

The UK's European university

University of  
**Kent**

SUSTAINABILITY  
AT KENT  
SUCCESSSES  
2016-2017



*“With the real threat of climate change and the drive towards the UN’s Sustainable Development Goals, the biggest threat to our planet is the belief that someone else will deal with this problem for us. However, we all need to care and do our bit.*

*I have seen students and staff working in solidarity for sustainable strategies to safeguard our future and I hope that more will join the fight from across the University. Hope is the one light we have to combat any complacency – the hope that showing we care will incentivise everyone across the University and, indeed, the Higher Education sector, to enhance and showcase their environmental commitment.”*

**Miguel Santos**

Kent Union Environment Officer

# FORWARD

**The University of Kent, as the UK's European university, prides itself on a commitment to promoting and achieving sustainability both locally and globally.**

Our second sustainability annual report illustrates the excellent work carried out by our community to meet our sustainability responsibilities. In 2016-17 we built upon our previous successes within Green Impact and Green15 by developing and trialling our own bespoke behaviour change project FutureProof; we put together a Sustainable Food Group to look at our food offering across all our outlets; and we have opened a new recycling hub to improve our segregation of waste.

Within this report you will find a diverse range of actions taken by staff and students and we would like to take this opportunity to thank everyone who has contributed to helping us move towards a more sustainable future and achieving our goals.



**Bernard Angus**  
Director of Safety, Health  
and Environment Unit



**Peter Czarnomski**  
Director of Estates

# HEADLINE SUCCESSES

- This year we have seen a reduction of carbon emissions of 4.4% taking our total reduction to 16.7%. This continual improvement means we remain on target to meet our overall target of a 23% reduction by 2020.
- The Sustainability team launched their first blog, a place to share information and opinion on current sustainability issues. Visit <http://blogs.kent.ac.uk/sustainkent/>.
- A new behaviour change project bespoke to Kent has been developed: FutureProof. The project helps departments deliver the UN Sustainable Development Goals locally.
- A huge 2445 tonnes of waste was disposed of and collected in the 2016-17 academic year, the equivalent of 126 full UniBuses. 1651 tonnes was diverted to reuse and recycling which is an impressive 67% of our total waste, meaning we surpassed our target for the year.
- British Heart Foundation clothing banks on campus saw an increase in donations of 16%.
- The Estates Department opened their dedicated recycling hub.
- A new 2.3 hectare woodland was planted.
- The new transport and security hub opened on the central campus at Canterbury.
- The Dr Bike scheme has been reintroduced to the Medway campus.
- The Sibson building was formally opened in May 2017. Sibson is Kent's first non-residential BREEAM Excellent building recognised for its sustainable and low-energy credentials.
- As part of the study plus program the Environmental Management and Auditing course completed its second year and a new course centred on sustainability has been developed for the next academic year.
- The University launched its new Sustainable Food Steering Group in partnership with Kent Union and Kent Hospitality, to drive forward the sustainability of food across all our outlets.

## Drivers for change

### Canterbury campus Masterplan

In 2016 the University published its concept Masterplan with sustainability considered at the heart of it. The plan sets out a vision for how the campus may develop over the next 30-50 years.

“The Canterbury campus will be defined by a high quality biodiverse landscape that helps to create an outstanding place to learn, work, visit and live. It will form an integral part of the City of Canterbury by providing educational, cultural, recreational, sporting, and employment opportunities for people in the city and the wider Kent region. Roads on the campus will be transformed into attractive streets that prioritise walking and cycling and buses. The campus will be developed in ways that protect its special natural environment, the setting of the World heritage Site and local heritage assets. Future development will safeguard the amenities of people living and working in its surrounding villages and residential neighbourhoods and avoids any significant impacts on the wider surrounding area in terms of traffic, car parking, air quality and recreation. The campus will be an exemplar for environmental sustainability by reducing energy use and carbon emissions, adapting to climate change, incorporating high standards for water usage, waste/recycling and promoting healthy living and wellbeing”

### United Nations Sustainable Development Goals

The SDGs were created by 193 global leaders and agreed at the Sustainable Development Summit, New York in September 2015. The University of Kent as a Higher Education Institute is supporting the global goals and looking at ways we can incorporate them into our operations, teaching and research. Our progress towards this will be reported annually in this sustainability successes report in order to share good practice, challenges and improvements.

