

# Annual Sustainability Report 2014-15



UNIVERSITY  
of  
GREENWICH



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the Sustainable Development Unit

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# Vice-Chancellor's Introduction

The University of Greenwich prides itself on the work it has done so far in meeting our sustainability responsibilities. This first Annual Sustainability Report illustrates the excellent work our staff and students have delivered in helping us maintain our leading role in the sector.

In 2014-15 we won further awards and have put in place the Sustainable Management Board to more effectively and strategically manage sustainability to deliver a range of benefits to the institution. Amongst a long list of successful projects presented in this document, we've undertaken research to better understand how we are integrating sustainability within our teaching and have opened our Stockwell Street Building - a statement illustrating our commitment to sustainability that meets our staff and student expectations.

I'd like to thank all our staff, students and stakeholders for their contributions to helping us move forward towards our sustainability goals. There is still much more to do and with your help we can achieve great things for our students, staff, our University and the society and planet upon which we ultimately depend.

Professor David Maguire, Vice-Chancellor, University of Greenwich



Image: SDU



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## Executive Summary

This report illustrates the University's progress in sustainability. Having won many awards recently, the institution spent a year consolidating its position and continuing to prioritise sustainability.

Key areas of pride include additional external awards for our biodiversity, responsible food sourcing and communications. We reaccredited to our ISO 14001, and have opened a sustainable BREEAM 'Excellent' building.

Through the Sustainability Management Board we are able to systematically embed and report progress, giving accountability and responsibility to staff leading their subject areas. Progress in estates and operations is now expanding into our faculties and their departments, in order to meet the direct needs of students.

Our staff, again, have really proved to be our stars in their commitment to sustainable teaching, research and integration into operations and their day-to-day work. The student body is keen to acquire the knowledge and skills necessary towards delivering sustainable outcomes, as demanded by employers.

This report provides a benchmark for staff, departments, Faculties and Directorates from which to make further progress that will be reported in the years ahead.

Thanks to all staff and students that helped in the compilation of this report and for everyone's contributions to make the University and the world a better and more sustainable.

Simon Goldsmith, Head of Sustainability, University of Greenwich.



Image: SDU

# How this report works:

It's designed to help staff, students and other stakeholders interested in accelerating the University's sustainable progress to:

- 1) Understand the key sustainability challenges and opportunities
- 2) Understand what the University is doing about these
- 3) Implement our strategy to enable improvement and development
- 4) Enable participation in our transformation to a sustainable state

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## How you can help:

Look out for these sections to help take responsibilities and make improvements in your areas of work or study.

## Sustainability Awards

**Awarded 2014-15**



5th year in succession of achieving 1st class award with 16th/151 in 2015



Chartered Institute of Ecology & Environmental Management



Marine Stewardship Council Winner: University of the Year 2014



ISO 14001 certification for Estates & Facilities at the University of Greenwich



Awarded for our sustainability website in 2015

## Previous Years' Awards



Awarded for our Outstanding Contribution to Sustainable Development



Winner 2012, 5th 2011, 6th 2013

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# A Taste of 2014-15

## Stellenbosch University Visit

In May, representatives from this leading South African university were welcomed to our Avery Hill Campus to explore the innovative approaches Greenwich is taking in integrating sustainability. It was useful to share ideas and understand the different cultures, expectations, opportunities and constraints.

## **Public Health & Social Care Placements**

Through this on-going programme with Public Health, we are working with student placements developing assessed work to help students better understand the importance of the environment. This is tailored to the delivery of care services with regards to issues such as climate change or pollution.

## **ISO 14001 Guest Lecture**

A great opportunity arose to illustrate the University's application of its ISO 14001 and to explain this via a guest lecture to Masters students on the Facilities Management Masters programme. The feedback from students and staff was extremely positive and illustrated how our expertise and operations can directly relate to our taught programmes.

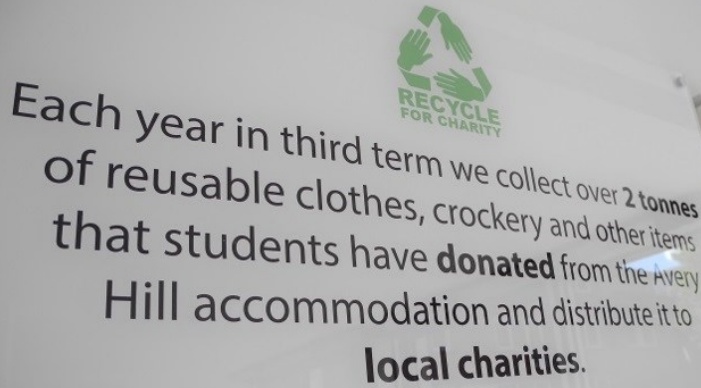


Image: SDU

## **Food Fortnight**

This year we handed the reins over to our three graduate GWES interns. Jamal and Ramone Pennie and Ryan Cooper developed a [range of food related events](#) over the two weeks across February and March. This included a Marine Stewardship Council & World Wildlife Fund supported day at Medway with speakers, exhibitions and free MSC certified fish-finger rolls. With valued help from our caterers Baxter Storey, Sodexo and the SU, the events were of a high quality, including talks, presentations, exhibits and demonstrations. Tackling some of the important issues relating to food and its responsible sourcing— topics included the role of sugar in foods, the politics of food, local and seasonal sourcing, ethics, health, the future challenges to our food supply system and how we will adapt.

## Future Fair

The Green Ambassadors and volunteers of the Students' Union [Sustainability Hub](#) held their first show. The event explored key issues that help us understand the challenges and opportunities of delivering a sustainable future. The many expert speakers included our own John Morton, who participated in panel discussions responding to insightful questions from an engaged audience. Exhibits from Interface, the Marine Stewardship Council and mydetoxdiet showcased the products, services and activities through which they deliver sustainability solutions. Over 150 staff and students attended and it is hoped that the Fairs will become annual events providing opportunities to learn, engage and think sustainably in our academic and professional lives.

## **Student Halls Reuse Project**

For the last 5 years the University has worked with students to collect unwanted items from halls at the end of summer term. This year we collected 2,227 kg (approximately 10% more than last year) of clothes, bedding, kitchen wares, electrical equipment and other miscellany. This was reused by local community groups and sold through charity shops, providing a great sustainable solution to an otherwise significant sustainability challenge. The embedded carbon saved was 25,842 kg: a significant positive impact on the University's carbon balance and a huge saving in terms of resources that would otherwise be thrown away. This year the project was designed and managed by Ieva Vaiciunaite and Kim-Yva Herz two of our talented and capable students. In addition to this, the project collected over 100kg of food stuffs that were donated to Bexley Food Bank.



# Strategy & Policy

The University is seeking innovative ways to deliver sustainability through a range of approaches. Applying sustainable principles can help the University reduce its costs while motivating staff and students. It's a great way of illustrating our values and provides a means for everyone to realise their fullest potential.

This year saw the creation of the Sustainability Management Board to implement a clearer framework for policies, systems and procedures, as taken from our Sustainability Policy. The Board can aid faculty

representatives in better considering their areas of expertise in relation to others' successful delivery, in order to affect positive actions and avoid negative consequences.

This innovative approach has provided alignment and improved the efficiency of delivery and communication of programmes, such as our ISO 14001, that can now help improve key areas of the University. All elements are aligned, saving time and effort, enabling engagement and creativity in delivering outcomes.

This diagram illustrates how sustainability is governed and strategically delivered at Greenwich. The organisation has a responsibility driven from government policy; legal requirements; meeting the expectations of its stakeholders including students, staff, its funding council; the need to reduce costs and maximise opportunities (for example through encouraging students because of sustainability leadership). It also has a responsibility to future generations. As the issue is of importance to the success of the organisation, sustainability is reviewed by governance structures that can review progress and resources and intervene to enable improvement (this is indicated in the Blue box).

The Red Triangle provides some of the core requirements and goals set by the Senior Management and agreed by Court. These include our vision, values and Key Performance indicators providing a platform for organisational alignment and illustrating the Key Performance indicators that the organisation is expected to help meet.

For sustainability issues the main KPI focuses on meeting Green League 1st Class position, although as sustainability touches on nearly all aspects of our work it can be mapped to illustrate how it adds value to almost all other KPIs.

The Sustainability Policy clearly sets out the overall principles, objectives and goals the University is required to meet. This is delivered at all levels of the organisation, informing all areas and specifying particular areas where we need to focus. This document is agreed annually by the VCG and signed by the VC.

Progress in meeting the Sustainability Policy is reviewed by the Sustainability Management Board (see relevant box for further detail). This is the strategic body reviewing policy areas, plus reporting on systems and programmes that are delivered to help meet our policy goals. These include our Sustainability Management System accredited to ISO 14001, plus strategies and initiatives applied at a Faculty level. To assist sustainable behaviour change at a local level, Green Impact and a system being piloted at the University (Project X) assist in changing processes. All of this is supported through a comprehensive communication programme with training and engagement offered to all areas of the organisation.



## Sustainability Policy

The University of Greenwich has an ambitious and wide reaching [Sustainability Policy](#) that provides the high level aims and objectives that drive forward our strategies and delivery frameworks.

The policy helps drive our corporate KPI (Green League) directly, as the policy objectives relate closely to some of the Green League framework requirements. As sustainability relates to all areas of the University, it can also help to deliver wider corporate KPIs.

Stakeholders were asked to provide feedback on the project and the updated policy will be finalised for the SMB and Vice Chancellor to sign in early 2016.

## Deliver, Review, Report

To help plan more appropriately, a [series of tools](#) have been developed by the Sustainable Development Unit to assist staff. This integrates all key issues relating to legal compliance, Green League and Higher Education Statistical Agency required information, relationships to our Policy, key benchmarks, actions and targets for the next three years. This provides clarification on how to strategically deliver sustainability.

## How you can help:

Click on [this link](#) and review the staff or student policy that can help you meet each of the policy requirements



Sustainability  
Report  
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# Sustainability Management Board

The University recognised that having a Sustainability Board that includes all representatives with sustainability responsibilities, collaborating to develop solutions, was essential. To more effectively solve sustainability challenges we need to understand the context of the system we are working within. This helps ensure that decisions work with rather than against subject areas.

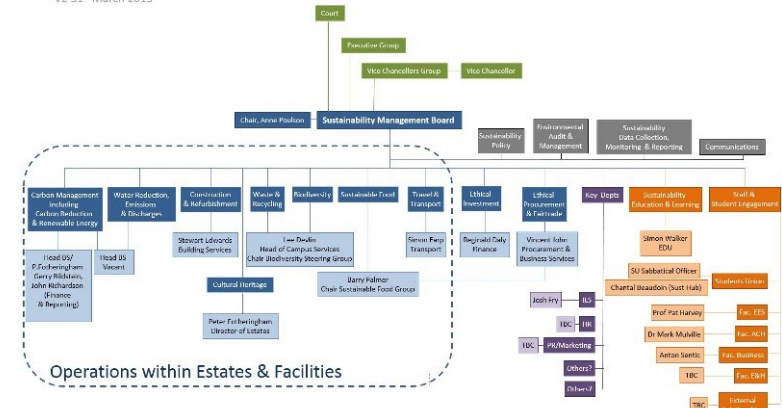
The Sustainability Management Board meets quarterly

and is chaired by Anne Poulson, the University's Chief Operating Officer and the nominated Sustainability Representative at the University.

Sustainability reaches across many areas and can be applied to illustrate relationships and seek to reduce impacts beyond the immediately obvious. The example below illustrates how we can apply more systemic thinking to an individual impact area.

## Organisational and Reporting Structure of the Sustainability Management Board

V2 31<sup>st</sup> March 2015



## Anne Poulson, SMB Chair

"The University made some significant steps forward in its strategic application of sustainability. As Chair of the newly created Sustainability Management Board, we now have a body that can work with key staff to help reduce our own impacts and maximise the many opportunities that sustainability brings. I look forward to seeing the group develop and collaborate to reach our goals and share best practice throughout our institution"

## Our organisational carbon footprint:

The University's carbon impact is far wider than the energy we use to heat, light and power the estate. The relationships reach across the whole organisation. The matrix below illustrates how our ability to reduce our carbon footprint cuts across directorates and disciplines. The work the SMB is doing is helping our staff better understand how they also contribute to reducing impacts that they

may otherwise contribute to. The matrix illustrates the strength of relationship between different areas, helping identify areas for clearer management and reporting. The same can be done for all impact areas, creating a fuller, more detailed picture, enabling action in a more systematic way. [Click here](#) to review the matrix in detail.

