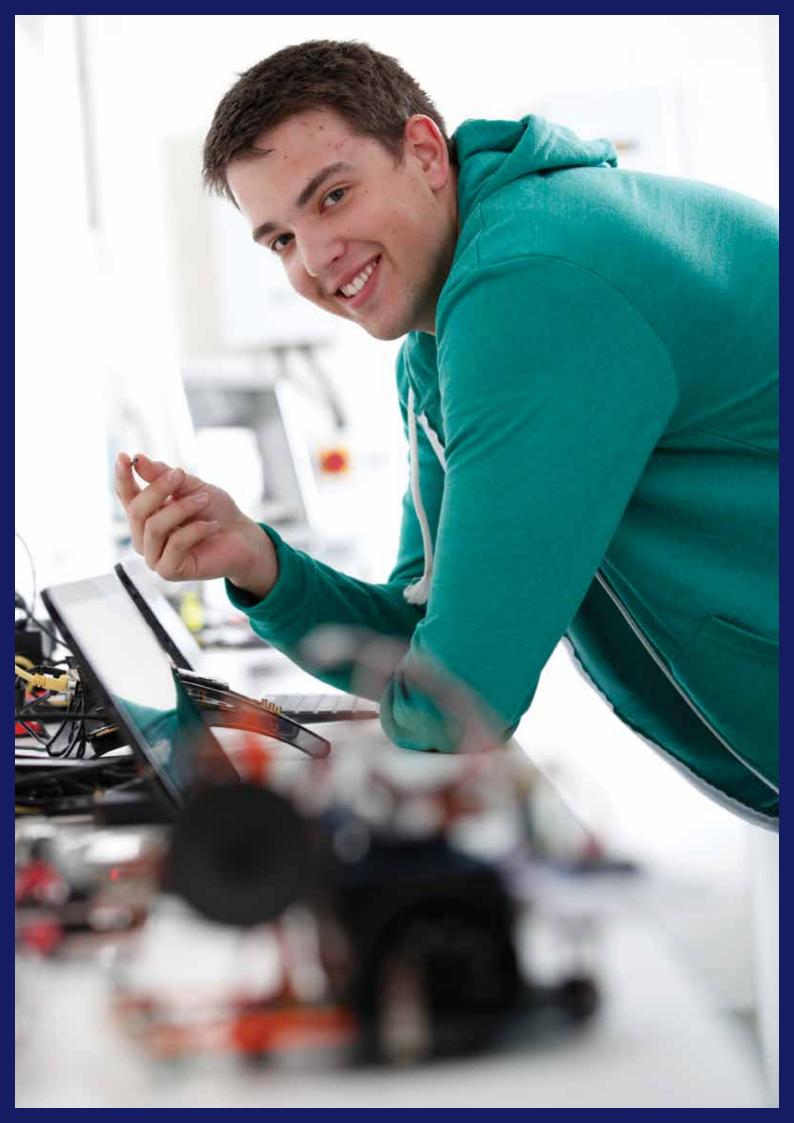
Mr G Morrison (Chairman) Mr R Beazley Mr D Konotey-Ahulu Professor Q A McKellar Mr R I N Gordon (to 31/08/2016) Professor A J Hunter Mr R Voss (from 01/09/2016)

Advisers

Bankers Barclays Bank plc, St Albans Grant Thornton UK LLP Chartered Accountants and Registered Auditors, London Auditors Solicitors Mills and Reeve LLP, Cambridge







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