# MEET THE TEAM

**Sustainability at Kent is delivered by a number of different people across the University from multiple different teams. Here are some of the people you may encounter talking about and delivering sustainability outcomes:**

## **John Kingsland**

### **Head of Energy and the Environment**

Want to know more about our journey to reduce carbon, send John an email at [sustainability@kent.ac.uk](mailto:sustainability@kent.ac.uk)



## **Catherine Morris**

### **Environmental Advisor**

A one stop shop for everything sustainability and the environment, contact Catherine at [sustainability@kent.ac.uk](mailto:sustainability@kent.ac.uk)



## **Emily Mason**

### **Environmental Sustainability Assistant**

Follow Emily's over sharing of sustainability ideas on twitter [@UniKentSustain](https://twitter.com/UniKentSustain)



## **Emma Dimond**

### **FM Coordinator Waste and Recycling**

Find out more about Emma's work and innovative recycling campaigns on twitter [@UniKentRecycle](https://twitter.com/UniKentRecycle)



**Paul Griffiths and the Grounds team**  
**Grounds Maintenance Manager**

Find out more about the great work our Grounds Team does on twitter @UniKentGrounds



**Tim Burrows**

**Kent Hospitality**

Catering Operations Manager  
Championing sustainable food and Fairtrade at the University.



**Teresa Curteis and the transport team**  
**Head of Traffic Management and Travel**

Want to know how to ditch the car and travel more sustainably, follow the transport team on twitter @UniKentTransport



Thank you everyone, including those not mentioned here, for all the work they do and a special thank you to all the Sustainability Champions across the University who have incorporated sustainable actions into their day jobs and enhanced the sustainability of their department.

# ENVIRONMENTAL MANAGEMENT & AUDITING

## Environment Policy

The University's Environmental Policy sets out our main objectives for each area of environmental sustainability. These are achieved through implementation of an Environmental Management System.

The main objectives and commitments are to:

- reduce carbon emissions in accordance with the University's Carbon Management Plan
- improve energy and water efficiency and reduce reliance on fossil fuels
- protect the environment and prevent pollution
- optimise reduction, reuse, recycling and disposal of waste
- reduce the impacts of transport and travel and encourage sustainable alternatives
- manage the use, storage and disposal of materials to reduce environmental impact
- manage our campuses to protect and enhance biodiversity
- promote sustainable procurement, both internally and through the University's supply chains
- communicate with staff, students.

## Environmental Management System

The University operates an Environmental Management System to the ISO14001 International Standard for Environmental Management.

The Safety, Health & Environment Unit specifies and manages core administrative elements of the system whilst the Estates Department is responsible for the management and operational control of major aspects of the Environmental Management System.

In 2016 we became one of the first UK Universities to attain the new ISO14001:2015 environmental management certification.



Building from our original certification in 2012, the new 2015 version of the standard places greater emphasis on how we integrate environmental performance into governance, management and operational processes. Kent's early certification to the new standard recognises the university's leadership and its commitment to embedding and improving its environmental performance.

**Training** – We provide environmental awareness training to all staff as well as ensuring key staff are trained in specialist topics such as spill response.

**Legal compliance** – We provide advice to Schools and Departments in compliance with legal and other environmental requirements.

**Auditing** – We regularly audit locations across the University to ensure compliance and identify opportunities for improvement.

**Objectives and targets** – We have developed a programme of actions to achieve the policy objectives and set targets for improvement.

*“We have been very busy over the last year improving every area of our Environmental Management System (EMS) and ensuring it is embedded across our operations. Over the next year we will be focusing even more on how the EMS is implemented in large non-Estates departments like Kent Hospitality and other smaller areas such as labs and workshops which have their own specific requirements. We hope that over time, the EMS will drive Sustainability across the whole institution as we look to further areas such as Education for Sustainable Development and through development of an institution-wide Sustainability Strategy.”*

**Catherine Morris**  
Environmental Adviser

# ENERGY AND WATER MANAGEMENT

## Our aims

Our Carbon Management Plan sets out how we intend to achieve our ambitious target of a 23% reduction in Carbon Emissions by 2020 based on a 2005 base level. Our Environmental Management System target for water aims for a 2% reduction per year.