	Biodiversity	Carbon /energy	Construction & Refurb	Emissions & Discharges	Ethical Investment	Ethical Procurement	Staff & Student Engagement	Sustainable Education	Sustainable Food	Travel & Transport	Waste	Water reduction	Legal	Environmental Management Systems	Research & Enterprise	Community
Biodiversity	Trees planted, m2 of improvement, Species numbers	Carbon offset from trees planted	m2 green roofs, nest boxes etc	Spillages to ground/watercourses, Amounts of chemicals used by Grounds	Inv. In co's that do not meet biodiversity best practice	E/quantity of certified products e.g FSC	No's volunteers	No's courses integrating bd aspects, No's student projects	E/quantity organic, RFA etc	N	N	Reduction, SUDS,	Meeting regs – see EMS legal register	Meeting EMS Objectives & Targets	No's of projects	No's of visits
Carbon/energy		Carbon emissions, Renewable energy generated, Other energy generated (CHP)	BREEAM, energy/m3	Halons, Methane emissions	Inv. In co's committed to CO2 redn	Purchase of low CO2 products & services	Behaviour change progs	No's courses integrating CO2 aspects, No's student projects	Amount/ty pes meat, local sourcing	Scope 1&3	Scope 3	Scope 3	Meeting regs – see EMS legal register	Meeting EMS Objectives & Targets	No's of projects	N
Construction & Refurbishment			LCA,	VOC's, pollution incidents	N	FSC used, amount of materials,	Involvement/consultation in design	Courses/students engaged in C&R	N	Modal shift, cycle/walking	Waste reduction, recycling rates, types generated	Use of materials with water footprint, water efficient	Meeting regs – see EMS legal register	Meeting EMS Objectives & Targets	N	

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## Progress in 2014/15:

- Setting up of Sustainability Management Board
- Development of Impact Relationship Matrix
- Development of Benchmarking Template
- Development of Impact Area Reporting Templates
- Reporting on key areas
- Enabling collaboration across functional sustainability areas



The University operates a Sustainability Management System (SMS) that is certified to the international ISO14001:2004 standard. The SMS currently covers all of our Estates and Facilities functions, although it relates to all staff through, for example, our responsibilities in disposing of waste, and using fewer resources such as energy, water and consumables. It is externally audited to illustrate to our stakeholders that we have in place operational controls to ensure best practice management of our sustainability impacts.

### **What does having a Sustainability Management System achieve for the University?**

- Cost Reduction Opportunities
- Consistent identification and management of environmental risk
- Legislative compliance
- Management confidence
- Stakeholder engagement
- Externally verified
- Best practice.

### **The Future**

In September 2015 the International Standards Organisation released ISO14001:2015, an updated standard that reflects how environmental management is broadening to encapsulate a more holistic sustainability approach.

We will be adapting our system in line with this taking into account areas such as: life cycle analysis of the things we procure; how we communicate sustainability to all stakeholders including those external to the University and; what opportunities for environmental improvement do we offer through the nature of our business i.e. education.

We will also be using this as an opportunity to broaden out the scope of our own SMS by starting to roll it out across the University starting with the Medway campus.

# **Sustainability Management System: ISO 14001**

## **Activities and Achievements**

- In March 2015 we were awarded our three year recertification after a successful four days of external audits
- In June we begun a new round of internal audits so we could evaluate our own performance, ensure compliance and seek out opportunities for improvement
- In July we adapted the system to link up better with our new Sustainability Management Board to enable better management of high impact areas
- In August we held a Senior Management Review of the system ensuring that there is consistent high level reporting on environmental risk
- In autumn term we trained five new Internal Auditors to gain fresh eyes on the system as well as increasing the skill sets of those involved in reducing risk



Image: SDU



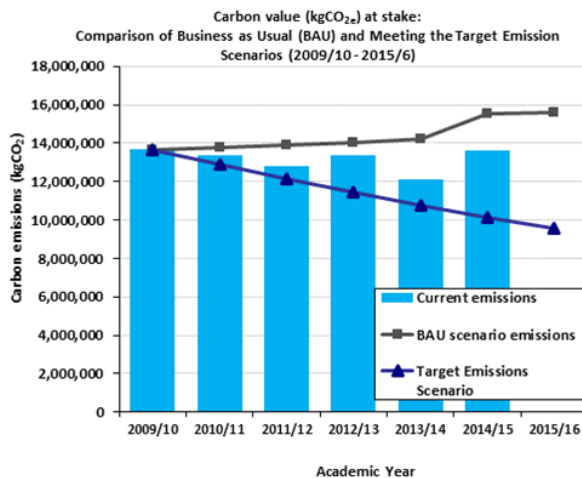
Image: SDU

# Energy & Carbon

As a requirement by HEFCE, in 2011 the University set out a plan for reducing its carbon footprint. In 2010 the University of Greenwich released its Carbon Management Plan (CMP), committing it to reduce its carbon footprint by 30% by end 2016 (on a baseline 09/10) and 40% by 2020. The CMP provides the basis for investments and programmes of engagement that will help us meet our targets.

The growth of the estate, with Stockwell Street and Daniel Defoe buildings being added to the portfolio, and the delay in getting the Combined Heat and Power engine operational at the Medway campus has meant we have not met the targets set this year in our Carbon Management Plan.

Although staff decanted Mansion site, these buildings were still in use meaning our energy use was higher than planned. The table below illustrates the impact that such estate expansion can have. The first column provides baseline data relating to emissions, any changes from previous years, the baseline and the target we aimed for. The following column indicates the actual data for each area.



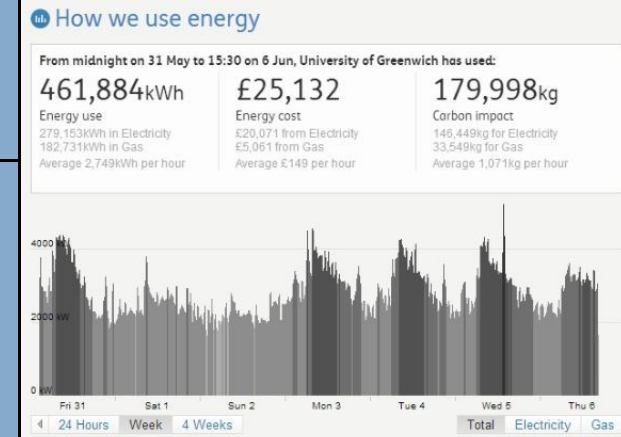
2014/15	Data correct for CMP reporting	Taking out Stockwell St and Daniel Defoe	Taking into account if CHP was operational in 14/15 (excluding SS&DD)	Taking into account if CHP was operational in 14/15 (including SS&DD)
<b>Total (energy) CO2 emission Kg</b>	<b>13,628,695</b>	11,879,713	9,279,713	<b>11,028,695</b>
<b>Total % change from previous year</b>	<b>+12.7%</b>	-1.79%	-23.29%	-8.83%
<b>Total Elec use</b>	<b>+10%</b>	-5%		
<b>Total Gas use</b>	<b>+20%</b>	7%		
<b>Total change from baseline (09/10)</b>	<b>0.3%</b>	-13%	-32.1%	-19.3%
<b>CMP Reduction Target 2014/15</b>	<b>-25.71%</b>	-25.71%	-25.71%	-25.71%

## Reducing our Carbon Footprint

In 2013-14 it was recognised that the CMP was valuable, though limited in scope and ability to engage and enable the rest of the University to understand and plan to reduce its wider carbon footprint. As our carbon impacts are not only related to our energy consumption or transport use, but also through how we conduct business, through our procurement, decision making and strategies, it was agreed that a holistic approach using sustainability to understand and influence the wider systems we connect with was best. This not only enables the University to better manage and reduce its carbon footprint but also many wider sustainability objectives. This is now being managed via the Sustainability Management Board.



Image: SDU





## Seen these about?

**Display Energy Certificates** are located at the entrances of most of the University campus buildings. If you can, stop and have a look at them. They show the energy efficiency performance of a building, identifying which of seven categories the building belongs to (A being best practice, G worst). The position of the building is indicated by a number; figures for a typical building of the same type are also indicated. As the University has buildings of many ages and types these ratings vary, but through our energy efficiency programmes we are seeking to improve all our buildings' performances. These are reviewed annually by assessing energy use, energy type, building size, fabric, insulation and different kinds of energy using equipment (such as heating and lighting).

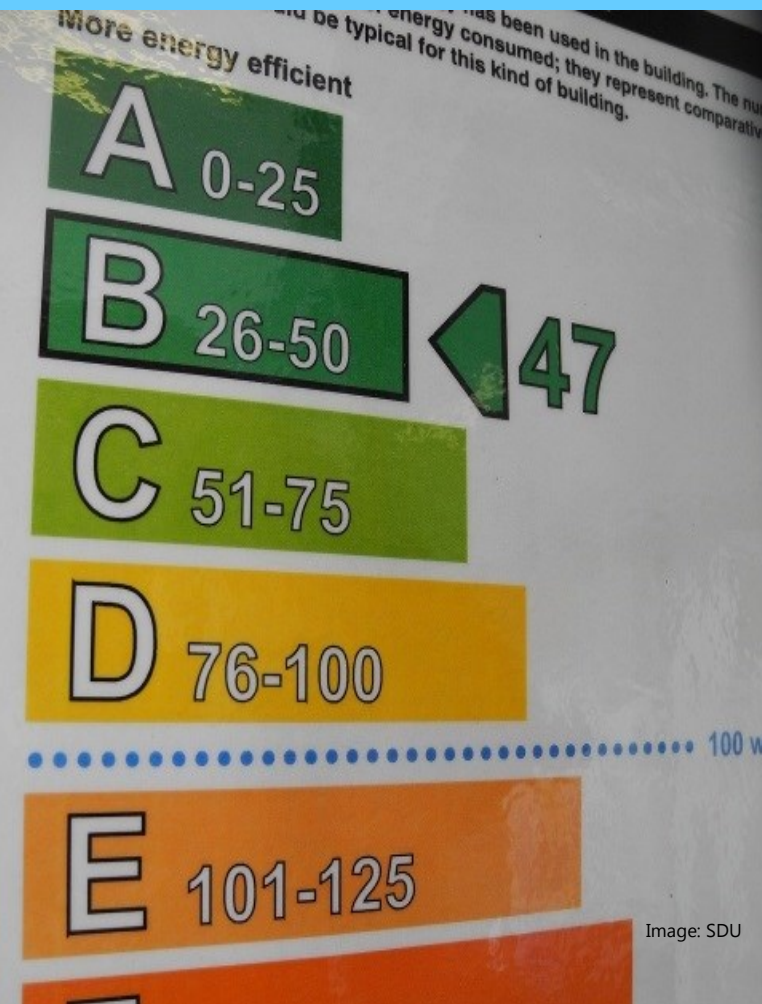


Image: SDU

## Energy & Carbon

A selection of posters..

Save energy  
& time.  
Ditch  
the lift.



Last to leave?  
Please switch us  
off



Thank you for taking care.  
Your action has helped the  
University save energy, carbon  
& costs and helps make the  
world a better place for all.

.. to catch  
your eye  
and...

Look after  
your health.  
Take the stairs.



help you  
make  
more...

If you can  
Take the  
they could  
save you



Bright out?  
Then lights  
out. Thanks.



For more sustainable ideas & actions visit:  
<http://blogs.gre.ac.uk/greengemunity/>

...sustainable  
behaviour  
changes.

