

Environmental Sustainability Report 2013



Welcome to the Environmental Sustainability Report 2013



Sustainability is one of Coventry University's key themes. We place great emphasis on trying to ensure that our buildings, and the way we operate in them, are sustainable and minimise the negative impact we might have on the environment.

We are engaged with a variety of schemes to improve our approach to "green" issues. Each of the new buildings we have added to the campus has been rated BREEAM "Excellent" and each employs the technologies that our research supports. For example, The**Hub** and the Engineering and Computing Building – the two most recent

additions to the campus – feature rainwater harvesting, ground-source cooling and a biomass boiler. In fact our Engineering and Computing Building is a "live" test-site for the construction industry, allowing businesses to test low carbon and sustainable solutions to the built environment.

But don't just take my word for it! We are recognised externally for the work we do. We currently hold a "First Class" rating for sustainability in the People and Planet Green League, a "Green Gown Award" for Carbon Reduction, and a "Silver Award" in the EcoCampus Environmental Management System. We are keen to try out new initiatives too; we currently recycle our paper waste into toilet rolls while our "edible campus" initiative means we grow fruit and vegetables in our city-centre location for all to use.

I hope I have given you a flavour of the range of our work towards a sustainable campus, so please read on and find out more for yourself.

Madeleine S. Akins

Professor Madeleine Atkins, CBE Vice-Chancellor





Who we are

The University has seen many changes over the last few years, including the opening of a new campus in London and the completion of two new BREEAM Excellent buildings, home to a diverse range of activities from entertainment venues, to food outlets, research and teaching areas.

Our estate consists of 27 main site buildings, a business park, student accommodation and sports facilities. It houses four faculties and schools, professional services, 23,000 students and approximately 3,000 staff. This resulted in an overall carbon footprint from our energy consumption of 12,600 tonnes for 2012.

The University makes a positive contribution to sustainability through teaching and research, the opportunities to increase biodiversity on campus, the socioeconomic contribution we can make and the chance to trial innovations in the pursuit of reducing our negative environmental impacts.

We can have a significant positive impact on the environment including reducing our energy use, waste generation, materials consumption, and water use. Mitigating and reducing these impacts is essential for the ongoing sustainability of the University as are improvements in the way we use our buildings.

Our progress in these areas and ongoing commitments to being a sustainable university are outlined in this report.



Our environmental sustainability goals

Our environmental sustainability goals

The University Corporate Plan 2015 establishes goals and targets for environmental sustainability. These include:

- 1. To be a leading university in our environmental and carbon reduction performance;
- 2. to ensure environmental issues, energy conservation and carbon reduction are a driving force in the University's Estates strategy and are supported by staff and student engagement;
- 3. to develop a coherent campus-wide space strategy to inform resource usage;
- 4. to work in partnership with relevant organisations to act and impact on global environmental issues;
- 5. to achieve improvements in staff and student satisfaction with the University's environmental performance.



To support these objectives the Environment Policy outlines the following aims:

- Reducing our carbon footprint and minimising our impact on the environment from emissions on campus;
- managing our consumption of resources;
- implementing sustainable procurement practices;
- optimising sustainable waste management opportunities;
- promoting the use of sustainable transport options;
- developing the campus in a sustainable way including building design, building use, space efficiency and the biodiversity of the external campus;
- support education for sustainable development by appropriate integration in the curriculum, research or multidisciplinary activities;
- communicating and encouraging participation among staff, students and other stakeholders.

The targets to meet these objectives are set out in the following sections and summarised in Table 1 at the end of this report.

Our impact on the environment

Information on our "significant aspects" is included in the following sections, these have been determined by assessing significance against potential impact on the environment, reputation and legal compliance. The full methodology for determining significant aspects is contained within the University Environmental Management System.

