



Includes the ISCN-GULF
Sustainable Campus
Charter Report



Notes on this report

Please note that there is no Environmental Sustainability report entitled 2014 but that the 2013 and 2015 reports follow consecutively. The change in the title is to better reflect the year of publication. This is the University's fourth annual Environmental Sustainability report and the fourth year that it has prepared a Charter Report for the [International Sustainable Campus Network \(ISCN\)](#); it is the third year the two reports have been combined.

The report covers the functional estate of the University and does not cover the operations or buildings of the colleges which operate independently.

The report is based on the most accurate and applicable data available and, wherever relevant, this is data as reported to Higher Education Statistics Agency (HESA) as part of the University's Estate Management Record (EMR) return. Targets and scopes are aligned where possible with the requirements of the EMR and figures reported here may therefore differ from other strategies and reports which include other assets to those required by EMR. The complete EMR data set can be accessed [here](#).

The performance data is taken from the period 31 July 2013 to 1 August 2014 unless otherwise stated.

Case studies, examples and data for engagement and areas not reported to HESA through the EMR may be drawn from the academic year 2014-15, this is stated where applicable.

The University's carbon emissions baseline for 2005/6 is taken as 65,900 tonnes of CO₂e based on third party reviews of data. The University has an objective to reduce this by 33% by 2020/21.

The percentages provided as part of the progress tables are intended as an approximate indication of task completion, and are subjective.

The report has been reviewed by the Sustainability Steering Group, University of Oxford.

For more information on the report contact the Environmental Sustainability team.



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Welcome

I am pleased to introduce to you the University of Oxford's fourth Environmental Sustainability annual report and to its third International Sustainable Campus Network report. This joint report summarises the great sustainable work undertaken across the University and highlights important areas of future development.

This year's report will be my last as Vice-Chancellor. During my time at Oxford I have seen significant developments in sustainability and I have witnessed the incredible motivation and determination of staff and students alike in this area. The University has made great progress, and continues to realise annual improvements in this very crucial area, building sustainability into its legacy.

Sustainability is a shared global challenge and one that brings together all aspects of this dynamic University. Sustainability at Oxford has a strong foundation to grow from, to strengthen and to lead; this will not only benefit the University but a sustainable University life can propagate across the world.

I send my thanks to everyone involved in the inspiring work that has already taken place and to those currently involved in projects that will flourish in the coming months and years.

Professor Andrew Hamilton FRS

Vice-Chancellor, University of Oxford





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Introduction to the University of Oxford

As the oldest university in the English speaking world, the University of Oxford can lay claim to nine centuries of continuous existence. There is no clear date of foundation, but teaching existed at Oxford in some form in 1096 and developed rapidly from 1167. The University of Oxford is a unique and historic institution. It is a major research university and a member of the Russell Group; the Russell Group is made up of 24 of the UK's leading universities.

The Structure of the University

The Vice-Chancellor holds office for up to seven years and is the senior officer of the University. Six Pro-Vice-Chancellors have specific roles and responsibility for example Planning and Resources and up to ten Pro-Vice-Chancellors which undertake roles one-half of the Vice-Chancellor. The Chancellor is usually an eminent public figure elected for life and serves as the titular head of the University, presiding over all major ceremonies.

The executive governing body of the University is Council. Council is responsible for the academic policy and strategic direction of the University, operating through five main committees: Education; General Purposes; Personnel; Planning and Resource Allocation; and Research.

Final responsibility for legislative matters rests with Congregation, which comprises over 5,000 members of the academic, senior research, library, museum and administrative staff.

Day-to-day decision-making in matters such as finance and planning is devolved to the University's four Academic Divisions.

The University has 38 independent and self-governing colleges, and six permanent private halls. The collegiate system is at the heart of the University's academic success.

Finance

The University is a self-governing charity. The University enjoys charitable status as an exempt charity. An exempt charity experiences some of the benefits of a charity but is exempt from certain requirements, for example the requirement to register with the Charity Commission. In 2013/14 total University income was £1,174.4 million. The University's largest source of income (41%) continues to be external research funding.





Introduction to the University of Oxford (continued)

Education and Research

The University of Oxford aims to provide an exceptional education, developed by the close contact of students with leading scholars resulting from the collegiate and departmental communities. The student body is made up of some 22,300 students including 11,703 undergraduates and 10,713 postgraduates. In addition there are around 20,000 enrolments on part-time courses offered by the Department of Continuing Education. Nearly 40% of the student body are international students.

Over 1,700 academic staff, more than 5,000 research support staff and 5,600 postgraduate research students undertake world class research.

The University's over-arching research objectives are to lead the international research agenda across the disciplinary spectrum and through interdisciplinary initiatives, and to make significant contributions to society through its research. For more information on the University of Oxford's history click [here](#).





Environmental Sustainability at the University of Oxford

Environmental Sustainability Governance at the University of Oxford is conducted by the Sustainability Steering Group (SSG). SSG reports to Buildings and Estates Sub-c Committee (BESC) and the Planning and Resource Allocation Committee (PRAC) which are overseen by Council.

The day to day running of Environmental Sustainability is the responsibility of the Environmental Sustainability team located within Estates Services; although it is recognised that environmental sustainability is the responsibility of all.

The University has an informal Environmental Management System (EMS) to ISO 14001, operational in a limited number of buildings. The system is seeking formal certification to the standard and the scope of the system will gradually grow encompassing more of the functional estate. Through the EMS the following actions have been identified as significant:

- Use of buildings/building design
- Use of gas and electricity from the grid
- Purchasing
- Travel
- Water consumption
- Waste production

Welcome from the Chair of the Sustainability Steering Group

As the Chair of the University's Sustainability Steering Group I wish to take this opportunity to thank the Vice-Chancellor, Professor Andrew Hamilton, for his work in creating a lasting legacy for sustainability here at the University of Oxford. Considerable attention has been given to lowering our carbon emissions during Professor Hamilton's tenure and he leaves us with reduced emissions per square meter in spite of rapid estate expansion and growth in energy intensive research activities.

This report is a celebration and recognition of the great work completed this year across the University. This includes further installations of solar panels, the first Green Impact Gold awards, and the introduction of a Sustainable Transport Strategy for the University. The report also looks at the next steps we will be taking to progress along our sustainable improvement journey and recognises some of the challenges and benefits faced in an historic, dynamic, complex and expanding establishment undertaking world-leading research.

