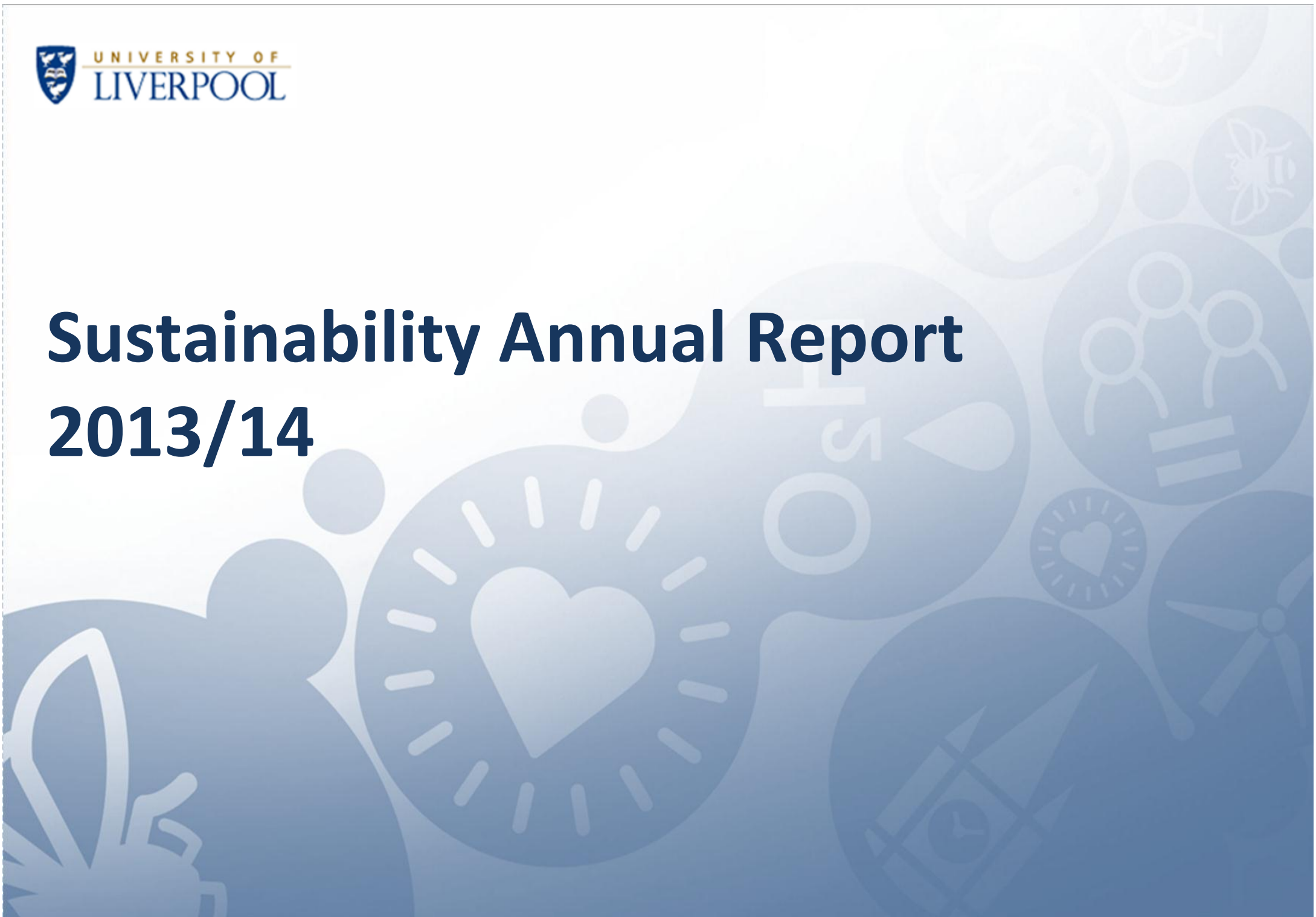


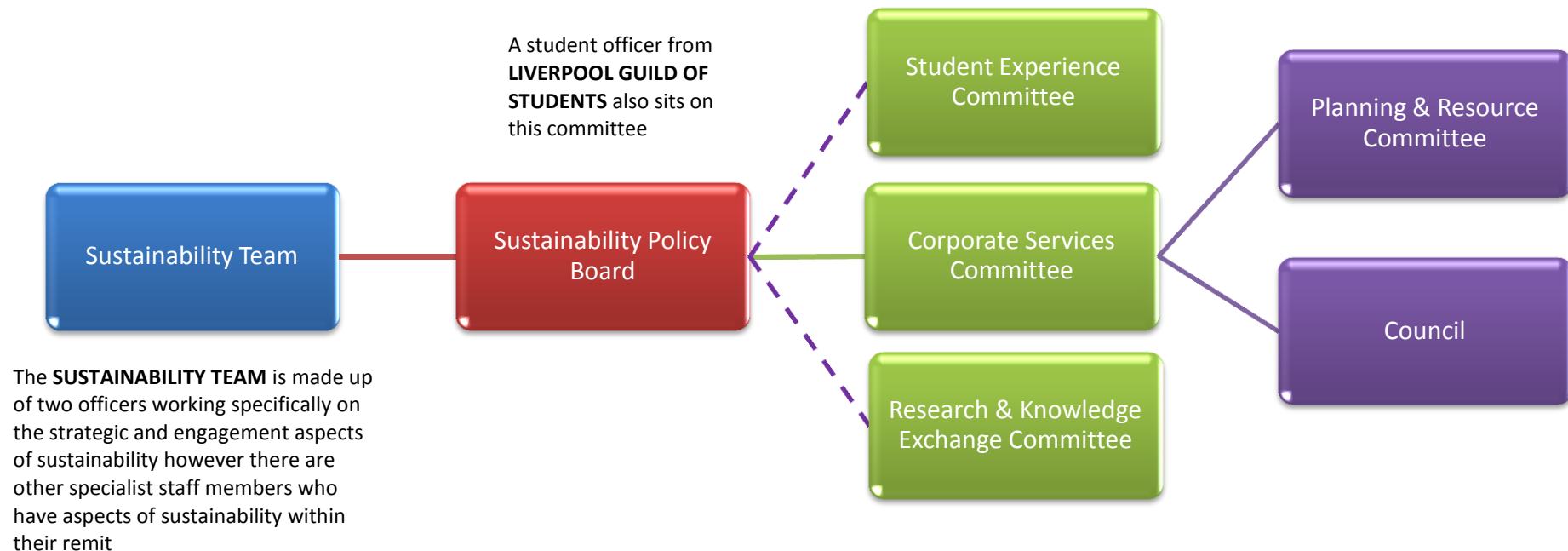
# **Sustainability Annual Report 2013/14**



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# How the University makes decisions about Sustainability



The University approved the Sustainability Strategy in 2012 and work is now being undertaken across the six key aims to ensure that sustainability is embedded into the core of institutional activities.

Working groups have been set up to look at key areas such as Wellbeing and Education for Sustainability and in 2014 we will look at how we continue to engage with the wider university community to ensure that a holistic approach is adopted and deliver a programme of activities which is varied, relevant and delivers a positive impact within the institution and surrounding community.

You can see the University's sustainability policies and strategies here:  
[www.liv.ac.uk/sustainability/approach/policy/](http://www.liv.ac.uk/sustainability/approach/policy/)

# Embed Principles

## Policies and Strategies

Many of the Sustainability Policies, strategies and supporting documents have been in place for several years so to ensure that they remain current we have undergone a review of all the documentation and prioritised those which need to be updated.

The University of Liverpool Sustainability Policy has been updated to reflect the new wellbeing agenda and we will work with the Student Admissions and Support Division to look at how this can effectively be embedded and communicated. In addition the Travel Plan has been updated and will be published in due course. We will continue to update other documentation, i.e. Carbon Management Plan, in due course and once approved any updates will be available on the sustainability webpage.

