

Executive Summary:

The University takes its responsibility for the environment seriously, and understands the need to respond to the challenges we face globally around issues such as climate change, human wellbeing, food, water and energy security. Loughborough seeks to respond to these opportunities by leading in Environmental sustainability, building on the work of our research and enterprise activities and aspiring to make the campus a living laboratory demonstrating operationally our mission to provide a sustainable Campus. There is also an opportunity in teaching and learning where students are increasingly interested in courses which include sustainability.

For the purpose of implementing its *Building Excellence* Strategy, the University defines Sustainability as: “*Action by the University, and its staff and students that considers environmental impact from a social, economic and environmental perspective following the principles of inclusivity, integrity, stewardship and transparency, “embedding sustainability into all our activities, operations and processes”.*”

This report summarises our performance over the last 5 years and includes:

- The introduction and development of a successful Travel Plan that has reduced reliance on the car and improved sustainable options for travel for users
- Increase in recycling and resource efficiency with less than 6% of waste now going into landfill.
- Investment in on site generation capacity via Combined Heat and Power units now supplying 37% of the University’s annual electricity load and saving £1.66m to date.
- A reduction in carbon emissions relative to students numbers from the baseline year 2005 of 16.5%.
- Campus wide accreditation to ISO 14001 standard for environmental management.
- Progress against objectives and targets
- Governance & Strategy
- Developing a demonstrator campus where teaching, research and operations work together
- A robust Biodiversity Action Plan that ensures biodiversity becomes an integral part of the day to day running of the University.
- Awards

Origin:

Sustainability and Social Responsibility Group

Strategic objective met:

The University is committed to acting in a socially responsible way that maximises its positive impact and minimises its negative impact on society and the communities in which it is based. This is reflected in the University’s strategy Building Excellence which states that “**we will embed sustainability and social responsibility considerations into all of our processes, operations and developments**” and also “**will work closely with local partners to enhance the social, cultural and economic wellbeing of the communities and regions in which we reside**”.

This also underpins the core value 3 identified in the Higher Education Code of Governance Committee of University Chairs report which states the University “**must rigorously assess all aspects of the institutions sustainability in the broadest sense, using an appropriate range of mechanisms**”

which include relevant key performance indicators not just for financial sustainability of the institution but also for its impact on the environment.

1. Governance and Strategy

A new Sustainability Action Plan was launched in early 2016. It outlines how we will deliver this aspect of the Building Excellence strategy, linking with the four themes, and connecting all areas (i.e. Teaching, Research, Enterprise and Operations). The document has been endorsed by the Sustainability & Social Responsibility Group (SSRG), which is an informal steering group chaired by the Chief Operating Officer, and also the Academic Leadership Team (ALT). Over the last two years, the SSRG has established a clear definition of how sustainability links to the four core themes in the strategy and presented this in a position statement. The [action plan](#) responds to that, to provide a set of strategic principles, congruent with Building Excellence 2020, and a rationalised and agreed set of KPIs for sustainability.

2. Compliance, Objectives & Targets

Our environmental performance is managed through ISO 14001 accreditation, which is an externally verified environmental management system. The last external audit noted that risk is managed effectively, and that we operate an effective EMS which is subject to continual improvement. The majority of processes are very well controlled and managed. Compliance reporting is done through the SSRG as Management Review Group and the Health, Safety & Environment Committee. A review of objectives and targets is carried out annually and significant impacts monitored. A new action plan has been launched in 2016 for Travel & Transport, Sustainable Construction & Refurbishment and Biodiversity. New plans are required for Sustainable Procurement, Waste and Carbon.

3. Waste and Recycling

We have made good progress in recent years with recycling rates, as shown below.

	2009/10	2014/15
Total Waste	1799 tonnes	2020 tonnes
Total Recycled	28.53%	75.2%
Waste to Energy	0%	19.2%
Landfill	71%	5.6%

The end of term hall clear-out in 2015 generated 2,467 bags of unwanted items for donation to The British Heart Foundation, raising £34,538 for the charity and diverting 19.7 tonnes from our waste stream. Food waste from catering reduced by 10%, and 38 tonnes of waste was diverted from landfill in the self-catered halls in this period.

4. Carbon Management

The University is compliant with legislation in relation to carbon (current legislation includes European Union Emissions Trading Scheme, Carbon Reduction Commitment and Display Energy Certificates).

The absolute emissions and emissions relative to student numbers for 2014/15 are 6.65% and 16.5% lower than the 2005 baseline, respectively. This reduction has been achieved despite longer operating hours on campus (to meet student demand), and a growth in the physical footprint of our estate.