## How you can help:

There are many ways to reduce  
your carbon footprint

- If you're the last to leave a room/lecture theatre then switch off the lights
- Take the stairs rather than the lift
- Close windows if the heating is on
- If you see a sign then try and follow its request—this will reduce our climate change impacts
- Undertake research that can help us reduce our carbon footprint
- Switch off chargers & transformers when not in use
- Fly less & use public transport, walk and cycle
- Avoid using personal heaters (staff), they are incredibly inefficient
- Consider the carbon footprint beyond the energy you use—the carbon embedded in products and services you buy, the travel you take, etc.
- Work with your Sustainability Champion to cut your carbon
- When making a cuppa, boil only the water you need
- Switch off lights and electrical equipment when not in use
- Put lids on pans when cooking
- Put another layer of clothing on and turn your heating down
- Take a shorter shower— or better still, share one! ;-)

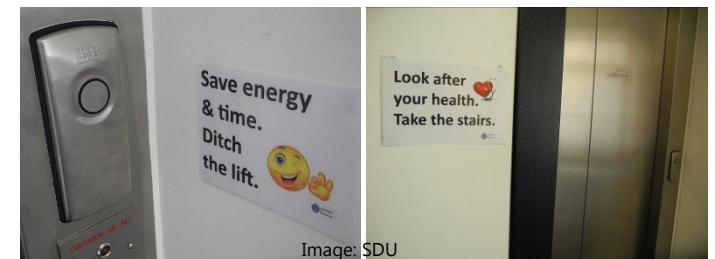


Image: SDU

### Missing out at Maritime or Medway?

Get in touch at [sustainability@gre.ac.uk](mailto:sustainability@gre.ac.uk) - we'll email some posters for you to print and get everyone living more sustainably!

# Travel & Transport

The Transport Team manage and formulate policy for internal transport including the vehicle fleet, University car parks, and the bus service. A key part of this work is promoting green forms of travel. A major step has been the expansion of the University's bus service to enable better intercampus travel, reducing the need to drive and taking pressure off local bus services.



Image: SDU

**In the 2014-15 academic year** a new Brompton bike hire dock was installed at Daniel Defoe Halls, taking the number of bikes available for hire to 50. The Stockwell Street development has provided a covered, secure bicycle compound, and at reception an electronic display of live TfL information.

## The team has been active in helping improve sustainable transport on offer including:

- Introduction of proper parking management and car park charges at the Avery Hill and Medway Campus
- Expansion of the bus service
- Introduction of a charge for visitor parking at Greenwich Campus
- Investment in electric vehicles
- Consolidation of intercampus mail routes
- Introduction of Cycle to Work scheme
- Improved facilities for cyclists e.g. increase in secure and covered parking, showers and lockers
- Car share scheme
- Brompton Bike Hire scheme
- Student/staff discount scheme on Arriva buses in Medway and Kent

## Benefits of Green Travel Planning

- Reduces carbon from vehicle emissions
- Reduces pollution from our vehicles
- Reduces traffic congestion and accidents
- Improves health & wellbeing
- Generates investment for non-car travel options
- Meets planning and other regulations
- Illustrates corporate responsibility and assists Green League position



Image: UoG

**Plans for 2015-16 include:** Four new covered cycle shelters at Southwood Student Village to encourage more students to bring and use their bikes. A contra-flow cycle lane in Central Avenue, improving the cycle routes at Medway Campus. Subsidised bike locks in student shops aimed to reduce the incidences of bicycle theft; a barrier for cycling participation. Additionally, we are investigating further electric vehicle charging bays at Avery Hill and Medway.

## How you can help:

- Consider how to move up the [travel hierarchy](#). Is the journey necessary? Can you walk/cycle or use university buses or public transport?
- Flights have significant environmental and social impacts. Can you creatively work out alternatives to reduce or eliminate flights?



# Construction

The University's beautiful collection of buildings often pose challenges for sustainability. From Wren's buildings at Greenwich Maritime and the Edwardian redbrick Medway campus, through the broad mix at Avery Hill to the Stirling Award shortlisted Stockwell Street building—all bring different approaches for integrating sustainability.

The Estates and Facilities team work closely with staff on design before building or refurbishment. The sustainability implications of any building are significant: they consume materials and generate waste in their construction, they use energy and they use water. Through good design biodiversity can be improved. The environments we create for teaching and work must also work for people and the environment.

As part of our Sustainability Policy we are required to ensure all new buildings and refurbishments (over a value of £5m) achieve a minimum of BREEAM Very Good, and that (as one of the BREEAM credits from the Stockwell Street Project) our buildings are able to effectively adapt to future climate change impacts.

We have set out the design briefs for both the Dreadnought Library and C4 (old swimming pool building) at Medway. Extensive refurbishment of these will begin 2015-16.

Refurbishment is an almost constant process; works need to consider how negative sustainability impacts can be designed out and positive opportunities can be designed in. For example, the Building Services Team work closely to seek means to reduce the carbon usage of buildings, stipulating insulation, heating and lighting systems that reduce our energy use, and avoid costs that would be expected to increase over time.

## Stockwell Street: What makes it so sustainable?

- A significant sized building balancing the need for usable space with neighbouring demands, including fitting into the World Heritage Site of Maritime Greenwich
- BREEAM Excellent rated
- BREEAM Innovation Credits for Landscaped Roofs & Climate Change Adaptation Study
- Efficient energy use
- Efficient water use
- PV array on roof (producing 20% of building supply)
- Solar hot water system
- Sustainable procurement programme for supply of all major purchase requirements of the building
- No parking provision (apart from blue badge holders)
- Public transport communications
- 100 space cycle storage and shower & locker provision
- 14 landscaped roofs, creating one of the largest green roofs in central London
- Aquaponics demonstration space
- Four beehives
- Its central location, close to the Maritime campus and public transport provision
- Ecological Appraisal and Ecology Report.



Image: UoG



Image: SDU



Image: UoG

## How you can help:

- Participate and feedback into consultations around our estate and future plans
- Consider how your academic research could help us make further improvements in construction and refurbishment projects following the 'Living Lab' concept.



The University is constantly refurbishing parts of the estate. This can include general aesthetic improvements such as decoration (using more sustainable paints with low levels of Volatile Organic Compounds), to upgrading learning spaces to respond to different learning needs, safely disposing of asbestos in some buildings, consolidation of office spaces and the complete redevelopment and remodelling of existing buildings. The annual budget for this can be significant and is an important investment to maintain the quality of our teaching, learning and working spaces, and the need to constantly seek to meet the needs of future technologies and the expectations of our stakeholders.



Image: SDU

## Asbestos

This material was once heralded a 'super' material in the building industry. Used for decades in many different applications, it was considered an excellent cost efficient solution to the needs of buildings. After decades of use, the material was found to have significant risks associated with it. However, these can be safely managed and the University has a team focused on ensuring this happens. The location of asbestos is clearly mapped and strict controls are in place to ensure no works occur that will disturb it. To further reduce risks, the University has an ongoing investment programme to safely take out and dispose of the material.

# Refurbishment

## Dreadnought Redevelopment

This £25m project will see the creation of additional teaching space, plus the development of a Student Hub, as requested by students. Recent upgrading and new builds have enabled the University to focus on how to maximise the Dreadnought Building. By creating a complete canopy over the central courtyard, more usable and flexible space is being made available. The basement space will be expanded, creating SU and restaurant space. The SU will move from Coopers to create a welcome central space for students to meet, work and access support.

Consultation on the scheme began in 2015 and as of the summer of offices were being cleared with construction commencing summer 2016, with completion expected Autumn term 2018.

This building will be designed and built to meet BREEAM Very Good Standard, in line with the requirements of our Sustainability Policy.



Image: SDU



Image: SDU

## C4 (Old Baths) Redevelopment, Medway

The Universities at Medway have embarked on their own significant redevelopment programme of the Edwardian Swimming Baths at the lower site at Medway. This Grade II listed building will be developed into a new SU for Greenwich, Kent & Canterbury Christchurch Colleges. The space will include a bar/café, flexible working and entertainment space, plus offices for SU staff. The £4.5m project, project managed by the local Campus FM Team will be built to meet BREEAM 'Very Good' standard. This can be particularly challenging with refurbishments of listed buildings.



The University, through many of its activities, produces waste. Some waste is easy to recycle, using our dual and triple recycling bins. Some waste, however, is hazardous, requiring special systems to store and collect it.

Our goal as an organisation is to move towards being a “Zero Waste” organisation, one that seeks to follow the waste hierarchy, designing out waste-making and ensuring what we do create can be reused and recycled.

The University has targets for recycling, which help drive behaviours and programmes. However, we also should seek to reduce the amount of recyclables and residual wastes that are generated.

Wastes are generated in many areas - from our operations, producing paper from printing, card from packaging, rubble from building works, chemicals from our labs and litter from the newspapers, sweet wrappers and drink containers that are consumed around the campuses.

We all have a responsibility for helping reduce the amount that is thrown away. The University has made it easier for all staff and students to take responsibility for their own behaviours with recycling and residual waste bins, located across the estate (inside and out). Where significantly challenging wastes are generated there are systems in place to manage the process of responsible collection, storage and onward disposal to a licenced company.

The amounts of wastes we generate and recycling we produce forms an important part of our Green League submission. The better we manage and reduce our wastes and maximise recycling, the better our overall Green League score.

### Waste Strategy

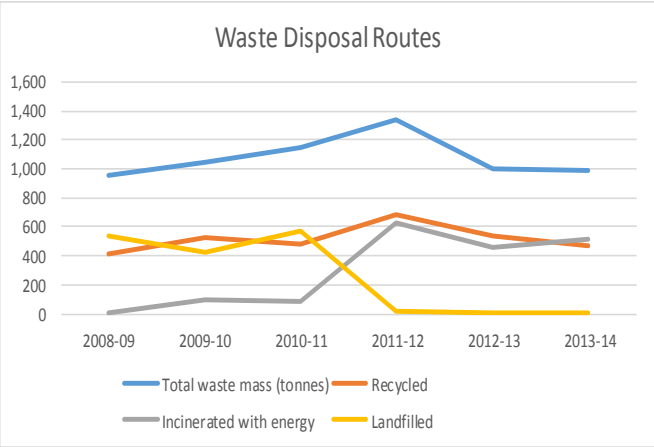
To help all staff and students take responsibility for improving our waste management, a Waste Strategy is being written for release in 2015-16. This will comprise a core document, then a series of four documents targeted at key stakeholders relevant to our waste generation and disposal processes. These will include:

- Procurers and Procurement Department
- Schools of Science & Engineering, Pharmacy & NRI
- Other academic Faculties & Departments, Professional Directorates & Students
- Estates & Facilities and their contractors.



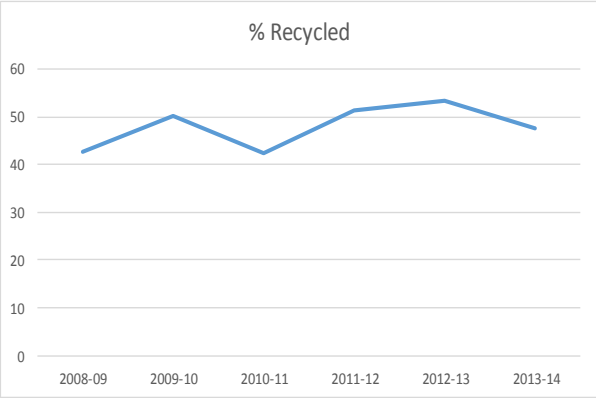
### Waste & Recycling Amounts Generated

Although the data provided by waste contractors isn’t extremely accurate it gives us a useful indication of progress. Our aim should be to reduce the amount of residual waste we dispose of. In 2013/4 year there was no significant reduction. The amounts recycled has fallen slightly a possible response to the move to MFDs. Our Sustainability Management System (SMS) target is to reduce the weight of waste sent for incineration & landfill by 5% per annum which was not met for 13/14.



### Recycling Rates

In 2013/4 (the last data set available) the University recycled approximately 48% of its waste, a deterioration of 5% from the previous year. Overall recycling rates have remained steady for the past five years, which is disappointing given the investment in the dual waste & recycling bins across the campus. Our recycling rates are also significantly below the targets set in our SMS’s Objectives and Targets (60% for 13/14, with the target of 14/15 of 65% with a goal of a 5% improvement every year). It is possible to recycle significantly more, up to 90% so staff and students need to do far more to help us make the improvements that are possible. The residual waste is incinerated in plants that generate electricity although this is a lower value option as identified in the waste hierarchy.



### How you can help:

- Follow the Waste Hierarchy:
- Prevent generating waste to conserve resources
  - Reuse as much as you can
  - Recycle all that is possible
  - Dispose without contaminating recycling streams

In London alone, the expected gap between the demand and supply of water will be significant and disruptive unless programmes are put in place to reduce demand. Unless we act with others, then we will have to deal with a future where the availability of water, particularly in hot dry summers, will be uncertain and not guaranteed.