I commend this report to you and encourage your continued engagement with this work, including the ever popular Green Impact and Student Switch Off programmes. An exciting year lies ahead once again.

Professor William James

Chair, Sustainability Steering Group



Meet the Environmental Sustainability team

Tom Heel, Acting Head of Environmental Sustainability (Sustainable Buildings Officer).

In Tom's current post he leads the team as cover for Harriet Waters, Head of Environmental Sustainability. In this position Tom oversees the delivery of the wide range of services provided by the Environmental Sustainability team.

In addition to leading the team on an interim basis, Tom drives sustainability issues within the extensive University construction programme, advising capital project's design teams and wider Estates Services colleagues on compliance with University policies and ensures that projects are innovative and guided by industry best practice.

Alan Wood, Energy Manager

Alan manages the Energy team. Team members are responsible for managing the electricity, gas and water supplies to University buildings and departments. His team ensures that the University departments have a secure energy supply which is essential for their work.

The team also manages any new supply points for new buildings and major refurbishments and ensures the University is legally compliant in respect of the European Union Emissions Trading Scheme, Carbon Reduction Commitment and the Energy Saving Opportunities Scheme.

Andrea Isham, Energy Efficiency Assistant

Andrea deals with utility companies and their bills for providing gas, electricity and water and collating the billed data for checking, storing for reporting and analysis. Andrea also solves billing and payment issues with end customers and utility companies; recharges utility company bills between departments and provides historical billing data for them.



Jonathan Walford, Deputy Energy Manager

Jon covers energy procurement, energy and carbon saving, energy analysis, energy compliance and water saving. Jon's main area of work focuses on energy analysis and energy and carbon saving. This enables Jon to monitor energy use and deliver bespoke energy saving measures across the University's diverse estate.

Lucinda Lay, Carbon Reduction Programme Manager

Lucinda is responsible for delivering the Carbon Reduction Programme and coordinating project managers, contractors and multiple cross functional projects, which contribute towards the 33% carbon reduction target.





Meet the Environmental Sustainability team (continued)

Adam Bows, Sustainable Transport Manager

Adam provides direction and advice in relation to all aspects of the University's transport needs. Working with Ed Wigzell, Adam is responsible for leading the implementation of the University's Transport Strategy which aims to enable efficient operation of the functional estate whilst reducing the traffic congestion, air pollution and carbon emissions associated with the commuting and business travel needs of our staff and students.

Ed Wigzell, Travel Officer

Ed supports the delivery of sustainable transport initiatives for University staff and students. He aims to encourage the use of energy-efficient public and communal transport, bicycles and walking, and to discourage unnecessary use of private motor transport. His work involves conducting travel surveys, developing staff and student travel benefit schemes and liaising with local authorities and large employers in the area.



Lucy Smith, Team Administrator

Lucy supports the team in all aspects of delivering their diverse work. She leads on coordinating certification to Customer Service Excellence and, outside of the team, supports the wider Business Management agenda of Estates Services.

Jennifer Jack, Environmental Sustainability Projects Manager

There are two main parts to Jennifer's role which are delivered with the support of Rachel Purdon. The first is engagement and behaviour change which are delivered primarily through the Green Impact and Student Switch Off schemes. The other aspect is the development and growth of the Environmental Management System. Jennifer also works closely with other teams on non-hazardous waste management.

Rachel Purdon, Environmental Sustainability Projects Assistant

Rachel supports the delivery of Green Impact and Student Switch Off schemes as well as wider engagement initiatives, such as training sessions with staff and student representatives. Rachel works to develop and extend the engagement and outreach of the team including via social media. Rachel also assists in supporting the implementation of the Environment Management System.





Welcome from the Acting Head of Environmental Sustainability

Welcome from the Acting Head of Environmental Sustainability

The work undertaken by the Environmental Sustainability team involves staff, students, interns and partner organisations across the city and beyond and we thank them all for their continued support. It has been a fantastic year in which the team has grown in both capacity and reach. It is truly gratifying to be able to work with, and support, an increasingly wide audience and to aid the delivery of exciting and beneficial projects and initiatives.

We hope you find the annual overview in this report useful and informative. There are however many other ways you can get involved with, and hear about, our work throughout the year including social media tools [Facebook](#), [Twitter](#) and our [blog](#). Our [website](#) is also a useful source of information and includes [event and training opportunities](#).

We look forward to hearing from you with your ideas, thoughts and queries and to working with you over the coming year.

Tom Heel

Acting Head of Environmental Sustainability, Estates Services



Energy and Carbon Management

The University of Oxford will continuously strive to improve 'by encouraging energy efficient practices and investing in its estate to reduce carbon emissions.' [Environmental Sustainability Policy, 2015.](#)

What is 'energy and carbon management' and why is it important?

The University has a short term target to reduce emissions in relation to scopes 1 and 2 (see [Box 1](#)) by 11% by 2015/16 and 33% by 2020/21 against the 2005/6 baseline (65,900 tonnes of CO₂e). These targets are absolute as defined by HEFCE.

During 2013/14 the University produced 74,518 tonnes of CO₂e from the operations of its functional estate. This is an increase in total carbon of +4.3% from 2012/13 and +13% from the 2005/6 baseline. Though in absolute terms this demonstrates that there is considerable work to be done to

achieve the reduction target, the estate has grown substantially and there are significant successes to celebrate.

Work towards both the interim target and long term target has been positive with 1,045 tonnes of CO₂e saved in 2013/14 and with projects already identified and due to be implemented by 2016 which will take total savings to 11,800 tonnes.

This equates to over 50% of the initial carbon reduction target. Since 2005/6 CO₂e per m² has seen a decrease both from the baseline by 20.13% and year on year by 1.3%. This decrease is also reflected in carbon emissions proportionate to income where a reduction of 30% of kgCO₂e/£ has been achieved.

These significant reductions in emissions by area and income reflect the work and positive steps undertaken to date and the University continued commitment to deliver its Carbon Reduction Programme and to further reduce emissions.