## Communication & Engagement

A key part of embedding sustainability into the University campus, curriculum, community and culture is reliant upon effective communication to all staff and students, the local community, stakeholder groups and other institutions and organisations. For this reason, the Sustainability Team has developed a Sustainability Communications Strategy and Sustainability Communication Plan in order to maximise the impact of our sustainability-related communications. By taking a thematic approach to our sustainability communications we will ensure that communication is targeted, specific, timely and structured.

## Demonstrating Improved Performance

In July 2014 the University was registered under the IEMA Acorn Scheme as improving its environmental performance and successfully achieving phases 1, 2 and 3 of the British Standard

***BS8555:2003 Environmental Management Systems – Guide to the phased implementation of an environmental management system including the use of environmental performance evaluation***

Figure 1 – Phases of BS8555



The University's EMS covers all the professional and academic services undertaken at the University of Liverpool Main Campus, Leahurst Campus and the halls of residence, incorporating the Greenbank and Carnatic Sites.

### What will we do in 2014?

As part of the ongoing commitment to the environmental management system we will be looking to implement phases 4 and 5 during 2014/15 with the view that we will be able to go for ISO14001 accreditation in 2015/16. We will also work with Ness Gardens to extend the scope to cover the activities undertaken both there and on our London Campus.

# Research & Knowledge Exchange

## Mayoral Commission on Environmental Sustainability

The Commission on Environmental Sustainability has been established by the Mayor of Liverpool to undertake an independent review of what is required to support Liverpool as a sustainable city.