Energy and Emissions



How did we do in 2010-2012

The introduction of new renewable technologies at the University contribute to reducing our carbon emissions from energy. The Ground-source Cooling System installed in The**Hub** building during construction in 2010 takes cool water from the ground to cool the building and then replaces the water back into underground reserves. Controlling, monitoring and reporting the use of this water is essential to ensure we do not have a negative impact on the environment.

Similarly, the biomass boiler in the Engineering and Computing building is the primary source of heat for the building. Pellets are provided from FSC sources including waste from sawmills to fuel the boiler.

The Carbon Challenge inter building energy saving competition has continued to engage building users in saving energy. In 2011 savings amounted to 10.5% of our electricity use and a further 5% in 2012. In 2011 the University was the sector Green Gown carbon reduction winner for the Carbon Challenge.



Approximately £700,000 has been invested in carbon saving initiatives at Coventry University over the past three years. This has included insulation of pipework, the installation of voltage optimisation units and draft proofing.

Our total carbon emissions from energy use have decreased over the last two years by 1,600 tonnes in comparison to emissions in 2008/09. (Data taken from Estates Management Statistics covers scope 1 and 2 emissions only).

2008/09	2009/10	2010/11	2011/12
13,857	13,565	13,544	12,601

- Achieve a further 500 tonne Carbon Reduction for 2012/13 based on 2008/09 baseline;
- pursue projects and funding for CHP upgrades and replacement;
- review Estates Development Strategy and Masterplan from the perspective of energy saving;
- review Carbon Management Plan to include scope 3 emissions;
- reduce energy use and carbon through the review and improved operation of the Building Management System;
- apply for HEFCE revolving green fund 3 for energy saving projects.



How did we do in 2010-2012

The volume of waste the University produces has decreased dramatically over the last two years from 4,462 tonnes in 2010-2011 to 1,542 in 2011-2012. This is a particular achievement as we have increased staff and student numbers in this period.

Our recycling rates have continued on a postive trend with 47% of our waste currently recycled increased by 5% in 2010-2011. Additional recycling bins on campus, additional waste streams being recycled e.g. batteries, all rigid plastics rather than just bottles and confidential waste and the increase of involvement of staff and students have all contributed to this advancement. The amount of waste sent to landfill has remained steady over the last few years at 3%. The remaining waste is sent to a waste-to-energy incinerator.

Re-use initiatives have also increased over the last two years. In 2011 the Uni-cycle internal website was launched, providing a forum for sharing items across the University. Working with local charities we have provided a donation option for unwanted furniture and developed an "end of term" charity collection project for students in accommodation. Green waste is re-used on site as much as possible – 37 tonnes of green waste has been chipped for mulch or composted for use on the University grounds.

What will we do in 2013-14

- Continue to increase our recycling rates with a target of 60% in 2012-2013 and the overall aim of 80% by 2015;
- explore new technologies to expand re-use and recycling options;
- review all waste streams and current re-use and recycling options to ensure opportunities are maximised.



47%

How did we do in 2010-2012

Over the last two years we have invested in sustainable water technologies for our new buildings. The Engineering and Computing Building and The**Hub** both feature rainwater harvesting for use in toilets. Green roofs on these buildings helps slow down the flow of rainwater run off into the drainage system mitigating the effects of flash flooding and increasing opportunities for biodiversity.

We have also reviewed our monitoring and measuring of water consumption to ensure data is as accurate as possible by employing external auditors to check data and reports. A scheme to upgrade facilities from baths to water efficient showers in one of our halls was completed in 2012.

Overall water consumption has been steady over recent years, for 2011/12 there has been a decrease owing to improved efficiency during a time of business growth.



What will we do in 2013-14

• Plan a water saving campaign to target students in halls of residence in collaboration with Severn Trent Water.



How did we do in 2010-2012

The additional provision of green spaces and planting to increase wildlife and biodiversity can be seen in many areas of the campus. This includes green roofs on new buildings, refreshing borders around the William Morris building including planting thousands of naturalised bulbs in green areas ready for spring flowering.

