

Estate development

The University continued to make substantial investment in its academic and residential estate throughout 2011/12, while ensuring that it operated in a financially responsible and sustainable manner.

The University's priorities in this area are to:

- provide all parts of the University with flexible accommodation which is of a quality, size and functionality appropriate to the activities to be delivered and which supports the University's vision;
- ensure the most efficient use of existing space and the development of capacity within the central precinct area wherever appropriate;
- continue to work to reduce carbon emissions and improve the sustainability of the physical estate;
- provide residential accommodation which is attractive to students in form, service and location;
- deliver an ambitious capital programme in support of the renewal of accommodation and the creation of adaptive capacity;
- provide an attractive, safe, accessible and welcoming setting for University buildings that is sympathetic to the wider urban context;
- produce a new Estate Strategy to inform future strategic decisions about the size, nature and direction of the University's estate.

An ambitious building programme

The University is committed to the largest estate investment programme in its history, with £200-million of projects likely to be completed by 2016. Three major projects have been foremost on the University's estates agenda in this past year and all have made good progress.

The Bristol Life Sciences building moved into its construction phase and the tower cranes that have been erected on St Michael's Hill dominate the Bristol skyline. The £54-million development, which will provide new teaching facilities and research laboratories for Biological Sciences and a range of related disciplines, will take shape over the coming year, and is due for completion in late 2013. The associated landscape will open up new routes from the historic Royal Fort to St Michael's Hill and will provide a beautiful backdrop for a range of University buildings.

Renovation of the Queen's Road Building, to be renamed the Richmond Building, continued throughout the year. The building is home to the Students' Union as well as the University's swimming pool. When complete the 1960s landmark will be totally refurbished inside and out at a cost of £28 million. The pool area and new changing facilities, together with a brand new entrance and foyer, will open in January 2013 and new space for the International Foundation programme and the International Office will follow later that month. The renovation of Union facilities will then start in earnest with the revitalised Anson Rooms due to complete in October 2013 and a range of new studio, club and society spaces and an extended café bar to follow in 2014.

The third major project is a commitment to build 327 new student bedrooms adjacent to Hiatt Baker Hall in Stoke Bishop. The

University has gained planning consent for this development, which will include a new public transport hub to serve the highly successful University bus service to the site. Demolition work has already started and the scheme will be completed in time for the 2014 intake.

All three projects have been designed to the highest environmental standards and should achieve the BREEAM Excellent status. The Richmond Building will feature a combined heat and power energy centre, with waste heat being used to warm the pool water. The new residences will have arrays of solar panels that should generate up to 20 per cent of the power requirement. The elevations of the Life Sciences Building will be constructed in part from stone recovered from the buildings that previously stood on the site.

Planning for the future

During the year, a range of estate investments were completed. Two new surgery facilities for the School of Veterinary Sciences were opened at Langford Campus, one for small animal treatment and one for equine acute care, the latter with funding contributions from the Alborada Trust and the Donkey Sanctuary. On the Precinct, a new £1.2-million centre for Cell Biology research and teaching opened in the Medical Science Building. Two Victorian villas on Priory Road have been fully renovated to provide high-quality accommodation for Social Sciences and Law students. Elsewhere, the renovation of existing halls of residences continued apace with the next phase of Churchill Hall and the full refurbishment of Manor Hall starting in summer 2012.

In addition to the Richmond Building and residential projects, enhanced capacity and improved facilities for our student body will



Left and below right: An architect's impression of the Hiatt Baker Hall extension.

Below left: An architect's impression of the new Students' Union building.

Opposite top: An architect's impression of a laboratory in the new Life Sciences building.

Opposite bottom: An architect's impression of the exterior of the new Life Sciences building.

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Reducing the University's carbon footprint

In 2011/12 the University continued implementing an agreed £10-million worth of carbon-reducing projects including:

- installing LED lighting and controls, replacing boilers, heating controls, pumps and ventilation and loft insulation throughout the University;
- completing the voltage-optimisation project, which has reduced electricity use by an average of 6 per cent across the University;
- installing low-loss transformers at the Stoke Bishop halls of residence, which together with the refurbishments at Churchill Hall and loft insulation/hot water measures at the electrically heated Badock Hall, has contributed to a 9 per cent reduction in electricity for halls of residence.

be provided by the creation of a range of social learning spaces in the Hawthorns at the heart of the campus, with similar new provision at Langford. The renovation of the Wills Memorial Library will continue the University's rolling programme investment in its library provision and new facilities will be provided for Arts students in Woodland Road and Cotham House. Lecture theatres are being renovated and design work has commenced for a new 400-seat theatre in Priory Road. Additional studio and gymnasium space was created over the summer in both the precinct sports centre and at Langford.