The University has a responsibility to help ensure we use water efficiently—it is a precious resource. To ensure we do this we have:

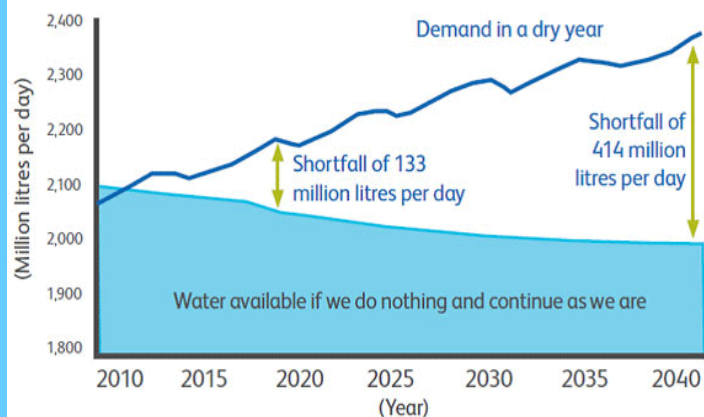
- Installed our own meters to monitor water use so we can identify leaks, unexpected high consumption and identify how water efficiency initiatives are working.
- We have installed over 130 waterless urinals across the university. Figures for Greenwich Maritime suggest these have reduced water demand by up to 30% in buildings where they have been installed

### Did You Know?

London & the South East has less water availability per head than Sudan and Syria.

(source Waterwise).

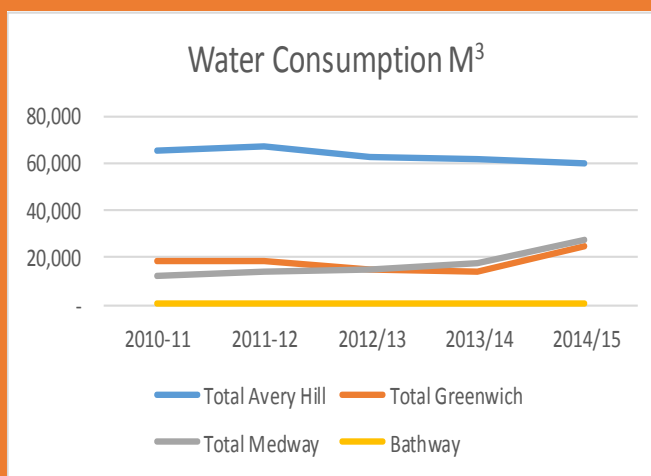
Forecast gap between supply and demand in London



## Water

### Plans for 2015-16

- Investigate rainwater and grey water harvesting
- Water audits and reduction programmes for halls of residence
- Water use analysis and water reduction targeting



### How are we doing?

The graph above shows water consumption at each of the campuses. Increased consumption at Medway and Greenwich correspond with an increase in our estate, with Daniel Defoe Halls and the Stockwell Street building coming into use. Similarly the University took on three Halls in Medway which, as they are domestic in function, require significant amounts of water for cooking, washing and flushing adding to our figures. When reviewing figures and stripping out the additional buildings the University would have achieved a 9% reduction at these campuses.

## Emissions & Discharges

Solid and visible wastes are the most obvious forms of waste generated, however, through a range of processes the University emits potential pollutants directly to air or water (via permitted disposal to its sewage systems).

Managing emissions is a key legal requirement. For example, we have discharge consents enabling us to release a maximum amount of certain chemicals to our sewage system. If we exceed this, or dispose of non-permitted materials, then the legal consequences can be significant.

Other discharges to water include run-off from car-parks and can also include potential pollution incidents, such as the release of oil (including mineral and vegetable) to drains, which again, if we are found negligent can create significant legal implications. Where drains lead to watercourses further steps should be taken to ensure they aren't contaminated. For example, through detergents from the washing of vehicles or equipment.

Emissions to air include those produced in labs, often extracted via fume cupboards and specific ventilation systems. They also include emissions (or potential emissions) such as asbestos, Fluorocarbonated gases (from air conditioning), emissions of Volatile Organic Compounds (VOC's) from paints & solvents and dust from building work.

### How you can help:

- Staff and students undertaking lab work, follow best practice and guidance to ensure emissions are reduced and in line with relevant discharge and emission allowances
- Procure products that are non-toxic, solvent free and biodegradable



The University spends a huge amount of money every year. In 2014-15 its non-staff costs were £35 million. Such expenditure can be a useful lever, and sustainable procurement is an effective means to influence our suppliers and select the goods and services that meet our Sustainability Policy and objectives.

Influencing who we buy from and what we buy has many benefits:

- Reduced waste costs
- Reduced running costs (including energy)
- Reductions in consumables required
- Longer lasting
- Upgradeability
- Improved relationships with suppliers
- Potential collaborations & research
- Potential student placement opportunities
- Social and local economic development

The University has a Sustainable Procurement Policy that will be updated in 2015-16, responding to changes in best practice and the strategies in place and being developed by the organisation. Great progress has been made with catering contracts, soon to hopefully be replicated across the University.

## How you can help:

- Buy less
- Buy more sustainable products/service options
- Consider the lifecycle of what you buy, its consumables, its disposal or reuse
- Consider the responsibility of the supplier as well as the product

# Sustainable Procurement

## Why is it important?

When we buy things we have a choice. We can either buy according to our values, or potentially undermine them. At work and at home we can do the same. If we want to end unsafe working conditions, for example, we can buy clothes that are from certified companies that meet key working standards. We have a choice—it's best to use it responsibly.

**Key related sustainability impacts** (red-high impact, green-low)

Energy use/climate change

Water

Waste

Emissions to air & water

Travel & Transport

Curriculum & Research

Health & well being

Cultural & Natural Heritage (incl. biodiversity)



## Supplier Profile:

Carpet tiles may not seem a product that could in any way be sustainable, or come from a company that has any interest in the subject. Think again. Seriously.

Often identified as one of the most sustainable large companies (\$1bn+ turnover a year) our supplier, InterfaceFlor, producing carpet tiles for business and homes makes sustainable procurement decisions easy.

A company with a clear, ambitious and delivered sustainability policy and strategy, clear sustainably driven leadership and a range of sustainable products competitively priced, it is a company the University feels confident is in business for the right reasons.

There is much to be learnt from this supplier—they use innovative technologies to tackle tricky sustainability challenges, and they responsibly source raw materials from environments suffering pollution and sustainability issues.

Not only do they provide very sustainable flooring (Stockwell Street is literally decked out with their products), their designs are also surprisingly eye-catching. They create strong relationships with their clients; in the last year they have spoken at the Future Fair, exhibited their products and business methodology at procurement and environmental fairs at the University, and have even worked with our students to develop sustainable fashions using their products!

*Interface* **FLOR**®



100% RECYCLABLE

Sustainability  
Report  
2014-15



Image: SDU



Image: SDU

# Sustainable Food

## We Hooked An Award!

In 2014 the University won the Marine Stewardship Council's 'University of the Year' award for its work in promoting MSC certified fish through its catering outlets. Other winners included Unilever & Marks & Spencer's, esteemed company indeed!



Image: BaxterStorey

The University is seen as a leader in the sector, for the responsible food provision in our catering outlets. Working directly with our contracted caterers, BaxterStorey, and through the Sustainable Food Steering Group in partnership with Sodexo and the Students Union, has made excellent progress in delivering high quality, responsibly sourced food and drink.

The Sustainable Food Steering Group is responsible for reviewing the Sustainable Food Policy over a two year cycle, that is signed off by the Vice Chancellor. The policy is also informed by the University's Fairtrade Policy, providing further targets.

Our proudest achievement in collaboration with Baxter Storey is achieving the Soil Association's Food for Life Silver Award, and we hope next year to be one of the few universities in the UK to achieve Gold, which will cover all our menus! This partnership has enabled the University to provide not only responsibly sourced and produced food, it has also helped us communicate and engage with our stakeholders regarding taking leadership on behalf of our customers.

The University seeks to ensure that this high level of responsibility meets our core aims, especially through our catering outlets:

- All the meat served is from farms which satisfy UK welfare standards
- We don't serve any fish from the Marine Conservation Society's 'Fish to Avoid' list

- All our eggs are organic and from British farms
  - We don't use any genetically modified ingredients
  - We regularly source seasonal vegetables from local farms like Chegworth Valley in Kent
- Our Sustainable Food Policy guides all our catering outlets and food served for hospitality and events.
- It helps us ensure that all of our menus reflect the seasons where possible and monitor the use of non-seasonal produce
  - Support environmentally friendly farming, food and drink production and transportation in the selection of products
  - Clearly communicate to customers the menus on offer and seek to increase the range of nutritional and sustainable items
  - Use where possible meat and dairy that is produced according to a minimum of RSPCA Freedom Food Standards, and ensure that all meat is sourced from animals that have been stunned before slaughter
  - Increase our use and supply of organic dairy products
  - Use demonstrably sustainable fish wherever possible. If this is not possible for certain species then alternative menu items will be sought.

## How you can help:

- Give feedback to our caterers about the food they serve—it helps them know what they're getting right and also where to improve!
- Choose more sustainable menu options, reduce your meat, select local and organic
- Use/ask for a china cup/mug when in the cafe's
- Bring your own re-usable cup for teas/coffees & water. Save-a-Cups are available at all outlets, get a free tea/coffee when you buy your cup and receive a 10p reduction for every hot drink you buy!



Image: BaxterStorey



Our Human Resources Directorate has an important role in helping staff better engage with sustainability, even before starting employment! Opportunities exist from sending information to prospective applicants about our sustainability responsibilities, through to induction, NEWI events and staff development. Events run through the Directorate ensure that sustainability is promoted in ways that reach and connect with staff.

This is increasingly important towards how we respond, not only to our own corporate commitments and responsibilities, but also to the increasing demands from students, prospective graduate employers, research funders and a range of other organisations that have interests in our ability to build sustainable practices.

HR have been active participants in the Green Impact project, achieving Gold in 2013-14 which, through its champions, has enabled a culture of sustainability engagement to thrive. As part of this they have developed their own 'Sustainability Pledge'. HR see the application of sustainability as a team effort, and are grateful for the support of all their staff in the delivery of this work.

Staff development is of key interest for effective and broad sustainability enablement for all staff. The HR team are working closely with the Sustainable Development Unit in piloting a staff capability programme, hoping to increase awareness of the value and relevance of sustainability within departments. The project will begin in 2015-16, utilising the capabilities, skills and motivation of our existing Green Champions network.



Image: SDU



Image: SDU

For the HR Directorate, they are maintaining the work previously achieved via the Green Impact workbook and are awaiting further information on Project X.

The year has been one of broader successes for the department with their Athena SWAN accreditation and the successful delivery of the Aurora programme. Not only have they looked at assisting their own staff, they have been busy developing links with the Bexley Food Bank, enabling staff and students to donate food to those in need in the local community.

## Human Resources

### HR's 'Sustainability Pledge'

In the HR office we acknowledge that our activities have an effect on the environment. We aim to minimise the impact through our energy use, re-cycling and continued awareness of sustainability issues. We strive to strengthen our links with the local community and actively work with other University colleagues to "foster a positive attitude to the environment".

To achieve this we will:

- Increase the amount we re-cycle
- Reduce energy usage
- Reduce water usage
- Continue to raise awareness
- Encourage good practice amongst colleagues
- Continue to support biodiversity initiatives
- Expand our links with internal and external communities.

### How you can help:

- Undertake your own sustainability professional development from the comfort of your office chair by reviewing the SDU's [sustainability resources page](#)
- Engage in the Directorate's Health & Wellbeing events and programmes—social sustainability and the recommendations to improve wellbeing are often deeply rooted in sustainable actions
- Get out during your lunch hour, garden at Southwood site's Edible Garden, or go for a walk in your local park or area of green space. Nature is a great tonic!

