

# CHANGE TODAY PROTECT TOMORROW

*Creating Critical Thinkers and Agents of  
Change to Protect Our Common Future*



**ANNUAL SUSTAINABILITY REPORT  
2018 - 2019**

## 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

16<sup>th</sup> 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

**3<sup>rd</sup> 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 Green Impact award, the highest. 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

**2<sup>nd</sup> 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 26<sup>th</sup> globally, for Quality Education, in the Times Higher Education Impact 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. Won a Green Gown for Sustainability Institution of the Year, and highly commended for Campus for the Future for the Art House refurbishment.

Board of Governors declared a Climate Emergency in July 2019. Partnerships with West Midlands Railways and First Bus provide free and subsidised sustainable travel to prospective students at Open days, Part of a new £50m deal to buy renewable energy directly from British windfarms for the first time.

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## 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. Arguably the most critical issue facing the world today is climate heating. It is for this reason the University of Worcester Board of Governors declared in July 2019 – A Climate Emergency. 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. Working out the step changes the University and its suppliers and supporters, and us as individuals we will need to change to significantly and immediately, reduce our carbon emissions is underway.

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 2018-19 details the focus of our activities and shows the progressive evolution of our commitment to sustainable campus management over the past 12 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.

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](http://www.susthingsout.com)

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## INTRODUCTION

This is the eleventh 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 report our progress annually in April. The Sustainability Strategy Group oversees the strategic management of research, teaching and campus operations 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 (reporting via Learning Teaching and Student Experience Committee, p20).

The Sustainability Strategy Group undertakes a series of workshops 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, 2016-2017 and 2017-2018 as a finalist three 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. Modules in Worcester Business School audit 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.

Loreus Ltd have undertaken an independent verification for the University of Worcester's Annual Sustainability Report 2018-19, prepared in accordance with the core option of the Global Reporting Initiative (GRI) Sustainability Reporting Standards. The scope of Loreus' verification covers the data and information associated with the University of Worcester's sustainability performance for the period 1 August 2018 to 31 July 2019. 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

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

*K. Belgasmi*

Khaled Belgasmi  
Principle Assessor

## STRATEGY

The University has a long-standing commitment to act in a sustainable and environmentally responsible manner. In July 2019 the University Board of Governors declared a Climate Emergency giving clear leadership for the University to identify the step change measures required for carbon neutrality by 2030. The 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 that promote and champion sustainability and social responsibility.

An inclusive process engaging stakeholders on campus helped develop the new sustainability strategy supplemented by 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 residents. Analysis of the research shows remarkable synergy with all interested parties in to ways they would like the University to further promote sustainability and carbon neutrality and mirrors the findings of the NUS's longitudinal surveys of students. The University's new Sustainability Strategy aims to balance supporting the UN Global Goals and promoting positive societal impact while mitigating our negative impacts by reducing our net carbon emissions to zero by 2030. The University's Sustainability Strategy is structured around four core themes, which map to all 17 UN Sustainable Development Goals.

The University's new sustainability strategy is at the time of writing, in draft and under consultation with colleagues.



**Theme 1:** Promoting sustainability, social responsibility and wellbeing



Our key commitments are:

1. To embed sustainability principles within our communities' 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. Optimise 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

The University's engagement with its internal and external stakeholders demonstrates our commitment to embed sustainable principles within our communities. We will continue to promote communication with all our stakeholders, both internally and externally, our sustainability strategy, actions and performance and build strong partnerships and collaborations to share sustainability learning. We aim to improve the quality of life for students, staff and the wider community through the provision of services and programmes that directly and indirectly enhance wellbeing. These include enhancing campus biodiversity, increasing sustainable food choices, provision of facilities for exercise and relaxation. Furthermore, to encourage health and wellbeing we encourage our staff and students to use sustainable transport and operate a sustainable travel plan. We have signed the Civic University Agreement, reaffirming our commitment to our local communities and pledged to put the economy and quality of life in Worcestershire and Herefordshire at the top of our priorities.

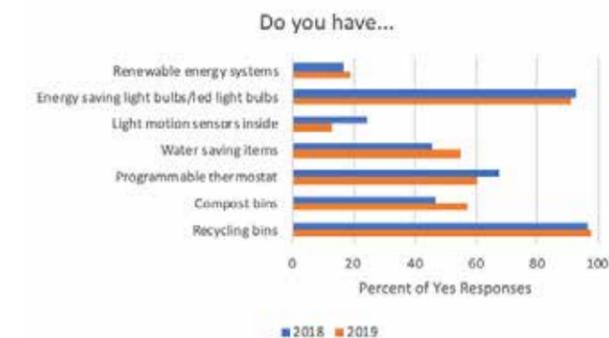
### KEY COMMITMENT 1. TO EMBED SUSTAINABILITY PRINCIPLES WITHIN OUR COMMUNITY'S WORKING AND SOCIAL LIVES

**11** The University is ranked fourth in the UK for sustainable cities in The Times Higher Education Impact League. Some examples to demonstrate this can be found in our approach to the estate. The University of Worcester Arena is the first indoor sports arena purpose-designed to include the wheelchair athlete. In 2018, the University of Worcester Art House opened, which will also become a centre for children's creative camps as well as a magnificent space for the University's many Art and Illustration students. These buildings characterise our inclusive community approach, with hundreds of thousands of people every year visiting and participating in activities in each building. Our annual Children's Storytelling Festival is one of the largest in the country.

