

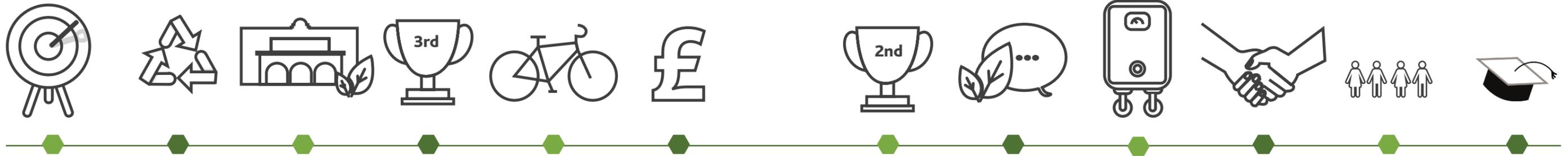
ANNUAL SUSTAINABILITY REPORT 2017 - 2018

**CHANGE
TODAY
PROTECT
TOMORROW**

**CREATING CRITICAL THINKERS AND
AGENTS OF CHANGE TO PROTECT
OUR COMMON FUTURE**



TEN+ YEARS OF SUSTAINABILITY AT THE UNIVERSITY OF WORCESTER 2007 – 2019



2007/8

Comprehensive quantitative and qualitative **targets and objectives set for many areas** including student travel after two years preparatory work establishing baselines.

Fairtrade status awarded, Carbon Trust Standard for reducing our carbon footprint over 3 years. Student herb gardens planted next to student Halls.

2009

16th in the People and Planet Green League, a rise of 77 places in two years. First annual sustainability report. Won international Gold Green Apple award with Worcester City Council for a **120% increase in recycling in the halls**. SU participated for the first time in the Sound Impact Environmental Award Scheme and achieved a Bronze Award.

2010

We were the **first English University to achieve EcoCampus Platinum status** in June 2010. Students' Union gets a silver Green Impact (renamed Sound Impact) award.

2011

3rd in the People and Planet Green League and HEA Green Academy pilot which introduced sustainability electives. The Riverside building won the Architects Journal Retro Fit award and was shortlisted for a Green Gown. Recognising the creative re-use of buildings and infrastructure, and for setting new standards in upgrading existing facilities for half the cost of a new build.

2012

Energize Worcester Student Green Fund grant for £175k SU led project reducing energy use in student houses. NESTA **£10k to expand the Bike Loan scheme**. Students' Union achieved Gold in the Green Impact awards, the highest standard. The opening of The Hive, joint University and local authority library and history centre. The first of its kind in Europe. Winner of two international awards for the building design and sustainability.

2013

£70k investment in automatic meters to monitor energy at building level. Solar PV installed on Woodbury supplying 1.1% of our energy needs. The Arena array is three-times larger generating nearly 114 kW clean electricity. The 2008 Biodiversity strategy and action plan updated to include new sites. Nature trail established with information on what to see in each season, bird and bat boxes and bee hotels installed and monitored by student Nature Society.

2014

2nd in the Green League out of 151 universities. Finalist in 6 categories in the Green Gown awards, winning for our Bike Loan scheme. Collaboration with Worcester Polytechnic Institute, Massachusetts, hosting teams of undergraduates for 7 weeks undertaking community sustainability projects in Worcester UK. Teme Hall students won pan European energy saving competition saving the most energy winning 400 euros.

2015

Achieved NUS Responsible Futures accreditation for our approach to social responsibility and sustainability, one of the first universities to achieve this. **Launched Midlands Sustainable Education Network** bringing together education, politics and business to work on place-based solutions and develop leadership skills. Skills for Tomorrow annual two-day event focusing on job roles for school children recognised by GuildHE as best practice in citizenship.

2016

Transitioned to the ISO 14001:2015 standard, the second university in the UK with our documentation being used by the auditors as best practice examples, thereby sharing our knowledge not only within the sector but across businesses. **Worcester Bosch join Energize Worcester research supplying 5 new energy efficient boilers and smart controllers** to student rented houses. Data loggers give real-time information of decision making.

2017

Selected for Leadership Foundation Innovation for Collaborative Teams for our EAUC Emerging Leaders project to develop the leadership capabilities of sustainability professionals. Bringing together three areas of strategic importance for UW – developing leadership, working within our communities and sharing good practice. **We are collaborating with Coventry University, M&S and Go Green Week in the City.**

2018

Students' Union and University jointly sign up to the SDG Accord. Two long term collaborative projects promoting sustainable living with Worcester City Council and Worcester Bosch won international silver Green Apple Awards. Reaccredited NUS Responsible Futures with an increased score. Best performing University in England with smallest gender pay gap.

2019

Number 1 in the UK and 26th globally, for Quality Education, in the Times Higher Education Rankings. The rankings assess contribution made by universities around the world to achieving the internationally agreed Sustainable Development Goals, which the United Nations adopted in 2016.

CONTENTS

FOREWORD	3
INTRODUCTION AND INDEPENDENT ASSURANCE	4
STRATEGY	5
THEME 1: PROMOTING SUSTAINABILITY, SOCIAL RESPONSIBILITY AND WELLBEING	8
THEME 2: INTEGRATING SUSTAINABILITY THROUGH KNOWLEDGE, SKILLS AND EXPERIENCE	10
THEME 3: MITIGATION, ADAPTATION AND RESOURCE EFFICIENCY	10
THEME 4: GLOBAL SUSTAINABILITY ETHICS, PARTNERSHIPS AND LEADERSHIP	12
AWARDS	18
ENVIRONMENTAL MANAGEMENT SYSTEM	19
GOVERNANCE	20
RISKS, OPPORTUNITIES AND MATERIALITY	20
FUTURE	20

FOREWORD

Given today's countless unsolved global challenges, shaping sustainable development is an indispensable aspect of academic discourse. Protecting the climate, conserving natural resources, preserving biodiversity, and achieving intergenerational justice and equal opportunities are just a few of the tasks we face. What knowledge, technical and social innovation, and skills do we need to create a sustainable future? Universities—as core institutions of the education systems and local communities—are crucial in addressing these questions.

The Sustainability Policy—adopted by the University of Worcester Board of Governors on 18 February 2008—acknowledges our areas of responsibility throughout the University in research, teaching, knowledge transfer, and campus management. This Sustainability Report 2017-18 details the focus of our activities and shows the progressive evolution of our commitment to sustainable campus management over the past 11 years. We are committed to building on the achievements outlined in this report. We want to increase the visibility of, expand upon, and bolster our sustainability activities at our University. We focus, above all, on governance by implementing long-term structures and strategies. Important steps in this direction include, forming the Sustainability Strategy Group, adopting a revised Sustainability Strategy, designing the broad-based

participation structure with students at the core of these interventions, diverse team-building processes and a bespoke sustainability blog.

The 17 Sustainable Development Goals (SDGs), adopted by the United Nations General Assembly in 2015, have been critical in sparking academic discourse as well as broader discussions about the societal role of universities. Our conviction demands that we engage in both. Sustainable development aims at fostering integration and networking. This shared mission can only be achieved by engaging and bringing together many individuals from all areas of the University. This report makes clear that sustainable development remains a strategic task at our University.