	2005/06	2014/15
Absolute Carbon Emissions	29,503tCO ₂ e	27,540tCO ₂ e
Emissions per FTE student	1.99tCO ₂ e	1.663tCO ₂ e

Self-generated energy

Four Combined Heat and Power (CHP) units have been installed to provide 'on-site' heat and power generation; these have a combined electricity generating capacity of 3.1MWe and form an integral part of our 'low carbon' thermal and electrical infrastructure. 37% of the University's annual electricity load was produced locally by the CHP Units. The Central Park CHP has saved £1.66m since August 2011.

5. Travel & Transport

The primary aim of the current Travel Plan, set in 2010, was to encourage 'active' travel, reduce single vehicle occupancy, and satisfies HEFCE requirements for the reporting on, and reducing of, travel-related carbon emissions. We have seen success in implementing a modal shift and a shift to lower emission vehicles. An updated Travel Plan was launched in April 2016; it increases the emphasis on Health & Wellbeing of staff, students and tenants, by continuing to encourage 'active' travel on campus, improving the road network to reduce congestion and providing a safe environment for pedestrians and cyclists.

Since 2010, the first plan has achieved the following:

- 17% lower carbon emissions from commuter travel, compared with 2012/13 (2,223 tCO₂ saved).
- 44.9% shift to the <100 lower emissions vehicle band 1 permits
- 10% of staff influenced to change their mode of travel from a car
- 50% fewer parking permits issued to students.
- 1.3 million on-campus bus trips since April 2012
- 10% reduction in Single Vehicle Occupancy
- Together with Leicestershire County Council we have made successful bids to a value of £4.2m to support Sustainable Travel in the Loughborough area.

The Car Park Management Strategy continues to support and contribute funding to the sustainable travel plan, the aim of the scheme is to encourage staff to consider the impact their commute has on the environment and to look at more sustainable alternatives such as walking, cycling & public transport. This was achieved by linking the cost of permits to a vehicle's carbon emissions, thereby encouraging the use of more efficient, less polluting cars. Overall the CPMS resulted in some very positive changes on site.

6. Capital Development

Changes to the major project approval procedures to incorporate formal consideration of sustainable design and technologies have been endorsed and implemented. For capital projects >£1m, the costs and benefits of achieving BREEAM levels will be presented. The default standard is 'Excellent' for new buildings, and 'Very Good' for refurbishments. Development of LUSEP has begun exploring low carbon technologies and incorporation of design as part of the master planning.

6. Biodiversity

Mindful of our responsibilities to biodiversity and the environment, we have a Biodiversity Action Plan for the University and a Woodland Management Plan for Burleigh and Holywell Woods. Ecological surveys continue to be undertaken to ensure appropriate monitoring and management of the habitat across the estate. An ecological management plan for LUSEP has been produced. Ecology protection and landscape enhancements are an important component, showing how we will carry out enhancements to help create the landscaped, parkland setting (as required by the Local Plan, and to pre-empt future planning applications).

The campus is home to a number of protected species. It includes a maternity bat roost of national significance that is being developed into a new roost; this will build upon our track record for initiating innovative schemes for supporting and extending biodiversity. Campus is also the only known site in the county for the rare Hornet Moth, has a population of badgers and an apiary housing 250,000 bees. In

2014, leaflets on wildflowers, butterflies, wasps, hoverflies and bats were produced and made available to stimulate interest and encourage the recording of wildlife by staff and students.

Fruit Routes is a collaborative project managed by the Sustainability Team and as an extensive artist led installation by Anne Marie Culhane developing the university grounds as an edible landscape. Winner of the Guardian Higher Education Sustainability Award in 2014, the Fruit Routes project continues to thrive, inspiring the creation of the Student Union Landscaping and Gardening Society.

7. Demonstrator Campus

The Sustainability Team is keen to engage with academics and students making use of the campus, its buildings and operations, to promote active learning. There are a number of examples¹ where synergies exist between teaching, research and operational activity, giving students access to Education for Sustainable Development via a set of learner attributes that are delivered through the formal and informal curriculum. The aim is to create a “living laboratory” to allow students to live and study sustainably, whilst learning - moving from theory and research to practice. We believe this is a key plank in Building Excellence and will provide students with an exceptional learning environment.

8. Achievements & Awards

- **Winner 2014** Guardian Higher Education Sustainability Award with Eat Your Campus project.
- Green Gown awards:
 - **Winner 2011** Positive Behaviour Change category – It’s Better Off
 - **Finalist 2013** Corporate Social Responsibility category - Eat Your Campus
 - **Finalist 2014** Continuous Improvement category – Embedding Environmental Management
- One of only 28% of EcoCampus-registered Universities that have EcoCampus Platinum
- BREEAM Excellent for Loughborough Design School and Sport Park