## Progress

This year we have seen a reduction of carbon emissions of 4.4% taking our total reduction to 16.7%. This continual improvement means we remain on target to meet our overall target of a 23% reduction by 2020.

Unfortunately, due to a leak, which has now been repaired, we did not meet our water reduction target.

## Highlights

- Water heating calorifiers have been replaced with more efficient plate heat exchangers in Cornwallis North West, Cornwallis Octagon, the Grimond building, and the Ingram building.
- High efficiency condensing boilers have been put into Beverley Farmhouse, Bossenden Court and Nickle Court.
- The installation of AMR meters has begun.

## Future

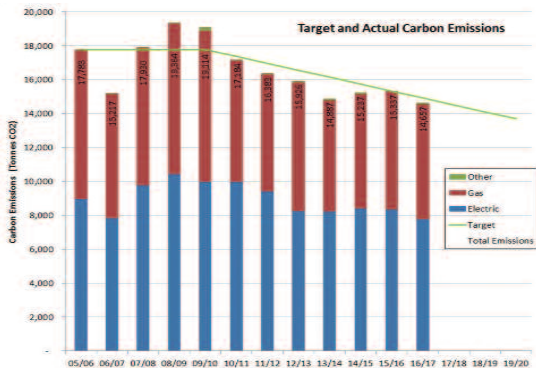
- We hope to have a fully operational bore hole in 2018. This will reduce our need to use mains water in some of our Grounds operations.
- The new Carbon Strategy has been drafted and a final draft is due to be circulated to the Energy Risk Management Group for approval.
- Planning has begun to trial a student energy competition in partnership with Kent Hospitality.
- The cold room at Stacey is to be replaced. This project was jointly funded part by the department, and part by using the Salix Revolving Green fund. In addition to the energy savings achieved the opportunity was taken to specify a refrigerant gas (R134a) with a lower Global Warming Potential (GWP).

## Case Study: Real time energy monitoring

The Estates Department aims to introduce remote, smart metering across the Canterbury and Medway campuses. This will allow us to produce real-time data on consumption which will be available centrally.

Automatic recording of energy use data will allow us to identify out-of-hours use and identify periods of peak usage to enable our efficiency programmes to target those areas where the greatest savings could be made.

Engaging with building users is often the key to a successful energy efficiency programme. Being able to provide actual real time data for energy consumption for a building allows users to engage with, and, see the actual results of, energy efficiency programmes.



# ENGAGEMENT

## **Last year the Estates Department began developing a new behaviour change project: FutureProof.**

FutureProof builds on the successes of Green Impact and Green15 and looks at how staff and students can help deliver a University of the future.

By challenging each department to review their impacts against the United Nations Sustainable Development Goals, FutureProof aims to inspire individuals, departments and the whole University community to take action in ensuring that our estate, our curriculum and our students are ready for the future.

FutureProof provides a mechanism for embedding sustainability into Departmental/University objectives; supports existing goals; and provides solutions to current HE challenges:

Aims of FutureProof:

- support the University Plan in driving value and improvement at the University
- ensure that the University's estate is future ready
- support academics in incorporating sustainability into their teaching/research
- respond to the UNs call for HE to be at the forefront of delivering the SDGs
- a consistent, valuable and flexible culture change project.

Several workshops were held at Canterbury and Medway with the existing Sustainability Champions Network to get their input and feedback on the direction of the project.

FutureProof entered its trial stage in 16/17 with the School of Mathematics, Statistics and Actuarial Sciences; the Business School; and Student Services Medway signing up as early adopters.

FutureProof is due to launch in Summer 2018.

## Communication

In early 2017 the sustainability team launched the sustainability blog, a place for the sustainability team and guest contributors to share information on current projects and opinions and discussions on current sustainability issues. <http://blogs.kent.ac.uk/sustaintent/>

## Fairtrade Fortnight 2017

The theme of Fairtrade Fortnight was 'Time to put Fairtrade in your break.' Over the fortnight around twenty Fairtrade break packs were sent out to participating departments full of delicious Fairtrade snacks encouraging people to try something new in their break time and switch to a Fairtrade alternative.



# WASTE AND RECYCLING

## Aim

Apply the principles of the waste hierarchy to prevent, reduce, reuse, recycle and responsibly dispose of our waste. Our target for 2016/2017 was to recycle 65% of the total waste generated on our Canterbury and Medway campuses.