David Green

Professor David Green CBE
Vice Chancellor and Chief Executive

For more information see:
<https://www.worcester.ac.uk/about/sustainability/home.html> and
www.susthingsout.com

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SUSTAINABLE DEVELOPMENT GOALS



INTRODUCTION

This is the tenth Sustainability Report for the University of Worcester. Universities recognise their contribution in delivering a range of positive economic, social and environmental impacts, as well as their role in mitigating and reducing negative impacts, such as reducing direct and indirect carbon emissions. Equally, we recognise our role in fostering and empowering our students and staff as a force for change through critical academic engagement and the generation of new knowledge to support the United Nations Global Goals. This report describes the institution's most significant environmental aspects and how these are managed and mitigated, in order to fulfil our commitment to continual sustainability improvement. It also maps our projects and progress related to the United Nations Sustainable Development Goals (SDG's). Summarising our position enables the University to report our position annually to the SDG Accord which we do in partnership with the Students' Union. We signed up to the SDG Accord on 26 September 2018 and will report our progress in April 2019.

This year we consolidated two governance groups into one, the Sustainability Strategy Group (SSG), bringing all strategic management of research, teaching and campus operations into one governance structure, under the sponsorship of the Pro Vice Chancellor Students, and chaired by the Academic Lead for Sustainability and Deputy Head of the School of Science and the Environment, Dr Heather Barrett. This consolidation along with the new University structure of three colleges affords a simpler reporting framework (via Learning Teaching and Student Experience Committee, p20).

The SSG undertook a series of workshops and expanded its membership to include our communications department to ensure its work and this report continues to be:

- Transparent, accessible and stylish so attractive to read
- Identifies University of Worcester's risks, opportunities and materiality
- Sets out our clear governance for sustainability
- Ensures quality stakeholder engagement
- Uses various external accreditations to offer independent assurance

It also keeps under review the most useful metrics and benchmarking tools to ensure the University is reporting appropriately its sustainability journey. We were particularly proud to have had our Sustainability Annual Report 2015-2016, and 2016-2017 as a finalist two years running in the Green Gown Awards.

Level of assurance and methodology

It is vital for the University that we have third party assurance of our data and our programmes which is why we invest in partnerships to ensure others have oversight in our work. We are also very committed to students learning these valuable auditing skills. A second year module in Worcester Business School fully audits the University and students and others are invited to help with the ISO14001:2015 internal audits and to be observers on the external audit visits.

This report is drafted to show the true picture of the University. We publish our historic data and show our failures to meet targets along with our successes. We welcome and encourage feedback and the student module is an excellent vehicle to make sure what we present is relevant to our students who are one of our key stakeholders.

NQA have undertaken an independent verification for the University of Worcester's Annual Sustainability Report 2017-18, prepared in accordance with the core option of the Global Reporting Initiative (GRI) Sustainability Reporting Standards. The scope of NQA's verification covers the data and information associated with the University of Worcester's sustainability performance for the period 1 August 2017 to 31 July 2018. The statement covers the University's commitments, and progress towards the aims and objectives set.

The evidence gathering process was designed to obtain a reasonable level of assurance as set out in the GRI external assurance of sustainability reporting guidance.

Systems and processes for collecting, collating and reporting sustainability performance data were verified. The verification procedure included reviewing relevant documentation, interviewing responsible personnel with accountability for preparing the reporting contents, and verifying a selected representative sample of data and information. Raw data and supporting evidence of the selected samples were examined during the verification process.

Independence

NQA was not involved in calculating, compiling, or developing the Sustainability Annual Report. NQA's verification activities are fully independent from University of Worcester.

R. Walsh

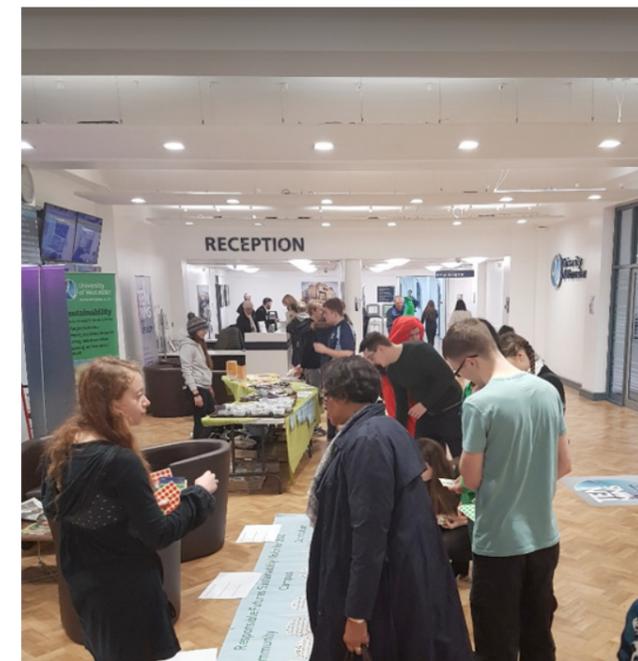
Richard Walsh MIEMA, CEnv.
Principal Assessor Energy & Environment



STRATEGY

The University has a long-standing commitment to act in a sustainable and environmentally responsible manner. The new Strategic Plan 2019 includes a commitment to create possibilities, develop potential and increase community engagement. It clearly sets out our approach: 'We promote educational and social inclusion and equality. We behave with kindness and respect; we expect ethical and professional behaviour. We practice environmental sustainability and social responsibility'. This vision encapsulates our overarching aim to fully accept our broad responsibilities to society and develop our physical assets to provide excellent facilities and opportunities for students, staff and the wider community, but in ways which promote and champion sustainability and social responsibility.

We have spent the past year consulting on the new Sustainability Strategy for the University of Worcester in parallel with the University developing its new strategic plan. The review has involved novel methods to engage stakeholders on campus. Students, staff and visitors were invited to participate by encouraging them to stick coloured stickers near or on the theme/topics that were most important to them. In addition the University continues to have annual surveys of staff and students to measure attitudes, behaviours and material changes people have made both at work and at home. These surveys have been expanded during Go Green Week in Worcester to include local residents. Analysis of the research shows remarkable synergy with all interested parties in which ways they would like the University to further promote sustainability, and mirrors the findings of the NUS's longitudinal surveys of students. The University's new Sustainability Strategy is, at the time of writing, in draft form and under consultation with colleagues.



The University's Sustainability Strategy is structured around four core themes, which map to all 17 UN Sustainable Development Goals.