What we said in the last report	What we did	Percentage complete
Continue to invest in technologies to increase energy efficiencies including the use of renewables and low carbon or zero carbon technologies.	Funding has been released from the Carbon Management Fund to support the implementation of programmes and a number of solar PV installations have been completed.	100%
Continue to rollout the Carbon Management Plan and Programme to support the Carbon Management Strategy.	The Carbon Management Programme Managers role was advertised and filled. A significant number of projects have been implemented and additional projects identified.	100%
Work with new developments to support the implementation of the Soft Landings initiative and to increase their operational energy efficiency.	Soft Landings have become a core part of Capital Projects and further developed the close working relationship of Environmental Sustainability, Capital Projects and Building Services teams.	100%
Raise awareness with staff and students to utilise energy efficiently, including an extension of the Midnight Oil Project.	Student Switch Off and Green Impact schemes continue to run. Many projects delivered under the Carbon Management Programme, such as Building Management System (BMS) optimisation, build on this.	100%
Commission Display Energy Certificate (DECs).	A total of 133 buildings were covered by an annual DEC assessment by October 2015.	95%



Energy and Carbon Management (continued)

Future actions:

Continue to deliver the Carbon Reduction Programme to move towards the University's 2020/21 target.

Continue to invest in low and zero carbon technologies and to increase the onsite renewable energy generation of the University.

Deliver the Carbon Innovation Programme in partnership with Environmental Change Institute.

Implement the identified and funded carbon reduction projects, which should collectively mitigate 7,119 tonnes CO₂.

Increase access to relevant staff of energy monitoring and reporting software.

Did you know...?

The University has an [Asset and Space team](#) in Estates Services who work to allocate and utilise space efficiently to reduce the demand for new assets.

The numbers:

99% of grid energy purchased by the University and colleges was from renewable sources (Hydroelectric).

33,615 kWh of energy was produced by photovoltaic cells during 2013/14.

82,612,748 kWh of energy was generated by onsite Combined Heat and Power (CHP) in 2013/14 a **3,581%** increase from 2012/13.

There was a **15%** increase in energy consumption between 2005/6 and 2013/14.

114 kg of CO₂e were emitted per m² of functional estate.

What are the challenges?

Every member of the University community has an impact on energy consumption and the efficiency of the University.

Twenty percent of buildings within the functional estate are listed for their historical value and this can create unique challenges when retrofitting efficiency measures.

The University is a research intensive and much of this research is energy intensive.

Legislation relating to renewables and carbon schemes continues to be modified and altered.

Get involved and find out more:

- [Carbon Management Strategy](#)
- [Carbon Management Plan](#)
- [Carbon Innovation Programme](#)
- [Green Impact](#)
- [University of Oxford Student Switch Off](#)

Contact sustainability@admin.ox.ac.uk with any queries.



FOCUS ON ENERGY: The Ashmolean Lighting Project

This extensive project to improve the quality of the static exhibition lighting displays at the Ashmolean Museum was completed in October 2014. As well as greatly enhancing the user experience and conservation of the exhibits, the lighting is now fully adaptable, more energy efficient and cheaper to run.

The challenges:

As well as complying with the University's philosophy documents (detailed technical specifications) the project brief from the Museum team came with additional requirements, including:

- enhancing the visitor experience with quality and adaptable lighting;
- reducing carbon emissions and energy costs;
- reducing the building cooling load;
- reducing the demand of staff time and maintenance.

After approaching multiple specialist manufacturers, just one supplier was able to work to the exacting brief that would meet all of the Museum's and Estates Services' requirements.

The solutions:

A bespoke, LED spotlight system with dimming capacity and variable focus lenses proved to be the ideal solution

the brief. The halogen lighting around the Museum was then replaced gallery by gallery.

LED lighting has a low energy demand and heat output in comparison to halogen bulbs which are only 3% efficient – 97% of energy consumed by them is released as heat. With 1,969 bulbs in the Museum this resulted in a significant additional burden on environmental control systems.

The environmental benefits of the proposed new lighting (estimated at an annual saving 450,000 kWh of energy and 236 tonnes of CO₂) meant that the project was eligible for funding from the University's Carbon Management Fund. This contribution (58% of the total project cost of £365k) was essential for the Museum to be able to progress with the work.

Each LED light has a long life span, operating for over 50,000 hours (halogen bulbs only last around 2,000 hours). The LED lighting used was carefully selected to provide excellent



colour rendition, which helps to further enhance the exhibits on display. Another huge advantage of LEDs are that, unlike halogen lighting, they do not emit any ultraviolet or infrared light which might be detrimental to the preservation of the Museum's precious artefacts.

The outcome:

The Ashmolean now has an amazing new flexible lighting system that meets all of the project specifications. It is fully adaptable, can be adjusted to suit different styles of displays as they change and will fulfil any future design needs of the Museum for at least 20 years.



Water Management

The University of Oxford will continuously strive to 'reduce water consumption through water efficient practices and technologies.' [Environmental Sustainability Policy, 2015](#)

Water is used by every staff and student and by most visitors. In addition, much of the research conducted by the University is water intensive. This puts direct pressure on natural resources and the treatment and supply of water also produces emissions. Emissions from water are included in Scope 3 (see Box 1).

Water consumption has been recognised as a significant impact of the University and work has been on-going to reduce consumption.

The University of Oxford's water target, to reduce consumption by 11% by 2014/15 from 2009/10 levels against available 2013/14 data, remains extremely challenging. During the comparison period our reporting capabilities have improved ensuring that we capture more of the water that we

use. This, compounded by a growing estate and increasing staff and student numbers, has resulted in a total water consumption increase of 5%.

The University recognises that the target will be missed despite water consumption per staff and student reducing over this period by 3%, or 324 litres, per year per person. This reduction per head reflects the efforts taken to reduce water consumption through efficient technologies and practices. However further work is required with a review of the water target taking place in 2015/16.

BOX 1: SCOPE 1, 2 & 3 EMISSIONS

SCOPE 1 = direct carbon emissions e.g. gas consumption and University vehicles
 SCOPE 2 = carbon emissions from off-site grid electricity
 SCOPE 3 = embodied carbon emissions e.g. production, travel, waste and water

What we said in the last report	What we did	Percentage complete
Review the water strategy and finalise the Water Implementation Plan.	The water implementation plan was finalised in 2014.	100%
Continue to support the installation of water efficient equipment.	Work to utilise technology continues for example in the Department of Materials cooling benches replace cooling by water.	100%
Increase engagement with staff and students through Green Impact and other initiatives to support positive behaviours.	Green Impact engaged more departments and included seven criteria directly relating to water.	100%
Work with regulators and other key stakeholders.	The team continue to work with regulators, contractors and others to reduce water consumption.	100%
Improve monitoring, measuring and reporting of water.	Improved access to monthly consumption via data analysis software.	95%



Water Management (continued)

Future actions:

Install sub-metering in high consumption areas.