**2** For a second year the Feed the 1,000 event saw unwanted supermarket food and wonky vegetables that would otherwise end up discarded, turned into meals for up to 1,000 members of the public. This is equivalent to the average amount of food a UK family wastes in a year. Catering students at the Heart of Worcestershire College cooked curry and soup and students distributed it free to shoppers on Worcester's high street.



**13** The students talked to shoppers about the SDG's and distributed advice about how to live sustainably. They also investigated sustainable behaviours and compared to the previous year. For example, people used certain sustainable items in their homes. We found that over 90% of people have energy saving light bulbs and recycling bins. We also saw that around 60% of people also had water saving items, programmable thermostats, and compost bins.



Comparison from GGW 2018 and 2019 showing only the percent of responses that chose Yes for 'Do you have...'

**8** Enterprising Worcestershire Summer Start-up Boot Camp is a free intensive programme of workshops led by industry experts and university lecturers to guide participants through the process of starting their own business. Participants are granted access to the University of Worcester's business incubator facilities free of charge for the duration of the course.

Graduates have high employment rates, 97% of Worcester graduates are in full-time employment or further study within six months of graduation. Traditionally, it takes some time for graduates to enter highly skilled employment but in 2018 the proportion of graduates taking up highly skilled "graduate-level" jobs within the first six months is over 75% - an increase of 5.8% in a single year. Worcester's employment rate is higher than the national university average.

## KEY COMMITMENT 2. ENCOURAGE ACTIVE CITIZENSHIP BOTH LOCALLY AND GLOBALLY

**17** We are ranked in the top 10 of universities across the UK to best reflect society in terms of socio-economic class, according to analysis by the Higher Education Policy Institute. The Hive Library, Europe's first integrated University and Public Library, is a day to day encouragement of active citizenship. It is the second most visited public library in the UK.



### SKILLS FOR TOMORROW

**11** 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 8th 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.

## KEY COMMITMENT 3. PROVIDE PROJECTS AND PROGRAMMES THAT DIRECTLY ENHANCE WELLBEING

**3** The University is noted for and campaigns on issues related to mental health, particularly amongst young people. Worcester was one of the very first universities in the UK to appoint specialist student mental health counsellors and is playing a leading role in a partnership with the National Union of Students and others on making universities and cities 'suicide safer' through early intervention.

The UK's first official Active Ageing Week took place in Worcester when older members of the community had the chance to take part in a host of activities, officially collaborating with the International Council on Active Ageing. Talks from academics on loneliness, nutrition, active leisure and workshops on meditation, mindfulness, balance and coordination, as well as seniors fitness testing.

## THEME 2: INTEGRATING SUSTAINABILITY THROUGH KNOWLEDGE, SKILLS AND EXPERIENCE

The University seeks to further embed inclusion of sustainability principles in its formal curriculum and learning and teaching practice. This will enable all our students to develop a future focus and global outlook and the ability to innovate and lead change in support of sustainability.

In terms of our internal stakeholders, we will provide appropriate sustainability and environmental training for all our staff and students and encourage them to engage in sustainability practices. We have incorporated environmental sustainability responsibility in all staff job descriptions.



Vice Chancellor and CEO professor David Green and Students' Union President Lucy Conn signing up their respective organisations to the SDG Accord, with Iain Platton CEO of EAUC - The Alliance for Sustainability Leadership in Education

Equally, public outreach and engagement is a key element of our sustainability work, reflecting our commitment to creating benefit for the communities we serve, both locally and globally. Continuing our 'Living Lab' approach we provide experiential participatory learning and encourage active citizenship in a range of collaborative projects.

**KEY COMMITMENT 1.**  
**EMBED INCLUSION OF SUSTAINABILITY PRINCIPLES IN THE FORMAL CURRICULUM, LEARNING AND TEACHING PRACTICE**

**4 QUALITY EDUCATION** Winning a silver Green Apple award in conjunction with Kingston University, we developed a tool to simply assess the sustainability content of the undergraduate curriculum as well as the on-campus research being conducted into sustainability and the SDG's. 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.



Collecting the Silver Green Apple at the Houses of Parliament

**17 PARTNERSHIPS FOR THE GOALS** Changing education is the first step towards changing the whole of society. That is 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.



**KEY COMMITMENT 2.**  
**PROVIDE APPROPRIATE SUSTAINABILITY TRAINING FOR ALL OUR STAFF AND STUDENTS AND ENCOURAGE THEM TO ENGAGE IN SUSTAINABILITY PRACTICES**

**10 REDUCE INEQUALITIES** We are ranked in the top 10 of universities across the UK to best reflect society in terms of socio-economic class, according to analysis by the Higher Education Policy Institute. We provide training in sustainability to all staff including it as part of mandatory induction and taking personal responsibility for environmental sustainability is a mandatory clause in all staff's job descriptions. All students receive training in sustainability in Welcome Week and there are numerous opportunities for students to get involved either as part of their studies, in paid part-time roles or as volunteers.

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. We plan to offer students taking the test annually at enrolment so we can actively measure sustainability skills in undergraduates as they move through the years of their course.