Edible planting has become a feature of borders outside The**Hub** building with the products freely available for staff and students to pick and help continue the productivity of the plants. The borders also have "bug hotels" to provide a habitat for wildlife. Summer 2012 saw the opening of the inside/outside theatre at Richard Crossman with additional edible planting and an improved green space for functional use.

Implementation of the Westwood Pond Management Plan has continued and over the last two years successful conservation volunteering

programmes have been run involving staff and students in restoring and conserving the pond as a habitat. Benches, bug boxes and wildflower planting have been carried out by the volunteers.



What will we do in 2013-14

- Develop a management regime for the external campus that supports environmental initiatives;
- further enhancements to planting around The**Hub**, Maurice Foss building, Gulson Road car park and land at Cox Street;
- continue to deliver the Westwood Pond Management Plan.



How did we do in 2010-2012

In 2011/12 we carried out a staff and student travel survey to find out how staff and students were commuting to the University and why they made the choices they made. The survey revealed that there had been a 3% reduction in staff commuting to the University on their own in a car. There has also been an increase in cyclist commuters, up 2.2% for staff and 4% for students.

The awareness of travel initiatives was noticeably lower for students than for staff providing the opportunity to increase the uptake of sustainable travel options.

Other activities in the last two years have included the launch of CU Car Share to students and additional cycle locker provision following the construction of new buildings on campus. Meanwhile, the Microcab project has developed eight hydrogen vehicles and a hydrogen fuelling station on campus. The CABLED project, of which the University was a key partner, trialled low carbon electric vehicles over a period of three years to test user experience with the project completing in 2012.

- Continue to reduce single occupancy car journeys for commuting staff and students to 40% and 10% respectively;
- increase awareness of travel initiatives using portal pages, Facebook and awareness raising events including the Green@CU event in February 2013 and 2014;
- carry out replacement programme for fleet vehicles replacing inefficient vehicles for new fuel efficient alternatives;
- collect and analyse date for business travel by university staff to assist in reporting and targeting emissions.

Buildings & Campus Developments



How did we do in 2010-2012

The new Engineering and Computing building was awarded BREEAM Excellent in 2011 in recognition of the environmental features included in its design and operation. The exposed concrete acts as a store for heat. Heat generated from IT rooms is recycled into the building. Heat is also provided from solar thermal panels on the roof of the buildings and the biomass boiler.

The honeycomb facade of the building provides solar shading when the sun is high in summer while channelling light into the building when the sun is lower in winter. Rain water is collected from the roof of the building and stored in a 70,000 litre tank, used for flushing toilets.

The**Hub** also achieved BREEAM Excellent in 2010 using rainwater for flushing toilets and solar panels for energy. Cooling in the building is provided by ground water extracted from below the building.

The Cox Street Students Union closed its doors in May 2012 following relocation to The **Hub** building. The building was demolished in summer 2012 to reduce resources in upkeep, heating and maintenance. This is now a landscaped area, improving green corridors through the campus.

Environmental Management



How did we do in 2010-2012

In 2010 the University registered on the EcoCampus Environmental Management System, an externally accredited environmental management system designed specifically for the sector. EcoCampus consists of four awards, Bronze, Silver, Gold and Platinum. The Platinum award is equivalent to ISO14001.

The Bronze Award of EcoCampus was achieved in April 2011 and the Silver Award in December 2011. Training programmes, procedures, monitoring, reviews of practices, and emergency controls, have all been developed to meet the requirements for EcoCampus and to improve our environmental management practices.



What will we do in 2013-14

- Achieve 10% improvement in space utilisation from 8.7m² to 7.8m² per FTE by 2015;
- employment of a Space Manager, 2013.



What will we do in 2013-14

• Achieve the EcoCampus Gold Award by July 2013 and the Platinum in 2014.

Our impact on others

How did we do in 2010-2012

The University can impact on people locally and across the world in the procurement of goods and services used for teaching, research and general operations of the University. This can help to support businesses and economies, providing work for a variety of sectors.