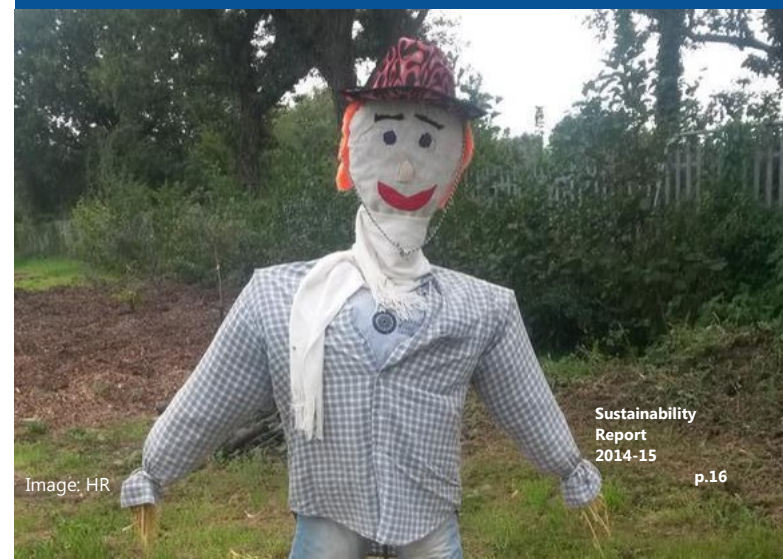


Image: HR



The Finance Directorate has a number of critical roles, such as supporting the University in achieving its strategic goals and to be financially sustainable and responsible. It advises the Vice-Chancellor and Board of Governors with regard to financial matters and provides senior management with information to assist with financial decision making. In addition, it ensures compliance in a number of areas and ensures the effective and efficient use of resources.

Oversight and financing of sustainability initiatives is important. The Finance Committee reviews the Carbon Management Plan and its investments. It also implements the Ethical Investment Policy. Over the last year this has been updated to bring it in line with increasing demands from stakeholders, including student bodies, People and Planet's Green (University) League and in line with the expectations and responsibilities the University itself sets out in its Sustainability Policy. The Ethical Investment Policy was reviewed by all participants of the Sustainability Management Board (SMB) on behalf of their stakeholder groups and was subsequently presented to the Finance Committee and approved by the Court on the 30<sup>th</sup> November 2015..

The Ethical Investment Policy has been published on the University website, making all staff, students and stakeholders aware of the policy and the aims of the University to incorporate an ethical approach to short term deposits and investments.

The aims and outcomes will support and inform the University's Sustainability Policy and improve the University's position in the Green League Tables with respect to Ethical Investment.

Measures include the opportunity to:

- Conduct an assessment of the carbon intensity / climate change risks within the University's portfolio of investments
- Decrease the percentage of funds invested in assets considered as high climate change risks (e.g. fossil fuel industry) if applicable
- Look at the possibility of investing endowments positively for social or environmental goals
- Obtain copies of our bank counterparty annual reports to ensure they have corporate responsibility values and objectives
- Review the University's equity funds to analyse their shareholdings and assess whether they meet the criteria identified within the revised Ethical Investment Policy
- Evaluate the feasibility of investing the University's Endowments portfolio with CCLA COIF Charities Ethical Investment Fund
- Monitor and report on investments to SMB.

# Ethical Investment

## Why is Ethical Investment Important?

Many organisations work on our behalf. This includes organisations that invest any funds the University has available. As our Sustainability Policy seeks to ensure we take responsibility for positive sustainable action in our operations and activities, so the role of third party organisations is important. If they don't share our values or sustainability goals, then are they ultimately undermining them? Possibly. That's why the University this year has re-written its Ethical Investment Policy. Similarly, our stakeholders can also consider such an approach, looking to make investments in organisations that are contributing to making the world more sustainable, not less. We all have the power to help make changes in the world; we can make ethical choices in how we spend our money and where we make investments. This sends direct messages to companies and shows whether or not we are willing to support them.

## How you can help:

- Consider how ethical engagement and investment relates to your studies
- Consider investing your money in banks, companies or funds that meet ethical criteria important to you.



Image: SDU

## Ethical investment. Defn:

***Ethical investment** is also known as sustainable **investment** and socially responsible **investment** (SRI). The term describes an **investment** process that incorporates environmental and social factors when selecting **investments**, in addition to the objective of achieving a competitive financial return.*





# Biodiversity and the Edible Garden

Estates and Facilities are working on new strategy for Biodiversity for our campuses. As part of this some of the Biodiversity Steering had the pleasure of visiting some other Universities to see what they were doing for wildlife on their estates. Inspiration came from both Canterbury Christchurch and Kingston University and the group will now be working on how best to create diverse habitats that are great for wildlife and inspiring for students and staff.



Image: SDU



Image: SDU

**The University has been working with The Urban Orchard Project to create and maintain the orchard at Avery Hill Southwood Site.**

*"The Urban Orchard Project is creating lush cities across the United Kingdom swathed in fruit and nut trees. We work in partnership with communities to plant, manage, restore and harvest orchards in urban areas to help us all to rediscover the pleasure of eating home-grown fruit."*

**THE URBAN ORCHARD PROJECT**

## Growing Food and a Community

**The Avery Hill Edible Garden has become a hub for growing food, creating diverse spaces and importantly creating a space for people to get together.**

*"I love coming to the garden to meet like minded people who are interested in growing things. The garden has given me much more confidence and knowledge to grow different salads and vegetables in my own garden. It is also a window into a different world and has made me think much more about sustainability."* - Helen, community volunteer

*"As a volunteer from the start of the project I have seen amazing progress over the last couple of years. The original vision of an organic and sustainable forest garden and growing beds, is slowly becoming a reality. Personally, being involved in the garden has been a valuable learning experience. I have met some great people, learnt a lot about the principles of permaculture and enjoyed seeing the project come to fruition. The opportunity to get outside and work in the garden year round has provided a healthy break from office life and the weekly supply of fresh fruit, vegetables and herbs has been a welcome bonus."* - Julian, Office of Student Affairs.



Image: SDU

## Around our campuses:

- Hedge laying at Avery Hill
- Research at Avery Hill being undertaken by students from the Science Department at Medway
- The Stockwell St. Bees produced their first harvest of honey
- Training undertaken by staff and students on how to prune historical varieties of fruit trees
- Plans being put together for a new wildlife pond at Avery Hill
- Landscape Roofs at Stockwell Street
- Planted social area outside the Drill Hall at Medway

**Sightings: Green Woodpecker; Swift; Wood mice; Common Frog; Kestrel; Chicken of the Wood Fungi; Sparrowhawk; Grass Snake; Redwing; Hen Harrier; Mallards (on pond on Stockwell Street roof) and much, much more!**



# Behaviour Change

2014/2015 marked the year that we moved away from the traditional Green Impact workbook and embarked upon a year when Sustainability Champions designed and carried out projects of their choosing. The Sustainability Champions of Greenwich did not disappoint and we had a wide range of projects that varied from carbon saving gadgets to plant swap shops to encourage people to grow their own food.



Image: SDU

# Project X

The Sustainable Development Unit has been working with the Human Resources Directorate to develop a system that enables staff to develop core skill sets that enable them to facilitate change and improvement within their departments. This includes developing an applicable understanding of sustainability and the value it can bring departments, their projects and local initiatives. The idea is to ensure sustainability objectives are integrated into how we work in all areas, rather than a stand alone add on which is less effective and less valuable to deliver local and University wide strategic goals.

## Sustainability Champion Achievements

The Natural Resources Institute embarked on wide ranging number of challenging projects that sought to meet targets in all of the sustainability areas that Green Impact covers: Carbon; Waste; Transport; Biodiversity; Student Engagement and more. As the student facing part of Greenwich Research and Enterprise the aim of the Employability and Career Services Green Impact Project was to raise students' awareness and encourage them to engage with sustainability initiatives within University of Greenwich, locally, nationally and internationally. Through ECS advertising we have had students join in on a wide range on opportunities include representing students on boards and steering groups; train to be auditors and undertake work placements within the SDU.

The Office of Student Affairs used their project opportunity to get people outside. The Avery Hill Champions organised and facilitated an activity away day for their team in the Avery Hill Edible Garden, and the Greenwich Champions incorporated sustainability and getting outside into their 'day one, week one' activities for new students.

The Accommodation Office once again supported the End of Term Reuse projects helping students and Residential Assistants collect tonnes of unwanted items and diverting them to charity. Human Resources also played a part in this collecting all of the food left over and delivering it to local food banks.



Image: SDU



Image: SDU

Image: SDU

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**Students and staff  
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environmental action  
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The NRI's mission: *"To discover, apply and share knowledge in support of global food security, sustainable development and poverty reduction".*

This is reflected in its international excellence in research and capacity to achieve sustainable benefits in the developing world and more widely. It achieves this through continued world-leading research, enterprise and educational activities. Its success will be measured by the impact of its work around the world, the number and quality of scientific outputs and the capacity built through its activities and programmes.

The NRI is fully committed to supporting the University's Sustainability strategy. It continues to benchmark the environmental impact of our scientific infrastructure and sets sustainable targets. It also minimises the environmental impact of its travel wherever possible.

Its focus isn't solely research, it also delivers teaching of global interest and importance. This includes:

- MSc Agriculture for Sustainable Development
- MSc Sustainable Environmental Management
- MSc Food Innovation
- MSc's in a range of areas under the titles 'Food Safety & Quality Management'
- MSc Applied Plant Science
- Research Degrees
- BSC Hons Environmental Science
- MBIOL Integrated Masters in Biology

NRI has integrated sustainability responsibilities also in its operations, through for example, Green Impact and also through its monthly Lecture Series.

## Fairtrade Certification of Coffee

NRI's study for the Fairtrade Foundation contributes to the understanding of the impact of Fairtrade by providing a more in-depth analysis of Fairtrade's influence on farmers and their organisations and by comparing data from four countries (Mexico, Peru, Indonesia and Tanzania) and multiple producer organisations in each country. NRI is involved in the first system-wide study on Fairtrade coffee. It is important for the research to both proving the current impacts into how the approach can be improved to broaden and deepen impacts in coffee. The study aims to capture the impact of Fairtrade certification at the organisational level and at the household level.

## NRI's C:AVA project won a Times Higher Award in 2014

The Cassava Adding Value for Africa (C:AVA) project, led by NRI/ University of Greenwich UK, was picked as the 2014 winner of the prestigious Times Higher Education Award for International Collaboration of the Year. Joanna Newman, vice-principal (international) of King's College London and one of the judges, said Greenwich had given a "very clear lead" to a "complex web" of international partners. *"This project was very impressive for its scale, transforming the livelihoods of 90,000 subsistence farmers. It was a truly international collaboration."*

## Spotlight on a Star

This year we have seen exceptional work within NRI laboratories from Simon Springate. Simon is a hardworking, energetic and professional staff member who is committed to NRI's laboratories. He is involved within many different areas of his Department, but really shines in the labs with his commitment to sustainability. Simon contributes greatly to the sustainability agenda at NRI and is an enormous resource and help to NRI's Sustainability Champion. Simon is an example of NRI's commitment to managing our environmental impact at all levels. With his continued dedication and guidance, NRI labs will continue to promote environmental and sustainable behaviour change within the Department.

# Faculty of Engineering & Science

Showcasing the



UNIVERSITY  
of  
GREENWICH | Natural  
Resources  
Institute

## Sustainability Hero

Caroline Troy, as a real hero, has already contributed massively to the NRI over the past few years, winning the following awards:

- Environmental Hero Award 2012-13
- Positive Deviant Award 2014
- Green Impact Gold every year
- Green Impact Platinum 2014
- Green Impact Labs Gold 2014
- Green Impact Excellence 2014
- Outstanding Contribution to Sustainable Development 2014



Ladies Peeling Cassava by Aurelie Bechoff

**Progress 2014-15** has been significant. Activities include:

- LED Lighting Trials
- Fascination of Plants
- Biochar
- Green Impact
- Food Bank

Building on the results of a £1.5 million pan-European project funded by the European Commission, [Dr Andres Coca-Stefaniak](#) (Marketing, Events and Tourism; Business School), jointly with colleagues from Erasmus Rotterdam University (The Netherlands), has put together a journal research paper submission exploring how local stakeholders construct the legacy of cultural events and how this, in turn, affects the management of those events. Andres has also recently received approval from the University of Greenwich to host Dr Gildo Seisdedos (Instituto Empresa, Madrid) on a sabbatical at the Business School to carry out research on Smart Cities with data from a recent project funded by Telefonica. Andres has also accepted an invitation from the UK Government to join the Future High Streets Forum task force, which will explore sustainability and competitiveness issues affecting our high streets.