**KEY COMMITMENT 3.**  
**ENSURE THERE ARE OPPORTUNITIES FOR STUDENTS AND VOLUNTEERS TO ENGAGE IN APPLIED PROJECTS**

Nearly 300 students signed up to receive regular updates and information about sustainability opportunities. From helping to run Go Green Week and regular litterpicks to longitudinal research projects such as Energize Worcester or Woo Bikes.

**14 LIFE BELOW WATER** Students got to grips with the scale of plastic pollution in our oceans and beaches by working with the Marine Conservation Society where they learnt about the amount of discarded plastic ending up in the environment, and the impacts it has, particularly on wildlife. They ran experiments looking at how plastic is causing pollution, in ways we might not be aware of, which included investigating beach sand samples from Porth beach in Newquay, Cornwall. They looked under microscopes for plastic particles in sand taken from the beach surface above high tide and at a depth of 30cm, and from the surface at the high tide level. They then counted the number of plastic items in the sample using high-powered microscopes. Even in such small (10 ml) samples it revealed the scale of the problem, with many small plastic fragments found, but also nurdles (a basic form of plastic used in manufacturing), fragments of fishing line, and plastic fibre (possibly from clothing). The number of items recorded in sand collected from above the high tide line at the surface was equivalent to nearly 160 particles per litre of sand, whilst over 30 particles per litre were found in sand taken at a depth of 30 cm at the high tide line.

**15 LIFE ON LAND** **GO GREEN WEEK ON CAMPUS** 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 2019 included nature photo competition, examples of grow your own from the students' allotments. Food featured with meat free recipes, demonstrations and free food. Biodiversity enhanced with, making bird feeders and wild flower seed bombs and nearly 500 primary school children came onto campus to learn how to live sustainably taking with them their own pledges to live by the 10 Golden Rules especially adapted to be age appropriate.



**Worcester's 10 Golden Rules for Living Sustainably in Worcester**

1. Drink more tap water.
2. Walk, cycle or scooter to school or the shops.
3. Use both sides of a piece of paper.
4. Eat more fresh fruit and vegetables, ask for these as snacks rather than sweets.
5. Switch off computers and lights and turn off your chargers at the wall.
6. If you are cold at home put on a jumper, don't ask for the heating to go up.
7. Reuse the same cup, save washing up.
8. Pick up litter. Can you recycle it?
9. Turn off the tap when brushing your teeth.
10. Share your toys.

**GOGREEN WEEK**  
 #bethechange

University of Worcester SUSTAINABLE DEVELOPMENT GOALS

## THEME 3: MITIGATION, ADAPTATION AND RESOURCE EFFICIENCY

The University has declared a **climate emergency** and **has committed to net carbon neutrality by 2030**. It will ensure the strategic and operational controls, to manage and reduce carbon dioxide and other greenhouse gas emissions. We will continue to construct and refurbish our estate to the highest sustainability standards. We will encourage our stakeholders to change their behaviour so that their consumption of goods and services is reduced. We will achieve this through practical demonstrations, Go Green Weeks, Green Impact projects, student, and staff training programmes. We will continue to operate our certified EMS. This framework ensures we prevent pollution by reducing emissions and discharges, reducing our use of natural resources, such as energy and water, and encouraging the reuse of resources whenever possible including use of recycled materials and recycling.

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>

### KEY COMMITMENT 1.

Manage our estate to mitigate against climate change (through reduction of carbon emissions) and to ensure future resilience through engagement in adaptive strategies

### KEY COMMITMENT 2.

Optimising resource efficiency and stimulating a shift to sustainable models of consumption

### KEY COMMITMENT 3.

Minimising pollution



## UNIVERSITY KEY PERFORMANCE INDICATORS AND TARGETS: CARBON

The following tables and charts 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\* (tCO<sub>2</sub>e) decreased 11% between 2017-18 and 2018-19, and 14% from the baseline year (2008/9) which is welcome. However, we are still significantly missing our target of 40% by 2020 from a 2008/9 baseline. See figure 1. We consumed less gas and electricity last year 16,092 MWh compared to 15,158 MWh this year, which is pleasing.

Electricity carbon emissions reduced 18% from last year. This is the first time we have achieved a significant reduction in electricity use 6,018 MWh to the 5,465 MWh, a reduction of 9%. More UK electricity is generated from renewable sources so everyone's carbon emissions from electricity went down by 9%.

Gas carbon emissions reduced 3.8% from last year as did consumption from 10,073 MWh to 9,692 MWh. The year was slightly warmer with 4% fewer degree-days.

Fleet carbon emissions decreased 17% from last year however; they are up 15% from our baseline. Diesel consumption reduced from 12,689 to 9,555 litres, petrol has remained similar. Continued reduction is the result of replacing our fleet vehicles to electric.

### 2. IN RELATION TO THE NUMBER OF STUDENTS AND STAFF AT THE UNIVERSITY (TCO<sub>2</sub>E/FTE)

Emissions intensity has decreased by 9% compared to last year and 46% 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. Our recruitment declined slightly by 2.5%. We now have 9,304 full time equivalent students and staff on campus compared to 5,868 in our baseline year.

### 3. IN RELATION TO UNIVERSITY BUILDINGS – FLOOR SPACE (TCO<sub>2</sub>E/SQM)

Emissions intensity – floor space has decreased by 11% compared to 2016-17 and by 50% 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 handed back a small residential hall but opened the Art House, the buildings are of a similar square meterage.

