



University of  
**Nottingham**

UK | CHINA | MALAYSIA

A photograph of a modern, multi-level staircase with white metal railings and wooden handrails. Three students are walking down the stairs. In the foreground, a Black male student with a backpack and a white male student with glasses are walking together, smiling. In the background, another student is visible. The staircase is well-lit with natural light from large windows on the right side.

# Sustainability Report 17-18

[nottingham.ac.uk/sustainability](http://nottingham.ac.uk/sustainability)

 UoNSustainability

 @UonSustain



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## **Governance**

Our sustainability agenda is supported by a formal Sustainability and Environment Committee which is chaired by a member of the University Executive Board and includes representatives from a range of faculties, professional services, functions and campuses (see Appendix 1). The Environment Initiative fund is administered by the University's Sustainability and Environment Committee to award to student or staff-led sustainability projects each year.

As well as measuring our own internal progress we utilise a number of external benchmarks to measure our progress and performance.



We continue to be in the top two of the UI Green Metric World University Ranking carried out by the University of Indonesia, missing out to Wageningen University in the Netherlands for the ranking in 2017

The Green rankings measure each participating university's commitment in developing an 'environmentally friendly' infrastructure. They look at six indicators; setting and infrastructure, energy and climate change, waste, water, transportation and education. This year 619 universities from 76 countries took part in the rankings.

This year UI Green Metric initiated a network hub for participating universities to share their best practices in implementing sustainable campus programs in their universities and collaborating together in three thematic priorities (Shaping Global Higher Education and Research in Sustainability; Creating Global Sustainability Leaders; and Partnering on Solutions to Sustainability Challenges). Nottingham being the lead UK partner hosted a national workshop earlier in the year.

## **Environmental initiative Fund**

Each year, the University's Sustainability and Environment Committee awards around £100,000 to student or staff-led sustainability projects that help to deliver projects aligned to our Sustainability strategy. In 2017/18 10 projects received funding. Below is a brief overview of some of the projects funded in a broad range of areas across the University and demonstrates the diversity of student societies, professional services and academic departments with an interest in sustainability:

- **Improving and promoting recycling facilities in libraries.** Further purchase of additional recycling bins in all libraries to provide a consistent message and opportunity for behaviour change.
- **Corrosion Inhibitors.** Investigating whether it is viable and sustainable to convert a current waste product within the university, autumn leaves, into a source of green corrosion inhibitors.
- **Sutton Bonington Biodiversity Action Plan.** Funding for supplementary survey work and mapping of University Park, development of a Biodiversity Action Plan for Sutton Bonington and Diamond Wood and development a woodland management plan for the Diamond Wood.
- **Medicinal Garden.** Enhancement of the external environment at RDHC through the establishment of a Medicinal garden
- **Conservation Society.** Funding to support a biodiversity blitz event to improve the awareness of biodiversity and its importance.
- **Reducing plastic consumption-** funding to support installation of additional water fountains across the University, and to fund a communication campaign highlighting plastic waste.



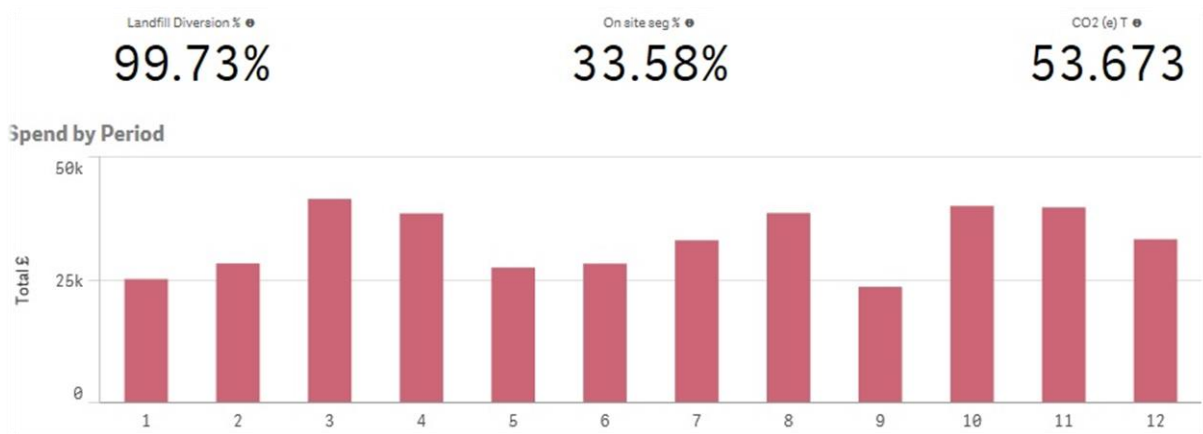
- **NUBS ResponsibleUoN.** Funding for a pilot project whereby students at NUBS will design various SDG focussed student resources and activities. These resources will be used for a wider audience of undergraduate and postgraduate students across all campuses under '#ResponsibleUoN' campaign which will be launched at the start of the next 2019-2020 academic year.