Seek a partner who can deliver automatic water meter readings for all supplies and an increased availability of data for targeted water management initiatives.

Review water consumption during 2015/16 and update the target.

Continue to raise awareness via the Green Impact engagement programme.

The challenges:

All staff, students, visitors and guests use water and their behaviours impact consumption.

Water is often seen as a plentiful and free resource.

Many of the procedures and processes required for research are water intensive.

The numbers:

The University used enough water to fill the Sheldonian Theatre **116 times** in 2013/14 – or once every three days.



4,942,000 litres of greywater have been used during 2009/10 – 2013/14.

384 tonnes CO₂e emissions were generated from water supply and return during 2013/14 (Scope 3 Carbon)

32 litres of water used per a head per day.

Get involved:

Use Green Impact and Student Switch Off to raise awareness.

Take steps to reduce your daily water consumption and report water leaks.

Find out more:

- [Water Management Strategy](#)
- [Sustainable Procurement Strategy](#)
- [Green Impact](#)

If you have any queries you can contact sustainability@admin.ox.ac.uk.



Sustainable Travel

The University of Oxford will continuously strive to increase its positive impact 'by reducing emissions from work-related travel and University owned vehicles.' [Environmental Sustainability Policy, 2015](#)

All University staff and students travel in some form on a daily basis, so this is an important area of work in a growing estate with increasingly interdisciplinary work. Sustainable transport work looks to meet the existing needs and to implement plans that will meet the future operational transport needs of the University in terms of staff and student accessibility, freight and servicing. In meeting these needs it looks to reduce the negative impacts of business and commuting travel such as carbon emissions, harmful air pollutants, noise and the intrusion of traffic in the city.

Environmental Sustainability team and staff at the University work closely with a range of stakeholders and are supported through central funds and from parking fees, which are put towards delivering and improving sustainable travel choices.

The numbers:

250 new cycle spaces were provided between 2012/13 and 2013/14.

31% of staff and 44% of students use cycles for University related travel.

1% increase was seen in University fleet fuel usage between 2012/13 and 2013/14.

725,000 business trips were made by staff and students, see Figure 2.

1 travel strategy signed in 2015.

1 new Sustainable Transport Manager appointed within the Environmental Sustainability team.



What we said in the last report	What we did	Percentage complete
Continue work to roll out of the Travel Strategy and Travel Plans including the setting of targets and objectives.	The Travel Strategy has been completed and is being used to direct work in this area. Targets and objectives are contained within the strategy and further targets will be set within an implementation plan.	100%
Continue to work and support wider city initiatives including work on a Distribution Transport Hub.	The team continue to support wider city initiatives such as OXONBIKES which the University part-funds.	100%
Continue to run staff awareness events and awareness raising sessions.	A number of sessions take place each year ranging from information stands at events to near-miss training and the continued support provided by the bike doctor to maintain and repair bicycles.	100%



Sustainable Travel (continued)

Future actions:

Continue implementation of the [Transport Strategy](#) and work towards targets.

Review the feasibility of mass cycle storage and cycle share schemes.

Review the feasibility of shuttle bus services to join University sites.

Apply for funding for wireless recharge bus stops.

Continue to raise staff awareness and support sustainable travel choices.

Continue to work, support and review opportunities in partnership with wider city initiatives.

The challenges:

Many people have habits, behaviours or perceived ideas and real barriers which can impact an individual's choice of transport.

Data availability regarding transport is limited due to complexities of collection across the University.



The University's buildings are spread across eleven sites.

The city's transport routes are a shared resource with multiple, and often competing, needs.

Get involved:

Sustainable travel discounts – there is a range of financial incentives and other support such as training available, to check eligibility and to find out more visit the sustainable travel [webpages](#).

- [By Bike](#)
- [By Car](#)
- [By Train](#)
- [By Bus](#)

[OXONBIKE](#) is a self-service bike hire scheme for getting around quickly and cheaply. You can hire and return bikes at any OXONBIKE docking station at locations across the University and the city.

[Green Impact](#) is a staff led departmental competition which includes ideas and initiatives which you can run at your site to increase sustainable travel awareness.

Find out more:

- [Travel information and strategy](#)
- [Green Impact](#)
- [OXONBIKE](#)
- [Welcome events and fairs](#)
- [Ox Maps](#)

Contact sustainability@admin.ox.ac.uk with any queries.

DID YOU KNOW?

Staff and students can get discounted D-locks and bike lights from [Security Services](#)?



FOCUS ON TRAVEL: Improving cycle safety for University staff and students

For several years, the Estates Services' Environmental Sustainability team has worked in partnership with local organisations to offer Oxford University's staff and students free cycle benefits.

Since March 2014, the Broken Spoke Bike Co-op has delivered courses, which aim to increase the number of staff and students taking up cycling and improve competency and road safety awareness. Broken Spoke, an Oxford based social enterprise, was established with the goal of making people more proficient and confident in bicycle maintenance and riding.

Through the University programme, staff and students are eligible for six hours of free tuition. Currently around 20 people, some of whom have never ridden a bike before, take advantage of the training each month which is tailored to individual needs and abilities.

Accredited training

Broken Spoke's training is accredited to the national cycle proficiency standard, Bikability. Various levels of tuition are provided, from learning to ride a bike and basic bike handling skills through to advanced skills for dealing with challenging traffic situations.

Several teams from the University, including members of the Messengers team, IT Services, Examination Schools and the Blavatnik School of Government, have organised group training sessions to ensure the competency of staff using the University's pool bikes.

Road safety theory

The members of the Environmental Sustainability team also organise a bi-annual presentation that delivers valuable road safety theory to an audience of over one hundred people. The talk, open to all University staff and students, provides valuable advice on effective, safe and enjoyable cycling. This includes how to manoeuvre around other cyclists and share good practice tips from experienced cyclists.

Mobile Mechanic

To keep people safe their bikes need to be in good working order. The University holds regular workshops with a bike mechanic to service bikes. Staff and students are only charged for the replacement parts used in any repairs carried out, the labour is provided free of charge.