## BENCHMARKING

### SCOPE 3 INDIRECT CARBON EMISSIONS

Scope 3 emissions\* have increased 23% last year, this is predominantly due to changes in our commute travel emissions for both staff and students and 16% from the base year (2012/13). Therefore, we are significantly failing to meet our targets. See figure 1. It is important to note one of the two primary contributors to these indirect emissions, procurement, does depend on spend each year. Therefore, if we spend more emissions go up. A factor arguably the University has more influence over is staff and student commuting to campus. Unfortunately, these emissions have increased by 43% in the past year; more people are driving on their own to campus. See figures 1 & 2 below.

Full details are shown in the tables below, highlights include:

- St John's Campus (SJC) reduced electricity from 3,899 MWh to 3,561 MWh a reduction of 8.6%.
  - 1,283 lights converted to LED on SJC for example 18.5 MWh saved in Woodbury Building saving 10% electricity
  - Students' Union electricity consumption reduced 144MWh during the year due to switching heating from electric to gas.

- Water has increased 33% back to 2016/17 levels. The increase was the result of billing errors made on SJC halls meter. The supplier had been billing the account on actual meter reading since 2017, when in reality the readings were estimates and were underestimated. All under consumption on the account since 2017 is now resolved during this reporting period.
- The percentage of staff driving themselves to campus increased from 57% to 66% and students driving on their own to campus also significantly increased from 29% to 41%. Car share, bus use and walking have all declined.
- Weights have reduced for both black and green waste streams, e.g. black down from 206 to 158 tonnes. Carbon emissions from waste has reduced from 12.2 to 9.1 GHGe, 25.49%.

<https://www.worcester.ac.uk/documents/carbon-emissions-target-progress.pdf>

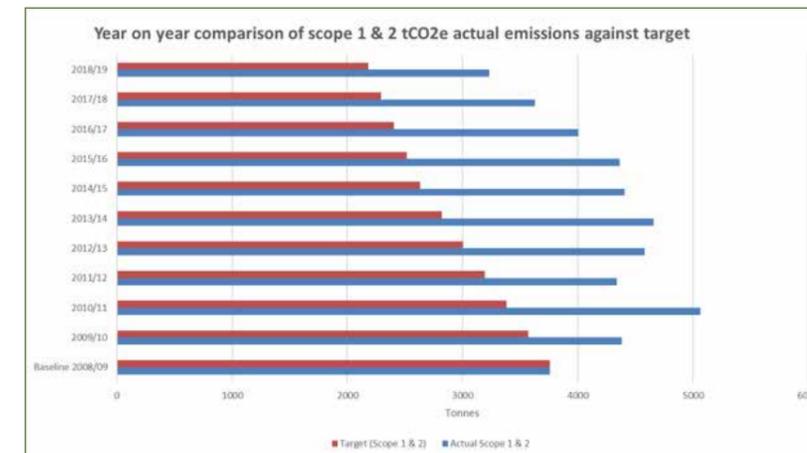


Figure 1: Year on year comparison of scope 1 & 2 tCO<sub>2</sub>e actual emissions against target

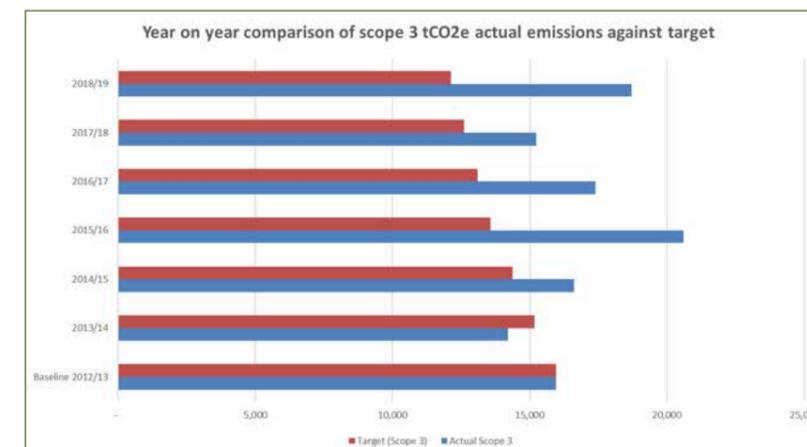


Figure 2: Year on year comparison of scope 3 tCO<sub>2</sub>e actual emissions against target

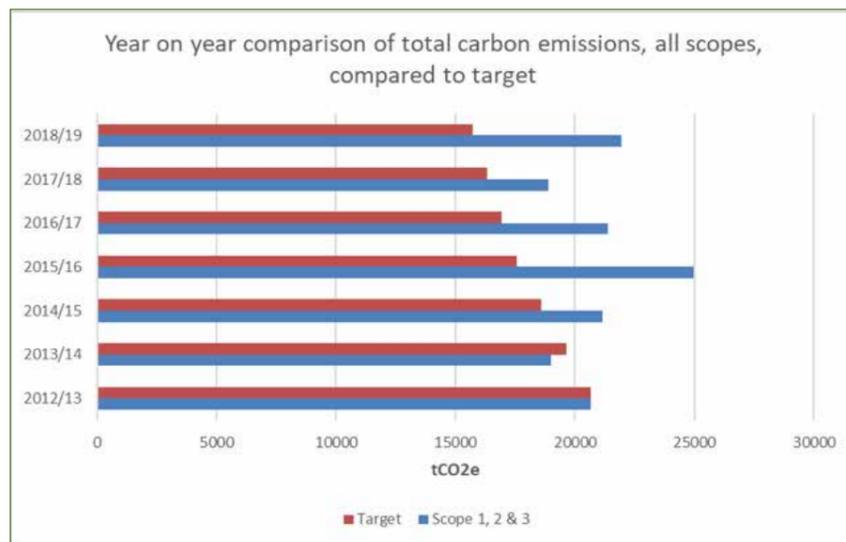


Figure 3: Year on year comparison of total carbon emissions, all scopes, compared to target