Sustainable procurement

The University "Sustainable Procurement Policy" and "Our Ethical Procurement Aims" documents outline the standards the University expects from suppliers to ensure workers are treated fairly. These include:

- Meeting health and safety standards;
- preventing discrimination;
- no child labour;
- fair wages;
- working hours in line with International Labour Organisation standards;
- acceptable living conditions, where provided.

Over the last two years a Sustainable Procurement Group has been established at the University. Key achievements have been:

- To review and update documents to reflect current priorities including the "Sustainable Procurement Policy" and "Our Ethical Procurement Aims";
- to ensure internal web pages provide guidance on sustainable procurement;
- to ensure all tenders include sustainability criteria within the tender documentation.

Audits of suppliers in China in October 2012 provided the opportunity to review working practices in line with our policy and objectives. Suppliers of stationary and marketing materials were audited to ensure our decision on the supplier of these goods to the University was based not only on the cost but also on the working standards observed.

Sustainable Food

Working with external catering suppliers from 2012 the University has introduced a Sustainable Food Policy. The principles within the policy are to source local and seasonal products wherever possible; it ensures that our caterers support wider carbon reduction objectives and that waste is managed in the most environmentally sound way possible; and to ensure that welfare and ethical standards are met.

Volunteering and social responsibility

Coventry University is proud to support Engineers Without Borders UK, an international development organisation whose members use their engineering skills to adapt low-risk, sustainable technology to improve the lives of people in poverty. This will involve developing rainwater harvesting for a school in Tanzania, helping to providing essential water for the schools productive vegetable garden.



Closer to home the University has an established programme of volunteering opportunities for students to work within the community to benefit others. Students Union Volunteering and Employability had 703 community placements and 296 school placements in 2011-12. There has been a year on year increase in the organisations hosting placements.

Year	Active Community Placements	Active School Placements	Community Organisations Worked With	Number of Schools Worked With
2009-10	771	247	102	51
2010-11	551	276	128	65
2011-12	703	296	129	85

The Culturae Mundi programme at Coventry University has brought together people from different cultures to improve communities and intercultural understanding. Working in close partnership with local authorities, the third sector and civil society in general has provided opportunities for students to be involved in volunteering or consultancy projects while taking part in the social and cultural life of the city.

Over 50 students manage the Culturae Mundi programme and 170 volunteers assist in planning celebrations for both cultural events and also participating in city-wide initiatives such as the Peace Festival, First Aid, Safety, alcohol and drug abuse training programmes. The programme has formed partnerships with the Local Authority, West Midlands Fire Service, The Spirituality and Faith Centre and Groundwork to name a few.

An additional 24 students have taken part in work experience as part of the Social Enterprise for Employability Development (SEED) programme. Undertaking projects for a wide range of organisations and benefiting the local community. These organisations include, Coventry Crusaders, Foleshill Women's Centre, Funky Junk, Global Care, Oxfam, Sky Blues in the Community and Save the Children. In return students gain valuable work experience, apply theory into practice and see first-hand the impact being made in the local community.

- Continue to progress towards Level 3 of the Sustainable Procurement Flexible Framework;
- provide training on sustainable procurement to key procurement personnel;
- collect benchmarking data for energy emissions and recycling for catering outlets and target reductions;
- work with catering suppliers on recycling campaigns and initiatives including the composting of food waste and reducing disposable cups;
- Coventry Engineers Without Borders UK society to establish a rainwater harvesting system for the Gofu Juu school in Tanzania, Africa during summer 2013;
- Culturae Mundi is now in its second year and is actively working on increasing the local community organisations it works with to broaden opportunities for partnership working with our students and the community;
- increase public and third sector organisations working with SEED to broaden opportunities for students to work within the community;
- further volunteering is planned through the Youth In Action group including 10 students facilitating play therapy and child development in Uganda and 15 placements in Peru for teaching, social work, farming and construction projects.