Theme 1: Promoting sustainability, social responsibility and wellbeing



Our key commitments are:

1. To embed sustainability principles within our community's working and social lives
2. Encourage active citizenship both locally and globally
3. Provide projects and programmes that directly enhance wellbeing

Theme 2: Integrating sustainability through knowledge, skills and experience



Our key commitments are:

1. Embed inclusion of sustainability principles in the formal curriculum, learning and teaching practice
2. Provide appropriate sustainability training for all our staff and students and encourage them to engage in sustainability practices.
3. Ensure there are opportunities for students and volunteers to engage in applied projects

Theme 3: Mitigation, adaptation and resource efficiency



Our key commitments are:

1. Manage our estate to mitigate against climate change (through reduction of carbon emissions) and to ensure future resilience through engagement in adaptive strategies
2. Optimising resource efficiency and stimulating a shift to sustainable models of consumption
3. Minimising pollution

Theme 4: Global sustainability ethics, partnerships and leadership



Our key commitments are:

1. To invest in pedagogic innovation, scholarship and research on sustainability with global impact
2. To enhance our positive social and environmental contributions through our supply chain
3. To build beneficial partnerships and collaborations through our sustainability activities and enhance our international sustainability visibility

THEME 1: PROMOTING SUSTAINABILITY, SOCIAL RESPONSIBILITY AND WELLBEING

2 ZERO WASTE
 The launch of Go Green Week in the Community was held in April 2018 starting with 'Feed the 1,000', which gave away free food in the City Centre cooked by students at Heart of Worcestershire College. Highlighting that the average UK family throws away enough food to feed 1000 meals, the college students cooked and distributed food donated from suppliers and supermarkets.



The 1,000 meals being given out by Heart of Worcestershire student chef

11 SUSTAINABLE CITIES AND COMMUNITIES
 Sustainability staff collaborated with partners from across the City of Worcester to deliver the second Go Green Week in the community, this award winning initiative embodies Goal 17 Partnerships. The week of sustainability activities was coordinated by a team of undergraduate students from Worcester Polytechnic Institute (WPI) in the US. The project partners included Worcestershire County Council, Worcester City Council and the Heart of Worcester College.

3 GOOD HEALTH AND WELL-BEING
 A pop-up shop in Crowngate shopping centre offered free plants, interactive games and activities for members of the community to enjoy. There were tips on how to improve health and wellbeing. Throughout the week, people could drop in for advice, giveaways and a chance to join in creative and fun activities and were encouraged to make small changes to their behaviour to be more sustainable. Residents were invited to plot on a map of the city things they liked and disliked helping researchers understand the sustainability features most wanted locally.

Watch a short video <http://susthingsout.com/index.php/a-review-of-go-green-week-2018/>

13 CLIMATE ACTION
 Academics and fire fighters have joined forces to help school children in Worcester prepare for flooding and extreme weather. It is hoped the Flooding and Extreme Weather Education Project will help to enhance the resilience of children and young people to the UK's most serious 'natural' hazard which was set up in response to requests from children who suffered in flooding events locally. A collaboration between Lancaster University, the University of Worcester and the Hereford and Worcester Fire and Rescue Service, the University of Worcester will examine both the human and natural causes of flooding along the River Severn, while Hereford and Worcester Fire and Rescue Service will draw on their real world experiences to offer insights into the dangers of floodwaters. This involves fire fighters staging river rescue demonstrations and other displays using equipment and protective clothing deployed when responding to real flooding events.

17 PARTNERSHIPS FOR THE GOALS
 Green Impact is a staff behaviour change continuous improvement programme which uses students both as paid 'earn as you learn' sustainability mentors, and volunteer auditors to audit each team at the end of the year providing great employability experience. It has been developed over the last ten years, using social change theory and NUS' expertise to produce a model that works in all environments and workplaces year-after-year. It covers the whole sustainability spectrum and is based on the themes of continual improvement, collaboration and meaningful change to establish new social norms and inspire people with the skills and passion needed to make a difference. At Worcester we use a project based learning model to encourage change in department based projects.

FOOD BANK

12 RESPONSIBLE CONSUMPTION AND PRODUCTION
 Food bank collections have doubled and students routinely collect donations from the Halls of Residence as well as having dedicated collection points on campus.



Students at a training event to map their projects to the Global Goals.

The programme at the University of Worcester

2017/18 has been a great year for the University, collectively we have:



Created 10 teams



Engaged 282 colleagues



Achieved 2 bronze awards



Achieved 1 silver award



Achieved 3 gold awards



Been led by 82 team members - our average team size is 3



Put 165 actions into place, 163 as a direct result of Green Impact



Provided 6 students with training and development opportunities in their roles as auditors



Saved at least 39 tonnes CO2



Saved at least £12,648

WOO BIKES

11 SUSTAINABLE CITIES AND COMMUNITIES
 Funded as a two-year pilot with grants from Worcestershire Local Enterprise Partnership, Worcestershire County Council, and Worcester City Council saw us launch 50 electric bikes into our successful Bike Share scheme, re-branded as Woo Bikes. Shown on BBC Midlands Today when it launched in February 2018, it was the largest ebike share fleet in England. The project has significant student involvement from two academic schools, volunteering and paid roles for students. This innovative approach tested initially on campus then extended to other large employers in Worcester is to try to persuade people who normally drive themselves to work to change to cycling instead, thereby helping congestion in the city streets.

Design process



THEME 2: INTEGRATING SUSTAINABILITY THROUGH KNOWLEDGE, SKILLS AND EXPERIENCE

4 QUALITY EDUCATION A variety of assessment and benchmarking tools have been developed to address the environmental impacts of an institution. While most assessment and benchmarking tools do not focus solely on curriculum and research, many do have curriculum and research components. Developing assessment and benchmarking tools that seeks to conduct comprehensive, long-term and integrated assessments of curriculum and research and their impact in relation to the SDG's will help move universities beyond solely focussing on efficient environmental management of their estates to embrace the more wide-ranging commitment to sustainability partnerships embodied in the SDGs. In conjunction with Kingston University, we are developing a tool to simply assess the sustainability content of the undergraduate curriculum as well as the on campus research being conducted, with assistance from WPI students.

RESPONSIBLE FUTURES

4 QUALITY EDUCATION We retained NUS Responsible Futures accreditation, and increased our score from 234 to 267. Students were recruited and trained to undertake the audit.



Students auditors undertaking the NUS Responsible Futures audit.



Changing education is the first step towards changing the whole of society. That's why we are proud to have been one of the pilot institutions to help NUS develop Responsible Futures, which aims to put sustainability at the heart of education across universities. Being externally assessed this accreditation mark assists in helping students to gain the skills and experience they need to thrive as global citizens. It is a partnership between the Students' Union using a structured framework of criteria to encourage action on embedding social responsibility and sustainability into formal and informal learning.

We also pioneered a peer auditing approach with Coventry University giving our student auditors the additional experience of auditing and learning about a different university to the one they study at. This proved to be most rewarding to the students involved. We are pleased that we improved our score when being reaccredited in July 2018, as it confirms that we are creating opportunities for our graduates to have the knowledge and understanding, skills, and attributes needed to contribute positively to social responsibility and sustainability.

GO GREEN WEEK ON CAMPUS

11 SUSTAINABLE CITIES AND COMMUNITIES Go Green Week brings together a range of fun activities to transform campus life for one week in February and is designed and delivered with outcomes measured by the SUST1001 first year students. Some of the highlights from Go Green Week 2018 included energy limbo, encouraging students to lower their energy usage, a carbon footprint game, designed by the sustainability coordinator and made on a 3D printer which gave people a fun insight into the carbon used in their everyday activities. The week had a banana theme running through it. FairTrade bananas were dehydrated and given out as free snacks to encourage less food waste. Bananas that are past their best are particularly delicious and sweet when dehydrated. Cutting away any bruised fruit means there is very little wastage. Unitots, the on campus nursery, saved up their broken toys to get them repaired in the annual Repair Café event.