## **Waste and Recycling**

We have seen a decrease of just under 10% on the amount of waste that we generated in the last year compared to 2016/17.



We continue to see our overall landfill diversion rates increase with more than 99% of the total waste generated through our main waste contract being diverted from landfill, with just under 34% of that waste segregated at source through our comprehensive bin provision for recyclable material and food waste. Further recovery and recycling by the waste contractor ensures less than 1 % of waste is sent to landfill, resulting in a very low carbon waste disposal process.



The amount of food waste collected this year has decreased slightly which is encouraging and reflects the work down by catering colleagues to

reduce the amount of food waste generated within our catering functions.

The Warp-it online waste exchange facility continues to attract more and more users and now has over 500 active members. It facilitates the reuse of furniture and other equipment across all five faculties, our campuses and professional services and over the last year it has helped divert over 67 tonnes of material from landfill and save more than £302,000 in avoided costs.

The Space Resource team, responsible for managing internal spaces across campuses, have refurbished existing furniture rather than buying new, reducing the carbon footprint from the University's purchases. This has included:



- Refurbishing operator chairs
- Lecture theatre seating in the Pope building on University Park campus was also refurbished rather than replaced, resulting in savings of more than £40,000

This year has seen a record number of donations from the University to British Heart Foundation as part of the University's Pack for Good campaign. Over 3900



individual bags of donations were collected from University of Nottingham sites this year, with a total of 9639 bags of donations collected across the whole of Nottingham city. On campus halls provided donation points to moving out students in each hall

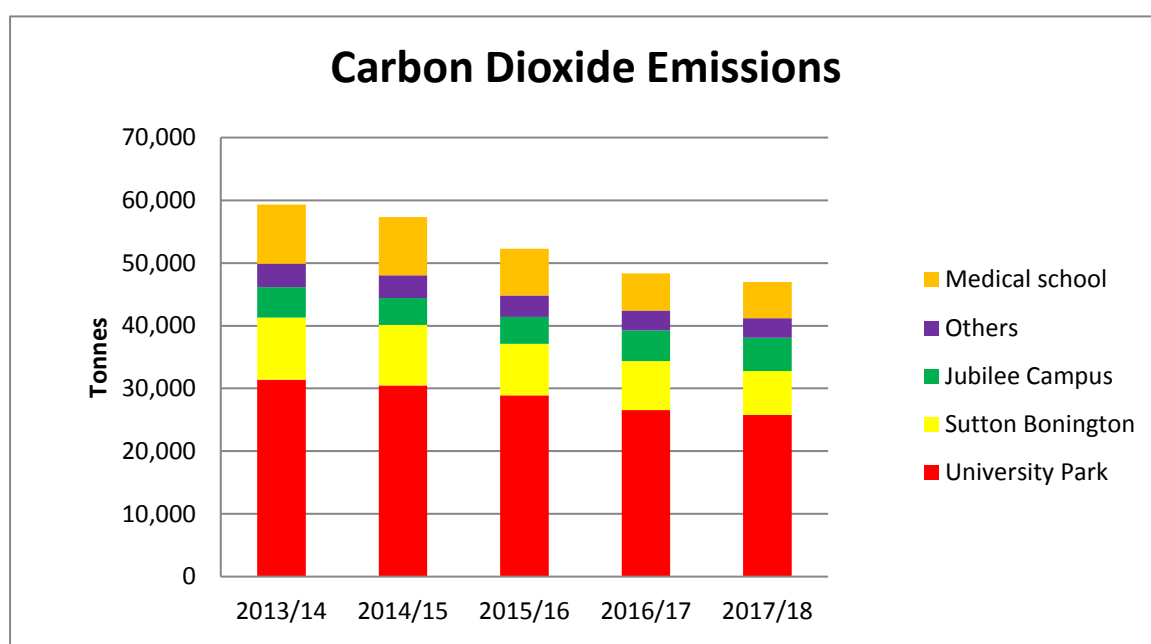
reception area. Over 800 bags were donated from University of Nottingham managed halls alone, with Newark and Southwell halls on Jubilee campus and Willoughby hall on University Park campus each donating over 100 bags in the summer period.