Image: SDU

### Green Champions in Business

The Business Faculty has an extensive Green Champion network working with staff to improve local sustainable behaviour change. If you want more information about what you can do or join the group please contact [M.McCartney@Greenwich.ac.uk](mailto:M.McCartney@Greenwich.ac.uk)

## Faculty of Business



Image: SDU

Simon Earp, the University's Transport & Green Travel Manager in Estates & Facilities, provided assistance to the Business School at the request of Petros Ieromonachou, Head of Systems Management & Strategy. Petros needed to fill a gap with delivery of the Sustainable Transport course (TRAN1028), a Year 3 course containing 15 credits, and was keen to utilise expertise that existed within the university. The course covers transport policy and planning, freight transport and passenger transport, with an particular emphasis on sustainability. Rewriting much of the existing content, Simon delivered the second half of the 12 session module drawing on his experience of managing the University's vehicle fleet, developing the university's travel plans, and from his background in logistics. Students were asked how they might develop their own travel plans for the University guided by Simon's experience here. Simon was also able to share his knowledge of working in transport and logistics prior to his role at the University and students were provided with exercises based on real life business situations such as tendering for a freight distribution contract. Following completion of the course Simon commented: *'Getting the content right for me was difficult in deciding what to include, harder than I'd imagined, but delivery was highly rewarding, especially where I was able to draw on my own work experience. I think the students appreciated what I was able to bring to the course as a guest lecturer.'*

Andy Fryers, Sustainability Director for the Hay Festival and an influential figure in the development of the Welsh Assembly's pioneering The Well-being of Future Generations (Wales) Act 2015, delivered a guest talk on Sustainability and Events at the Business School in February 2015. Andy's talk, which was kindly introduced by Jon Sibson (Pro Vice-chancellor and Dean of the Business School), was followed by a lively debate with questions from undergraduate students on the BA (Hons) Events Management as well as postgraduate and PhD students from other programmes and departments across the Business School.

Later that year, Dr. Andres Coca-Stefaniak and Andy Fryers were invited by the Milan Expo 2015 to participate in a round-table debate about the evolving role of sustainability in the events industry, where they presented their recent work on the ZEN project - a £1.2 million EU-funded project with ten European partner organisations, which investigated ways of reducing and mitigating the negative environmental impacts of events and festivals whilst maximising their positive impacts on society in terms of behavioural change related to more sustainable lifestyles. The debate received wide coverage in the Italian press, including a interview with Italy's leading public TV channel - RAI.



Images: M&S

In March Dominic Fry, Director of Communications and Investor Relations of Marks & Spencer's gave an insightful talk for the Business School's Big Picture Seminar series.

The title of the talk 'Connecting with the customer on sustainability in the digital age' gave the capacity audience an insight into the many reasons why the company is pursuing its sustainability focused 'Plan A' programme that it is hoped will make the company the planet's most successful retailer. The initiative has helped them generate a net gain of £160m a year!

For more information about Plan A [click here](#).

For a full blog review written by one of our students [click here](#).

### Dynamics of sustainable transition processes: the example of combined heat and power (CHP) technologies in the United Kingdom:

Anton Sentic, PhD Research Student in the Department for Systems Management and Strategy within the Business School, is undertaking a research project with fieldwork partners to analyse the dynamics of diffusing sustainable energy technologies throughout the UK. The project centres on the question, "Are current theories from the field of transitions research applicable within the context of sustainable transitions in the UK energy sector?" To formulate answers, the project is investigating whether CHP application areas in the UK can be defined as niches within Transitions theory and whether the functionality of these niches supports further development and diffusion of CHP; how CHP interacts with existing energy and heating regimes (gas) and how these regimes hold influence over the diffusion of sustainable energy systems; and undertakes a functional and structural analysis of CHP as a product group-based technological innovation system (TIS), investigating its performance in the UK context related to its development in other West European countries.

The main focus of the research will be on the time period since the privatization of the UK energy market in the late 1980s, covering the post-privatisation period, the uptake of environmental and sustainability-related concerns in the early 2000s and the most recent developments in the face of increasing uncertainty and global challenges. The project will contribute to Transitions research and sustainable energy reviews by empirically applying a combined analytical framework, connecting two schools within the wider research field, and by investigating the concept, functionality and definition of niches. In addition to those theoretical contributions the author is aiming to provide practical proposals and suggestions for industry representatives and public sector actors for the further development of CHP technologies in the UK, and the creation of a technological innovation system conducive for this development.



The aims of the Faculty of Architecture, Computing and Humanities are to integrate sustainability principles into the curriculum, throughout all relevant Faculty degrees, and promote sustainability related research within the Faculty. These will be met by the following objectives:

- The mapping of current teaching related to sustainability
- The identification of opportunities where sustainability principles can be integrated into teaching (lecturing, assessment)
- The use of the Sustainability and Futures Grand Challenge, as a hub for interdisciplinary collaboration on sustainability within the Faculty
- The use of the Sustainability and Futures Grand Challenge as a facilitator for the generation of research proposals and projects
- The launch of a research event in May 2016, to facilitate research collaboration in the fields that the Grand Challenge is dealing with.



Image: UoG



Image: UoG

**2014-15** heralded the re-launch of the Sustainability Grand challenge, which is now led by Dr Spyros Stravrovadis. As a result of the re-launch, interdisciplinary discussion has already begun and ideas are being discussed on collaborative sustainability projects. Furthermore, the recently formed Futures research group (led by Dr Peter Jones) has now merged with the Sustainability Grand Challenge, bringing more people into the group. As a result the challenge has been renamed to: Sustainability and Futures Grand Challenge. The strategy of the Grand Challenge has now changed and the focus now is primarily on research and to act as a hub to facilitate sustainability and futures related research within the faculty and the whole university.

The Cities Grand Challenge group conducted a design challenge for the Greenwich peninsula, which dealt with issues of sustainability and received significant coverage and publicity.

Work is being conducted in order to utilise University buildings as living labs for research and teaching with Stockwell Street being the first building on the list.

The Department of the Built Environment is currently reviewing a number of courses, so that more sustainability related teaching can occur at undergraduate level.

## Faculty of Architecture, Computing & Humanities

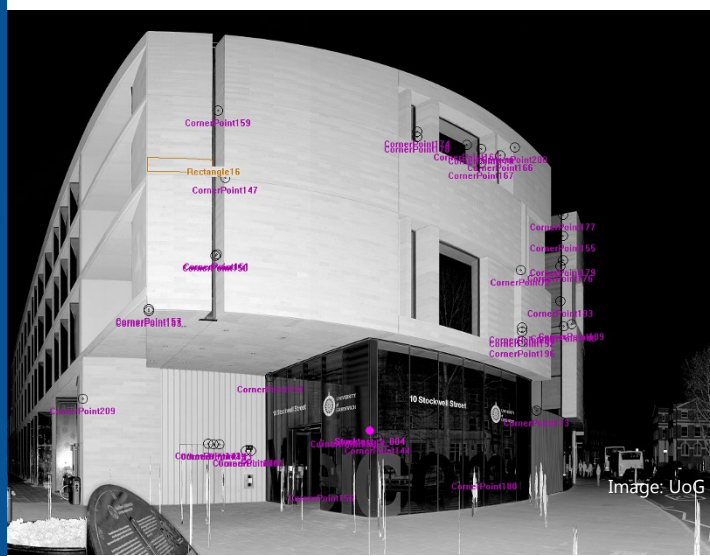


Image: UoG

The Faculty of Architecture, Computing and Humanities deals with all three of the pillars of sustainability: environmental, social and economic. There is much more focus on environmental related issues, as the courses and research conducted in the Faculty mostly relate to this area.

More specifically, the Sustainable Building and Environments Research Group (SBERG), which is housed within the Built Environment Department, has a long history on research work conducted in the area of environmental impact, the performance of buildings, as well as social impacts of developments. Part of this work involves councils throughout London, government, as well as EU projects. Research work in sustainability has also been conducted by the department of Architecture and Landscape, as well as Law and Computing.

Currently, through the Sustainability and Futures Grand Challenge, a mapping of active sustainability research has started throughout the Faculty and is hoped to be finished by the start of the next academic year. Some inter-disciplinary research ideas are currently being investigated, with the aim of developing them further into research proposals for UK/EU funding.

In terms of sustainability subject areas, the following list provides an overview of areas that the faculty is involved in:

- Sustainable Building Performance
- Sustainable Design and Development
- Sustainable Outdoor Environments
- Environmental Impact Assessment and Environmental Sourcing of Materials
- Product Optimisation for Improved Sustainability
- Sustainability and Futures



# Faculty of Education & Health

The Faculty of Education and Health has a long-established reputation for providing high quality education and training in health and education related areas. The Faculty aims to exemplify the very best of practice in learning and assessment through, for example, the use of electronic media, interactive lectures and seminars, peer learning, tutorial and a wide range of resources. They are proud of the pastoral care that they provide and have a reputation for supporting students to achieve their goals. They have strong and diverse partnerships to ensure students are able to gain professional experience and support their teaching with research and scholarship.

Annually, the Faculty of Education and Health host a sustainability fair as part of the students' Day One Week One activities, that introduce the concepts of sustainability to their new students and ensure that students appreciate that sustainability is a key driver within the University and Faculty. The Faculty also has a very strong record of research around sustainability with a number of examples listed below:

## **Ecotec21 (2012 – 2015)**

This large European project was selected for funding by the Interreg IVA cross channel programme and co-financed by the European Regional Development Fund. Led by Medway Council and involving partners in the UK and France. A key aim of the project was to install and monitor the use of a new Combined Heat and Power generator for use in University offices and student accommodation at the University's Medway Campus. Findings indicated support for psychological models of behaviour in that behaviour was predicted by attitudes, previous behaviour and subjective norms.

## **Sustainability and children as agents of environmental behaviour change (2009 – 2010)**

This small project was funded by University of Greenwich, Research & Enterprise Investment Programme 2009/10 and was led by Amy Moon with collaboration from Professor Pam Maras and Professor Keith Jones. The project was designed to measure (1) whether children's attitudes towards the environment would be altered by an educational class about the effects of climate change and ways to reduce carbon emissions within the home and (2) to see whether, having educated primary school age children, their parent's behaviour and attitudes could be altered due to the 'nag factor'. Results suggested that children became more pro-environmental in their attitudes two weeks post the educational intervention compared to baseline however, parental attitudes were inclusive due to difficulty in achieving a significant parent sample.

Key subject areas within the Faculty are Teacher Training across the whole spectrum (early years, primary, secondary and lifelong learning); Nursing (adult, children's, mental health, and learning disability); Midwifery; Social Work; Education, Childhood, and Youth studies; PE and Sport; Psychology and Counselling; Paramedic Science and Speech and Language therapy.

A key driver within the Faculty is improving social and economic outcomes. In Nursing they develop practitioners equipped to provide healthcare in a changing environment, ensuring that students reflect on how their work impacts the environment. Within their Teacher Training programmes students experience a range of sustainability practices in schools (walk to school initiatives, the use of school grounds), and sustainability is contained in aspects of the National Curriculum from which they will teach (education for sustainable development, global citizenship).

Second year students engage in an enrichment placement, some of whom may experience settings where there is a strong focus on sustainability: for example, city farms and environmental education centres. Our Public Health and Health and Well-being degrees embed various activities within the curriculum, including garden trips, film showings that address sustainability in public health, and for the last two years students offered the opportunity to undertake 'placements' in the Sustainable Development Unit's office. The degrees also include specific modules that examine the role of the environment on public health and environmental aspects.

More recently their degrees in Education studies and Childhood studies have been re-validated to include social enterprise modules that enable students to apply business principles that have a social impact.

The Faculty is also working with Charlton Athletic community trust which has a strong history of sustainable development and their work with them will ensure that young people are provided with life skills and employment opportunities.



