# ENVIRONMENTAL REPORT 2017/18

A0 1875 Teesside University Welcome to our Environmental Report, which, in keeping with our environmental aspirations, we are publishing online.

Please let us know if you have any feedback on this report, or if you need any additional information.

tees.ac.uk/green



<u>EcoCampus</u> provides a structured framework to manage universities' sustainability performance in logical steps, in line with the international management system standard, ISO14001.

Teesside University is committed to retaining and improving our EcoCampus accreditation. The criteria for this prestigious award enables us to work in a consistent and pragmatic way towards ensuring that we manage our environmental obligations.

We are currently accredited at Gold level and we are committed to retaining this.

There are eleven areas considered within the EcoCampus management system and we have based this environmental report around these

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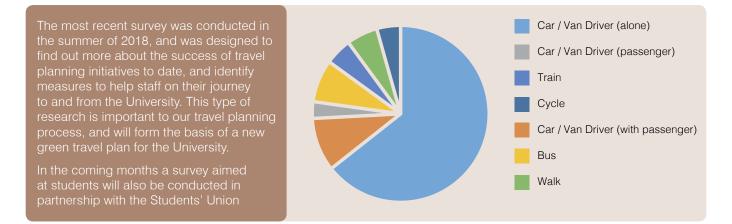
### HEALTH AND SAFETY

The University produces an annual Health, Safety and Well-being Report which is published online, and can be viewed by staff, students, and members of the public.

# TRANSPORT AND TRAVEL

#### Green travel survey

As part of our commitment to sustainability, and to help us learn more about the travel habits of staff, the University regularly conducts a staff travel survey.



### **Green travel initiatives**

The University offers a range of options to staff to assist with using sustainable methods of transport to travel to the University. These green travel initiatives, which continue to be popular with staff, not only help to reduce the University's carbon footprint but are also beneficial to staff from a cost saving perspective. Currently around 70 staff are signed up to these initiatives.

### **Public transport season tickets**

Annual travel season tickets are usually a cheaper and more convenient way of using public transport. The University offers staff interest-free loans, repayable over 12 monthly instalments, to pay for train and bus season tickets.

	2015	2016	2017	2018
Bus season tickets	19	14	18	18
Train season tickets	17	21	22	22
Cycle to Work Scheme	51	33	29	30

#### Cycle to work scheme

The University takes part in a governmentapproved scheme which enables staff to purchase cycles and associated equipment tax free.



### Cycle to work scheme

The University has invested in facilities for staff and student cyclists, ensuring that their needs are catered for, and encouraging them to travel to the University by bicycle. There are currently 356 cycle parking spaces (publically available and secure entry) spread across the Middlesbrough and Darlington campuses. These facilities continue to be popular with around 290 staff and student cyclists registered to use the secure facilities.

Middlesbrough campus	<ul><li>68 publically available cycle parking spaces</li><li>136 covered secure entry cycle parking spaces</li><li>(including locker, showering and changing facilities).</li></ul>
Darlington campus	<ul><li>132 publically available cycle parking spaces</li><li>20 covered secure entry cycle parking spaces</li><li>(including locker, showering and changing facilities).</li></ul>

It is hoped that, with the continued success of the Cycle to Work scheme and increased promotion of facilities for cyclists on campus, the number of cyclists on campus will remain strong in the coming years.

# WASTE MANAGEMENT

From April 2014, Teesside University's waste has been dealt with by <u>O'Brien's</u>. This has enabled us to consolidate the waste management process and to improve the Management Information provided.

Waste stream	Provider
General	O'Brien's
Recyclable	O'Brien's
Hazardous	Healthcare Environmental, SRCC and Rentokil Initial
Confidential	Biffa/O'Brien's
All waste from residences	MBC

#### **Confidential waste**

The University has installed a console system throughout the site, with secure confidential waste sacks for overflow to ensure security. All the waste produced through this stream is recycled by Shred-It.

#### **Recyclable waste**

On average, 20% of our waste is separated into recyclable materials on site. However, our waste contractors also sort comingled waste, before recycling at their depot.



