

Estate development

The University continued to make substantial investment in its academic and residential estate throughout 2009/10, while ensuring that it operates 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.

Grand opening for Nanoscience

The highly distinctive, £11-million Centre for Nanoscience and Quantum Information officially opened in September 2009. The building houses specialised laboratories where vibration and acoustic noise levels are among the lowest ever achieved.

High-quality materials have been used throughout the structure, which encompasses several unusual scientific features in its architecture. These include curved Portuguese limestone on the main elevation, which is set out in the 'Fibonacci Series', a sequence of numbers created by the Italian mathematician, Leonardo Fibonacci, in 1202; an atrium dome, shaped like a 'buckyball', a molecular structure (resembling a football) composed entirely of carbon atoms and named after the visionary architect and inventor Richard Buckminster 'Bucky' Fuller; and self-cleaning glass that uses nanoparticles to break down dirt that is then washed away by rainwater.

The basement houses the 'low noise' area with a suite of ultra-low vibration nanoscience laboratories that are anchored to the rock below. The building will house a multidisciplinary and interdisciplinary research community drawn from science, engineering and medicine across the world, encouraging innovation through stimulating interactions and the exchange of ideas.

Plans progress for Queen's Road building

Work continued on a planning application for refurbishing and improving the University's Queen's Road building in Clifton following two public consultations.

The building currently houses the Students' Union and other University facilities, many of which are used by the public, including a swimming pool, the Winston Theatre and the Anson Rooms.

The building is currently in poor condition, but the University has decided to adopt the

more sustainable approach of retaining and re-using rather than demolishing and rebuilding it. The aim is to repair the building to make it more sustainable and fit for the future. Work will include remodelling the interiors, improving access and enhancing its external appearance and setting. The aim is to improve facilities for students and those aspects of the building that also serve the community.

ACCIS extension operational

The Advanced Composites Centre for Innovation and Science (ACCIS) was successfully completed in April 2010. This extension to the Engineering Faculty's Queen's Building comprises new office and laboratory space for the ACCIS team of academics, PhD students and research assistants drawn from the faculties of Engineering, Science and Medicine and Dentistry, as well as two administrators and a dedicated lab support team. The EPSRC-funded ACCIS Doctoral Training Centre also sits within its walls.

The open-plan office area, on the ground and mezzanine levels, has space for newcomers as ACCIS continues to grow. The extension also provides meeting rooms and 'break-out' areas for informal discussion and networking, as well as a heavy-duty laboratory area that extends the existing composites lab facilities threefold. This includes a large clean room, a lab devoted to resin and nanotechnology developments and an equipment hall suitable for large-scale manufacturing development activity.

Building on the work undertaken at ACCIS, the University is at an advanced stage in planning the development of the National Composites Centre, a new research facility for composite materials that is to be located at the Bristol and Bath science park, SPark (see also p9).

New lease of life for existing buildings

The University's programme of library improvements continued in the Graduate School of Education (GSOE; see also p24). The School's new library on the ground floor opened over Easter 2010 and provides enhanced IT facilities and areas for both group working and individual study. The second phase of the £3.5-million project involves refurbishing the space formerly occupied by the library on the first floor. The refurbishment will enable all GSOE staff to be located within one building and allow the University to vacate other space held on lease in Berkeley Square.

Work began on the refurbishment of the University's residential facilities, including a £2.3-million project to update The Hawthorns. As well as refitting all bedrooms, bathrooms and kitchens, the project involves renewing the building's heating, electrical and water systems, and external repairs and redecoration. The residence at 115 Queen's Road is also being updated, and work at the Stoke Bishop halls is being phased in over a number of years.

Reducing carbon emissions

The University adopted a new carbon management plan in June 2010. The goal is to reduce carbon dioxide emissions by 17,000 tonnes by the end of 2020, a 34% reduction on 2005 levels. The plan focuses on a range of areas, from heating and lighting improvements to green technologies and renewable energy, beginning with a £1.5 million project to improve the University's electrical services infrastructure, which aims to save £550,000 a year and over 3,000 tonnes of carbon.