Ed Wigzell, Travel Officer with the Environmental Sustainability team commented, 'We really want to encourage more people to cycle around the city and for departments to take up the funding available for pool bikes.'

'The cycle tuition is for everyone – from complete beginners to people who have been cycling around for years but might benefit from brushing up on their road safety skills, discovering the safer cycling routes around Oxford or becoming more confident and competent.'



Material Resources: Waste and Sustainable Procurement

The University of Oxford will continuously strive to increase its positive impact 'by encouraging, preventing and reducing waste and reuse of resources prior to recycling or disposal' and 'by encouraging and embedding sustainable and lifecycle considerations into purchasing decisions.' [Environmental Sustainability Policy, 2015](#)

The University of Oxford has over 34,540 students and staff, and tens of thousands visitors and guests undertaking and supporting world leading research. Collectively these operations have the potential for a wide range of products to be used and significant volumes of waste produced.

The Purchasing Department delivers the [Sustainable Procurement Strategy](#) and is working towards goals within the [Flexible Framework](#). The Flexible Framework is a widely used self-assessment mechanism developed by the business-led Sustainable Procurement Task Force, which allows organisations to measure and monitor their progress on sustainable procurement over time.

The University of Oxford has been applying this methodology to support their work in this area.

As well as their work in procurement, the University has also investigated their waste and waste management, introducing a single supplier contact for non-hazardous waste during 2014. The contract provides for greater accuracy of actual waste data with wheelie bins being weighed on collection. This is allowing the University to rationalise waste collections.

Waste data, as reported in the EMR, shows an increase in the amount of waste produced of 250% and a 12% increase in the recycling rate of the University from 2009/10. However due to changes in data collection capabilities and data capture caution should be applied when comparing this data. For example, waste collected through the wheelie bins is weighed on collection where as previously estimated figures were utilised.

What we said in the last report	What we did	Percentage complete
Create a Waste Management Plan to deliver the strategy.	Produced a waste plan.	100%
Analyse and report on actual weights from 2014 and work with departments to increase their recycling rates, and set targets and objectives.	Actual weights have been gained for the central contract. Information analysed and University wide reports made available, click here to see our waste reports.	85%
Increase awareness and communication regarding waste, use of material resources, and methods of waste reduction.	Introduction of reuse system. Free materials including stickers and handbooks.	90%
Build on Scope 3 reporting for waste and procurement.	Improving data capture, for data reported to HESA as part of EMR.	50%
Progress activities within Purchasing Department's Flexible Framework action plan to achieve level 4.	In December 2014, the Purchasing Department successfully implemented level 4 of the Flexible Framework.	100%
All Purchasing Department staff to attend advanced sustainability training.	All staff currently in positions will have completed training by December 2015.	100%
Introduce a basic 'whole life' costing model.	Basic 'whole life' costing model introduced and used on tenders where appropriate.	100%



Material Resources (continued)

What will be done?

The Purchasing Department is now looking to achieve the final level of the Flexible Framework, level 5 (lead). In order to achieve this, the University will need to:

- publicise sustainable procurement achievements
- share best practice with other organisations
- remove barriers to sustainable procurement in the wider University

Work with suppliers to better leverage the functionality of the University's electronic purchasing system to enable more sustainable product options to be flagged to devolved purchasers.

Set a waste targets and reuse targets for the University now the central mandated contract has a year's worth of actual data.

Continue to implement the Waste Plan and Strategy and the Sustainable Procurement Strategy.

The numbers:

218 dry mixed recycling, glass and food waste bins collecting waste for recycling and for anaerobic digestion as applicable.

200 staff are using WARPit, the University's reuse scheme, saving around **£10,000** for the University in its first year (2014/15).

Over **400** microchipped wheelie bins are weighed, monitoring and measuring the actual amounts of non-hazardous waste disposed of through the central contract.

118 waste reports are being provided to departments each month.

7 tonnes (estimated) of food waste were sent to anaerobic digestion.

4 sustainable procurement flexible framework levels have been achieved (2015).

The Living Wage accreditation was achieved by the University (2015).

The challenges:

- Reporting methods have changed and data capture is improving.
- Restrictions in operations from an inner city perspective such as access and storage areas.
- Each user and visitor to the University has a role to play in segregating their waste.
- The wide variation of service and product requirements across the University, as well as the demand for specialised equipment.
- Hundreds of devolved purchasing choices made across the University each day.
- Complexity of sustainable information relating to a product or service impact.





Material Resources (continued)

Get involved:

Ensure you are familiar with the [University's recycling guide](#).

Utilise the University's reuse system.

Consider whether an item is really required, could another be reused or repaired?

Apply and encourage others to apply the sustainable procurement strategy.

Join and support Green Impact which includes procurement and encourages departments to consider fair trade and recycled choices among others.

Do you want to find out more?

- [Waste Strategy](#)
- [Sustainable Procurement Strategy](#)
- [Flexible Framework](#)
- [HESA Data](#)
- [Green Impact](#)

Contact sustainability@admin.ox.ac.uk with any queries.





Sustainable Buildings and Biodiversity

The University of Oxford will continuously strive to increase its positive impact 'by encouraging and embedding sustainable and lifecycle considerations into purchasing decisions.' And 'by making full use of available space and designing and refurbishing buildings in line with the University's Sustainable Building Philosophy' [Environmental Sustainability Policy, 2015](#)

The University has an ambitious Capital Masterplan of significant investment in the University estate. Due in particular to the space constrained nature of the city, new buildings and major refurbishments are often more densely occupied than their predecessors. Controlling their resultant energy and carbon impacts is therefore essential in supporting the University to deliver on its emissions targets, as well as managing its long term operational costs.

The University has targeted an 'Excellent' rating under the Building Research Establishment Environmental Assessment Methodology (BREEAM) for all major projects since 2009. This was supplemented by a Sustainable Buildings Philosophy document in 2011 and policy and governance in this area is under continuous review. A Biodiversity Strategy is under development which will build on the foundations in BREEAM to tailor interventions to the Oxford context.



