



Sustainability Strategy 2020 – 2030

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1. CONTEXT

UNIVERSITY STRATEGIC PLAN

This Sustainability Strategy has been developed to support the University's declaration of a Climate Emergency and aim of improving sustainability through our work mapped to the United Nations Sustainable Development Goals (SDG's) and reducing its carbon footprint. It supports the University Strategic Plan 2019 which includes a commitment to harness our people, research excellence, expert knowledge and infrastructure, to help find innovative solutions to the big challenges which face society, and specifically supports the objectives as set out in the University's [Sustainability Policy](#). It is important that the University demonstrates clearly its commitment and support for social responsibility, environmental sustainability and carbon emissions reduction to its students, staff and to the wider community.

The Sustainability Strategy is an overarching document which sets our **Vision** and **Approach**, and:

- Defines interested parties
- Sets out a framework of four themes and commitments
- Defines short, medium and long-term aims
- Outlines a methodology for reporting on progress
- Provides signposts to supporting documentation

UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS

In January 2016 the United Nations adopted 17 Sustainable Development Goals which have been endorsed by countries worldwide, including the UK. The Sustainable Development Goals, otherwise known as the Global Goals, are a universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity.

'The SDGs work in the spirit of partnership and pragmatism to make the right choices now to improve life, in a sustainable way, for future generations. They provide clear guidelines and targets for all countries to adopt in accordance with their own priorities and the environmental challenges of the world at large.'

'The SDGs are an inclusive agenda. They tackle the root causes of poverty and unite us together to make a positive change for both people and planet.'

United Nations Development Programme

The University connects to all of these goals on some level and our sustainability reporting demonstrates we have the potential to be a major contributor to fulfilling these goals by providing tomorrow's leaders, managers, scientists and teachers with the knowledge and cognitive skills to address the challenges of sustainability. The University of Worcester can make an important contribution to achieving the Global Goals through educating our students and staff, through our research and knowledge exchange, and in terms of how we manage and operate our business. The Times Higher Education Impact League measures social and economic impact using the SDG framework and UW is ranked 33rd in the world and is the highest-ranked institution in the overall impact table (2019) that does not feature in the research-focused THE World University Rankings. Strongest areas are gender equality and responsible consumption and production.



The University has signed up to the [SDG Accord](#) which demonstrates our commitment to do more to contribute to the Global Goals through our activities. It requires annual reporting on our progress in ways which share the learning with other learning institutions both nationally and internationally. Activities to strengthen our contribution to the Global Goals are summarised in our approach in section 3.

HIGHER EDUCATION AND SUSTAINABILITY

Universities recognise their need to contribute to delivering a range of positive economic, social and environmental impacts, as well as their role in mitigating 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 Global Goals. This wider approach has become prevalent in Higher Education with top performing University's having sustainability embedded within their curriculum, research, business, investments, human resources and organisational development and estates and operations functions. To ensure the UK's future workforce has the appropriate skills for the zero-carbon economy Higher Education, in particular through lifelong learning, will provide a natural platform for workers to adapt to new technologies and industries. In a Grantham Institute report (2019) especially in the West Midlands 10% of workers will require reskilling in the green economy.

Increasingly students view engagement with sustainability as an important part of their university course and wider university experience. National Union of Students (NUS) longitudinal surveys over the past eight years have shown that 80% of students think sustainability should be demonstrated by the institution and 60% would like to learn more about it whilst at university. NUS research also demonstrates that employer's value the skills that students develop when engaging with sustainable development issues. Students recognise this, with 80% viewing universities as key sustainability skills providers. [Data mapping](#) the views of University of Worcester students correlates to these national trends with around 80% committed to sustainability.

OUR STAKEHOLDERS

The University has considered the interests and roles of various internal and external stakeholders during the development of this strategy, for example in workshops and events such as materiality reviews by the sustainability strategy group. We will continue to work with different stakeholder groups to ensure our vision can be achieved, seeking the views of existing and potential students, staff, parents and alumni all have a stake in the responsible practices of the University. These stakeholders are both directly and indirectly linked to our activities and by engaging with the commitments in this strategy can bring significant benefits to both local and global communities. Our contractors and suppliers influence the wider supply chain and therefore provide an indirect opportunity to enhance broader community benefit.

OUR ACHIEVEMENTS

The University of Worcester has always embraced a wide-ranging and inclusive approach to sustainability and is highly regarded in this area, having achieved numerous awards for sustainability excellence. For the last ten years the University has been in the 1st class category of the 'Green' university league and has been celebrated for engaging in research on local and global sustainability issues.



- **2007** comprehensive quantitative and qualitative targets and objectives set for many areas including student travel after two years preparatory work establishing baselines.
- **2008** 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 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-time 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 is 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 a number of partners including 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. Strongest areas are gender equality and responsible consumption and production. 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.
- **2020** Board of Governors declare a Climate Emergency and adopt new Sustainability Strategy and carbon targets to be net carbon neutral by 2030. 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. Winning a silver and a gold Green Apple award for Benchmarking and Woo Bikes. Highly commended Green Gown Campus of the Future for the Art House and winning the Green Gown Sustainability Institution of the year.