## Progress

The University of Kent has made major strides with its recycling efforts over the past two years, with a huge 2445 tonnes of waste disposed of by controlled environmental methods in the 2016-17 academic year, the equivalent of 126 full UniBuses. 1651 tonnes was diverted to reuse and recycling which is an impressive 67% of our total waste meaning we surpassed our target for the year.

## Highlights

- A reduction in office general waste has been achieved with a 13% improvement. This has been achieved by working closely with the project teams, enabling a 'no bin under desk' strategy to be implemented more effectively in buildings being reoccupied.
- End of year waste from students vacating campus has seen a decrease of 21%. Part of this amazing decrease is due to an increase in donations to the British Heart Foundation clothing banks which were up by 16%, with 5.75 tonnes being donated in June alone.
- Kent are Warp-it's top performing University in the South East. In addition we are 7th for average total savings per month (£7,171).

## Future

- First stage discussions have taken place between Kent Hospitality, Kent Union, the sustainability team, procurement and the waste team to reduce the amount of single use plastics used and thrown away on campus.
- A new waste strategy has been drafted and is due for publication in the 2018 summer term.

## Case Study: Recycling Hub

2016/2017 saw the completion of the Recycling Hub, a dedicated space to store waste prior to uplift. This became operational in May 2017 and allows the correct and safe segregation and storage of a variety of recyclates and hazardous waste.

The official opening took place on Monday 6 November 2017 with the ceremonial cutting of a hazardous waste tape and was attended by members of the Estates Department and East Kent Recycling.

In total there are 17 different types of waste that can be stored in the facility, including aerosols, soil waste, lamps and lighting tubes and fridges. The site also has a purpose built sump drain to ensure any fluids that leak from items do not contaminate the surrounding land.



### CO2 (KG) saved

0 1 9 3 6 7 4

### Cars off the road

0 0 0 0 0 8 4

### Waste avoided (KG)

0 0 7 1 4 7 4

### Trees equivalent

0 0 0 0 2 6 5

### Total savings (£)

0 4 3 2 2 4 7

Savings achieved by the Warp-It project.

# BIODIVERSITY

## Aim

Our 600 acre parkland estate is one of our most prized assets and our Biodiversity Management Plan for the Canterbury campus commits us to an extensive programme of coppicing, grassland management and pond restoration works.

## Progress

Currently the University coppices one section of campus, known as a coupe, each winter as part of the woodland management plan for the campus. This year our dedicated woodsman completed coppicing in a section of Brotherhood Wood (coupe 10) behind the Estates department.

Coppicing increases the structural and compositional diversity of a woodland by opening up the canopy to provide varying light levels and encouraging a range of different aged trees in the woodland. This encourages growth of different species of flora on the woodland floor which in turn attracts a wider range of fauna increasing the overall biodiversity of the area.

## Highlights

- A new 2.3ha native woodland was planted.
- A full suite of habitat surveys were completed for the masterplan, giving us valuable up to date data on our campus.

## Future

- We are working with Euro Forest on a project to sell our coppiced wood to a local biomass energy project.
- We are working on an ambitious Biodiversity and Landscape strategy for our Canterbury and Medway campuses.



### Case Study: New Woodland

An extensive area of low-grade arable land has been transformed into new woodland, with thousands of native trees being planted. The site is located on University land adjacent to the Crab and Winkle Way and covers an area of approximately 2.34ha.

As well as the benefits to biodiversity associated with creating new woodland habitat, this planting connects existing woodland areas and replaces trees missing from the boundary hedgerows, thus improving available corridors for wildlife to move.

The trees planted included Hazel, Hornbeam, Wild Bird Cherry, Willow, Mountain Ash and Oak. Provenance of the trees is of particular importance to the University and as many as possible were sourced from local suppliers and are of local provenance.



# SUSTAINABLE TRANSPORT

## Aim

Our Canterbury and Medway travel plans set out ways to minimise the impact of staff and student travel and encourages use of efficient transport options to reduce environmental impact, ease congestion and reduce air pollution.

## Progress

The previous travel survey results have been analysed and have gone onto inform the new Travel Plan which is in development. The Travel Plan will support the University's Master Plan and Estates Strategy. It will incorporate commuting and business travel with the aim of clear monitoring of travel information that can be collated from across our campuses. The new Travel Plan is expected to be completed and published by the 2018 summer term.