## **Carbon Management**

In 2017/18 our Scope 1 and 2 carbon dioxide emissions have shown an absolute reduction of 2.9% or 1,423 t from 2016/17 and down 21,051 t from 2009/10 baseline of 67,998 t CO<sub>2</sub>.

In the programme's eighth year the University continued investment of £0.6m in projects across all areas of the CMP. Since 2010 our CMP has now invested in excess of £18.8m, with estimated annual savings in the region of 14,034 tonnes of CO<sub>2</sub>.



Over the past year investments have continued to focus on energy and carbon intensive buildings and processes across our campuses. These have covered a range of areas, including boilers and chillers upgrades and replacement, lighting upgrades and the continuation of BMS controls investments along with energy saving fume cupboard upgrades. Continued action at the Medical School with further work on the steam distribution system sees further reductions in steam energy losses and Carbon emissions with investment over the last three years delivering total accumulative carbon savings of 8,695 t CO<sub>2</sub>

The National Grid has continued to reduce its CO<sub>2</sub> emissions associated with power generation through the increasing proportion of renewable energy and gas fired power stations supplying the grid with a corresponding reduction in the use of coal fired plant. While this helps with our overall CO<sub>2</sub> emissions it makes the case for certain technologies such as gas fired combined heat and power (CHP) difficult to justify in terms of carbon emissions reduction. While CHP schemes still offers significant overall fuel cost savings we have to balance this with the effect on our environmental credentials.

The University will continue to deliver its capital program to 2020 and beyond along with continued expansion in energy intensive research activity. The CMP will



therefore continue to invest in the existing estate and new build projects continue to meet the very highest sustainability standards. For example, The GlaxoSmithKline Carbon Neutral Laboratory of Sustainable Chemistry achieved a BREEAM rating of Outstanding and a LEED rating of Platinum. As a

result, future projects will seek to achieve significant carbon reduction targets, realise financial benefits and improve resilience aligned with the University's Global Strategy 2020.

As Jubilee Campus continues expansion, carbon emissions will continue to increase and in 2017/18 this equated to a 9% rise. This has been amplified over the last year as the research energy intensive engineering buildings such as the Advanced Manufacturing Building and the Research Acceleration Demonstration Building (even with their BREEAM and PASSIVHAUS designs) have begun operating. This trend will continue when the Power Electronics building is commissioned.

## **Capital Development**

Over the last year we have seen two major capital projects completed at Jubilee Campus, with work continuing on two large buildings on University Park. The University continues with its commitment to minimising the environmental impact of its capital program through passive design and environmental accreditation through the use of the Building Research Establishment Environmental Assessment Methodology (BREEAM) to assess our progress. Both the Advanced Manufacturing Building and Research Acceleration and Demonstration (RAD) building achieved BREEAM excellent.

The Rad building not only achieved a BREEAM rating but also Passivhaus accreditation and includes a number of innovative design features and technologies, including roof mounted PV Cells and an internal Green Wall



This unique modular feature wall is made up of a variety of plants. The plants are watered through an irrigation system fed in to each individual module, ensuring the plants receive the correct amount of water needed to flourish.

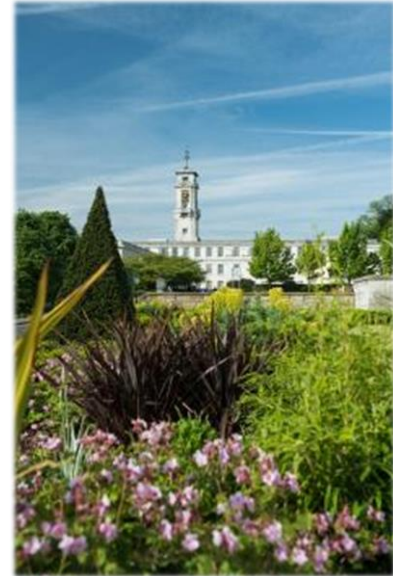
Not only are living walls a beautiful and fascinating feature, they are becoming increasingly popular for their health and environmental benefits. The leaves of the plants filter out pollutants in the air as well as absorbing dust to help decrease smog, increasing the quality of air being breathed in.