The Sustainability Team worked with academics, Dr Iain Young and Adam Mannis, to submit a proposal to the commission based on research currently being undertaken at the University. The proposal, 'Urban Laboratory', looks at utilising the facilities and real estate of the Knowledge Quarter in Liverpool, to demonstrate the value of green approaches and technologies in the urban setting.

For more information on the commission see:

<http://liverpool.gov.uk/mayor/mayoral-commissions/commission-on-environmental-sustainability/>

## University of Liverpool Living Laboratory

The main aim of the University of Liverpool Living Laboratory is to improve the sustainability of the University of Liverpool by using the estate as a site for applied teaching and research around environmental sustainability. The Living Lab offers the ability to test and research real world problems while improving the educational experience of students attending the University and achieve its aims through developing projects that connect students, academic staff and the Facilities, Residential and Commercial Services staff.

Through the University of Liverpool Living Laboratory program we will:

- provide a first class resource for undergraduate teaching and outreach
- improve the sustainability of the University by using the estate to test and research real world environmental problems
- support students in developing knowledge and skills and gaining experience in sustainability projects

- promote interdisciplinary teamwork by enabling students from different disciplines to work together on sustainability projects and share their perspectives in seminars or informal collaborative discussions
- ensure that the learning from the projects influences university operations

This collaboration is leading to innovative research and practical projects which allow for the deployment and monitoring of new technologies and services in real world settings; all of which enhance Liverpool's sustainability.

## Showcasing our Sustainable Laboratories

The University's Central Teaching Hub (CTL) has hosted The Effective Laboratory: Safe, Successful and Sustainable Laboratories (S-Lab) Conference 2013, giving the institution the opportunity to showcase the award-winning facility to academics, technicians, and professionals from the estates, engineering and design sector.

Organised by S-Lab and sponsored by HOK, the conference, which was attended by more than 300 people, highlighted best practice in laboratory design and operation and emphasised the synergies between safety, organisational success, and sustainability.

The conference attracted a host of distinguished speakers including; Professor Jim Smith, Director of the MRC National Institute for Medical Research; Dr Martino Picardo, CEO, Stevenage Bioscience Catalyst; Paul Janssenwillen, Research and Development Lead at Pfizer; Professor Sir Ian Diamond, Vice-Chancellor, University of Aberdeen and Chair, Universities UK Modernisation Task Force; and Professor Donald Levy, Vice-President for Research and National Laboratories, University of Chicago.

### What will we do in 2014?

The Sustainability Team will be working closely with academics to investigate collaborative project opportunities. We will also be looking at mechanisms that are in place for promoting research activity and consider how we can engage both the University and wider communities in some of the cutting edge research being undertaken on campus.

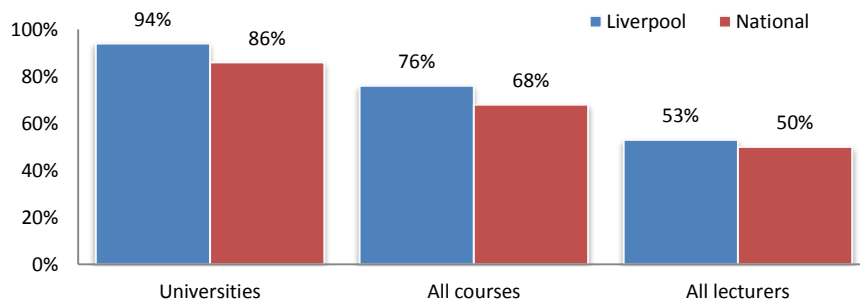
# Education for Sustainability

## Student Attitudes on Education & Skills for Sustainable Development

In spring 2014, Liverpool Guild of Students (LGoS) undertook a student survey across all three faculties to: determine the level of awareness of and engagement in student 'pro sustainability' attitudes and behaviours; and research student perspectives on Education for Sustainable Development (ESD) in the curricula.

Of the 592 respondents, 94% felt that the University was responsible for promoting sustainable development, see Figure 2, which is well above the national average. Likewise a significant percentage of students thought courses and lecturers should be responsible for promoting sustainable development

**Figure 2: Who should incorporate and promote sustainable development?**



It is clear from both the student survey and the focus groups, hosted by LGoS, that the demand and need from students for further knowledge, skills and understanding with respect to sustainable development is very high and should be something that the University looks to develop in 2014/15.

## The Quality Assurance Agency for Higher Education (QAA) Provide Guidance on ESD

In June 2014, the QAA published the guidance document, 'Education for Sustainable Development: Guidance for UK Higher Education Providers', for educators working with students to foster their knowledge, understanding and skill in the area of sustainable development.

The purpose of the guidance is to provide a reference point for use in the curriculum design, delivery and review and educators are encouraged to use it as a framework, within their own disciplinary context, rather than as a prescription of a curriculum or pedagogic approach. It should be noted that the guidance provides an authoritative point of reference which is designed to complement the Quality Code but which does not form an explicit part of it.