### Food waste

how it is dealt with.

Food waste is a growing concern. In the North East alone over 800,000 tonnes of food waste are generated every year.

In response to the demand from industry to tackle the issue, Emerald Biogas is the region's first commercial food waste anaerobic digestion plant. The £8m facility has been designed to recycle food waste, leftover and unsold products generated by commercial organisations including food manufacturing companies, retailers, schools and leisure outlets amongst others.

Teesside University now works with Emerald Biogas and sends food waste generated on campus for processing. Once the waste is collected, Emerald Biogas recycles it using the very latest anaerobic digestion technology to create valuable new commodities such as renewable energy and fertiliser for agricultural land.

#### None of our waste is sent to landfill. **100% of our waste glass is recycled**.

Monthly waste reports are available to all staff and students online, showing the weight of waste we generate and

#### Reuse



Vaste Action Reuse Portal

February 2013 to July 2018	
CO2 Saved (KG)	69,890 KG
Waste avoided (KG)	19,130 KG
Total savings (£)	£86,526
Equivalent trees planted	95
Cars off the road for one year	30

In an attempt to reduce our levels of waste furniture throughout the university, we have partnered with <u>Warp-It</u>, an organisation committed to re-use of resources and reduction in both recycling and waste. Reports on this initiative are shared via emails to all staff and on the <u>Green Tees</u> webpage.

#### Working with local charities



We work with British Heart Foundation to help reduce the environmental impact of some of our unwanted furniture and other goods

When furniture has been through WARP-it and we know that it is not wanted by anyone on campus, we donate it to <u>British Heart Foundation</u>.

We have two large permanent donation bins on campus and also put out small portable collection bins on a regular basis. In 2017/18, 854 bags were donated by students and staff, weighing approximately 6.8 tonnes, with a value to the British Heart Foundation of around  $\pounds11,956$ .

Clothing, shoes and so on go to the Middlesbrough BHF retail shop. The furniture and electrical items donated are distributed around local BHF furniture and electrical shops including Middlesbrough, Eston, Hartlepool and Redcar.

British Heart Foundation said, 'We are very grateful for all the donations made by the University. We are able to sell these items locally, and the money raised contributes to saving lives and maintaining heart health for people in Teesside.'

### **General commercial waste**

This is collected from buildings and transported to our waste compounds by our waste operative using a small electric vehicle. The University now sends no general commercial waste to landfill.

#### Hazardous waste

All hazardous waste is collected on site by PHS, and serviced off site. Due to its nature, none of the waste produced in this stream is recycled.

## ENVIRONMENTAL MANAGEMENT SYSTEMS

#### **EcoCampus**

EcoCampus is a national environmental management system (EMS) award scheme for the higher education sector. The scheme allows Teesside University to be recognised for addressing key issues of environmental sustainability, including carbon reduction. The University is currently accredited at Gold level and we are committed to maintaining this and working towards Platinum standard.

#### **Green Impact – Students' Union**

The Students' Union has continued to improve the sustainability of its building with the fitting of low energy lighting and occupancy sensors in redeveloped areas, helping to deliver a reduction in utilities and carbon. Teesside Students Union is part of the National Union of Students' Green Impact initiative and is working with the University on a green travel plan for the main campus.

#### This year the Students' Union has sold:

- > nearly 20,000 hot drinks from Fairtrade sources
- > nearly 1,500 Fairtrade juice drinks sold in SU Shop
- > over 400 Fairtrade garments sold in SU Shop
- > over 600 Fairtrade biscuits and cakes

In addition it sold nearly 2,000 Cadburys Life and Rainforest Alliance confectionery items.

The main clothing supplier of clothing products sold in the SU shop is Cottonridge – 'Cottonridge is actively committed to working towards a fair living wage for our overseas workers and we are a prominent promoter of this policy within our industry.'