The University is also taking part in the national 10:10 campaign to reduce carbon emissions by 10% during 2010 and in the West of England Carbon Challenge, which supports organisations in the region to reduce their emissions in line with national targets. It challenges all businesses, public and third-sector bodies to commit to make an annual cut in emissions for four years to reach a cumulative total of at least 10% by 2012/13.

Improving environmental awareness

Green Impact, the University's accreditation scheme for environmental best practice, had another successful year. Fifty departments took part in the scheme, with staff taking more than 1,350 environmental actions. Projects have become more ambitious and innovative: as well as energy-saving campaigns and recycling initiatives, this year's actions included converting vehicles to run on biofuel and installing wormeries to get rid of organic waste.

More recycling, less waste

Plastic and food waste recycling have been added to the University's recycling facilities, helping to divert 30 tonnes of waste that would otherwise go to landfill. Students have also been active, helping to run the 'Big GIVE' scheme, an end-of-year charity collection. The team targeted the University's halls of residence, where students were moving out after their first year and getting rid of unwanted clothes, food and household items. Nearly three tonnes of goods were collected and distributed to 12 charities, including Oxfam, the Julian Trust Night Shelter, the Salvation Army, St Peter's Hospice, FareShare and several homeless shelters.

Environmental Management System

The University is committed to developing systems that meet the highest environmental standards. To this end, it has set up an Environmental Management System (EMS), which provides a framework for boosting efficiency, monitoring progress and meeting regulatory obligations. It has adopted the Institute of Environmental Management and Assessment's Acorn Scheme, an officially recognised EMS standard recommended by the government that offers accredited recognition for organisations evaluating and improving their environmental performance through the phased implementation of EMS. The University has so far achieved three of the five implementation levels and aims to complete the process by the end of the year.



LIZEVETFOHANS



COURTESY OF STRIDE TREGLOWN

Top: Interior view of the buckyball on the roof of the Nanoscience and Quantum Information Building
Bottom: Architect's impression of the National Composites Centre

Information technology and libraries

The University's Information Services Division provides information resources and library services to support University learning and teaching, research and enterprise. Some of the division's achievements and developments, undertaken during 2009/10, 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.

Improving Library Services

The University is committed to providing high-quality library resources for students and staff. In 2009/10, the Library received an additional £250,000 – largely from alumni donations – for the purchase of key student texts. This fund was allocated on the basis of student need as reflected in National Student Survey feedback.

2010 saw a major refurbishment of the Graduate School of Education Library (see also p23), partially funded by the Wolfson Foundation. The new library provides a modern study environment, with additional sockets for laptops, as well as improved display of, and accessibility to, printed materials.

Student demand for increased opening hours was also addressed. The Arts and Social Sciences Library is now open from 8am to midnight seven days a week during term time, and hours were extended overall across other branch libraries. Vacation hours were also extended.

The Library is currently developing an 'e-Reserves' service, as part of the University's wider e-Learning project. This will provide students with electronic copies of book chapters and print journal articles via BlackBoard.

IT Service Review

A wide-ranging review of all IT provision began in 2009. The IT Service Review set out to gather information on existing provision, analyse relevant processes, provide comparative benchmarks and propose a suitable organisational and career development framework for the provision of IT services and support. This is now part of the Support Process Review (see also p16).

A detailed investigation of the possible new organisational models has led to proposals for the establishment of a new IT

organisation, based on consistent, well-founded customer service and standardised processes. The recommended model has centralised core IT processes (such as development and infrastructure management), with location-based, 'zonal' delivery of IT services to staff and students. At the core will be a central help desk and service line, alongside training, communication and compliance functions.

Support through ICT

The University invests heavily in information and communication technology (ICT) and continues to develop facilities to support teaching, learning and research, as well as management and administration. Examples include support for an increasingly mobile population of staff and students, with wireless networks covering many areas. Five halls of residence now have wireless coverage for a total of 1,700 study bedrooms, over a third of the residential estate. Wireless access is also available on the precinct for visitors.