Following the release of this publication, and the timeliness of the forthcoming QAA review, the Educational Development Team are presenting a paper to the Student Experience Committee in October 2014, requesting the establishment of a working group to: identify an implementable policy on ESD, reviewing and drawing out from our current policies; and to make recommendations for the implementation of the QAA guidance across the institution.

### What will we do in 2014?

A mini lecture series, 'Perspectives', will be launched. Each lecture is designed to give the environmental, social and economic perspective of key global and local topics. In addition, an Education for Sustainability steering group will be formed to look at developing an institutional approach to embedding sustainability into the curriculum.

# Living within our Limits

## Biodiversity

### New Green Wall

The Green Wall, located on the side of the Guild building, has been planted with a variety of flowering plants, enhancing biodiversity on campus. The planter pockets, made from Woolly Felt, are extremely durable and custom made solely from BPA free recycled plastic bottles. The wall has blossomed into a bustling habitat and provides food for wildlife around campus.



### The Bees are Back!

Following the refurbishment of LGoS building, the two bee hives that were previously part of the roof garden have been re-established and a rolling programme of bee keeper training will be available for Guild staff and students. Work will soon commence on the development of a second roof garden, which will become another biodiversity hotspot, hosting more bee hives and a variety of plants.

### What we will do in 2014

Following the development of a web based system for capturing biodiversity information on the University campuses, we will be looking to encourage staff and students to start recording what they see in their various environs. It is hoped that by doing this we will be able to collectively produce a comprehensive biodiversity audit of the University campuses which can be used to inform a Biodiversity Action Plan for implementation in 2015/16.

## Built Estate

### Liverpool Guild of Students gets a Facelift

After years of student consultation, planning and an 18 month refurbishment programme, made possible through over £14million worth of funding from the University of Liverpool, the LGoS are happy to be back in the beautifully renovated and fit for purpose Reilly building and are looking forward to opening the doors to all students in September. Boasting the likes of a brand new cinema room, Sphinx bar, radio room and 'Street' area where students can meet, relax and work, our venue has been transformed into a more student friendly space.

### More Students move onto Campus

As part of the University's strategy to replace its stock of student residential accommodation and provide a first class student experience a £50 million, 1259 unit student accommodation has been developed on Brownlow Hill. Crown Place is set to achieve BREEAM Excellent status through an environmental specification which includes green roofs and a heating system that will run off spare capacity from the university's existing district heating infrastructure, requiring no new plant.

### Café on the Square goes all Shabby Chic!

With only a small budget to update Café on the Square, Hospitality took advantage of the University's partnership with Total Reuse to create a unique interior, with character that is student friendly and in keeping with the current trend in independent cafes for shabby chic. Stars of the show have been the quirky lamps made from equipment salvaged from Electrical Engineering and Electronics' recent refurbishment.

### What will we do in 2014?

Building is due to commence on the state-of-the art £65 million Materials Innovation Factory (MIF), which is being built in partnership with Unilever to accelerate research and reduce new product development times. Design guidance is being taken from external consultants, in conjunction with S-Lab, to create state of the art laboratory space with fume cupboards which when operational are expected to operate at an energy 75% saving, as compared to current facilities.

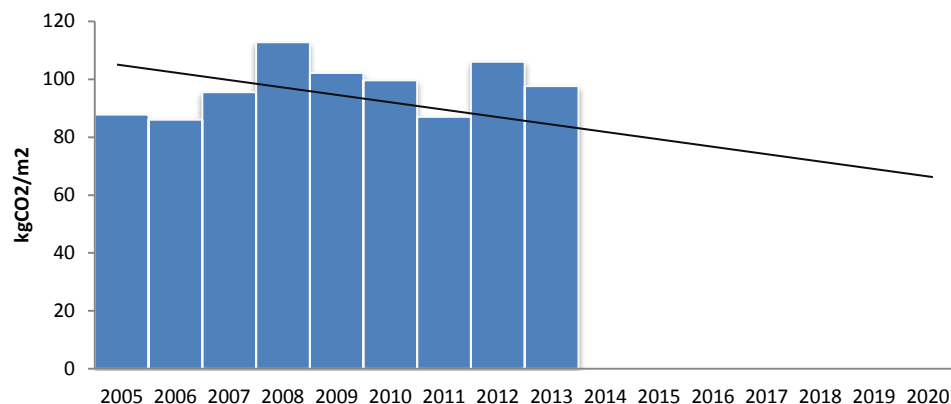


## Carbon

### Our Emissions

The 2005 baseline for carbon emissions was 51,230 tonnes ( $103\text{kgCO}_2/\text{m}^2$ ) and it was agreed that the University would set a 36% reduction target by 2020 – equating to an absolute reduction to 32,787 tonnes ( $66\text{kgCO}_2/\text{m}^2$ ). With major capital projects coming online in 2012/13 we saw an increase in emissions which took us over the milestone target, however the recent DHNE and second combined heat and power plant has seen emissions drop by nearly 8% in 2013/14.