## NON-CARBON KEY PERFORMANCE INDICATORS AND TARGETS

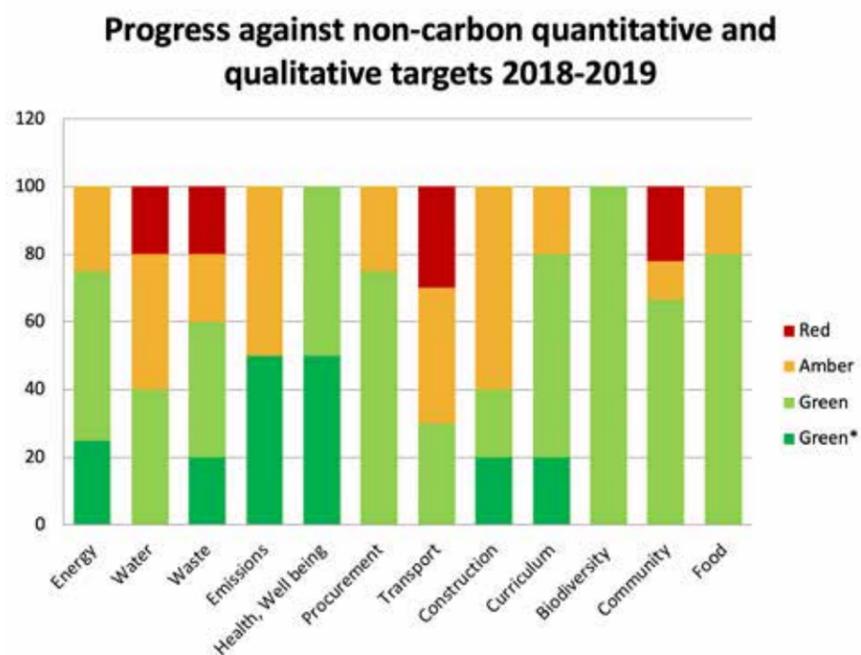


Figure 4: Progress against annual targets for qualitative projects to promote sustainability. More information about the non-carbon targets is available on the Targets page of our website.

<https://www.worcester.ac.uk/documents/qualitative-quantative-targets-progress.pdf>



### ENERGY

Progress in these targets was good with 4 green/ 2 green\*, and 2 amber. 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 1.9% of total electricity consumption and our kWh consumption decreased 9.2% against 2017-2018 levels. Gas reduced 3.8% over the same period. The average DEC operational rating decreased from 65 in 2018 to 60 in 2019. 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 role of smart boiler controls in producing new opportunities for energy management for young people living in shared rental properties.



### WATER

Progress to reduce water usage is not on track. Water GHGs emission increased 75% against 2012/13 levels. The growth in the estate coupled with difficulties identifying meters and correct billing compound the issues along with some technical difficulties with fiscal meters losing connection to the automatic monitoring and targeting system. More drinking water stations were installed across the estate including in the Students' Union bar.



### WASTE

Progress increasing recycling and reducing waste to landfill continues to make good progress, with three green/green\* and one amber partially met target. Black waste collection weight reduced 23% against 2018/19 levels and 1000 recycling bags have been procured ready for a campaign commencing in 2020 with a local social landlord and street level properties following a successful pilot in 3 High Rise blocks. Charity donations for reuse weight in tonnes decreased from 39t to 2017/18, to 24t in 2018/19, a 38% reduction. This was primarily due to vacancies in staffing. We are 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.



### EMISSIONS AND DISCHARGES

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.



### HEALTH AND WELLBEING

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. This project presented at the Learning and Teaching conference 2019.



### PROCUREMENT

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. We have been re-accredited for the next two years under the new NUS led scheme.



### CONSTRUCTION AND REFURBISHMENT

There were no new build projects in the last year. Looking at refurbishing our current estate the improvements to plant and infrastructure has resulted in 66% of the estate has achieved a DEC C rating or above and 42% has achieved B or above which is good progress on our targets. A new standard has been adopted for refurbishment projects, Royal Institute for Chartered Surveyors 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. The Art House was Highly Commended in the Campus of the Future Green Gown awards.



## TRANSPORT

Transport initiatives have not progressed well this year. Staff travelling by car alone increased to 66% in 2018/19 and students travelling by car alone increased to 41% in 2018/19. The percentage of students travelling alone by car between their home address to term time address was 24% in 2018/19, another increase. As this is one of the largest contributors to our carbon footprint renewed efforts are required in our parking policy to make the step change reductions required. Interest continues in the innovative pool bike docking system, a paper was presented at a Dutch cycling conference, and Woo Bike share pilot received a Gold Green Apple award. We were invited to speak at an international conference dedicated to University Mobility, in Krakow about the bike share project. The electric vehicle fleet has been increased and both West Midlands Railways and First Bus group have offered free and discounted journeys for prospective students attending open and visit days, an initiative, which has seen as innovative in the sector with interest from many HEIs to replicate this offer.