The University's High Performance Computing (HPC) facility goes from strength to strength and a project has begun to install a high-capacity (one petabyte) storage facility for research data. Usage of the Blue Crystal HPC system is steadily increasing and there are now well over 250 registered users. HPC plays a key role in supporting research in disciplines such as aerospace engineering, molecular modelling, climate change and social medicine, among others, and over 150 HPC-related papers are in preparation or have been published during the past year.

Other significant ICT projects and activities under way include the development of timetabling and room-booking systems (see below) and a programme of learning support developments, including a system for summative assessment, a clinical-

experience recorder and an electronic portfolio tool to support reflective learning.

2009/10 saw an increase in the use of the University portal, My Bristol, and there are now around 1,000 staff, 9,000 undergraduate and 2,000 postgraduate users. The portal is a gateway to web-based services within and beyond the University. It enables users to access a range of tools and services in one place, such as email, remote desktop, course details, Blackboard and Student Info. The Student Laptop Clinic continues to receive positive feedback from students who value the provision of one-to-one support for laptop problems.

In September, the University launched a new strategic website to promote its research themes. The number of websites housed within the University's Content Management System increased to over 250 with more than 800 site editors. The web plays an increasingly important role in the University's external communications, brand and reputation building and a project is under way, led by the Communications Division and supported by Information Services, to ensure that the University's Content Management System continues to meet future needs.

Information Processes and Systems (IPS) Programme

The IPS Programme Office provides support for information, process and system change initiatives throughout the University. Achievements in this area in 2009/10 included:

- the prioritisation of initiatives for improving and standardising administrative processes and systems as part of the Support Process Review;
- the implementation of a new requisitioning and purchasing system in all faculties, to streamline and standardise purchasing activities across the University;
- the launch of the Common Timetabling system for room bookings and centrally managed space requests, with staff timetables linked to calendars and the rolling out of online student timetables.

Work continued on a new online postgraduate admissions system, due to go live in autumn 2010 for the 2011/12 academic year intake.

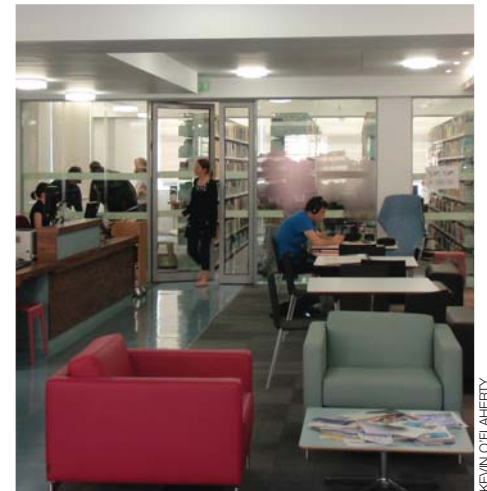
Developing web technologies

Three related projects led by the Institute for Learning and Research Technology (ILRT) in 2009/10 demonstrate the potential of mobile devices to help members of the University and the wider Bristol community access 'just-in-time' information on the move, while also exploring sustainability issues.

The Mobile Campus Assistant (MCA) system is set up as a mobile-friendly website that can be easily accessed by anyone with a smartphone (a phone with internet capability). MCA integrates data from around the University precinct and also pulls in data from external websites. It allows students access to time- and location-sensitive information, such as where to find the nearest available PC or wireless hotspot, the time of the next bus to their hall of residence, which libraries are currently open and what events are taking place that day.

The software and content have been further developed through the Greening Events project, which explores the extent to which the availability of knowledge tools can help reduce an event's carbon footprint. It is trialling MCA to encourage delegates to choose greener transport options with just-in-time travel information and news from around the country, integrated street views and route-planning data via their mobile phones.

ILRT is also working with the University's Sustainability Unit, the portal team and Bristol City Council to extend MCA's reach into the wider community. This new project, MyMobileBristol, will pilot a sustainable service tailored to users on the move around the University precinct, and will also explore the potential for extending the service to other educational institutions and business in the region.



Top: Graduate School of Education library
Bottom: The University's High Performance Computing facility