#### Policy

Teesside University's <u>Environmental Policy</u> is overseen by the Environmental Advisory Group and is reviewed annually. It is published on our <u>Green Tees website</u> and is available to staff, students and the public.

# COMMUNITY INVOLVEMENT

The University is proud of its links with the local community, across all departments and Schools, involving a wide range of students and staff. Some historic examples of these were published in the staff magazine, Grapevine, and can be seen by students, staff and the public.

More recent updates are published in the weekly University Update, which is sent by email to all staff.

Middlesbrough Food Bank	British Heart Foundation Donation Points on Campus
(Grapevine Issue 148)	(Grapevine Issue 142)
University Volunteer at Local Nature Reserve	British Heart Foundation Donation Points on Campus
(Grapevine Issue 136)	(Grapevine Issue 142)
Communities Living Sustainably – Volunteer Opportunities (Grapevine Issue 131)	

#### Fairtrade

Teesside University is officially a Fairtrade university once again thanks to a project driven by students, the University catering team and the Students' Union.

The University has been awarded the accolade for its commitment to Fairtrade principles and actively promoting Fairtrade around the campus.

Fairtrade helps small-scale farmers ensure that they earn reasonable incomes and have long-term contracts with companies. The Fairtrade mark independently guarantees that products meet economic, social and environmental standards and it is a widely-recognised ethical mark across the globe.

Both the University and Teesside University Students' Union have pledged to issue a Fairtrade policy, sell Fairtrade products on campus, serve Fairtrade products in meetings, organise campaigns and set up a steering group that will oversee Fairtrade on campus.

### WE ARE A FAIRTRADE UNIVERSITY



### **Middlesbrough Environment City**

Teesside University is an active member of <u>Middlesbrough Environment City</u> (MEC) and worked with colleagues from Middlesbrough College, James Cook Hospital and Middlesbrough Council, to develop and launch a local Food Action Plan - <u>http://www.menvcity.org.uk/fap/</u> - which aims to increase the purchasing of locally sourced food, address food poverty and reduce food waste. Teesside University Catering actively supports the MEC Local Food initiative and took part in two Local Food Weekends in summer 2017.



#### **Celebrating Age**

A long-term project to encourage the creative engagement of the over 55s, and for the third year running MIMA has achieved Dementia Friendly status. Working with a wide range of partners in community settings in and around Middlesbrough we cultivate new ways of thinking about ageing, supported by MIMA's three dedicated dementia friendly champions who deliver information sessions in a wide range of community settings, businesses, schools and colleges.



The community garden at MIMA

#### **Community Products**

Working with our communities and partners\* we have produced a limited range of shop products including this season's aprons, which are inspired by a group of adults living with dementia, who, with their families and care-givers, meet at MIMA. They are hand dyed, 100% Fairtrade cotton, with sales supporting our engagement programme of community-driven activity.

\*Thirteen Housing, James Cook University Hospital – Therapeutic Ward, holistic therapists, writers, chiefs all form the local area and the Alzheimer's Society.

#### **Community Lunches**

MIMA and partners\* bring healthy and affordable food to people in the town. To mark the end of the growing season MIMA hosts Harvest Lunch, now in its third year, as part of Community Day. We share a home grown meal, using produce from MIMA's Community Garden.

\*Elizabeth's Kitchen, Middlesbrough Environment City, Investing in People and Culture, and Growing Middlesbrough.





# CONSTRUCTION AND REFURBISHMENT

#### **Construction waste**

Construction waste from new and refurbishment works are streamed at source, on site, by each contractor and then taken to local waste management depots for recycling. Any general waste produced by the project is sifted and sorted at the waste management depot by the waste contractor and then categorised for land fill or recycling. Waste certificates for each project are then provided by the contractor. General waste and recyclable skips for smaller in-house works will be introduced in the near future to better manage these waste streams.

### **Construction materials**

The estates team, wherever possible within the confines of the allocated budget, will specify materials that are manufactured from recyclable materials and/or manufactured within the UK to reduce the scope 2 and 3 emissions in manufacture and delivery.