## COMMUNITY INVOLVEMENT

On campus engagement in student switch off saw an increase with 362 halls residents pledging their support, 66 entries in the climate quizzes and 180 students engaged across three campus visits. Over 150 students signed up to sustainability engagement activities in welcome week and the international fair, which is the highest numbers to date. However, student awareness and actions of general sustainability has decreased and we are not meeting the targets set. We acknowledge we need to add additional momentum to our communications and have changed our social media strategy, the refreshed webpages and www.susthingsout.com aim to help this. We now have more data and by mapping to the SDG's we are working on better and meaningful engagement with the student population. The vacant sustainability coordinator post may have contributed to this failed target. We also failed by 50% to meet our Green Impact team targets with just eleven teams engaging.



External community involvement was significantly more positive with collaborative working with Worcestershire and Worcester City Council and other third sector organisations. World Car Free day is an excellent example of joint working. Led by the City Council this was the first time an event like this has been attempted in Worcester. A shopping street closed for half a day to vehicular traffic and activities, games, crafts spilled out onto the street. Businesses saw an increase in trade and new customers. The event was covered on BBC Midlands Today and its success will allow organisers to expand the events.

## BIODIVERSITY



The Biodiversity Strategy and Biodiversity Action plans were both updated in 2019. 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. Wild flower meadows and implementing robust management and measurement techniques have been a focus of the committee's work this year. Dr Duncan Westbury is involved with research at the University of Worcester that contributes towards making farming more sustainable. He specialises in 'agroecosystems' in which farmers are encouraged to work with nature as opposed to against it. He leads students in planting wild flower meadows on campus. Another of his research projects involves turtle doves, which are in significant decline in the UK despite all efforts to conserve them. The extinction of yet another bird species from the UK is still a possibility. This project with the RSPB seeks to develop new approaches for farmers and landowners to provide enough food for turtle doves during the summer months.



## FOOD

Sustainable Restaurant Association certification maintained at the highest rating 3 star. Aramark's (university caterers) Chef Julien Atrous has been instrumental in training students in how to cook sustainably, running a session with the outdoor pizza oven. The fruit and vegetable stall on campus has been very successful. Items, which at the end of the day, would have gone into the waste stream, students dehydrate them as healthy snacks for distributing free during sustainability events. More herbs have been planted by the grounds team in the flower beds around campus and all are encouraged to forage with the development of the St John's foraging map. The cob pizza oven has had many firings over the year.



## THEME 4: GLOBAL SUSTAINABILITY ETHICS, PARTNERSHIPS AND LEADERSHIP

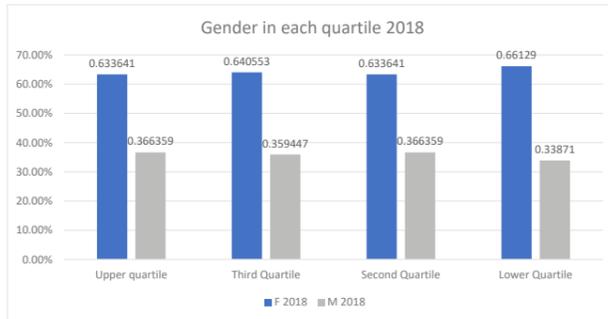
We will seek to extend the University's academic profile, nationally and internationally, through support for pedagogic innovation, projects, scholarship and research into sustainability and the development of global academic partnerships around sustainability. In its activities the University seeks to encourage sustainable and socially responsible procurement and employs whole-life costing and environmental criteria for selection. The work of the University is inspired by a commitment to human equality and dignity, democracy, mutual respect and inclusivity and the promotion of ethical and professional behaviours. We will continue to deliver external engagement networks to further develop internal and external capacity and knowledge in sustainability and seek to influence wider sustainability policies internationally. Our high ranking in THE Impact League will support this approach.

### KEY COMMITMENT 1. TO INVEST IN PEDAGOGIC INNOVATION, SCHOLARSHIP AND RESEARCH ON SUSTAINABILITY WITH GLOBAL IMPACT



The University is ranked first in the UK in The Times Higher Impact League for gender equality. 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. The Gender Pay Gap data provides the difference between the average earnings of men and women across an organisation, expressed as a percentage of men's earnings. The use of Gender Pay Gap data can help to identify the extent to which men and women undertake different types of roles, at different levels within the organisation, which can also create differences in pay. It is different to equal pay data which considers rates of pay for the same level of work. The data provided below relates to University of Worcester's Gender Pay Gap report for 2018 taken on the snapshot date of 31 March 2018.