Image: UoG



Image: SDU



Image: UoG



Image: UoG



## Materials Management

**Goal:** Reduce paper use and recycling within the Faculty

**Commitment:**

- Increase electronic submission of coursework and online marking. Currently over 80% of all our coursework is submitted electronically
- Decrease use of paper at internal faculty meetings – all meetings are now electronic



Image: UoG

## Research and Teaching

**Commitment:**

- Foster a new generation of leaders by offering professional development opportunities that prepare undergraduate and postgraduate students with the insight and foresight to safeguard our environment in the years and decades to come.
- To continue to build on research that supports the Faculty/ University's sustainability objectives. To further our work in this area we have recently submitted a profile to be published on EEN to look at potential partnerships within established European projects. We propose that a holistic approach to investigating pro-environmental intentions, attitudes and behaviour is beneficial due to the complex relationship people have with environmentally friendly behaviours and the range of psycho-social factors that affect their behaviour.

# Faculty of Education & Health

## Strategies, Actions & Progress in 2014-15

The Faculty launched its social enterprise programmes led by Damien Page, Head of Department Education and Community. This has helped develop the social enterprise initiatives within the Faculty. Their social enterprise programme was launched at the House of Commons in February 2015 and included a week of programming open to University and our wider community with leading speakers from the social enterprise world. The goal is to enable staff and students to recognise the value that social enterprise not only provides to our wider social groups and recipients, but also illustrate the opportunities available for staff and students to apply their knowledge, skills and expertise to help solve social challenges and maximise the opportunities that exist by working to deliver social value and profit.



Image: UoG

## Personal Well-Being

**Goal:** Enhance well being of staff, students and the wider community.

**Commitment:**

- Initiate staff participation in, and access to, wellness programs within the Faculty and University. 30% took part in faculty wellness programmes in 2014
- Identify initiatives within the Faculty related to wellbeing and community engagement. A number of programmes have been identified including smoking cessation programmes, social enterprise programmes, public health programmes, and a new Institute of Integrated Care with Oxleas NHS Foundation Trust
- Develop opportunities to partner with local communities on sustainability projects. The new collaboration with Charlton has strengthened the Faculty's work in this area. The Faculty has a long history of working with local councils on sustainability projects



The University teaches approximately 22,000 students, who will graduate and go into work, or use their knowledge and skills in some other practical capacity. By helping these students better understand the relationship of sustainability, either in their studies or in general, then we have a significant opportunity to potentially influence decision makers to integrate sustainability far more widely.

The University here has taken on the developing interests of the student body. The HEA-NUS undertook research and produced a report entitled 'Student attitudes towards and skills for sustainable development'. Supporting this, the Students Union at Greenwich undertook research into attitudes at the University. The research was careful to avoid bias and indicated strong support at Greenwich for sustainability to be taught and integrated within the operations and activities of the organisation.

#### The Sustainability Hub's Lifestyle Survey Results 2014 (n275)

- **Sustainable development is something which all university courses should actively incorporate and promote:** 76.7% of students 'Strongly Agree' & 'Agree' with this (11.6% neither agree or disagree).
- **Sustainable development is something all course tutors should be required to incorporate within their teaching:** 54.4% of students 'Strongly Agree' & 'Agree' with this (25.5% neither agree or disagree).
- **Sustainable development is something which I would like to learn more about:** 53.8% of students 'Strongly Agree' & 'Agree' with this (19.3% neither agree or disagree).
- **Incorporating sustainable development into the curriculum is important for my future employability:** 53.8% of students 'Strongly Agree' & 'Agree' with this (20.4% neither agree or disagree).
- **Sustainable development is something which all university courses should actively incorporate and promote:** 76.7% of students 'Strongly Agree' & 'Agree' with this (11.6% neither agree or disagree).

Image: UoG

# Education for Sustainable Development

## HEA-NUS Survey findings (Nov 2014)

The Higher Education Academy and National Union of Students undertake annual longitudinal surveys of students' attitudes to sustainability in their institutions in terms of their operations and their educational provision. Below are key findings which have not largely changed since the research began in 2010.

- Eight in every ten students consistently believe that SD should be actively incorporated and promoted by universities, and this increases as respondents progress through their studies. International students are significantly more likely to agree that action should be taken by universities in this way
- Over two thirds of respondents consistently believe that SD should be incorporated into all university courses
- Over 60% of domestic students would like to learn more about sustainable development, rising to three quarters of international students
- There is a continued desire amongst students for a reframing of curriculum content, rather than additional content or courses

Image: UoG



Image: SDU

- Skills development is also high on the agenda with over two thirds of first-year respondents consistently agreeing that universities should be obliged to develop their sustainability skills as part of their course
- At the same time, maintaining and developing links with employers remains increasingly relevant to students, with internships increasingly seen as a method of further skills development
- Approximately two-thirds of students would be willing to sacrifice £1000 from an average graduate starting salary to work for a company with a positive social and environmental record, whilst over two-fifths would be willing to sacrifice £3000
- Significantly more respondents are willing to make a £3000 sacrifice from their starting salary for a specific role that contributes to positive social and environmental change.



# Research for Sustainable Development

To help develop a sustainable future for our economies, societies and our planet, our University has an important role in undertaking research and developing concepts, frameworks, products and systems that can help us solve the sustainability challenges we presently face.

There are examples across the University where we are stepping up to the plate, using our intellectual capital to solve areas key to our future success. There is more, however, that can be done.

Sustainability can be used as a lens to redefine research, help align it to sustainability goals and create exciting cross-disciplinary collaborations built on the systematic and holistic nature of the theme.

This then lends itself to the development of new approaches to existing problems, meeting the needs of funders, research bodies, government and policy makers and the needs of businesses, societies and nature.

TourFish: Tourism for Inshore Fishing, Food and Sustainability



Image: Dr. Tim Acott

## Using the sustainability 'lens' to create novel approaches to research

Sustainability is not a marginal issue, simply concerned with recycling newspapers or milk cartons. It is a way of understanding the world, in order to preserve its very nature for the generations yet to come. It relates to every area of our academic work; it has to.

If we are to deliver a sustainable society, then we need architects able to build sustainable buildings, green chemists producing low and zero impact products for industry and biologists employing the natural world in supporting us.

We also need communicators to weave the narrative, the messaging, the formats by which sustainable products and services will be communicated. We'll need mathematicians and engineers to design better low carbon energy and water systems, and we'll need businesses that ensure companies meet not just the needs of their shareholders but also support the societies and natural systems upon which their ultimate long term success depends.

Peer reviewed and tested frameworks exist to provide a basis for applying research and developing practical solutions. Creative Commons systems such as [The Natural Step](#) have been used by many universities across the world to frame the sustainability of their research. These systems are also used practically by governments to design policy, and business such as Nike, IKEA and InterfaceFlor (see Procurement section) use them as a basis for the design, development and provision of their goods and services.

For more information about tools, organisations and other resources to support your research, then review the Information and Resources Page on the SDU's website.

Also contact the SDU or GRE to ask for sustainability training programmes to be delivered as cross-departmental or training programmes delivered to teams in your department or faculty.

## What you can do:

### Improving the sustainability outcomes of your research:

- Consider the broader implications of your work. Systems thinking helps understand the connections and impacts (positive and negative) your work can have and gives us a means to reduce negative (and enhance positive) effects
- Collaborate within and across disciplines. This can help identify additional valuable concepts and considerations, and builds networks and support for your own research interests
- What are the direct impacts of your research? Does it require physical resources to use in analysis or the production of research models or experiments? Can you reduce the impact in terms of potential hazards to the environment (pollution, climate impact, waste disposal etc.)?
- Share your good sustainable research practices with others (including within your department, Faculty and the University). Develop or join networks internally and externally to further learn what others are doing and how you can collaborate further



Image: UoG



Image: SDU

# Research for Sustainable Development



**Cocoa Pollination Project:-** Despite the importance of cocoa as a major cash crop of the tropics, the pollination biology of cocoa remains neglected. Pollination rates are generally poor for cocoa and inconsistent across the year but recent evidence indicates that improving pollination can improve cocoa yield. The project's expected results and outputs include:

- Improved security through increasing the incomes of smallholder cocoa farmers in the Caribbean
- Information on impact and recovery of cocoa pollinators in response to key adverse climatic factors and extreme climatic events
- Recommendations for the cocoa industry in response to climate change impacts on cocoa pollination biology
- Saving water, energy and protecting the environment by significantly increasing the yield of existing cocoa farms through improved pollination, thereby preventing plantation expansion to meet increasing demand for cocoa products
- Preserving and exploiting pollinator, habitat and crop diversity to optimise cocoa pollination
- Enterprise development for mass rearing and marketing of midges for consistent pollination

**Biochar:-** Working with biochar (charcoal), looking into the application of biochar to soils to improve available water. If biochar can in fact improve water relations in soils, then it may mitigate the effects of climate change induced droughts and improve crop yields in periods of droughts. The application of biochar to the soil also stores carbon and is used as a way to sequester carbon in the soil for hundreds of years.



**Supporting Smallholder Farmers in Southern Africa to Better Manage Climate Related Risks to Crop Production and Post-Harvest Handling:-** Specific project objectives are to:

- Develop and promote innovative techniques, methods and approaches to managing risks to crop production and post-harvest handling associated with droughts, floods and cyclones.
- Strengthen regional knowledge and institutional arrangements on risk management for crop production and post-harvest handling in climate disaster-prone areas.

The FAO and its partners are working with smallholder agricultural communities, including male and female farmers, and key stakeholders in high climatic risk areas in Madagascar, Malawi, South Africa and Zimbabwe to help them to identify, analyse and document climate-risk hazards, vulnerabilities, coping and adaptation mechanisms.

**The Cassava: Adding Value for Africa C:AVA:-** The principle aim of the C:AVA Project was to develop value chains for High Quality Cassava Flour (HQCF) in Ghana, Tanzania, Uganda, Nigeria and Malawi to improve the livelihoods and incomes of at least 90,000 smallholder households as direct beneficiaries, including women and disadvantaged groups. In addition it promotes the use of HQCF as a versatile raw material for which diverse markets exist. Over its duration, the C:AVA project strengthened the capacity of national and local organisations and individuals to transform perishable cassava roots into a high quality flour that has multiple uses, including replacement of imported wheat flour or corn starch. This project ran between April 2008-December 2014.

**Agroforests in Guatemala:-** The two most important land-uses in Guatemala are forest and agroforestry systems each covering 29% of the country. Agroforestry is important for combining productive activities with environmental services including biodiversity. Covering almost a third of the country, a strategy for sustaining these services is an essential part of conserving Guatemala's mega diversity. Agroforestry systems, including shaded coffee, cocoa and cardamom plantations, are a key land-use in these areas and are essential to sustaining biodiversity in this ecological region. Shaded coffee systems have been recognised for their role in providing habitats for birds, bats, reptiles, butterflies, and vary considerably in their botanical and ecological complexity. Coffee agroforestry systems are also recognized as a critical ecosystem for migrant and over-wintering insectivorous birds from North America.

**Gratitude Project:-** Cassava and yam are important food security crops for approximately 700 million people. Post-harvest losses are significant and come in the three forms: (a) physical; (b) economic through discounting or processing into low value products and (c) from bio-wastes. The project had eight work packages to achieve the overall project objectives between January 2012-December 2014. The aim of this project was to reduce the post-harvest losses in cassava and yams and enhance the role that these crops play in food and income security.





Greenwich students & finalists for the Mayor of London's Low Carbon Prize, Arturas Niemcinskis, Aleksandra Gajda, Andrew Ndungu and their ideas was "London's Food Farm - A sustainable technologies (hydroponics) food farm growing produce within the urban environment."

# Sustainability = Employability



Images: SDU

An increasingly important demand from students is to get a good job as part of a long and meaningful career. The investment students now make in their education through fees and their living expenses are set against the potential to their future career success.

As seen in the HEA and NUS research the values that students hold, and how they relate to sustainability, are important. The values that students have are often also sought in their desired employers. The increasing importance of sustainability to employers to help them deal with sustainability impacts, resource costs, the demands of ethical consumers or the need to illustrate responsibility and differentiation mean that companies demand graduates and prospective employees with the skills and knowledge to help them steer their organisation, their products and services to meet the needs of a sustainable world.

Our ability to provide appropriate and relevant education relating sustainability to academic fields is an increasingly essential element in the employability of our students. Our ability to provide opportunities for students to develop this knowledge, utilising it through the soft skills then can be taught and then applied will help get them not just to the interview but to the job itself.