### **Major construction projects**

As a responsible institution, we intend to grow and develop the campus in a sustainable manner, and pride ourselves on being closely integrated into the economic, cultural and social life of the Tees Valley and wider world. As part of our masterplan, and our commitment to developing the University in a sustainable manner, we work closely with our construction partners, particularly with a view to reducing construction waste to landfill.

Two examples of recent/current projects showing quantities of waste diverted from landfill:

#### National Horizons Centre Darlington

Waste stream	Percentage of waste diverted from landfill
Cardboard	99%
Inert	99%
Mixed municipals	99%
Gypsum	99%
Metal	99%
Plastic	99%
Timber	99%

#### Teesside University Business School Middlesbrough

Waste stream	Percentage of waste diverted from landfill
Ceramics/brick	99%
Concrete	99%
Furniture	50%
Inert	99%
Insulation	67%
Metals (including cables)	97%
Office/canteen	99%
Packing	99%
Plaster/cement	90%
Plastics	73%
Timber	86%

### ENERGY AND WATER

Our energy team produce a comprehensive energy report every month and then annually. This is available to staff, students and the public on our <u>Green Tees website</u>

#### Carbon

The University's carbon reduction target is 43% of the 2005 consumption by 2020, meaning that we have to save 3848 tonnes of carbon dioxide by 2020.

### **Energy monitoring**

The aim of the University's monitoring and targeting (M&T) system is to provide a better understanding of how energy and water is being used across campus. In particular, it identifies if there are signs of avoidable waste and highlights opportunities to reduce consumption.

M&T can be used to quantify the savings achieved by energy saving projects and campaigns, and provide feedback for staff awareness. It will also help to improve budget setting and support benchmarking exercises.

### **Carbon reduction projects**

Carbon Reduction Commitment Energy Efficiency Scheme (CRCEES); The University submitted an Annual Report to the Environment Agency on 25 July 2017.

Reporting total emissions of 6196 tonnes of CO2 for reporting year April 2017 to March 2018. This resulted in an overall reduction of 817 tonnes CO2 since 2016/17.

Project	Building
Installation of 36 domestic high efficiency A-rated heating and hot water boilers compliant with the new Boiler Plus Standard required by the Building Regulations since April 2018	Parkside student accommodation
Installation of energy efficient lighting (LED) and SMART controls or local sensors	Campus-wide
Installation of new air conditioning chiller including the removal of damaging HCFC refrigerant gas	Clarendon and mima
Installation of new high efficiency commercial boilers as part of the major refurbishment project.	Teesside University Business School

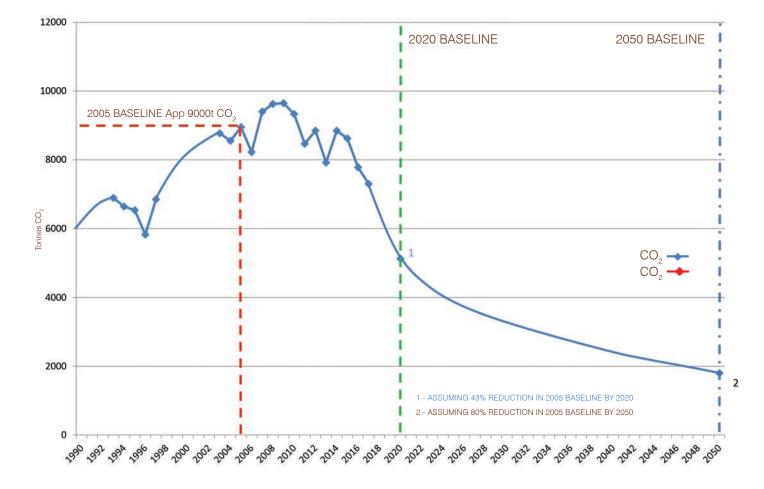
The Department for Business, Energy and Industrial Strategy have published their guidelines for emissions reporting to take over from the CRCEES in April 2019.