SKILLS FOR TOMORROW



Cited in Active Citizenship: the role of higher education produced by GuildHE, Skills for Tomorrow is a unique interface between higher education staff and students, businesses and schools which provides an interactive experience exploring the opportunities of a low-carbon, resilient future. Now in its 7th year the event illustrates how every job has the potential to contribute to a sustainable future and provides a launch platform to inspire young people. The conference has been piloted in a new form in Hereford aimed at making it easier for schools to take part, as funding for extra curricula activities in high schools is particularly difficult in the current climate.

STORYTELLING FESTIVAL

4 QUALITY EDUCATION The sustainability department has been a sponsor and supporter of the University Storytelling festival since 2010. It is now integrated into the first year sustainability module where students work with the schoolchildren who have watched a sustainability show, and run a workshop on new behaviours the school pupils can do to be more sustainable.



WORLD FISH MIGRATION DAY



Led in World Fish Migration Day celebrations working on cultural projects in a range of local schools culminating in a grand fishy parade through the streets and shoppers of Worcester.



Gathering for the grand fishy parade celebrating World Fish Migration Day ending with a picnic at City Campus.

Our research looks at the widespread human impacts on river systems and how recent technological developments, including the use of drones and laser scanners, have provided new ways to map and monitor rivers and their habitats. Our researchers have demonstrated how high-resolution data has improved the understanding of habitats and provides better information for river conservation and management. See worcester.ac.uk/research

PROFILE



4 CAMPUSES
3 IN WORCESTER AND LAKESIDE 8 MILES NORTH.
81,212 SQUARE METRES OF FLOOR SPACE NOW COMPARED TO
47,362SQM IN OUR BASELINE YEAR.



12,000
STUDENTS & 1,200 STAFF



10
ACADEMIC SCHOOLS AND
9 PROFESSIONAL SERVICES
DEPARTMENTS

THEME 3: MITIGATION, ADAPTATION AND RESOURCE EFFICIENCY

ENERGIZE WORCESTER

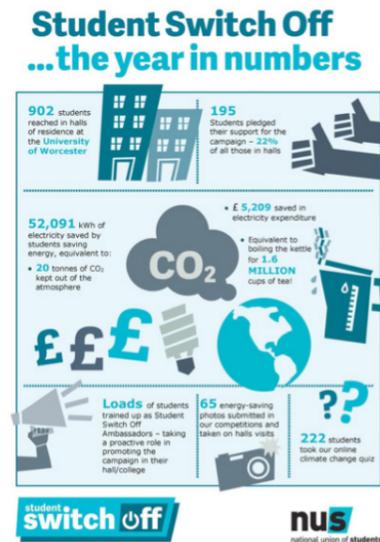


Led by Worcester Students' Union, the University of Worcester are working with local students, landlords, Worcester City Council, and Worcester Bosch Group to explore the wider role of technological innovation (smart boiler controls – apps to manage appliances in the home) in producing new opportunities for energy management for young people living in shared rental properties. Technological change sits in a cultural context, and more is needed to understand the attitudes of apparently 'tech-savvy' young people, particularly students, and landlords, towards taking action and to the future take-up of these technologies. The research to date includes over 200 in-depth interviews with students and property owners to ascertain their attitudes to domestic energy management, and the opportunities and potential limitations to the effective operation of these novel systems. Worcester Bosch has provided five boilers and smart controllers in local student private rented houses and data-loggers to support this research, which is a case study as part of a broader NUS study into student housing.

STUDENT SWITCH OFF



Student Switch Off is a national behaviour change programme led by the National Union of Students encouraging responsible electricity use in students' halls of residence. The campaign encourages energy savings through a yearlong inter hall energy competition which was updated in real time using the SAVES online energy dash board. Malvern hall of residence won the competition achieving an impressive 12.6% energy saving during the year.



UNIVERSITY KEY PERFORMANCE INDICATORS AND TARGETS: CARBON

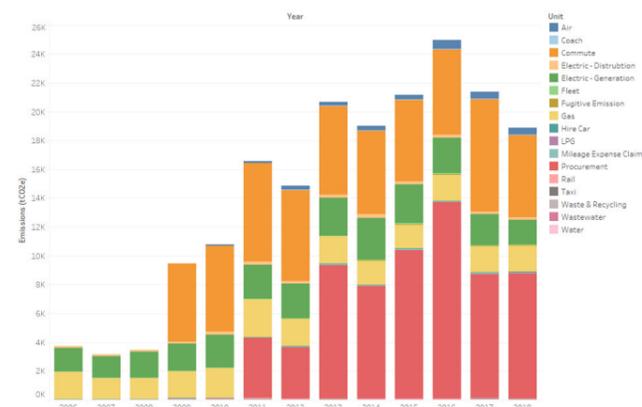
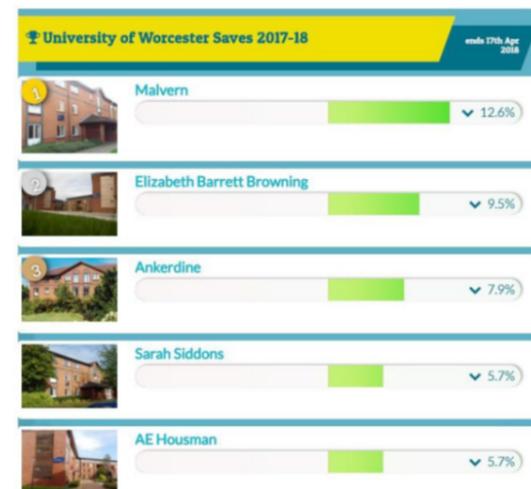


Figure 1

Carbon reporting: more in-depth calculations and historical information is found on our carbon targets webpage: <https://www.worcester.ac.uk/about/sustainability/what-we-do/carbon-emission-targets.aspx>

The following tables show our performance against our overarching carbon emissions targets and year on year comparison. The University measures and reports on carbon emissions in three ways:

1. ABSOLUTE EMISSIONS

Scope 1 & 2 absolute emissions* (tCO₂e) decreased 10% between 2016-17 and 2017-18, and 3.6 % from the baseline year (2008/9) and therefore significantly missing our target of 5% reduction per annual from 2008/9. See figure 1. Despite decreasing our tCO₂e, we consumed very similar amounts of gas and electricity last year; 16.1 MWh compared to 16.09 MWh. Scope 3 indirect emissions* have decreased 12% last year, this is predominantly due to changes in our commute travel emissions for both staff and students and decreased 5% from the base year. Therefore, we are beginning to make inroads into tackling these indirect emissions, but are not yet on track to meet our absolute targets. See figure 1.