**Figure 4 - Kg of carbon emissions per metre square**



### Reporting Scope 3 Carbon Emissions

As part of the sectors commitment to drive down its impact from carbon emissions, institutions are now required to report their scope 3 carbon emissions as part of the annual Estate Management Records (EMR). The Carbon Management Plan will be updated to reflect these requirements and will include a 2012/13 baseline for all scope 3 emissions as well as setting targets for 2020.

#### What will we do in 2014?

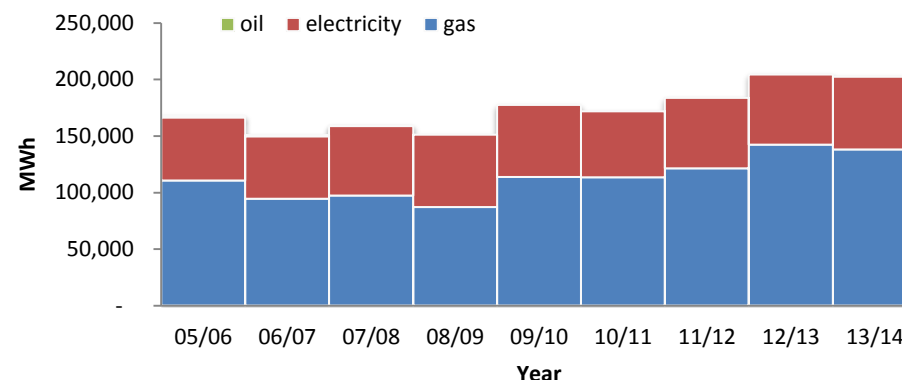
Following successful SALIX and HEFCE bids we will be applying for additional funding from Tranche 4 of the HEFCE revolving green fund to implement further carbon reduction projects, including an external cladding system for the Cypress building.

## Energy

### Consumption

In 2013/14 the University consumed 64,257 MWh of electricity compared to 61,949 MWh in 2012/13 – an increase of nearly 4%; and consumed 138,130 MWh of gas compared to 142,464 MWh in 2012/13 – a decrease of 3%. The increase in electricity has been attributed to the construction phase of new building works and the decrease in gas has been attributed to efficiencies made from the district heating network expansion (DHNE) and milder winter.

**Figure 3 –Energy consumption 2005-2013**



### Students switch off!

Once again the Student Switch Off campaign was run in halls of residences. This year's efforts saw students achieve a 319,614 kWh energy saving during the months of October, November, February and May (excl. Vine Court and Melville Grove buildings). This is a 15% saving on the pre-intervention baseline, resulting in a financial saving of £25,569 and carbon saving of 155 tonnes. Working on the success of this year campaign, Student Switch Off are aiming to save a whopping 200 tCO<sub>2</sub> in 2014/15.

#### What will we do in 2014?

As part of our ongoing commitment to provide access to building energy data, the energy dashboards are being updated. This update will see the dashboards sit on a student/staff accessible platform and make sure the presentation of the data is user friendly.



## Food

### Meat Free Mondays

Meat Free Mondays has been introduced to encourage students to eat more vegetables to improve their own health as well as reducing the impact of carbon emissions resulting from meat production.



### Fairtrade Fortnight

As part of the University's commitment to having Fairtrade status, staff and students are able to participate in a range of events aimed to spreading the message that consumers can have a positive impact on the lives of workers in the developing world and encourage debate around the issue of ethical consumerism.

#### What will we do in 2014?

Julian Fris from Neller Davis, is running a project with Hospitality to look at the University's food sustainability policy, with particular focus on food production, provenance, waste, stakeholder engagement and healthier eating. The programme being carried out over the next 3 months will include: a waste study at representative sites; a stakeholder survey; a sustainability audit and market analysis.

## IT

### Sustainability joins the Social Media Network

To reduce the amount of printed publicity materials and provide another platform to release information to all stakeholders the Sustainability Team has gone live with Facebook and Twitter.



### Building Sustainability into the Supply of IT Equipment, Services and Systems

The Computer Services Department (CSD) is starting to build sustainability in all aspects of their service provision. This includes:

- working with suppliers to identify opportunities to enhance their sustainability strategy, i.e. improving emissions and the energy usage of equipment, such as AV, PCs and monitors; and the reduction and disposal of packaging related to this equipment
- development of primary and secondary data centres for the consolidation of storage and further virtualisation of servers that will further improve their energy efficiency
- incorporating sustainability as a key element for consideration when evaluating business cases for new systems and services.