The Emissions Reduction Pledge aims for the following targets:

30% reduction by 2020/21 57% reduction by 2032

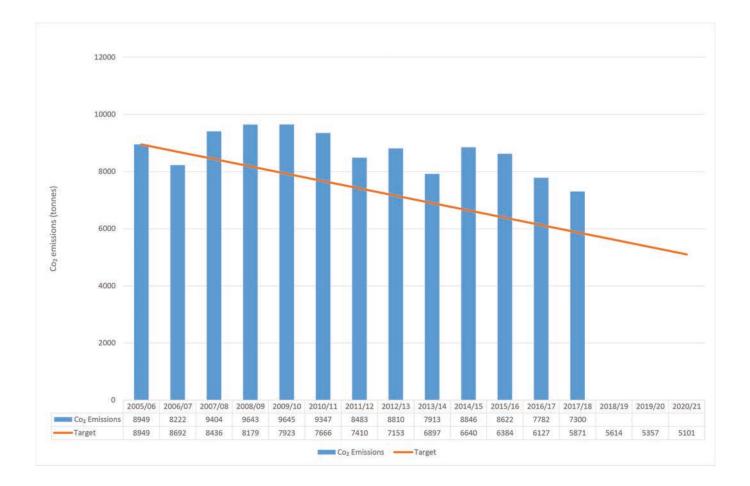
80% reduction by 2050

### Carbon emissions - the technical data



TEESSIDE UNIVERSITY CO<sub>2</sub> EMISSIONS BASELINE AND CLIMATE CHANGE ACT TARGETS (EXCLUDING WASTE & TRAVEL EMISSIONS)

### Carbon emissions - the technical data



#### Scope 1 & 2 Target Emissions and Progress (43% reduction by 2020/21)

# EMISSIONS AND DISCHARGES

#### Emissions and discharges are covered in the annual Heath, Safety and Well-being Report which is published online

'To minimise the negative environmental impact of the University in relation to its activities which produce emissions to the atmosphere or discharges to the drainage system the University has a Waste Emissions and Discharge Policy to ensure that all waste produced is stored, removed, treated and disposed of according to legislative requirements and the Best Practicable Environmental Option.

During 2014 the Waste Emissions and Discharge Policy was reviewed and found to be still meeting the above objective. The requirement in the Health and Safety Policy Statement regarding the safe disposal of waste is still in place and the Asbestos, Control of Substances Hazardous to Health (COSHH) and Radiation Safety Policies are still relevant for activities involved in dealing with emissions and discharge of waste.'

## SUSTAINABLE PROCUREMENT

Teesside University has a procurement manual, which includes a section on Sustainable Procurement.

The University's Sustainable Procurement Framework requires that sustainability and environmental issues are considered in the procurement of all goods, services and works supplied to the University.

The Procurement Section will assist staff to comply with the policy through the following objectives:

- 1. Raise environmental awareness amongst University purchasers.
- 2. Ensure relevant environmental issues are considered as part of the procurement process.
- 3. Support and encourage suppliers to be compliant with any current and future environmental legislation and help where possible companies to attain environmental accreditation.
- 4. Encourage the use of suppliers who aim to adhere to greener policies.
- 5. Conduct whole life costing exercises where appropriate, taking in to account factors affecting the environment.
- 6. Consider lease options where appropriate as an alternative to purchase in order to reduce waste.
- 7. Specify carbon and energy saving goods or services which are more environmentally friendly.
- 8. Encourage the purchase of recycled goods or goods with recycled content.
- 9. Minimise and regulate the amount of waste generated from University purchases by encouraging suppliers and contractors to return and re use packaging.
- 10. Promote and make full use of services offered by suppliers and contractors who will collect and recycle previously supplied used items.
- 11. Reduce the number of delivery vehicles entering and leaving site, by encouraging the use of contracted suppliers and scheduled deliveries.
- 12. Encourage the purchase of goods which are from a sustainable source and have the highest efficiency energy ratings.

## COMMUNICATING SUSTAINABILITY

Information about our commitment to environmental issues can be found on our Green Tees webpage - tees.ac.uk/green.