Setting the sustainability standard

The University's commitment towards sustainability continued throughout 2011/12. It achieved re-certifications for the internationally regarded environmental standard ISO14001 and energy efficiency standard ISO16064. Bristol is one of only two Russell Group universities to have achieved ISO14001 and hopes to be the first this year to include its curriculum in that accreditation. These certifications reflect the University's whole institution approach to sustainability and helped the University gain a first-class placing in the People and Planet Green League.

The part-refurbishment of the Drama department and Old Park Hill has reduced gas consumption by 33 per cent and 42 per cent respectively and electricity by 9 per cent.

In 2011/12 three solar installations came online, to bring the University's total capacity to 169kW, with an output equivalent to the annual consumption of 46 average homes.

Travelling in the right direction

The University's free cycle surgery was highly commended in the West of England Travel Plan awards in October 2011. The surgery has been developed, in partnership with the student environmental society (BUST), to offer free bike maintenance to cyclists and to transfer maintenance skills and knowledge. Now in its fourth year the surgery has two mechanics, running 30 surgeries a year, and services 30 bicycles a session.

In June 2012 the University secured £330,000 from the Government to help implement staff and student sustainable travel initiatives as part of a regional West of England Sustainable Travel (WEST) bid.

In partnership with Wessex Connect and the University of the West of England, the University's U6 bus service has been extremely popular during 2011/12, serving some 399,000 passengers throughout the year. There are plans to extend the route and frequency of the service in 2012/13.

Reducing waste

Student end-of-term reuse projects, including the Big Give project, saved five tonnes of reusable items from landfill benefitting 16 local charities and raising £30,000. A new reuse website Re-Store has helped to find new homes for 500 items of furniture within the University.

The University composted more than 250 tonnes of food waste from University sites, student halls of residences and catering outlets. This successfully diverted 10 per cent of the University's waste from landfill.

In 2011/12 the University recycled more than 77 per cent of its office waste, up from 65 per cent last year.

Green learning

The Higher Education Academy's Green Academy project, which began in 2010/11, has been extended in 2011/12 to include:



SHEPPARD ROBSON



SHEPPARD ROBSON

- mapping sustainability in all courses across the University;
- assisting departments in the teaching of sustainability;
- developing resources and training materials and setting out a future strategy.

The University also partnered the Bristol Student Hub – a student-led organisation helping ethical and environmental groups at the University – to provide training in sustainability skills, such as carbon and waste auditing, and to organise other

learning opportunities. These included a 'green' version of *Dragons' Den* and a series of talks, including one from environmentalist Jonathon Porritt. The University's Green Impact Awards scheme – an accreditation scheme for environmental best practice based on more than 130 actions that help departments to reduce their negative impact on the environment – launched a hospital scheme piloted with the University Hospitals Bristol Trust. Next year the Green Impact Awards will be extended to other hospitals as well as to more than 50 universities in the UK.

Information technology and libraries

In August 2011 the University's Information Services was replaced by two separate organisations: Library Services and IT Services. These two organisations continue to support the delivery of the University's learning and teaching, and research and enterprise activities. Some of the achievements of both organisations are outlined below.

The University's priorities in this area are to:

- provide IT and library facilities to support education, learning and teaching and to enhance the student experience;
- provide IT and library facilities to support research activities and enhance research impact;
- support the University's business objectives by providing efficient and effective processes enabled by well-designed, integrated information systems;
- ensure that our IT Strategy is people-focused and that all members of the University are well supported, trained and equipped to fulfil their roles;
- provide excellent, responsive and resilient IT services for all members of the University;
- develop sustainable approaches to the provision of IT, in order to minimise the impact on the environment.

Library services

From its ten branches the University Library serves over 18,500 users, including academic staff, students and members of the wider research community. It offers a wide range of services, including the provision of printed and electronic information, lending services, a scanning service compliant with the Copyright Licensing Agency (CLA), inter-library loans and a variety of study spaces, as well as training and expert advice in finding and using information, and reciprocal borrowing schemes.

The Library's key aims are to:

- provide a welcoming and accessible environment, with flexible spaces in which students can learn and interact;
- provide a wide range of published and unpublished material, including sufficient copies of, or access to, all items on student reading lists;
- manage physical, digital and staff resources in a consultative and cost-effective way.

A welcoming and accessible environment

The refurbishment of the first and second floors of the Arts and Social Sciences Library was completed over the summer of 2011. Student feedback about the remodelled library has been extremely positive, and use of the library has increased dramatically.

In the spring of 2012, the Library introduced a significant increase to opening hours at seven branch libraries, including the introduction of 24/7 opening at the Arts and Social Sciences Library during the summer term revision period, which included the Easter holiday and Bank holidays. At the

other branches, weekend and evening opening hours were extended.

The design phase of the Wills Memorial Library refurbishment was completed in the spring of 2012, after consultation with academic staff and students whose feedback was incorporated into the design. The contractor Bray & Slaughter was appointed, and preparatory work began in June 2012. The refurbishment will be completed in two phases: the first, which began in summer 2012, will last until February 2013; the second will take place in summer 2013.