## WORCESTER POLYTECHNIC INSTITUTE

**4 QUALITY EDUCATION** 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.

**10 REMOVED MODERATORS** 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.

## KEY COMMITMENT 2. TO ENHANCE OUR POSITIVE SOCIAL AND ENVIRONMENTAL CONTRIBUTIONS THROUGH OUR SUPPLY CHAIN

**12 IF SPENDING CONTRIBUTES TO PROGRESS** The Head of Procurement is a member of the Sustainability Strategy Group which reviews the potential projects before they are ratified. The sustainability agenda in procurement is proceeding rapidly and there are onerous expectations on us to provide information in a number of formats to a number

of organisations. Our main objective here is to assess the number of areas we are expected to report and we are currently trying to create a single source of information to extract the data required. The University signed up to the Net positives supplier engagement tool in August 2017.

**11 SUSTAINABLE SUPPLIERS AND COMMUNITIES** There are now 334 University of Worcester suppliers registered on the tool. The tool provides suppliers with an opportunity to create a free sustainable action plan, which in turn provides the University with good visibility of supplier sustainable actions. The Procurement team continue to roll out the tool to existing suppliers and are engaging new suppliers in the process. There is a sustainable procurement working group which is attended by academics and students as well as staff from Procurement. This is designed to get students more involved in our strategy for procurement. There will be an opportunity for a student to do some work as part of their workplace assessment in the department, to help assess the University's position on the flexible framework.

## KEY COMMITMENT 3. TO BUILD BENEFICIAL PARTNERSHIPS AND COLLABORATIONS THROUGH OUR SUSTAINABILITY ACTIVITIES AND ENHANCE OUR INTERNATIONAL SUSTAINABILITY VISIBILITY



**1 PEACE, JUSTICE AND STRONG INSTITUTIONS** The University is noted for being a beacon of academic freedom, supporting peace, justice and strong institutionally. Worcester Illustrators' Migration Exhibition went on a world tour and promoted peace and equality. This inspiring exhibition, featured the work of over 300 illustrators, including the likes of Axel Scheffler, best known for the Gruffalo is the brainchild of Illustration lecturers from the International Centre for the Picture Book in Society. It features more than 300 postcards each

bearing an illustration of a bird, representing the theme of migration. Illustrators from around the world have contributed, including well-known picture book illustrators. A digital map is included next to the artwork, on an iPad, allowing a visual guide to the origins of each postcard.

**4 QUALITY EDUCATION** Teaching experts from around the world came together at the University of Worcester in association with British Educational Research Association (BERA) to identify ways to move education forward on a global scale.



The Global Perspectives in Education conference attracted academics and teaching experts from across the globe, exploring innovative ways of and approaches to teaching and the challenges faced in supporting sustainable high quality education. The conference had a wide range of presentations considering the integration of technology within Indian teaching, inclusive education in African schools, a comparison of early maths education in Switzerland, Germany and Taiwan, opportunities for developing skills of teachers in Ethiopia, and how to assess the abilities of newly immigrated pupils.

**16 PEACE, JUSTICE AND STRONG INSTITUTIONS** A year after a "dangerous attack" on academic freedom by a Government whip, which was exposed by the Vice Chancellor at the University of Worcester, the Information Commissioner has delivered a significant victory for free speech. The Commissioner has found in favour of the University in refusing to release "all emails within the account of the Vice Chancellor, or anyone who provides him with administrative support, which contain the word "Brexit". In her judgement, the Commissioner stated: "If the university is required to put this information into the public domain, the Commissioner agrees that those views would be likely to be much more cautious and risk averse in the future and those concerned would be inhibited from providing a free and frank exchange of views for the purposes of deliberation."

The University of Worcester's Centre for Violence Prevention is an international centre of excellence in

violence prevention research, education and advocacy. It brings together a multidisciplinary team of academics and practitioners who develop and disseminate evidence-based practice. They are involved in delivering specialist training to those working with perpetrators of domestic abuse, as part of a £3m research project. This is part of a wider study, led by King's College London, which explores the relationship between substance misuse and domestic abuse. The five-year study looks at males in substance misuse treatment who perpetrate intimate partner violence.



Addressing Global Challenges in health and development conference organised jointly with Beacons Development Education Centre, explored the current and most pressing issues and challenges in health and well-being. The focus was on how these interact with and influence sustainable development from local to global level.