Additionally, to ensure that all staff are aware of environmental initiatives in and around Teesside University, regular 'green' stories were published in Grapevine, Teesside University's monthly staff newsletter (see below and click on <u>Green Tees</u>) and will now be cascaded via the fortnightly "University Update" newsletter.

Keeping your two wheels in working order (Grapevine issue 165)

<u>Safe disposal of IT equipment</u> (Grapevine issue 164)

Landscaping for Southfield Road (Grapevine Issue 149)

Black to green footprints (Grapevine Issue 149)

Gold Award for Teesside University

Join the Cycling Challenge (Grapevine Issue 158)

<u>University Moves Up Green League</u> (Grapevine Issue 154)

<u>Free Rail Travel</u> (Grapevine Issue 153)

Sky Ride Riverside Ramble (Grapevine Issue 150)

<u>Green Tees – Your Help is Needed</u> (Grapevine Issue 145)

Keep in Touch With Environmental Issues (Grapevine Issue 144)

Harvest Swish in the Library (Grapevine Issue 140)

<u>Green Travel Initiatives for Staff</u> (Grapevine Issue 140)

<u>University Win Healthy Eating Award</u> (Grapevine Issue 139) National Bike Week 2013 (Grapevine Issue 135)

WEE Amnesty (Grapevine Issue 134)

Eco Campus Silver Award for Teesside University (Grapevine Issue 133)

Cycle to Work Scheme Proves Popular and is Extended (Grapevine Issue 131)

MSR Reduce Carbon Footprint (Grapevine Issue 128)

Staff Encouraged to get on their Bikes (Grapevine Issue 126)

Green League Points (Grapevine Issue 124)

National Bike Week (Grapevine Issue 123)

Northern Rail Discount Scheme (Grapevine Issue 121)

<u>Gearing up on Facilities for Cyclists on Campus</u> (Grapevine Issue 118)

<u>Carbon Reduction Commitment</u> (Grapevine Issue 116)

Cycle Dr Coming to the University (Grapevine Issue 116)

Electric Vehicle (Grapevine Issue 114)

# SUSTAINABILITY IN THE CURRICULUM

Teesside University has made significant steps towards embedding sustainability into the curriculum. Courses currently available, which address sustainability and other environmental issues include:

BSc (Hons) Environmental Science (with Foundation Year)

PgDip/MSc Electrical Power and Energy Systems

MSc Electrical Power and Energy Systems (with Advanced Practice)

MSc Energy and Environmental Management

MSc Energy and Environmental Management (with Advanced Practice)

BSc (Hons) Environmental Science

### RESEARCH

In the academic year 2017/18 the University has dedicated funds totalling £700,926 to environmental and sustainability research.

Over the same period the University has had 136 scholarly publications on environment and sustainability published.

### UNIVERSITY OF INDONESIA GREENMETRIC WORLD UNIVERSITY RANKINGS 2017

For the second time Teesside University has taken part in the GreenMetric World University Rankings. It is the first and only university rankings in the world to measure each participating university's commitment in developing an 'environmentally friendly' infrastructure. The rankings consider six indicators of each university (setting and infrastructure, energy and climate change, waste, water, transportation and education). This year 619 universities in 76 countries participated, compared to last year when 515 universities in 75 countries took part.

Universitas Indonesia (UI) released the result of UI GreenMetric World University Rankings 2017 on 11 December 2017, and the rankings were announced at the Makara Art Centrum Building.

This year Teesside University are ranked 159th out of 619 worldwide institutions (18th in UK), compared to 186th out of 516 in 2016.

The full results of the metric can be viewed here:

http://greenmetric.ui.ac.id/overall-ranking-2017/



#### Disclaimer

The information contained in this Report is, as far as possible, accurate and up to date at the time of publishing. © Teesside University November 2018

This publication is available in alternative formats on request. Please contact Andrew Maclaren on **01642 342077** or email **a.maclaren@tees.ac.uk**.

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