The University has been doing some interesting work leading to successful outcomes for many of the students that we have worked on through employability projects. These include:

- The **Sustainability Hub**, a collaboration between the SU and University **employed 10 students as Green Ambassadors and recruited 80 student volunteers** to develop and utilise skills to deliver sustainability outcomes. The most prevalent spill over impact of the Hub on the students is the sheer amount of new skills such as communications, adaptation, stakeholder engagement, project management, and efficiency, which will help them in all areas of their life and future careers.
- The **GWES Graduate Internship programme**. The Sustainable Development Unit took on three graduates for 3 month placements, providing them with practical roles in implementing sustainability work and creating solutions and reports for use by other areas of the University.

Since leaving all three have now gained graduate level employment and all cite the skills and knowledge developed around sustainability as a core reason why they got the jobs.

- **Sustainability employability engagement** with Faculty of Engineering & Science. Working with the Dept. Civil Engineering, the SDU developed sessions to enable students to understand the relevance of sustainability to their studies and the needs of employers.
- **Placements for Public Health students**. The SDU has over the last three years worked with undergraduate students to provide real life experience in developing projects and research around sustainability issues.
- A **collaborative project with the Greater London Authority** to develop sustainability entrepreneurs understanding the need of clients for multi-disciplinary solutions to important sustainability champions in the capital.
- **Student End of Term Reuse Project**. For the past 5 years the University has employed students in the roles of project manager and assistant to run a programme that engages students living in our Avery Hill Halls to collect any items they are leaving when they vacate at the end of term. The experience and skills developed through this project are significant, providing our students with an opportunity to take responsibility and create outcomes they can be truly proud of.
- **Green Impact Auditors**: Through the Green Impact Project we provide the opportunity for students to get training a professional qualification and the experience to audit our departmental Green Impact Teams. This year 75 students went through the project and over the whole Green Impact programme over 200 have graduated with this important and valued skill and qualification.

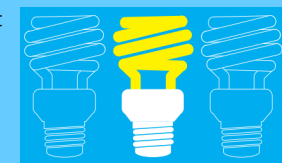






Image: SDU



Image: SDU

# Living Lab

## Looking for somewhere to undertake or apply your research? Well look no further!

Consider the University. It functions like a large company. It has a large customer base, a significant estate utilising approximately £40M a year in resources. It undertakes many functions externally, such as marketing, engagement, research and collaboration.

Often our students and academics overlook the potential to undertake and apply their research or utilise their expertise to create value for the University, and the potential to gain value themselves through possible research or consultancy contracts for their departments.

The University can often utilise the knowledge and skills we have in-house, these can help reduce our impacts and operating costs and can potentially create innovative ideas and spin out companies.

Academics, researchers and taught students can all apply their skills to help our institution improve on its sustainability.

Example areas where sustainable research could be applied:

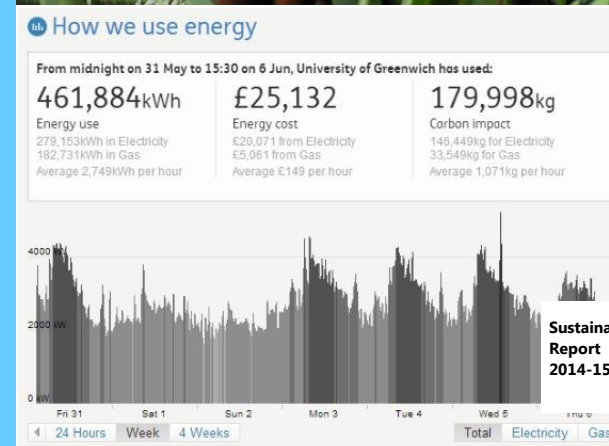
- Utilities data analysis (electricity, energy, water, waste & recycling) to help identify areas of waste and identify opportunities for improvement
- Development of innovative technologies to reduce utility costs for example energy and water saving
- Engagement in the design and use of new and refurbished buildings
- Behaviour change of stakeholder groups; including how we use energy, barriers to recycling, engagement in wellbeing programmes, understanding stakeholder fundamental human needs, values mapping, etc.
- Investigation of our estate relating to biodiversity and research into means to strengthen relationships between estate users and our natural habitats
- Research into the application of Education for Sustainable Development at Greenwich.



Image: SDU



Image: SDU





# Students' Union Sustainability Hub

The Sustainability Hub (Hub) is a student-led and staff-supported project based in the Students' Union (SU) in partnership with the Sustainable Development Unit.

The Hub organises events and campaigns across all campuses engaging with students to increase pro-environmental behaviour, whilst enabling students to have an impact working towards greater sustainability. Student employed as Green Ambassadors and Hub volunteers are trained to implement projects such as Green Impact in local enterprises or gain the skills to deliver workshops to educate children in primary and secondary schools.

The Hub was founded in the summer of 2013 and was funded by the NUS Students' Green Fund until the end of December 2015. The University has now confirmed funding for the Hub to continue until July 2017. From 2016 the Hub will increase its focus on developing student employability skills. The Hub will continue to utilise sustainability as a tool to provide key knowledge, develop skills and offer opportunities for students to gain experience valued by employers through employment and volunteer opportunities including delivering practical sustainability projects, events and campaigns.



This ambitious collaborative project is designed to enable our students to become active drivers for sustainability change, not only within the University but also within our wider community. The Hub team which includes a manager and up to five student Green Ambassadors are responsible for delivering the following:

## Hub Projects, Campaigns & Events

- Grow Your Own — to encourage students to learn how to grow herbs at home and food through gardening sessions at the Avery Hill Edible Garden
- Fairtrade Fortnight events—to bring awareness on Fairtrade products and food security issues
- Green Week — a week of events dedicated to sustainability
- Hub @ Fresher's Fair — tabling on all campuses to recruit new volunteers and promote Hub activities to new students
- Sustainable Movie Nights and Forums— to encourage dialogue around different sustainability issues
- Future Fair - a career fair for sustainability jobs with exhibitions and workshops
- Funding for student-led projects such as the Pedal Powered Cinema , Broke Master Chef, and a Fashion and Arts Fair.

GREENWICH SUSTAINABILITY HUB  
PRESENTS  
**FUTURE  
FAIR**

**GREEN  
WEEK**



Image: Sustainability Hub

## Broke Master Chef

The Hub funded many great ideas to help deliver sustainability, including 'Broke Master Chef', an event run by students from the Events Management (MA) programme. The challenge was for chefs (students and professionals) to prepare meals using unwanted food from supermarkets within 30 minutes. The Hub sponsored the event and further support from Baxter Storey and other partnerships was secured to help bring this idea to life.



## Thanks

For all the help the Green Ambassadors, volunteers, and staff champions have given to make the Hub such a success.



# nus Students' Green Fund

*"Over the past two years, the Hub has achieved many of its original aims and goals, alongside a number of noteworthy achievements. With close to 3,000 students directly engaged in Hub activities, five external institutions participating in the Green Impact Enterprise programme targeting 1,000 employees, 186 primary and secondary school students taught about the environment, and a recent Gold 'Green Impact' certification for the Students' Union—the Hub has produced a remarkable and lasting impact for students, the University, the community and our Students' Union."*

**Harry Hodges**

**President, Students' Union University of Greenwich**

## Meet one of the Hub's student staff!

**Anthony Russell – BSc Geography (3rd year)  
Green Ambassador Coordinator**

Anthony played a crucial role in developing the Hub projects and supporting the other student Green Ambassadors. Anthony made sure the office and events ran smoothly and was the driver behind the Hub's social media outreach. He brought a high level of integrity and his positive 'can do' attitude was contagious and uplifting. His work at the Hub has led to many successes including the delivery of the Future Fair, securing Green Impact Gold SU certification, building SU Cooper Garden, and the distribution of the Grow Your Own kits to students. Anthony loved teaching children about growing food and mentored teams to build a model living wall from recycled materials. More recently Anthony took leadership on building a divestment from fossil fuels campaign, lobbying Greenwich Council. This initiative continues to gain great momentum!



### The project also delivered:

#### Education for Sustainability

- Delivered workshops in local primary and secondary schools
- Hosted a challenge for building a scale model living wall
- Developed sustainability awareness guides and materials for staff and students
- Presented Sustainability Forums on a range of topics including Sustainable Food, Renewable & Community Energy, Health & Wellbeing, Ethical Finance, and Social Enterprises

#### A College Network

This brought together local universities and colleges including Hadlow, Goldsmiths, Trinity Laban and North West Kent College to discuss and develop collaborations to deliver sustainability more effectively in their institutions.

#### Green Impact

National accreditation and awards scheme run by the NUS supporting organisations to audit their sustainability impact and use a practical workbook to make simple, tangible and powerful changes to behaviour and practices.

#### Green Impact Enterprise

The Hub enrolled and supported the following enterprises in the Green Impact programme:

- Royal Maritimes Museum
- Old Royal Naval College
- Wide Horizons
- Hadlow College
- Trinity Laban College

#### Green Impact Enterprise impact to date:

- 34 students trained as assistants or auditors
- Engaged 100 staff across twenty teams
- Completed over 500 'green' actions targeting over 1,000 employees
- Twenty teams achieved Green Impact Bronze level

#### Green Impact at the Student's Union

The Students' Union University of Greenwich have achieved Green Impact Bronze in 2014, and have successfully achieved Gold in 2015!



# The Sustainable Development Unit

The Sustainable Development Unit (SDU) provides all departments and staff with expertise to help them understand the value that sustainability brings their work and advises them in the application and implementation of approaches to integrate it successfully. The SDU has worked with all departments and has, with the motivation and inspiration of staff, contributed to the successes the University has achieved. Our team acts as facilitators and supporters, providing expertise to release the potential that sustainability can deliver.

Treat us as a sustainability consultancy, though one you don't have to pay for!

## We can help to meet your sustainability objectives through:

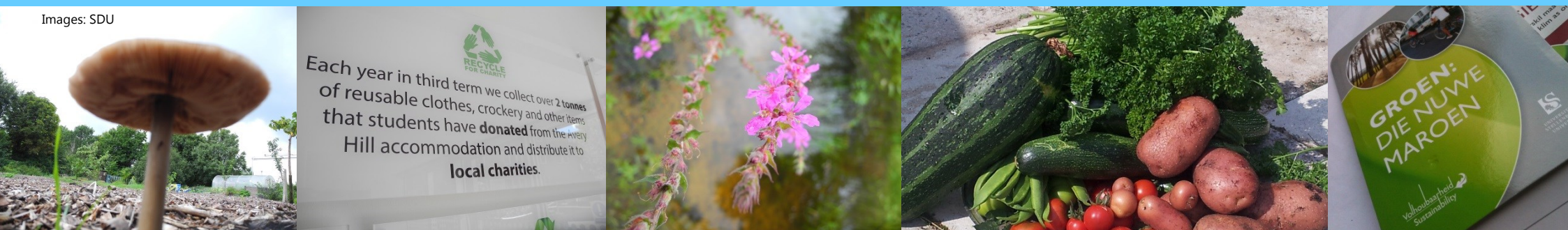
- Sustainability awareness programmes
- Training & facilitation
- Behaviour change initiatives
- Project development & support
- Sustainability & environmental auditing

- Sustainability risk & legal compliance reviews
- Creativity & innovation
- Inter-departmental collaboration
- Problem solving
- Integrating sustainability into teaching and research
- Identifying areas for research and student projects
- Employability, identifying placements, internships, practical and voluntary projects.

## Our team's experience:

Our team bring proven skills in the delivery of programmes delivering sustainability improvement (listed above). Working experience from the HE sector, plus many other sectors including well known household names, plus our relevant academic qualifications ensure that we can bring broad and often specific knowledge to deliver insights and skills appropriate to your needs.

Images: SDU



## Plans for 2015-16

- Project X
- Rolling out ISO 14001
- Expanding membership of SMB to Faculties
- Launch of Waste Strategy
- Engaging Education for Sustainable Development with Faculties.

## Keeping up to date

- Website: <http://blogs.gre.ac.uk/greengreenwich/>
- Twitter: [https://twitter.com/Sust\\_Greenwich](https://twitter.com/Sust_Greenwich)
- Facebook: <https://www.facebook.com/SustainabilityGreenwich>
- Twice monthly SDU e-Newsletters
- Contact: Simon Goldsmith, Head of Sustainability  
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- Drop by & grab a coffee: Flat 49 Aragon Court, Southwood Site, Avery Hill, UoG, SE9 2UG