2. IN RELATION TO THE NUMBER OF STUDENTS AND STAFF AT THE UNIVERSITY (tCO₂e/FTE)

Emissions intensity has decreased by 17% compared to 2016-17 and by 41% since our 2008-09 baseline year. This measure indicates that whilst we have more people using our buildings, the carbon reduction initiatives on electricity and gas are making a difference, albeit slowly. Our recruitment success means that student and staff numbers continue to increase. We now have 9,541 full time equivalent students and staff on campus compared to 5,868 in our baseline year, increasing to 397 last year.

3. IN RELATION TO UNIVERSITY BUILDINGS - FLOOR SPACE (tCO₂e/sqm)

Emissions intensity: floor space has decreased by 9% compared to 2016-17 and by 44% since our 2008-9 baseline year. We are using less energy per square metre, due to the number of carbon savings initiatives we have introduced across campus. We added no new buildings to the estate last year, the minor change in square meterage is due to more accurate measuring.

MORE DETAILED COMMENTARY

Electricity emissions reduced 20% against 2016-17. Total electricity used decreased by 0.11 MWh across the University. Emissions reductions are due to a change in the conversion factor because in the UK we now have more renewable energy sources providing our electricity. Gas emissions increased 3% last year, following a small decrease in the previous year when the gas consumption decreased because of an investment in a newer boiler plant. Note, we have had mild winters for the proceeding last four years but we had early snows in October and widespread cold weather coming right at the end of the season. This meant an increased consumption of 0.3 MWh from the previous year because of extending the heating season. Our total gas usage for the year was 10.1 MWh.

Fleet emissions decreased 9.5% last year and up by 39% from the baseline year. The increase from the baseline is due to University growth and our increased requirement for more vehicles. The fleet is slowly converting to be fully electric as we renew vehicles.

Data gathering for a number of scope 3 categories is more robust and has been applied consistently since 2012-13. However it is important to note one of the two primary contributors to these indirect emissions, procurement, does depend on spend each year i.e. if we spend more emissions go up. Scope 3 emissions have decreased by 5% since setting our baseline in 2012-13. A factor arguably is that the University has more influence over its staff and students commuting to campus. Happily, these emissions have decreased by 26% in the past year; fewer people are driving on their own to campus. There was a greater use of coach and rail travel, and 50% fewer taxi journeys compared to last year. As both rail and coach are more sustainable modes of transport these changes are seen as positive. Air travel did reduce last year by 10% but from the base year 2012/13 it is still 78% higher. Year on year comparisons may not give a true picture.

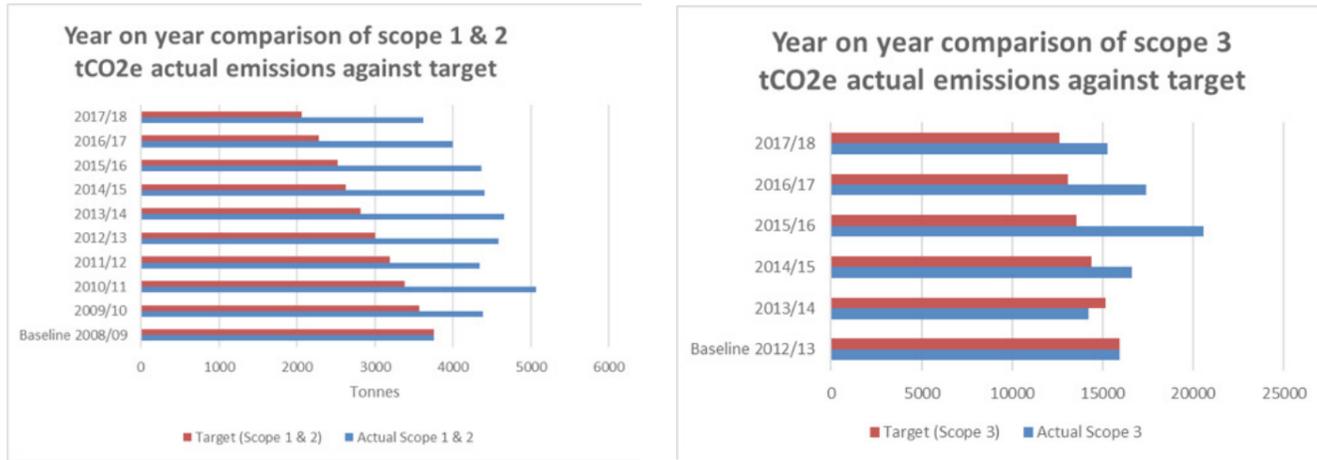


Figure 2: The graphs above show the University's total carbon footprint broken down between direct (scope 1 & 2) and indirect (scope 3) carbon emissions. Year on year comparison of carbon emission targets against our actual absolute emissions.

IN SUMMARY

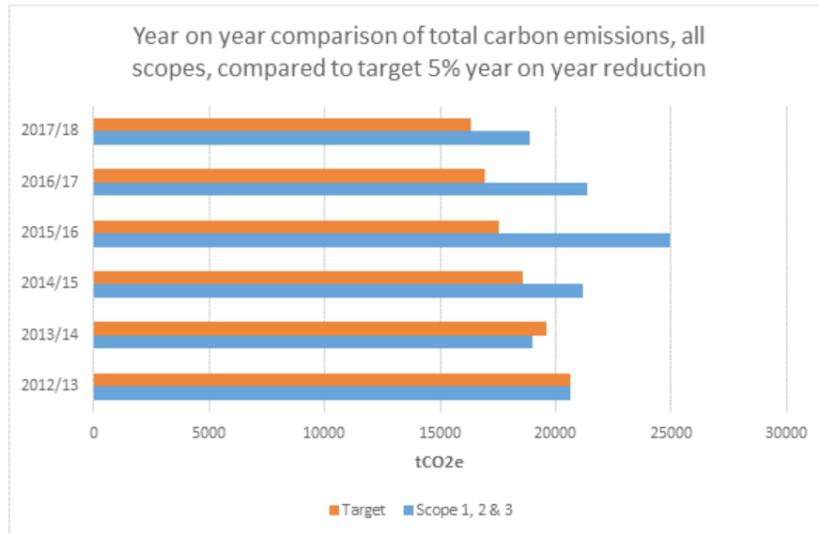


Figure 3: Year on year comparison of total carbon emissions, all scopes, compared to target 5% year on year reduction

Our total carbon footprint for 2017-18 was 18,865 tCO2e against a target of 15,911 tCO2e. We are clearly not achieving the absolute carbon targets we set. The majority of our carbon comes from scope 3 indirect emissions that is 15,245 tCO2e, of which most are from procurement and commuter travel. If we look solely at direct carbon emissions (scope 1 & 2) these have also decreased by 4% from the baseline going from 3,757 tCO2e to 3,620 tCO2e and a -10% annual change.

Given the growth that the University has experienced since 2008/9, the trend in carbon emissions is to be expected, and the absolute targets will be challenging to meet. Emissions from gas and electricity relative to gross internal area have improved significantly, with a 44% reduction from 2008/9 to 2017/18.