## Highlights

- The new transport and security hub opened on the central campus at Canterbury.
- We have reintroduced the Dr Bike scheme for the Medway campus.
- The transport website pages have been updated to make them easier to find and navigate.
- The number of cycle storage bays has increased by 78 on the Canterbury campus and **ten** on the Medway campus.
- New leaflets aimed at staff and students were introduced to promote transport discounts.

## Future

- We are introducing a new parking management system that will assist with providing estimated carbon emission data relating to commuter travel.
- We are working to become a member of National Travelwise Association to provide access to marketing materials and a network specifically aimed at sustainable transport.

- We will investigate the feasibility of introducing a pool car/car club scheme to assist with reducing the need to bring personal vehicles to campus for business needs.
- We will introduce an E-Newsletter that promotes Transport & Travel as well as providing information.
- Work to establish a partnership with University of Greenwich and GK Unions to assist with promoting cycling at Medway, including working together on improving the provision of the monthly Dr Bike scheme.
- Send out a new Travel Plan survey to all staff and students to update the University's Travel Plans for both Canterbury and Medway as well as establish clear results for the Canterbury campus Master Plan.



# SUSTAINABLE CONSTRUCTION

## Aim

We aim to ensure our buildings are designed to minimise their environmental impact throughout their construction and occupation.

## Progress

The Sibson building was formally opened in May 2017. Sibson is Kent's first non-residential BREEAM Excellent building recognised for its sustainable and low-energy credentials. It is a requirement that all future new builds will achieve a minimum of BREEAM very good rating, and the new Economics building is on target to receive 'Excellent'.

## Highlights

- Photo-Voltaic Panels were included as part of the Templeman Library extension and refurbishment and the data is in! Over the last two years we have seen an increase of 200% in energy derived from onsite renewables totalling 32253 kWh.
- Clear information on all our construction site hoardings has improved the amount of information shared with staff and students on campus developments.
- The University's Environmental Policy is now included in all standard tender documents.

## Future

- Kent's first full post occupancy evaluation (POE) will be carried out in the Sibson building to gain valuable data on any performance gap between how efficient the building was designed and built to be versus how efficient it is once users have moved in.
- Gateway Reviews for major projects will incorporate sustainable procurement and development as part of areas to be considered under each review.
- Our Project Management Procedures are being reviewed and updated for delivery in April 2018.

- Our Guidance Notes incorporate a section on Sustainable Procurement, highlighting long-term efficiency savings, supply chain innovation, reducing the impact of waste and pollution, and future maintenance and repair.
- Standard specifications continue to be developed providing minimum standards for a number of elements such as materials, landscaping and infrastructure.
- We are looking at replacing the windows in Stacey and Jennison to reduce heat loss.



# SUSTAINABLE FOOD

## Aim

To improve the sustainability of all food served across our campuses.

## Progress

The sustainable food steering group was set up in February 2017 with membership from Kent Union, Kent Hospitality and the staff and student body. The group's main aim is to produce a sustainable food strategy which they will then measure progress against.

The strategy is currently in its second draft with support from Kent Hospitality and is due to go before the group in its final draft form in summer 2018. The strategy is progressive and far reaching in its aims to improve the sustainability of the food and drink we offer across all outlets on campus, including Medway.

The steering group subsumes the existing Fairtrade steering group incorporating its aims and reporting requirements.



## Highlights

- The first Sustainable Food Student Rep was recruited to the steering group.
- Kent's first Sustainable Food Strategy to be launched in summer 2018.
- Dr Legumes (pictured) visited Sibson café to show the team some delicious new plant based recipes.

## Future

- The group are working on an interactive map of our campuses to show all the sustainable food options available to staff and students.
- A communications plan will be developed to promote good news stories around food, including meet the producer communications.
- The Estates Team are working in partnership with Kent Enterprise Trust on a proposal for a community garden and multiuse growing space rejuvenating the current growing site up at Park Wood.