### Paper Reduction

There are multiple ongoing projects to reduce the institutions reliance on paper for staff and students, through the creation of online forms and publications, including approved projects such as MBA profiles and Scholars online. To promote paper reduction at a departmental level, members of staff have been provided with the opportunity to monitor paper use within their department through Business Intelligence Dashboards.

#### What will we do in 2014?

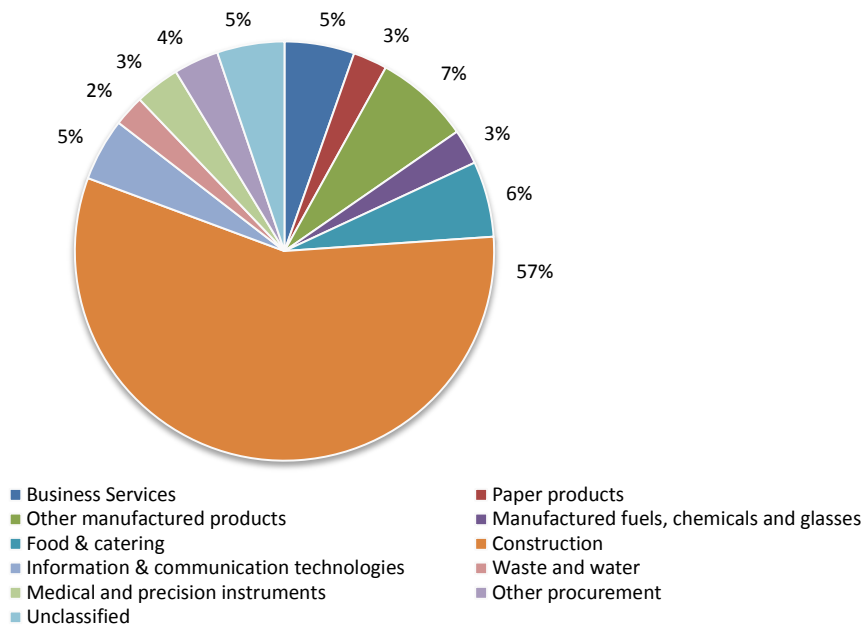
In the coming year there will be the roll out of a Document Management System, using Serengeti, across the university, which will improve users ability to track and store documents. It is anticipated that this will further increase the opportunity of reducing the level of printing undertaken within our Faculties.

Procurement

Scope 3 Carbon Emissions

As part of the sector commitment to report scope 3 carbon emissions all institutions were required to baseline their carbon emissions attributable to the procurement of goods and services. The baseline was based on the spend profile for 2011/12 - £138,023,927 – resulting in 119,249 tonnes of CO<sup>2</sup>e, which is over 4 times the emissions produced through energy consumption.

Figure 5 – Breakdown of procurements carbon emissions



What will we do in 2014?

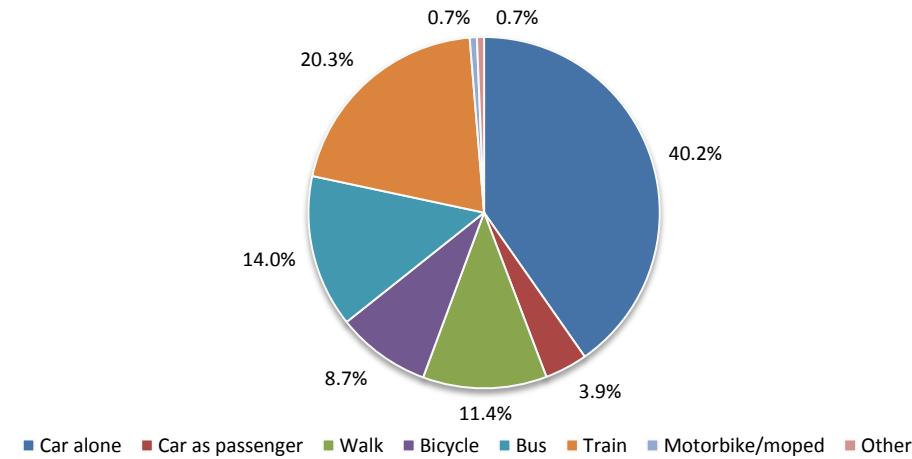
The University aims to launch a new online peer to peer redistribution network called Warp-it by Christmas 2014. The new portal will facilitate the sharing and reuse of assets within the University, and potentially beyond, in order to reduce spend, waste and supply chain environmental impacts.

Travel & Transport

Staff Travel Survey

The biennial staff travel survey has been conducted this year to help us understand staff needs when it comes to their daily commute. A student travel will be conducted in autumn 2014.