Learning resources

Significant increases in the Library's book budget between 2009/10 and 2011/12 have brought the Library's book expenditure into line with other Russell Group universities, and by the end of this academic year, £600,000 will have been spent on books.

The eReserves scanning service was rolled out in 78 subject areas (164 units) in the Arts, Social Sciences and Science faculties. The service provides scanned book chapters to students via Blackboard and has been used by 6,471 students. Academic staff and student feedback has been very positive, and the 2011 National Student Survey (NSS) scores for library services and resources improved in all of the subject areas which benefited from the service.

Efficiency and cost effectiveness

Initiatives to improve the efficiency and effectiveness of the service have included the merger of the Dental Library with the Medical Library, and the further roll out of 'shelf-ready books' in which book suppliers, rather than Library staff, carry out the processing of purchased items.

To address the issue of journal-price inflation, the Library participated in an initiative of Russell Group librarians that aimed to convince publishers to reduce their prices. Negotiations with two of the largest publishers whose subscriptions were due for renewal in January 2012 were concluded satisfactorily, and journal cancellations were avoided.

IT Services

In August 2011 a separate IT Services organisation was launched with the aim of improving the efficiency of the University's IT processes and to reduce inefficient IT procurement and duplication of effort in developing IT solutions. IT Services is now a smaller, more focused organisation, managed centrally while maintaining local provision through geographical, zonal teams. Common policy, standards and operational processes are being defined, supported by the introduction of Service Level Agreements and a central Service Desk to handle all IT related requests.

Support for education, learning and teaching

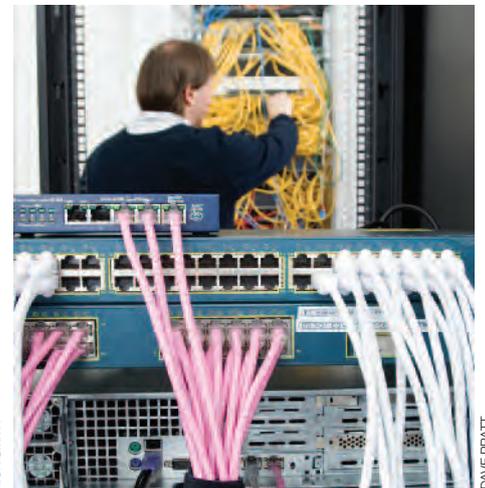
IT Services is introducing a new email and calendar service for the University provided by Google. Google provides an easy-to-use email system, which is accessible anywhere, and has substantially increased storage space. Around 11,000 students are already using the student email-for-life service, and a staff pilot service is underway.

To support the growing use of mobile devices the wireless network has been extended to cover study bedrooms in student accommodation. The University has also worked with Bristol City Council to provide access to the eduroam service in council libraries and public areas, and has launched a mobile support website bristol.ac.uk/it-services/mobile to help students and staff access University services via their smartphones and tablets.

A new Technology Enhanced Learning Strategy has been approved, which will lead to further enhancements to services such as MyBristol portal, the Blackboard online learning environment and social learning spaces for students.



An undergraduate uses one of the self-issue machines in the Medical Library.



Network castles and hardware in the Department of Electronic Engineering.

Enabling research

BlueCrystal, the University's High Performance Computing (HPC) facility, continues to support research and teaching across the University. The University, in collaboration with e-Infrastructure South partners, was awarded £3.8 million from EPSRC to create the Centre for Innovation regional HPC facility. BluePeta, the Research Data Storage Facility, provides for secure, resilient long-term storage of research data.

IT Services is also working to establish a research data repository service, data.bris.ac.uk, which builds on the investment already made in research data. The service is being piloted within the Faculty of Arts with the aim of extending the model across the University. It is also implementing Atira Pure to provide a new repository for research outputs and staff CVs. This system will be critically important in assembling the University's response to the next Research Excellence Framework (REF).

A number of projects led by IT Services' research and development group illustrate how the University is meeting its commitment to enable easy, anytime, anywhere access to research materials. These include:

- the University of Bristol Collections as Linked Open Data (BRICOLAGE) project, which will make catalogue information for two of the University's most significant collections – the Penguin Archive, a comprehensive collection of the publisher's papers and books; and the Geology Museum, a 100,000-specimen collection housing many unique and irreplaceable resources – accessible for presentation online;
- PlantTracker, a smartphone app for the Environment Agency and NERC Centre for Ecology & Hydrology, which helps crowd-source the distribution of three particularly invasive, non-native species: Japanese Knotweed, Himalayan Balsam and Floating Pennywort.

Developing business processes

In 2011/12 a total of 13 systems projects were completed, including a new timetabling system and timesheet system for research projects. A further 18 projects are still in progress, including new course-booking and e-recruitment systems for HR, new systems for the Theatre Collection, a new estates-management system and an online booking system for sports facilities.