Sharing the Knowledge

One of the positive impacts we can have is to incorporate sustainability in the curriculum, providing students with the knowledge to embed sustainability in their future careers.

The University offers a variety of courses focused on the environment including Geography, Environmental Management, Global Sustainability, Climate Change and Sustainability, Disaster Studies, Food Security, and Low Impact Building Performance and Evaluation. Add+vantage courses on Ethics and Sustainability in the workplace are offered to students as part of their degree courses to provide wider awareness and aid employability.

In addition to courses with an environmental/sustainability focus many courses incorporate sustainability in taught modules. For 2012/13 12% of undergraduate and 11% of postgraduate courses have sustainability modules, equating to 11.5% overall. Modules include Sustainability and Environmental Management Systems in Engineering Management courses, Event Sustainability and Risk Management in Event Management Courses and Environmentally Sustainable Manufacturing in Aerospace and System Engineering courses.

In 2010 the University established "Grand Challenges", developing applied research to meet future challenges. Of the seven grand challenges there are three that are concerned directly with sustainability, these are:

- Low Impact Buildings Centre (LIBC) approximately 40% of carbon emissions in the UK are from buildings, the LIBC addresses challenges of emissions in construction;
- Centre for Agroecology and Food Security (CAFS) focused on the challenge of how to build resilient food systems across the world. Work by the centre focuses on the ability of agriculture to withstand natural and man-made disasters; fair routes to market which enhance livelihoods; people's relationship with food; and technologies to sustain yields whilst maintaining nutrition and ecosystems;

 Low Carbon Vehicles – utilising the University's automotive engineering and design skills to design and test low carbon vehicles as a viable alternative to traditional modes of transport.

Students are encouraged to be part of sustainability activities on campus, integrating coursework and projects with environmental work underway at the University. From 2010-2012, ten students have completed projects with the Environment Team. Other projects have included a competition by the Coventry School of Art and Design to build a sustainable sculpture made from recycled materials.



Model of Sustainable Sculpture

- Offer the opportunity for MSc students to complete their projects in the Environment Team to support the practical application of learning;
- collate information on the integration of Sustainable Development in the curriculum;
- continue to develop the themes of a low impact campus jointly with Estates and the University's Low Impact Buildings Centre to bring applied research and carbon savings opportunities to the campus.

Spreading the message

The only way truly to have an impact on our sustainability is to engage as many stakeholders as possible from staff and students to collaborating with other organisations, and to be part of the community as a whole.

How did we do in 2010-12

The annual Green Week at Coventry University involves all these stakeholders in a week dedicated to showcasing sustainable initiatives at the University and beyond. The week encourages staff and students to think about the environment in their day-to-day activities and providing a chance for people to get involved. The February 2012 event included car sharing promotions, a photography competition, an ethical market, Dr Bike, and composting displays.

The student Green@CU group was established in 2010 and focuses on energy saving in halls of residence and on providing information, campaigns and updates on how to live a sustainable lifestyle. The Green@CU Facebook page has around 490 followers actively interested in "green" issues. The project also developed a digital game in collaboration with the Serious Games Institute to engage students in energy saving.

Comparing our performance with others, seeking new ideas and sharing knowledge within the sector are also essential. The annual People and Planet Green League ranks the sector on its performance ranging from purely environmental criteria to broader social and ethical impacts. The Green League is published in the Guardian. Our ranking in the 2011-12 league table is "1st class", coming in 26th out of 146 Universities.

- Continue to involve students through the Green@CU group and Facebook page. Aiming for 500 followers by the end of 2013;
- work with the Green Halls Representatives to support and deliver campaigns in halls of residence including a water saving campaign in Spring 2013;
- continue to host "Green Week" engaging stakeholders in sustainability, February 2013 and 2014;
- work to secure our position as a 1st Class University in the People and Planet Green League for the foreseeable future.