What we said in the last report	What we did	Percentage complete
Increase support and guidance to developments at the University of Oxford through the use and application of the following guidance: - BREEAM – 'Excellent' rating for all projects over £1m since 2009 - The Sustainable Buildings Philosophy Document - Carbon Management Strategy.	The revised BREEAM methodologies were reviewed against University policy and the key aspects of the scheme were highlighted in a tool for design teams. The philosophy document was comprehensively revised for committee review. Final approval was given in September 2015.	100%
Engagement to utilise buildings efficiently.	See Knowledge and transfer section.	100%
Formalisation of the Biodiversity Strategy, identification of indicators and monitoring and measuring.	A summer internship was utilised to reviewing monitoring and measuring opportunities and methodologies in 2014. A draft strategy has been produced and is undergoing review.	80%
Extension and development of volunteering and education opportunities around Biodiversity in addition to those already offered including partnership working.	Work has continued and opportunities are being reviewed through the Oxford Green and Blue Network and partnerships.	50%





Sustainable Buildings and Biodiversity (continued)

Future actions:

- BREEAM rating for Blavatnik School of Government.
- Review of the Sustainable Buildings Philosophy Document.
- Conduct a Passivhaus* trial.
- Undertake an external wall insulation trial.
- Development of the Biodiversity Strategy.

The challenges:

- The length of construction programmes means that developments in policy can take several years to show progress.
- Changes to design later in a projects cycle are costly and disruptive.
- The University's requirements for flexible space can place additional burdens on the design of facilities.

Get involved:

- Take time to understand how your building is designed to operate and, in particular, how the temperature is controlled across the seasons.
- Only have the equipment you need switched on. As

The numbers:

606,903 m² of gross internal area.

4.8% increase in growth in the Estate from 2012/13 to 2013/14.

25 buildings assessed under the BREEAM scheme.

1 BREEAM Excellent certificate received by the new Mathematical Institute building.

9 projects have been subject to the University's Project Quality Review Process to collect lessons learnt.

well as using electricity most electronic equipment produces a significant amount of waste heat which places additional burden on building systems.

Report faults, particularly with environmental controls, to your building management as soon as they are identified.

Take part in the [Green Impact](#) scheme.



*Passivhaus buildings provide a high level of occupant comfort while using very little energy for heating and cooling. They are built with meticulous attention to detail and rigorous design and construction according to principles developed by the Passivhaus Institute in Germany. Source: [Passivhaus Trust](#)



Education, Research and Knowledge

The University of Oxford will continuously strive to increase its positive impact 'by increasing awareness and understanding of environmental sustainability by staff and students and serving society by contributing and promoting the University's research and knowledge transfer on sustainability.' [Environmental Sustainability Policy, 2015](#)

Across the University there are a number of departments which lead on environmental sustainability and which have a good record of engagement across a wide audience. In addition to this wider work, the University's Environmental Sustainability team launched Student Switch Off (SSO) and Green Impact in 2013/14 and both ran again in 2014/15.

SSO and Green Impact are initiatives devised by the National Union of Students. Both are interactive and engaging and allow students and staff to gain extra skills and knowledge through training whilst taking practical steps to reduce their environmental impact.

These two main engagement programmes are supported by training and development across many aspects of the Environmental Sustainability Policy.

What we said in the last report	What we did	Percentage complete
Increase monitoring and measuring of key performance indicators such as hours of training provided.	The number of indicators recorded has increased and progress around engagement is now reported termly to the Sustainability Steering Group.	100%
Continue to work with Oxford University Students Union (OUSU) and student representatives.	Close working with OUSU has continued including through the Energy and Environment representatives' network and through the Green Impact Student Unions programme.	100%
Increase departments supporting Green Impact and continue to run SSO.	Both programmes were supported in 2014/15. The number of departments and colleges taking part increased by 52%.	100%
Increase presence at events, workshops, guided walks.	The number of events attended or led by the Environmental Sustainability team increased.	100%



FOCUS ON ENGAGEMENT: Green Impact

[Green Impact](#) is a departmental based award scheme which encourages participants to make step changes to reduce their environmental impact. Teams work through criteria and receive awards reflecting their achievements. In the second year of the scheme:

The numbers:

787 actions were completed.

35 Green Impact teams were registered.

31 students received training including project assistant and auditing training.

2 Gold Awards were handed out.

Green Impact Staff Members

There are several hundred staff involved in the University's Green Impact teams.

Staff join the programme for a number of different reasons; from an opportunity to meet staff within and outside of their

departments, to improving their working environment and reducing their, and their colleagues, impact on the environment.

Green Impact staff have a range of backgrounds and reflect the diversity of roles within the University. Many work in small teams to deliver step changes in sustainability within their departments.

The 2015 Environmental Hero Award was presented to Sue Henderson from the Department of Chemistry. Sue leads the department's very successful Green Impact team and has worked on a wide range of practical and awareness ranging activities including creating a plastic bag monster to raise awareness of the use of plastic. Sue and the team have also taken a range of practical steps including changing packaging used in the canteen and raising awareness around recycling. In addition, Sue meets all new members of the department to inform them about actions they can take to reduce their impact whilst working or studying.

To start your own Green Impact team or to get involved in an existing team e-mail sustainability@admin.ox.ac.uk.



Green Impact Student Auditor

A great opportunity offered to students is to train as auditors to review the work of Green Impact teams and confirm the award level reached.

Youmin Rong a third year DPhil student from Trinity College, studying Materials Science took part in Green Impact as an auditor in 2015.

'As a student, Green Impact auditing is a privileged opportunity to learn the essence of becoming a successful professional auditor.

'It is very rewarding to see individuals, departments and colleges becoming more environmentally sustainable, and receiving the recognition they deserve.'

Youmin Rong, Green Impact Auditor 2015



Green Impact Awards 2014/15

Thank you to the Bodleian Libraries for kindly hosting our 2015 awards at the Weston Library this year. Here are some photos from a wonderful evening of celebration.





FOCUS ON ENGAGEMENT: Student Switch Off

[Student Switch Off](#) (SSO) is an engagement based initiative encouraging students to save energy in their accommodation through photo competitions, climate change quizzes and a host of other events designed and run by students within colleges.

The numbers:

1,427 students pledged to save energy.
 7,619* people on the University's Facebook fanpage.
 5,690* climate change quiz entrants
 135 energy-saving photos submitted by students over the year.
 91* attended training sessions.

* = best in the country



Meet the students supporting Environmental Sustainability

Student Switch Off Ambassadors

In 2014/15 over 90 students trained as Student Switch Off Ambassadors to help raise the profile of Student Switch Off in their colleges. Students promoted and delivered a range of events

through the academic year from quizzes, photo competitions to film screenings.