BENCHMARKING: SECTOR COMPARISON

It is useful to benchmark the University against other universities. The type of university dictates how carbon intensive they are. Large research universities and research-intensive universities use significantly more energy than teaching universities due to requiring more energy to run super computers and research laboratories. We are classified as a small teaching university, one of 54 institutions in figure 4 below.

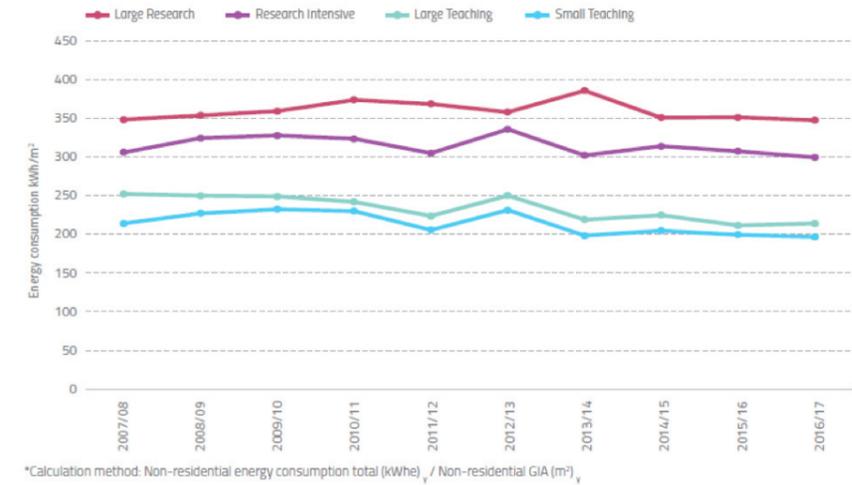
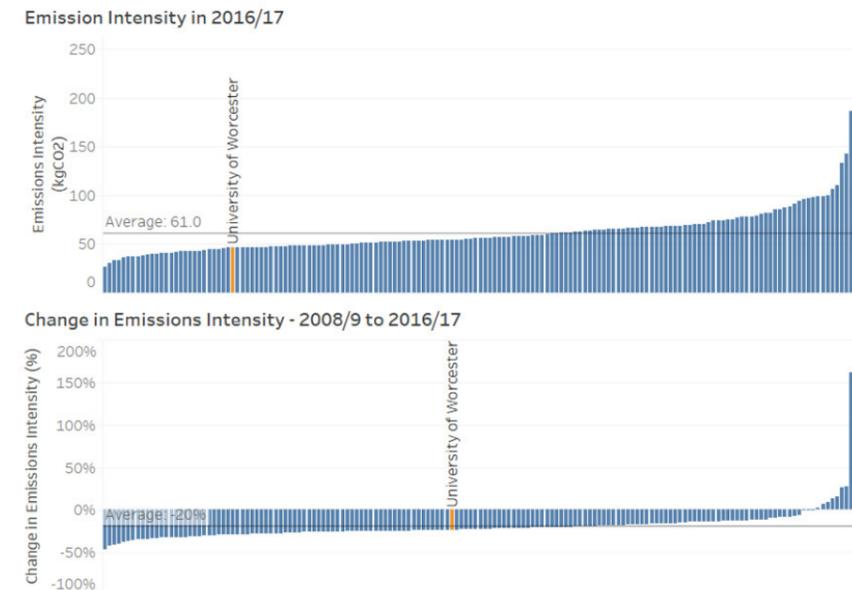


Figure 4 Energy Consumption per square metre by type of university. We are a small teaching institution. Graph AUDE Higher Education Management Report 2018.



NON-CARBON KEY PERFORMANCE INDICATORS AND TARGETS

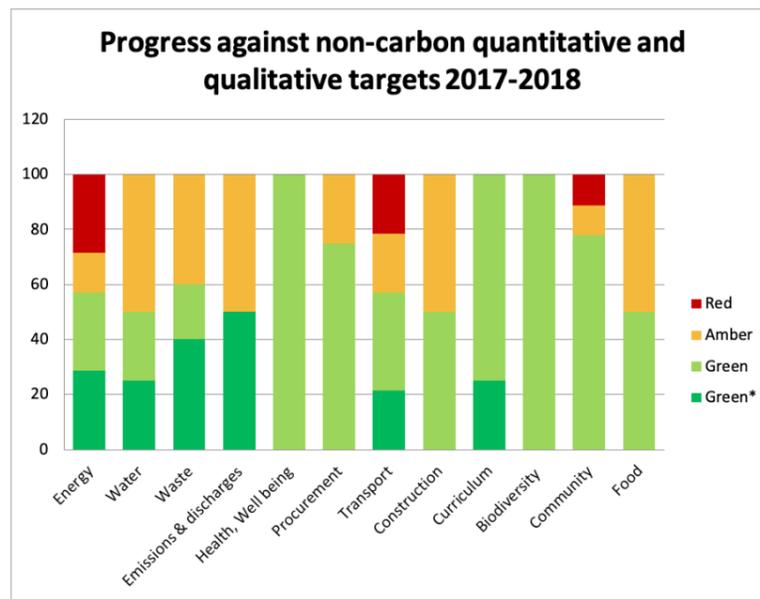


Figure 5 progress against annual targets for qualitative projects to promote sustainability. More information about the non-carbon targets is available on the Targets page of our website.

ENERGY

7 AFFORDABLE AND CLEAN ENERGY Progress in these targets was mixed with 4 green/green*, 1 amber and 2 red. We do continue to put in resources and measures to reduce energy consumption throughout the estate. For example our renewable energy generation is now at 2.1%, 0.1% above target. By joining our Students' Union building onto the gas efficient district heating plant (removing an electrical heating system) we anticipate making significant electricity savings.

WATER

6 CLEAN WATER AND SANITATION Progress to reduce water usage is more or less on track. We had a second independent water audit at City Campus which confirmed the estates team had already implemented many areas of good practice. A highlight is the improvements to the leak detection and early warning systems. The audit confirmed our phased programme including adding manual flush on urinals and reducing hand wash basin tap flow rates and removal of 'dead legs' in water pipes is effectively managing water usage.

EMISSIONS AND DISCHARGES

13 CLIMATE ACTION This unglamorous area which prevents campus users from polluting the environment has done well with a 2 green* and two amber progress measures. Most notable is the spill awareness training and the regular practice drills.

WASTE

12 RESPONSIBLE CONSUMPTION AND PRODUCTION Progress increasing re-use and recycling and reducing waste to landfill continues to make very good progress, with 3 green and two amber partially met targets. Staff in this area continue to be innovative and vigilant in supporting students and staff to re-use and recycle. Charity donations for reuse weight in tonnes increased from 13.32t 2016/17 to 39.02t 2017/18. We are now working with a diverse range of local charities to give a new lease of life to items no-longer required by the University and gratefully received by our partners.