A living wall is also able to regulate temperature, which means it can help to keep the building warm in the winter and cool in the summer. It also acts as a very effective sound insulator, reducing sound by up to ten decibels.

## Landscape and Campus Grounds

In this last year the University of Nottingham's University Park and Jubilee campuses have once again been recognised by the Green Flag Award Scheme as two of the best green spaces in the UK.

Both of the campuses have won a Green Flag Award for 2018/19 – a sign to the public that the spaces boast the highest possible environmental standards, are beautifully maintained and have excellent visitor facilities.



Back in 2003, Nottingham was the first ever university to be awarded a prestigious Green Flag Award, when the award was given to University Park. It's now the 16th year in a row that University Park has received the award – and this year also marks the sixth time that the award has been received by Jubilee campus.

Significant work, funded through the sustainability committee has been carried out over this last year to carry out Biodiversity surveys and analysis of the campuses. This work carried out in conjunction with an external ecological

consultancy and student interns as well as the conservation society will be used to develop Biodiversity Action Plans (BAPS). These BAPs will set a framework for enhancing and protecting the rich biodiversity of our campuses.

**The Friends of Jubilee Campus**

**Wildflower meadows and plants of Jubilee Campus**  
 Saturday 12 May  
 From 10am  
 Come and discover the wild flower meadows of Jubilee Campus and learn about some of the fantastic species of wildflower growing in our meadows.  
 Charge £3 per person  
 Booking required

**Photography workshop**  
 with Lorán Tapping  
 Monday 25 June  
 12noon–2pm  
 Suitable for digital and traditional SLR users. Topics include: light, composition, aperture, shutter speed, ISO, advice on post-processing applications and tips and tricks.  
 This event is in partnership with Wollaton Arts Festival.  
 Charge £3 per person  
 Booking required

**Using watercolours in nature** with Rachel Scanlon  
 Saturday 30 June  
 10am–12noon  
 Beginners watercolour painting session in the beautiful grounds of the Jubilee Campus where you will explore watercolour techniques to paint a flower, before venturing out into nature to use these skills painting from life.  
 This event is in partnership with Wollaton Arts Festival.  
 Materials provided  
 Charge £10 per person  
 Limited places. Booking required

**Architecture tour of Jubilee Campus**  
 with Gavin Scott  
 Wednesday 4 July  
 6.30–8pm  
 Take a tour of our state of the art sustainable campus and its spectacular new buildings by award-winning architects.  
 This event is in partnership with Wollaton Arts Festival.  
 Charge £3 per person  
 Booking required

**Bat walk** with Paul Stone  
 Thursday 30 August  
 8.15pm  
 As the sun sets enjoy a walk through Jubilee campus and admire the delights of the night sky. The gentle walk will last approximately one hour depending on what is discovered.  
 Charge £3 per person  
 Booking required

The Friends Groups continue to thrive and continue to support and host events throughout the year.

## **Projects and Engagement**

### **Student Switch Off**

Students living in Hugh Stewart won the 2017-18 Student Switch Off energy-saving and recycling competition! Hugh Stewart reduced their energy use by 10.9% and celebrated their energy saving and recycling achievements at a Ben & Jerry's giveaway event.



Student Switch Off is an energy saving and recycling competition run by the National Union of Students (NUS). Over 40 universities take part in the competition in institutions across the UK and Europe. The competition challenges students living in halls of residences to take positive action on climate change, right in their accommodation, and encourages friendly competition between the halls to see who can save the most energy and recycle the most over the year.

Collectively the small energy-saving and recycling actions that halls achieved this year have added up. Together, University of Nottingham residents have reduced carbon emissions by 34 tonnes, which is equivalent to making 2.7 million cups of tea!

Other notable wins were achieved by Cripps. During the first and second academic terms Student Switch Off ran a national Climate Change Quiz, where the top four halls across the UK each won a delivery of 50 tubs of Ben & Jerry's. Cripps scooped the prize during term two!



## Divestment

For a number of years there have been calls from the student body for the University to Divest from investment in fossil fuels. In April of this year the University committed to remove any investments in fossil fuels, with any investments in coal and tars sands will be removed immediately and the University will completely divest its financial portfolio from fossil fuels within the next 12 months.