# EDUCATION FOR SUSTAINABLE DEVELOPMENT

## What is ESD?

The United Nations Educational Scientific and Cultural Organisation (UNESCO) defines ESD as “A means to enable students to develop knowledge and understanding, skills and attributes needed to work and live in a way that safeguards environmental social and economic wellbeing both in the present and for future generations” (United Nations World Summit (2005). In addition to this, Sterling (2012) describes ESD as: “...the kinds of education, teaching and learning that appear to be required if we are concerned about ensuring social, economic and ecological wellbeing, now and into the future.” (Sterling 2012)

Sustainability relates to almost every area of the university, and the three pillars of sustainability; environment, society and economic, are intertwined with many of the courses we offer and the research we carry out.

The sustainability team have been working to increase students' access to sustainability and environmental management learning opportunities in the informal curriculum.

As part of the study plus program the Environmental Management and Auditing course completed its second year with students completing this course being able to:

- understand the drivers for Environmental Management in organisations
- develop a knowledge of Environmental Management Systems and how organisations use them to manage their impacts



- understand the potential benefits and challenges of an environmental behaviour change programme and develop the skills necessary to influence positive environmental behaviour in the workplace
- learn basic environmental auditing skills
- conduct several environmental audits of University buildings.

Taking a Study Plus course brings with it a whole host of potential benefits to students including:

- the opportunity to develop skills in a new manner
- the chance to enhance your CV and Higher Education Achievement Record (HEAR)
- a way to explore other areas of the University's academic provision
- a mechanism for collecting Employability Points
- another way to get the most value out of your time at Kent.

## Future

In 2018 the sustainability team will be launching a new study plus module: An Introduction to Sustainability. The course has been developed to enable students to:

- give a concise definition of sustainability
- have an understanding of the key environmental, social and economic challenges facing the world
- describe systems thinking
- give examples of innovations/solutions to global challenges
- talk about what is currently being done at Kent around sustainability and what they can do as individuals.

As part of our work on the United Nation's Sustainable Development Goals we will continue to build links with our academic colleagues to enable the sharing of good practice in our teaching and research around the goals and to build up a community around education for sustainable development at Kent.

# PLANS FOR THE FUTURE

We are committed to improving the sustainability of our organisation and over the next few years aim to do the following:

- the new Carbon Strategy has been drafted and a final draft is due to be circulated to the Energy Risk Management Group for approval
- we hope to have a fully operational bore hole in 2018. This will reduce our need to use mains water in some of our Grounds operations
- planning has begun to trial a student energy competition in partnership with Kent Hospitality
- the cold room at Stacey is to be replaced. This project was jointly funded part by the department, and part by using the Salix Revolving Green fund. In addition to the energy savings achieved the opportunity was taken to specify a refrigerant gas (R134a) with a lower Greenhouse Warming Potential (GWP)
- FutureProof, our bespoke behaviour change project, is due to launch in Summer 2018
- we commit to tackling single use plastic waste on our campuses
- we are researching options on how to divert duvets, from accommodation, from general waste to reuse or recycling
- a new waste strategy has been drafted and is due for publication in the 2018 summer term
- Kent's first full post occupancy evaluation (POE) will be carried out in the Sibson building to gain valuable data on any performance gap between how efficient the building was designed and built to be verses how efficient it is once users have moved in
- we will continue to work on incorporating sustainability throughout our construction and refurbishment projects taking a life cycle approach to each decision
- we will launch our first Sustainable Food Strategy
- the Sustainable Food Group will publish an interactive map of our campuses to show all the sustainable food options available to staff and students

- the Estates Team are working in partnership with Kent Enterprise Trust on a proposal for a community garden and multiuse growing space rejuvenating the current growing site up at Park Wood
- in 2018 the sustainability team will be launching a new study plus module: An Introduction to Sustainability, enhancing the choice for students to engage with sustainability in the informal curriculum
- as part of our work on the United Nation's Sustainable Development Goals we will continue to build links with our academic colleagues to enable the sharing of good practice in our teaching and research around the goals and to build up a community around education for sustainable development at Kent.

## SUSTAINABLE DEVELOPMENT GOALS



**Estates Department**  
University of Kent  
Canterbury, Kent CT2 7NN  
[www.kent.ac.uk/estates](http://www.kent.ac.uk/estates)

**Safety, Health and Environment**  
Keynes College, University of Kent  
Canterbury, Kent CT2 7NP  
[www.kent.ac.uk/safety](http://www.kent.ac.uk/safety)

University of  
**Kent**