PROCUREMENT

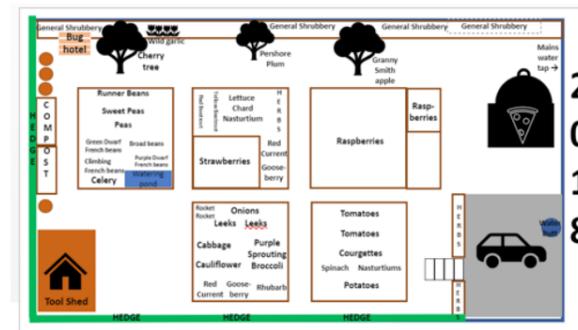
12 RESPONSIBLE CONSUMPTION AND PRODUCTION Progress in procurement continues with 3 green and 1 amber score. This area is led by the Head of Procurement and the sustainability procurement working group, where students and academics support the procurement team to action both academic initiatives and the implementation of the NETpositive supplier engagement tool. FairTrade products have increased and procurement staff regularly teach guest lectures in the Business School to give our students 'real-life' case studies.

HEALTH AND WELLBEING

3 GOOD HEALTH AND WELL-BEING The University maintains its investment in many measures to support the health and wellbeing of its staff and students. Progress is measured against the Worcestershire Works Well accreditation. The University Suicide Safer project has been recognised as sector leading in this important

area. Other examples include mindfulness training for staff and students. We continue to invest in the following areas: promoting good health, smoking and tobacco control, healthy eating, health and safety, mental health and well-being, physical activity, alcohol and substance misuse, leadership and attendance management.

Students as Academic Partners Grow your Own Project sets up a crop rotation plan for the student allotments and developed materials to engage children and prospective students in nutrition and wellbeing benefits of growing food on the University allotments.



CONSTRUCTION AND REFURBISHMENT

12 RESPONSIBLE CONSUMPTION AND PRODUCTION This is another area where the University makes good progress. There were no new build projects in the last year. Two areas received an amber score because the University couldn't add to its renewables portfolio or water consumption targets. However, a new standard has been adopted for refurbishment projects, Royal Institute for Chartered Surveyors (RICS) SKA Assessment. The project manager has been trained, and the Art House refurbishment achieved the highest rating (a Gold assessment), one of the first Higher Education buildings to receive this standard.

TRANSPORT

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE Transport initiatives have progressed well this year with two green* and one green and amber. Percentage of single car occupancy decreased by 9% for staff and 33% for students since 2016/17. Students travelling alone from home to their term time address decreased over 4.5% from 2016/17 levels not quite reaching our target but moving in the right direction. Interest continues in the innovative pool bike docking system and a paper was presented at a Dutch cycling conference.

COMMUNITY INVOLVEMENT

11 SUSTAINABLE CITIES AND COMMUNITIES On campus engagement in student behaviour change has seen a huge improvement this year with our highest number of students signing up in Welcome Week. Changes to how activities were promoted is being attributed to this success; students visiting any of the sustainability stalls were signposted to sign up collectively. Free spider plants were among the giveaways, which were particularly attractive to international students keen to make their new bedrooms look homely.

BIODIVERSITY

15 LIFE ON LAND The University's Biodiversity Action Plan (BAP) implements the commitments set out in this Biodiversity Strategy as part of the University's ISO14001:2015 Environmental Management System. The BAP focuses on ground level action to take biodiversity management to the next level at the University and create an exemplar of best practice for the Further and Higher Education Sector. Wild flower meadows and implementing robust management and measurement techniques have been a focus of the committee's work this year, along with decorating bee hives for the bee garden in land adjacent to The Hive. A recent graduate in the communications department has designed and hand drawn information boards about wild flower planting meadows on campus, to wide acclaim.



Dr Duncan Westbury is involved with research at the University of Worcester which contributes towards making farming more sustainable. He specialises in 'agroecosystems' in which farmers are encouraged to work with nature as opposed to against it, which contributes greatly towards sustainability. He leads students in planting wild flower meadows on campus.

FOOD

3 GOOD HEALTH AND WELL-BEING Sustainable Restaurant Association certification obtained, and at the highest rating 3 star, however resources in making this achievement meant the Green Impact project did slip. Aramark's (university caterers) Chef Julien Atrous has been instrumental in training students in how to cook sustainably, running a session in the summer with the outdoor pizza oven.

THEME 4: GLOBAL SUSTAINABILITY ETHICS, PARTNERSHIPS AND LEADERSHIP

GENDER PAY GAP



The University of Worcester is the best performing university in England and the most genuinely equal when it comes to gender pay. Worcester has the smallest average pay gap and is also best for the percentage of women employed at the top, compared to the total number of women employed. Women make up 65% of Worcester's overall staff and are represented at this level throughout the University. In the top quartile, 64.14% of staff are women, while in the lowest quartile, 65.6% of staff are women. This contrasts strongly with the vast majority of universities where women are significantly under-represented amongst higher paid staff and over-represented amongst the lower-paid. At Worcester, women are neither under-represented at the top nor over-represented at the bottom.

LEARNING FOR SUSTAINABILITY FUTURES



To help our students gain these valuable skills and assist the academic and professional services community develop innovations within their areas we have a fund and scheme to pilot new approaches to help scaffold sustainability through the University. Learning for Sustainable Futures is a joint initiative between The Education Quality Unit and the Sustainability department exploring and developing the connections between two areas of strategic importance for teaching and learning at the University:

- Through our curricula we will discuss and promote ethical practices, social responsibility, academic integrity and academic standards.
- Provide opportunities for students to learn and engage with the issue of sustainability.

The awards provide the opportunity for colleagues to carry out projects that bring pedagogic innovation into the curriculum or that extend learning support and education practice outside the formal curriculum, showing how our approach to sustainability connects with our education and learning activities. Embedding sustainability in the curriculum remains a particular focus. The University has a successful partnership with the University of Gloucestershire, 'Learning for Sustainable Futures', designed to further embed sustainability across the curriculum. All projects include

a student element, many in a paid capacity. Over twenty projects have been supported through this initiative.

REDUCED INEQUALITIES



Trainee teachers from a range of subject courses at the University of Worcester, one of the country's top providers of education, training and research for the children's workforce, got together to learn about how they can use the SDGs in their future teaching.

Ben Ballin, a specialist in geography and global learning, led the session, when secondary PGCE students examined the goals and explored how they can teach appropriately and engagingly about them.

Trainees were introduced to the proposed PISA assessment on Global Competence that was introduced in 2018 - a new raft of global testing that will measure student skills of analysis and critical thinking, their knowledge and understanding of global issues, along with student attitudes and openness, their respect for cultural otherness and global mindedness.

AGENTS OF CHANGE CONFERENCE



Agents of Development conference organised jointly with Beacons Development Education Centre highlighted individual contribution is critically important in helping to deliver goals like sustainable development. Exploring the relationship between individual experiences of 'doing development' (whether in a professional, voluntary, field practitioner or education-based capacity) and how this shapes our individual perceptions and guides our agency of what should be done, where and with whom, were examined. Europeans often made important humanitarian contributions to places such as Africa, they were also culpable in conflicts, which led to the under-development of communities across the continent.

WORCESTER POLYTECHNIC INSTITUTE



International partnership with Worcester Polytechnic Institute (WPI) strengthened with us honouring president, NASA scientist Dr Laurie Leshin with an honorary degree. We doubled the number of USA students attending two 7-week programmes providing research and practical advice to local community organisations on sustainability topics. Lord Richard Faulkner of Worcester continues to support this transatlantic partnership twinning with Worcester Massachusetts. Engineering students conduct research to develop solutions to real world problems. We are proud to be associated with one of the leading institutions conducting project-based education.