Figure 6 - Breakdown of initial insights from the survey



Liverpool Citybike

Liverpool Citybike, the largest public bicycle scheme outside of London, launched on May 7 2014 with what will be the first of over 100 stations coming throughout the next twelve months. Supported by the University of Liverpool there are currently three bike stations on University campus and as of next year we hope to see another two stations located near our off campus halls of residence.

What will we do in 2014?

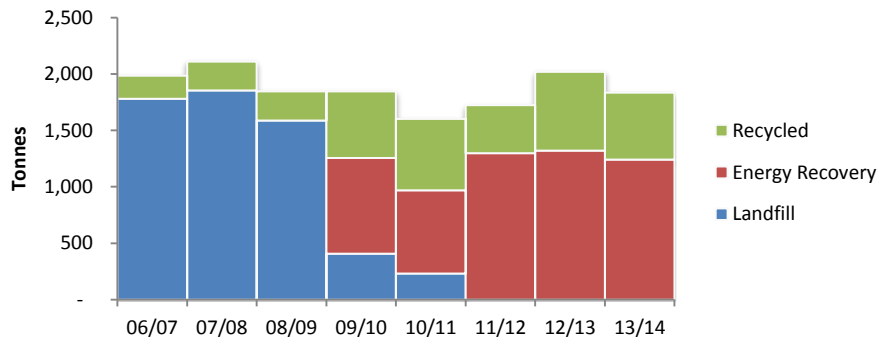
In order to understand how we can support our cyclists and encourage more employees to choose cycling as their primary mode of transport, we are in the process of undertaking an audit of all cycle and shower facilities. The final phase of the audit is due for completion in the autumn and once complete will inform recommendations as to how we could better facilitate cyclist needs on campus through the provision of more secure storage, changing and locker facilities.

## Waste

### Waste Generation

In 2013/14 the university disposed of a total of 1,836 tonnes of non-hazardous waste from our residential and non-residential buildings. Of this 32% was recycled with the remainder being sent for energy recovery.

**Figure 7 –Waste Generation 2006-2013**



### Diverting Waste

The University has partnered with Total Reuse to divert reusable items, extracted from refurbishment projects, away from landfill. This partnership has led to the a 'Reuse Cinema' in LGoS which has seen a team from Total Reuse design and install a 50 seat cinema using reclaimed, diverted and salvaged materials from both the University and closed cinemas from around the UK.



### What will we do in 2014?

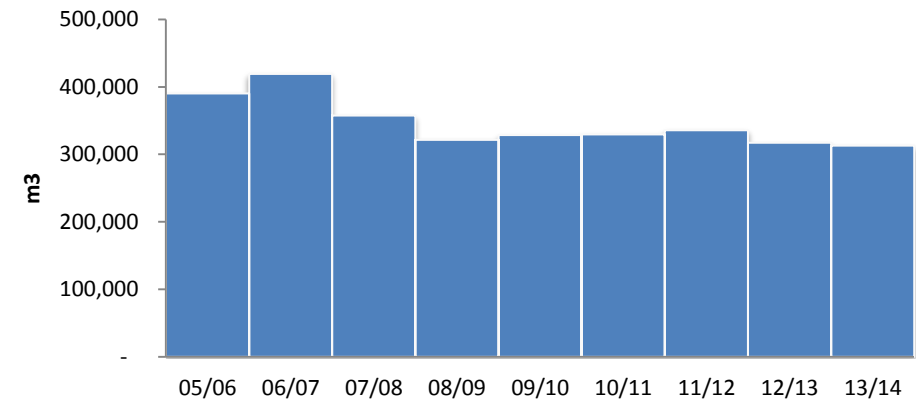
The waste contract will be going out to tender towards the end of 2014 which will hopefully allow us to recycle additional waste streams. As part of the new contract we will carry out a waste audit and follow this up with a refresh campaign to encourage staff and students to recycle more.

## Water

### Consumption

In 2013/14 the University consumed 312,761 m<sup>3</sup> water compared to 317,025m<sup>3</sup> in 2012/13 – a decrease of 1.4%. This decrease has been attributed to the efficiencies made by installing water saving devices and detecting leaks at an early stage.

**Figure 8 –Water Consumption 2005-2014**



### Partnership with ADSM

In recognition of a successful partnership over the past three years the University agreed to extend ADSM's contract until 2016. The University, through ADSM Aquafund and Wateraid has helped bring safe water and sanitation to over 85,341 people in Tanzania. Thanks to our support 71,816 people now have access to safe water and improved sanitation, with a further 13,525 people gaining improved hand washing and hygiene, preventing water-borne diseases.

### What will we do in 2014?

We aim to improve accessibility to drinking water for staff and students by replacing bottled water coolers with plumbed in systems in all non-residential buildings. We will work with a group of students to identify where the existing coolers and propose locations for additional facilities, mainly in lobby areas to allow access by students. We hope to start rolling out the new systems early 2015.