There were prizes throughout the year including ice cream, hall tickets and money towards a summer party for the overall winners.

Once again the University of Oxford had some of the best engagement figures across the country- a great example of the interest and drive of students at the University of Oxford.

Congratulations to Queens College who won Student Switch Off in 2014/15 and to Mansfield and St Anne's College who were a very close 2nd and 3rd place respectively.

In addition to these two key areas, the Environmental Sustainability team hosted a number of internship opportunities and a variety of training sessions took place.



FOCUS ON ENGAGEMENT: Internships

Through the International Alliance of Research Universities (IARU) the University of Oxford is engaged with a fellowship programme which sends two University of Oxford students to work as interns with the Sustainability teams at the other Universities within the Association. This means that students get great experience and knowledge around sustainability, the receiving university gets to undertake research projects to support their work and the sending university gets to share best practice and knowledge from other universities.



Tim Hedgeland, one of our interns in 2014/15 who worked at Berkley University for the summer, and then with the Environmental Sustainability team here in Oxford for the following year, talks about his experience:

An insight into my time as IARU Intern by Timothy Hedgeland.

During 2014/15, during the final year of my degree in Earth Sciences, I was delighted the opportunity to make a difference and gain work experience for half a day a week.

What did you do in the Oxford office?

Working as an extra hand for the various members of the team, I got involved in a variety of jobs including creating a new blog to talk about the exciting changes occurring in our ever 'green-ing' University and helping with Green Impact Auditor training. It was good to help out wherever I could.

In addition, being part of IARU means that interns visit other top institutions around the world, to share and collaborate ideas. I spent two months at UC Berkeley, learning about 'Sustainability through Storytelling,' and investigating staff engagement with university wide environmental processes. As well as being thoroughly educational, I was able to use ideas and concepts in my job back in Oxford!

How did you get involved in the IARU Intern?

Having always been part of environmental life at

Want to hear more?

To hear more from Timothy and our other interns visit the team's [blog](#).

If you would like to contribute to the blog contact sustainability@admin.ox.ac.uk with your idea or suggestions.

the University during my studies – varying from helping run the Oxford Climate Forum, to being a Student Switch Off Ambassador – I jumped at the opportunity to become an IARU fellow.

What's next for you?

With a tear in my eye, I am moving onto pastures new, studying for an MSc in Environmental Technology at Imperial College, London.

The IARU scheme's yearly rotation of interns provides an excellent way of continually providing fresh ideas to the Environmental Sustainability team here at Oxford, I thoroughly recommended it.



Introduction to ISCN

International Sustainability Campus Network (ISCN) is a network of universities and colleges from around the world who have signed-up to the [ISCN charter](#).

The mission statement of the ISCN is:

“To provide a global forum to support leading colleges, universities, and corporate campuses in the exchange of information, ideas, and best practices for achieving sustainable campus operations and integrating sustainability in research and teaching.”

ISCN members come from all over the world and share their sustainability goals and performance indicators in their ISCN-GULF Charter Reports and report on three principles these are:

Principle 1: Sustainable Performance of Buildings on Campus

The design and construction guidelines for new buildings and refurbishment projects are the responsibility of BESC. The ongoing performance of buildings during operations follows the overriding governance structure of Environmental Sustainability.

Principle 2: Campus wide Master Planning and Target Setting Master planning is carried out by Estates Services and falls within the remit of BESC. The University is required by its funding bodies to produce an Estates Strategy at least every five years. The Estates Strategy was reviewed and launched in 2013. The Strategy was adopted through the appropriate University committees and issued to the Higher Education Funding Council for England (HEFCE).

The University’s Council approved the University’s Environmental Sustainability Policy in 2014. Environmental sustainability within the University is the responsibility of the Sustainability Steering Group (SSG) which determines policies and targets before being approved by the committee structure. The Environmental Sustainability team is responsible for the implementation of the policies and strategies.

Principle 3: Integration of Facilities, Research, and Education The University’s Strategic Plan, approved by Council in 2013, sets out the University’s mission, values and objectives, and details commitments under learning and teaching, research, and wider engagement with society. The four major committees of Council are: The Education Committee, the General Purposes Committee (GPC), the Personnel Committee, and PRAC, they are jointly responsible for the oversight and delivery of the Strategy.



Topic	Priority topics (with units of measurement)	Objectives and targets (for reporting year, for the following year and/or beyond)	2009/10 data	2010/11 data	2011/12	2012/13	2013/14
Principle 1							
Resource use	Water Consumption (m ³)	Reduce water use by 11% by 2015 compared to 2009/2010 levels	379,560 11.9 m ³ per person per a year	349,490 10.7 m ³ per person per a year	382,232 11.6 m ³ per person per a year	396,271 (+4 from 2009/10) 11.9 m ³ per person per a year	399,374 (+5 from 2009/10) 12 m ³ per person per a year.
Resource use	Rain/Grey Water Consumption (m ³)	See related Water Consumption target	1000	642	1269	1037 (+4% from 2009/10)	994 (-1% from 2009/10)
Resource use	Electricity (kWh)	See related Carbon target	110,752,829 195 kWh per m ²	113,710,120 197 kWh per m ²	105,728,754 172 kWh per m ²	113,820,852 (+3% from 2009/10) 185 kWh per m ²	114,878,816 (+3.7% from 2009/10) 177 kWh per m ²
Resource use	Gas (kWh)	See related Carbon target	99,013,026 175 kWh per m ²	92,375,414 160 kWh per m ²	86,898,770 141 kWh per m ²	105,769,206 (+7% from 2009/10) 172 kWh per m ²	89,511,456 (-9% from 2009/10) 134 kWh per m ²
Resource use	MTHW (heat) (kWh)	See related Carbon target	2,162,304 3.8 kWh per m ²	3,154,565 5.5 kWh per m ²	2,098,955 3.4 kWh per m ²	2,385,000 (+10% from 2009/10) 3.8 kWh per m ²	2,483,253 (+14.84% from 2009/10) 3.8 kWh per m ²
Resource use	Oil (kWh)	See related Carbon target	540,607 0.9 kWh per m ²	774,054 1.3 kWh per m ²	532,470 0.8 kWh per m ²	571,250 (+6% from 2009/10) 0.9 kWh per m ²	283,505 (-47.56% from 2009/10) 0.4 kWh per m ²
Resource use	Renewables and Combined Heat and Power (kWh)	See related Carbon target	3,500	5,361	713,067	2,146,380 (+61,325% from 2009/10)	82,646,363 (+2,361,325% from 2009/10)
Resource use	Vehicles (Litres)	See related Transport objectives.	213,000	220,000	215,000	242,264 (+14% from 2009/10)	244,331 (+15% from 2009/10)
Resource use	Procurement Stages of the Flexible Framework	To plan and deliver the Sustainable Procurement objectives, as laid out in the Sustainable Purchasing Policy, by 2017.	Not reported	Not reported	Not reported	Not reported	Achieved Level 4 in December 2014
Waste, recycling, local emissions, and non-compliance	Total waste produced (tonnes)	Implement waste strategy and create and deliver a Waste Plan. Develop and implement a reuse platform for the University.	1,723 (23% Recycling Rate)	3,259 (42% Recycling Rate)	3,974 (30% Recycling Rate)	3,690 (42% Recycling Rate)	4,329 (34% Recycling Rate) Due to variation in reporting it is not appropriate to compare year on year
Users	Stakeholder engagement	Increase engagement regarding Environmental Sustainability with	Not recorded	Not recorded	Not recorded	The team has continued to work with the Careers Office and has run two student	