MIDLANDS SUSTAINABLE EDUCATION NETWORK



As inaugural Chair of Midlands Sustainable Education Network, the University has brought together figures from education, business and politics to look at how the region can be more sustainable. Universities involved in this Network educate more than 345,000 students, which are 5% of the adult Midlands population. Innovation from the network is the Emerging Leaders CPD course run with the EAUC for sustainability professionals with mandates to lead on organisation-wide campus-wide behaviour change. Now in its second year recruiting from Scotland to the south coast this model is delivered with colleagues from Coventry University, participants are from higher and further education and students' unions.

PROCUREMENT



The Sustainability Procurement Working Group was set up in 2015 with the main focus of this group to review ethical procurement issues, including workers' rights, factory conditions and international supply chains and will look at poverty awareness in the supply chain.

To assist in this ambition the University has joined with NETpositive and are working with their Supplier Engagement Tool. The tool is designed to support and develop the supply chain, which is crucial to embedding sustainability in the procurement process, it provides a way of offering our suppliers an opportunity to generate their own, bespoke sustainability action plans. During the year the Procurement Team supported approximately 215 suppliers to register on NETpositive and use the tools to share their community and sustainability actions.

The University of Worcester signed its first Modern Slavery Act Statement in February 2017. The statement demonstrated a commitment to ensuring that slavery or human trafficking does not take place in any part of our supply chain or in any part of our own business. A review of the University procurement practice has identified key procurement areas as being higher risk to modern slavery, for example, catering & food chains and textiles. A combination of policies, training and a compliance review mechanism will be implemented to meet the commitment defined in the Modern Slavery Action Statement.

STUDENT LED RESEARCH AND THE LEARNING & TEACHING CONFERENCE



Student co-created and led research are an important strand to the work of sustainability at Worcester. There are a number of initiatives which these collaborations can support, fund and disseminate. Student Katie Amey presented at the Beyond Boundaries Learning and Teaching conference 2017. Students also presented at the 2018 conference, a project developing an innovative assessment for exploring Climate Change negotiations.

SULITEST

The United Nations Sustainable Development Goals came into effect in January 2016. They are a universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity. SuLiTest, the Sustainable Literacy Test has been recognised as an official tool to monitor the knowledge progress by the United Nations. The University sits on the team contributing to the UK specific question sets and is one of 20 universities and colleges that are signed up as full players.

AWARDS

The Energize Worcester and Go Green Week in the City initiatives were both awarded the prestigious Silver at the Green Apple Awards. The University of Worcester and Worcester City Council worked collaboratively on these projects. The University of Worcester annual Sustainability Report was, for the second year in a row, a finalist in a PWC judged Green Gown awards. We continue to have Fairtrade status, retained the Sustainable Restaurants Association: 2015 three star standard and were shortlisted for two other Green Gown awards.

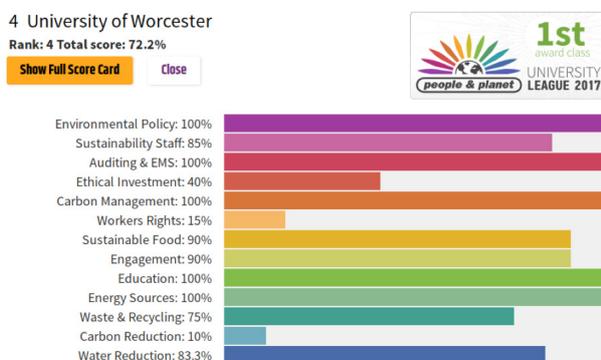


Two Silver Green Apple Awards collected at a ceremony at the Houses of Parliament

PEOPLE AND PLANET 'GREEN LEAGUE' UNIVERSITY LEAGUE

People & Planet has ranked the University of Worcester fourth out of 154 universities in the UK in its University League 2017, which measures environmental performance at higher education institutions – improving on last year's fifth ranking. This is the fourth consecutive year the University has been ranked in the top five.

The campaigning group looks at all publicly funded universities in the country and uses public information provided by the universities to assess areas like waste and recycling, sustainable food, energy sources, engagement and education. Despite our growth, the University has stayed in the top five in the Guardian published People and Planet 'Green' league. The University scored 100% in five of the 13 categories.



ENVIRONMENTAL MANAGEMENT SYSTEM

The University continues to successfully implement an Environmental Management System (EMS) through the EcoCampus framework. We successfully completed a ISO 14001:2015 certification audit and became the second university in the UK to transition to the new standard in 2016. Our ISO14001:2105 documentation is being used by our auditors as best practice examples, thereby sharing our knowledge not only within the sector but across industries.

The benefits of an EMS are that it provides the University with a structured, long-term approach to managing and reducing its impact on the environment and establishing ways of continually improving its performance. The University sets annual quantitative and qualitative targets, monitors and reports publically on scopes 1, 2 and 3 emissions; and biodiversity and food. More information and documentation can be found at: <https://www.worcester.ac.uk/about/sustainability/what-we-do/environmental-management-system-iso140012015-ecocampus.aspx>

SUSTAINABILITY GOVERNANCE

Sponsor: Pro Vice Chancellor Students, member Vice Chancellor's Executive Board

Sustainability Strategy Group – reports to Learning Teaching and Student Experience Committee
Procurement and Fairtrade Working Group
Strategic Biodiversity Working Group

EXTERNAL ASSURANCE

EcoCampus ISO14001:2015
NUS Responsible Future Accreditation
NQA audit

RISKS, OPPORTUNITIES AND MATERIALITY

This is an important area for the University to keep under review and is an integral part of the University's ISO14001:2015 Environmental Management System, designed to identify and give significance to sustainability and environmental materiality, aspects and impacts that are created as a result of the activities and services. The University of Worcester sees its commitment to society to be much broader than mitigating its negative impacts and focuses its resources on positive societal impacts of activities. Higher Education has a unique role to play in this and is one of the key values for the University. Therefore whilst noting and managing any potential harm, prominence is given to positive impacts and materiality. Sustainability education prepares people to cope with, manage and shape social, economic and ecological conditions characterised by change, uncertainty, risk and complexity. Teaching our students about this has the greatest societal impact whether this is in the formal or informal curriculum.

The assessment of what is material is a matter of professional judgment and we have utilised the wisdom of the sustainability strategy group to help set and identify these over a series of workshops.

FUTURE

www.susthingsout.com and the University webpages and social media accounts (UW sustainability) continue to be the core vehicles for promoting and disseminating our work. Traditional print media and the local and national press and radio have also featured stories about the University's sustainability activities. National and international conference and academic journal articles help promote our work.

The new University strategic plan 2019 and new strategic plan for sustainability and signing up to the SDG Accord has helped set the renewed focus and direction for our work. The Students' Union have implemented a new award for sustainability initiative SU awards, and continue to confirm their leadership and support and we are looking forward to a busy collaborative future.