# Promote a Happy, Healthy & Equal Community

## Wellbeing Framework

A Wellbeing Framework was launched in March 2014, setting out how the University will meet its ambition to support and promote the wellbeing of its staff and students in their research, work and study over the next five years.

The purpose of the University's Wellbeing Framework is to:

- describe services and facilities that support staff and students to achieve their potential and to face challenges presented in their place of work and study, particularly at key points of change or transition
- set out the University's key strategic priorities which will influence and direct future activities associated with wellbeing
- identify clear aims and objectives to enhance Wellbeing provision

The Framework sets out aims and objectives across five areas based on the 'Healthy Universities' themes:

- Leadership and Governance
- Service Provision
- Facilities and Environment
- Communication, Information and Marketing
- Academic, Personal, Social and Professional Development.

It also identifies four key priorities:

- **Healthy lifestyles** (this includes physical activity, positive food and drink choices, alcohol and substance awareness, and managing money)
- **Mental health** (this includes activities to promote positive mental health, reducing the stigma of mental health issues, and recognising and responding to the early signs of mental health issues)

- **Supporting key transitions** (support for staff and students at key points e.g. induction, job change, and exams)
- **Supporting diverse cultures and communities** (this includes support for students from a range of groups including international students, disabled students and students from widening participation backgrounds, cultural awareness and building support and friendship networks).

A Wellbeing Programme Board will be established to take responsibility for the implementation of the Framework. Membership of the Programme Board will include representatives from each of the Faculties; Student Administration and Support; Human Resources; Corporate Communications; Legal, Risk and Compliance; Facilities, Residential and Commercial Services and the Liverpool Guild of Students.

For more information on the Wellbeing Framework see:

<https://www.liv.ac.uk/intranet/hr/my-hr/wellbeingframework/>

For more information on Healthy Universities see:

<http://www.healthyuniversities.ac.uk/>

### What will we do in 2014?

We are going through the process of evaluating what we are already doing to support the Framework's objectives, highlighting best practice and areas that could be further developed. The outcome and recommendations from this piece of work will develop a three year action plan which will improve and align our current provision with the aims and objectives of the Framework.

# Widening Participation

## Friends of Ness Gardens

The Friends of Ness Gardens was established in the autumn of 1962 to support the work of the Ness Botanic Gardens (NBG) with an initial 114 Friends recruited. Today, the Friends are a registered charity (No: 511294) with over 5300 members, still with the sole aim of supporting NBG. The society does this primarily in two ways.

- 80% of members' subscription income is gifted directly to NBG to support its day to day maintenance and development costs.
- 20% is used for grants towards specific projects on request from the Gardens.

As a registered charity, the Society is bound by a written constitution and governed by a board of trustees (known as the Friends' Committee). Members of the Friends of Ness Gardens have the ability to affect the governance of the Friends by voting at the Society's annual general meeting.



## Knowledge Quarter Sustainability Network

The Knowledge Quarter Sustainability Network is a newly formed group with membership covering the three Universities, Royal Liverpool University Hospital, Anglican and Catholic Cathedrals, LIPA, Liverpool Community College and a host of SMEs.

The group has initially been set up in partnership with Liverpool Food Alliance to look at developing 'grow your own' and 'community garden' projects within the knowledge quarter; and identify opportunities for the community to become engaged and interact with the projects.

## Liverpool Green Partnership

Liverpool's Green Partnership, which aims to support the city's need to become a green and sustainable city, was launched last year at the University of Liverpool. Over the past 18 months, the Liverpool Green Partnership has begun to forge such a local partnership and is now ready to develop its ambitions by creating a widely based organisation to provide a role of critical but supportive friend to the City Council and Local Enterprise Partnership (LEP) to help meet shared objectives around building a successful sustainable city.

Other key partners include Liverpool Chamber of Commerce, Liverpool Vision, the NHS, the Eldonians and the Diocese of Liverpool. The initiative also has the support of Mayor Anderson and Liverpool City Council.

The Liverpool Green Partnership website is currently under development. The hope is that this will become the online portal dedicated to sustainability in Liverpool, a go-to resource for businesses and societal groups alike to inspire, share, learn and collaborate.

## What will we do in 2014?

Initially set up to raise the profile of sustainability and provide the opportunity to buy local and seasonal produce, the University of Liverpool Farmers' Market, has been running for several years, and in 2014 we plan to review current provision. The aim is to provide an environmental which will encourage cultural diversity, knowledge exchange and promote and engage students & staff in sustainability whilst still providing good quality local produce. The idea being that we go beyond the traditional Farmers' Market feel by including more LGoS societies, local businesses, and music & crafts by making the market a hub of activity and safe social space for one day each month.