Topic	Priority topics (with units of measurement)	Objectives and targets (for reporting year, for the following year and/or beyond)	2009/10 data	2010/11 data	2011/12	2012/13	2013/14
		key stakeholders.				consultancy projects •The team has worked with a number of local groups and projects for instance Low Carbon Oxford of which the University of Oxford is a pathfinder member	
Building design aspects	Sustainable Building Standards	Building Projects over £1m to target points equivalent to BREEAM Excellent Pilot a low carbon design.	Not recorded	Not recorded	Not recorded	Not recorded	1 BREEAM Excellent rating – Andrew Wiles Building
Building design aspects	Soft landings	Implement the soft landings protocol.	Not recorded	Not recorded	Not recorded	Not recorded	Andrew Wiles Building
Principle 2							
Institution-wide carbon targets and related achievements	Carbon Emissions (tCO ₂ e)	Medium Term: Reduce carbon emissions by 11% below the 2005/6 baseline by 2015/16 Long Term: Reduce carbon emissions by 33% below the 2005/6 baseline by 2020/21 Implement the Carbon Management Programme	81,000 (+23% from 2005/6) 143 kg CO ₂ e per m ²	77,161 (+17% from 2005/6) 134 kg CO ₂ e per m ²	71,722 (+9% from 2005/6) 116 kg CO ₂ e per m ²	71,434 (+8% from 2005/6) 116 kg CO ₂ e per m ²	74,518 (+12% from 2005/6) 114 kg CO ₂ e per m ²
Transport	Sustainable travel	Review strategy and set objectives and targets to increase the sustainability of business travel	2,900 cycle spaces	3,000 cycle spaces	3,300 cycle spaces	3,450 cycle spaces	3,700 cycle spaces (+28 % from 2009/10)
Master Planning	Strategies	Review strategies and associated implementation as required	Not recorded	Not recorded	Not recorded	<ul style="list-style-type: none"> • Estates Strategy Produced. • Environmental Policy reviewed • Transport Strategy draft. • Sustainable Procurement Strategy produced • Draft Biodiversity 	<ul style="list-style-type: none"> • Sustainable Transport Strategy produced • Environmental Policy reviewed. • Waste Plan produced • Water Plan produced • Work on all strategies continued

Topic	Priority topics (with units of measurement)	Objectives and targets (for reporting year, for the following year and/or beyond)	2009/10 data	2010/11 data	2011/12	2012/13	2013/14
						Strategy produced <ul style="list-style-type: none"> • Draft Water Plan produced. • Carbon Management Programme produced. Work on all strategies continued	
Food	Sustainable Food	Formalise a Food Policy.	Not recorded	Not recorded	Not recorded	Not recorded	The Sustainable Food policy should be formalised in 2015/16
Land-use and Biodiversity	Biodiversity	Formalise the Biodiversity Strategy	Not recorded	Not recorded	Not recorded	Not recorded	The Biodiversity strategy is still in draft but will be formalised in 2015/16.
Principle 3							
Topical Integration	Education	Run Sustainability Internships and hold workshops, training sessions and events.	Not recorded	Not recorded	Not recorded	<ul style="list-style-type: none"> • The University has hosted two interns through IARU • The University completes a wide range of sessions and events on sustainability and is looking to expand this in future years 	<ul style="list-style-type: none"> • 4 Internships • 231 Staff Engagement Hours • 397 student Engagement Hours • 29 Events
	Best practice	Sharing of real-life University sustainability case studies	Not recorded	Not recorded	Not recorded	Provided case studies and continue to attend sector meetings to share best practice and experiences.	Case studies and public information has been shared.
Social Integration	Community sector groups	Continue to represent the University at relevant groups	Not recorded	Not recorded	Not recorded	Members of the Environmental Sustainability team continue to represent the University at relevant groups where there is representation from local charities, councils and business'.	Members of the Environmental Sustainability team continue to represent the University at relevant groups where there is representation from local charities, councils and business'.
	Social media	Develop and expand use of social media	Not recorded	Not recorded	Not recorded	Social Media presence established	Engagement and channels increased'.
Research & Education projects on Laboratory/IT	Green Impact	To launch Green Impact in 2013/14 and sign up 20 departments	Not recorded	Not recorded	Not recorded	The initiative was launched in 2013 with 23 departments	23 departments participated with the first annual awards

Topic	Priority topics (with units of measurement)	Objectives and targets (for reporting year, for the following year and/or beyond)	2009/10 data	2010/11 data	2011/12	2012/13	2013/14
facilities and sustainability						participating in the initial year	taking place.
	Midnight Oil project	Review use of trials in 24 hour buildings and identify savings.	Not recorded	Not recorded	Not recorded	See Carbon Emissions section in Principle 2	Midnight Oil Project lessons embedded into Carbon Management Programme and Building Management System reviews
Commitments and resources for campus sustainability	Environmental Management	Certify an Environmental Management System and increase the scope reach	Not recorded	Not recorded	Not recorded	Not recorded	Further developed