And finally...

The last two years at Coventry University have seen many developments in sustainability. These have included becoming a "first class" University in the People and Planet Green League and award winners for Carbon Reduction initiatives, the implementation of an Environmental Management System, our performance in reducing emissions and successful volunteering programmes benefiting the wider community.

Targets and performance are summarised in the following table.

Area	Targets	Progress	Targets 2012-2014
Energy and Emissions	• Reduce energy by 500 tonnes each year until 2015.	1,600 tonnes of CO2 saved since 2009.Carbon Challenge wins Green Gown Award.	 Achieve 500 tonne year on year carbon reduction based on 2008/09 baseline.
Waste	• Achieve 50% recycling rate for 2012.	 47% recycling rate achieved for 2012, a 5% increase from 2010. Increased re-use of waste on campus including furniture re-use and working with charities. 	 Achieve 60% recycling in 2012-13 and continue to progress recycling to 80% by 2015.
Water	 Install rainwater harvesting systems in new buildings. 	 Rainwater harvesting feeds toilets in both TheHub and ECB building. Shower installation in Quadrant Halls of residence. 	• Engage student halls representatives in water saving campaigns to take place in 2013.
Biodiversity	 Implement actions from Westwood Way Pond Management Plan. Establish 2,300m² of green roofs, July 2012. 	 Continued implementation of Westwood Pond Management Plan including conservation volunteering programmes. Green roofs in place on TheHub and ECB. Edible planting in borders on campus. 	 Develop a management regime to support environmental and academic initiatives. Landscaping of Cox Street, Gulson Road, TheHub to include naturalised planting, encourage wildlife and increase biodiversity throughout 2013.
Travel	• Reduce single occupancy car journeys to 40% for staff and 10% for students, measured in the 2011/12 travel survey.	 2011/12 travel survey revealed 44% of staff and 12% student single occupancy journeys, a reduction of 3% for staff. 2012 Sustainable Travel Plan produced. 	 Continue to reduce single occupancy car journeys to 40% for staff and 10% for students. Carry out replacement programme for fleet vehicles. Review data for business travel.
Buildings	 ECB and TheHub building to achieve BREEAM excellent. Implement Estates strategy. 	 ECB and TheHub building achieve BREEAM excellent. Gulson Hospital and Cox Street buildings demolished. 	 Achieve 10% improvement in space utilisation from 8.7m² to 7.8m² per FTE by 2015. Employment of a Space Manager, 2013.
Environment Management	Achieve EcoCampus Silver Award.	• Silver achieved December 2011.	Achieve EcoCampus Gold by July 2013 and Platinum by July 2014.
Sustainable Procurement	 Update Sustainable Procurement Policy and develop sustainable food policy in 2012. Review wording in tenders. Provide information through internal web pages. 	 Policy, documentation and information on the internal web pages all complete. Sustainable Food Policy developed and monitoring of supplies undertaken by catering supplier. 	 Continue working on action plan to achieve Level 3 of the Flexible Framework by 2014. Provide Sustainable Procurement to key personnel in 2013.
Curriculum	 Review current activities to identify opportunities for developing sustainable development in the curriculum. 	 In 2012 11.5% of courses contain dedicated sustainability modules. Three of the University "Grand Challenges" focus on sustainability. 	 Offer the opportunity for student projects in the Environment Team. Continue to collate information on sustainable development in the curriculum. Continue to develop themes of a low impact campus.
Communication	Hold environmental awareness raising event.Develop environmental communications plan.	 Green Week held February 2012. Green@CU student facing group established to deliver campaigns and energy savings. Coventry University ranked "1st Class" in the People and Planet Green League. 	Continue to engage students through Green@CU.Annual Green Week, February 2013/2014.Maintain 1st Class status in the Green League.

This report focuses on some of the key sustainability initiatives of Coventry University from 2010-2012. For further information please contact the Environment Team envteam.est@coventry.ac.uk



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