## GOVERNANCE AND EXTERNAL ACCREDITATIONS



### 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.

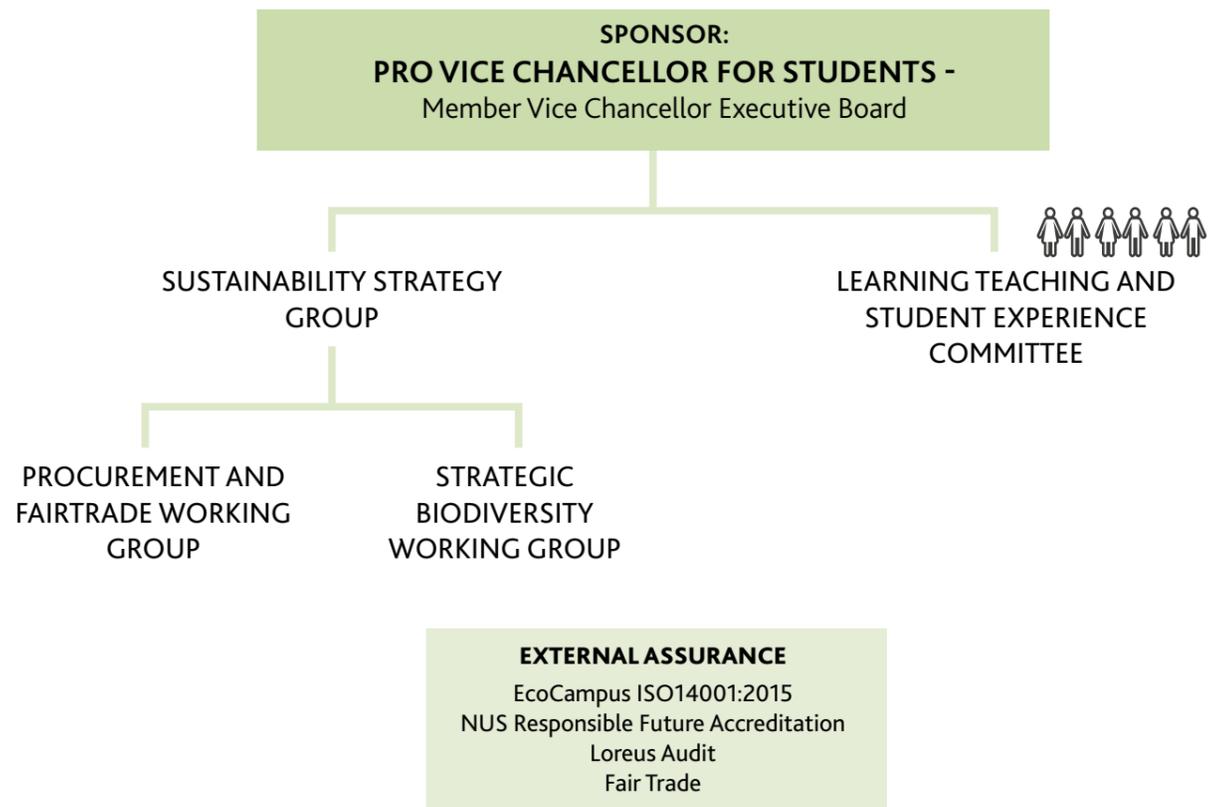


**12,000**  
STUDENTS & 1,200  
STAFF



**3**  
COLLEGES, 10 ACADEMIC  
SCHOOLS AND  
9 PROFESSIONAL  
SERVICES DEPARTMENTS

## SUSTAINABILITY GOVERNANCE



## 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.

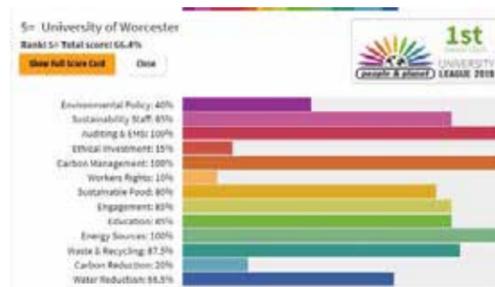
### ENVIRONMENTAL MANAGEMENT SYSTEM

The University continues to successfully implement an Environmental Management System (EMS) through the EcoCampus framework. We successfully completed an 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 publicly 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-systemiso140012015-ecocampus.aspx>

## ACHIEVEMENTS AND LOOKING FORWARD

### PEOPLE & PLANET UNIVERSITY LEAGUE

People & Planet has ranked the University of Worcester fifth out of 154 universities in the UK in its University League 2019, 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 three of the 13 categories.



### ECOCAMPUS PLATINUM



We were the first English University to achieve EcoCampus Platinum status in June 2010. We were also the second English University to gain ISO14001:2015 for all our campuses.

### THE TIMES HIGHER EDUCATION IMPACT LEAGUE

- Inaugural participant.
- Ranked thirty-third in the World.
- Joint third for Gender Equality.
- Seventeenth for Responsible Consumption and Production.



### RESPONSIBLE FUTURES ACCREDITATION

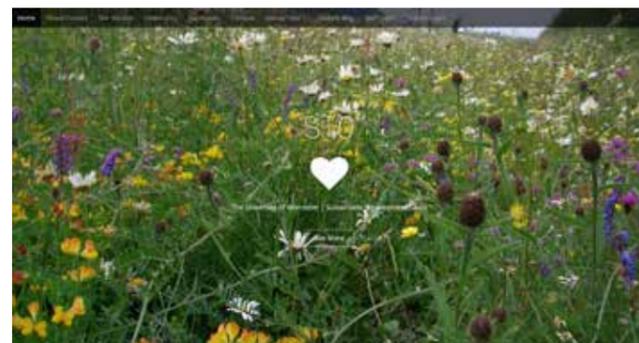
We achieved Responsible Futures accreditation from the NUS. This accreditation is for our whole institution approach to social responsibility and sustainability. We increased our score in the July 2018 reaccreditation process.



The University of Worcester annual Sustainability Report was, for the third year in a row, a finalist in the Green Gown awards. We continue to have Fairtrade status, retained the Sustainable Restaurants Association: 2015 three star standard and were highly commended for Campus for the Future and winner of Sustainability Institution of the Year at the Green Gown awards. We also achieved two Green Apple Awards a silver and a gold were collected at a ceremony at the Houses of Parliament.

[www.susthingsout.com](http://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 and declaring a climate emergency 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.

[www.susthingsout.com](http://www.susthingsout.com)



Bespoke sustainability magazine for the University of Worcester

## **ANNUAL SUSTAINABILITY REPORT 2018-19**

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