## University Honey

Winter 2017 saw a first with the production of University honey. The honey comes from beehives located on land owned by the University. There are around 60 bee colonies in total, each housing tens of thousands of honeybees, helping to increase biodiversity and pollination. The beehives are managed on the University's behalf by a professional bee farmer, Parks Apiaries, with hives located at Bunny Park – arable farmland south of Nottingham used for a variety of University research – and King's Meadow Campus in Lenton.

The different landscape settings are reflected in the flavour and colour of the two varieties. Honeybees at Bunny Park collect nectar from crops such as oil seed rape and field bean, but also from trees such as horse chestnut, lime and hawthorn. The King's Meadow honey is predominantly multi-floral, with bees foraging in the nearby King's Meadow local nature reserve, University Park and the city centre, and potentially on farmland by the University's Riverside Sports Complex – as honeybees can travel up to several miles in search of food.



## Focus on Plastics #WasteNott

Blue Planet II threw the issue of disposable plastics into sharp relief nationally when it aired late in 2017. At the request of the Vice-Chancellor we have established a major project to focus on this. Our focus is to identify the scale of the challenge, tackle unnecessary single-use plastic waste, and consider how we can reduce our overall use.

Recognising that this is a collective University community issue we asked the community what they felt we should focus on and we received over 3,000 responses to our survey.

Some of the first steps we have taken toward reducing our plastic use include:

- Established a working group with key stakeholders to identify and reduce plastics use across the University
- Ditching plastic straws.
- Development of an awareness campaign #WasteNott
- Introducing branded Keep Cups and water bottles for sale.
- Introducing a disposable cup tax and reusable cup discount.
- Identifying best locations for water fountains

This is very much the start of a large piece of work that will run over a number of years and the engagement and interest from the University community have been encouraging, whilst our initial focus has been on catering areas we have started to work with laboratory areas more recently.



## **Appendix 1**

### Environment Committee Membership 17-18

Chris Jagger	Chief Estates and Facilities Officer
Andy Nolan	Director of Sustainability
Gavin Scott	Environmental Manager
Tim Rudge	Energy Management Engineer
Neil Hawthorne	Safety Office
Natasha Bednall	Students' Union Environment & Social Justice Officer
Philip Smith	Students' Union staff member
John Saunders	Member of University Council
Nicola Penn	Commercial Services representative
Tara De Cozar	Marketing/Communications representative
Prof Sarah Speight	Teaching and Learning representative
Prof Pete Licence	Research representative
Caroline Blackman-Edney	Procurement representative
Rachel Greatrix	Campus representative
Dr Judy Muthuri	Campus representative
Sue Lane	Campus representative

Further detail on the committee can be found at:

[www.nottingham.ac.uk/sustainability/strategy/environmentcommittee.aspx](http://www.nottingham.ac.uk/sustainability/strategy/environmentcommittee.aspx)

## **Contact us**

<b>Name</b>	<b>Telephone</b>	<b>Job title</b>
<u>Andy Nolan</u>	0115 951 5669	Director of Sustainability

### Energy and carbon management

<b>Name</b>	<b>Telephone</b>	<b>Job title</b>
<u>Martin Oakes</u>	0115 951 3579	Carbon Reduction Manager
<u>Tim Rudge</u>	0115 951 3583	Energy Management Engineer
<u>Rob Farmer</u>	0115 951 3586	BMS Controls Engineer
<u>Richard Mitchell</u>	0115 846 8791	Energy Management Officer

### Sustainability

<b>Name</b>	<b>Telephone</b>	<b>Job title</b>
<u>Gavin Scott</u>	0115 951 3572	Environmental Manager
<u>Emma Kemp</u>	0115 951 3098	Senior Environment Officer
<u>Serena Brown</u>	0115 951 3568	Environment Officer

### Grounds Management

<b>Name</b>	<b>Telephone</b>	<b>Job title</b>
<u>Jamie Whitehouse</u>	0115 951 3649	Grounds Manager
<u>David Beadle</u>	0115 951 3605	Grounds Maintenance Manager - Arboriculture Landscape
<u>Gregory Smith</u>	0115 951 3656	Grounds Maintenance Manager - Sport
<u>David Parkhouse</u>	0115 951 3637	Assistant Grounds Maintenance Manager
<u>Lee Reed</u>	0115 748 4547	Assistant Grounds Maintenance Manager

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