BENCHMARKING OUR SUSTAINABILITY ACTIONS

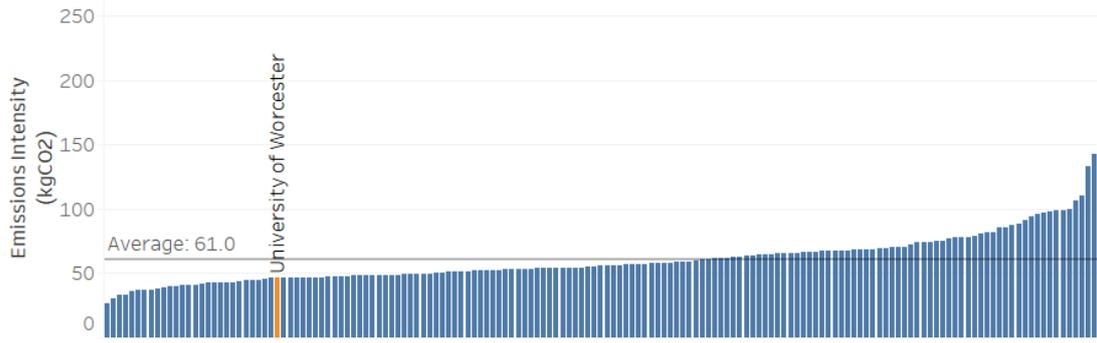
The Estates Management Record which is part of the Higher Education Statistics Agency annual data collection has around 230 metrics which record our campus sustainability. We use this dataset to benchmark our performance against other higher education institutions (HEI's) in the UK, although it is likely the number of metrics will reduce may not continue with all HEI's submitting data since the Office for Students have not made this mandatory.

We measure and report more holistically with an institutional approach to sustainability via the People and Planet University 'Green' League. This compares Universities based on a wider selection of criteria, which considers issues such as sustainability in the curriculum and community engagement, the HESA data is also used in these metrics and with the emergence of the THE Impact League this benchmarking tool may change or cease in the near future. The NUS Responsible Futures (RF) programme supports partnerships between Students' Unions and institutions to foster Education for Sustainable Development by embedding social and environmental ethics into the formal and informal curriculum. Worcester was an inaugural accredited RF University in 2015, and whilst this does not specifically benchmark against other universities, it does provide a measure of activity and recognises our whole institution approach to sustainability and social responsibility. In 2018, we achieved RF reaccreditation with an increased score.

From 2019, we report our activities as a signatory to the SDG Accord and submit evidence to The Times Higher Education University Impact Rankings which has provided further opportunities for comparison with other learning organisations in terms of our commitment to supporting activity to achieve the SDG's and our carbon reduction.



Emission Intensity in 2016/17



Change in Emissions Intensity - 2008/9 to 2016/17

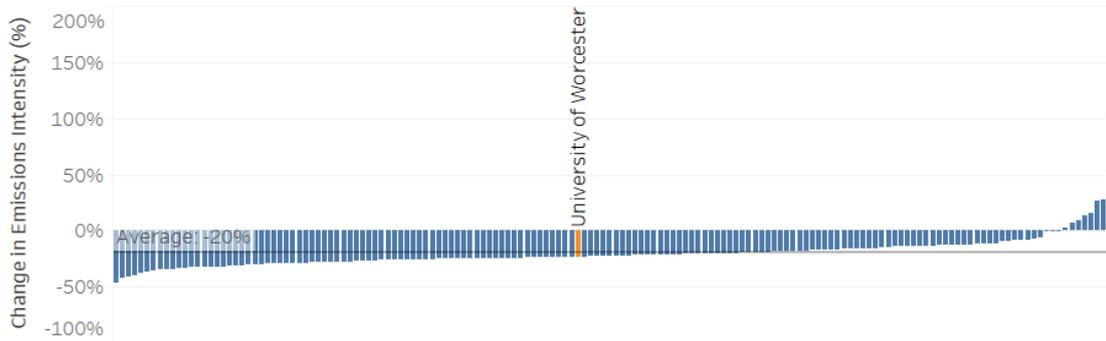


Figure 1 Comparison of The University of Worcester’s Scope 1 & 2 emissions with that of the rest of the UK Higher Education sector (Data from HESA)



2. OUR VISION

‘CHANGE TODAY PROTECT TOMORROW’ – WE WILL CREATE CRITICAL THINKERS AND AGENTS OF CHANGE TO PROTECT OUR COMMON FUTURE

Inspiring engagement with sustainability in students, staff and the community, benefiting society and supporting a responsible future. This document presents four themes all mapped to the UN Sustainable Development Goals that outline how the university will achieve its vision.

Theme 1: Promoting sustainability, social responsibility and wellbeing

Theme 2: Integrating sustainability through knowledge, skills and experience

Theme 3: Mitigation, adaptation and resource efficiency

Theme 4: Global sustainability ethics, partnerships and leadership

Our progression path is presented below:

ONE TO TWO YEARS

Further reductions in operational impacts focusing on direct and indirect carbon emissions reduction. Further embedding of curriculum and research scaffolding projects across the University and Students’ Union to increase Education for Sustainable Development opportunities. Expansion of sustainable development networks and wider sustainability engagement locally, nationally and internationally.

THREE TO FOUR YEARS

Demonstration of the wider benefits of sustainability activities, such as value for money, in the creation of environmental and societal value within the sphere of the University’s influence. All students at the university have the opportunity to acquire the knowledge, skills and attributes to create a more just and sustainable future.

FIVE PLUS YEARS

The University is part of a robust global network for knowledge sharing and benchmarking that demonstrates the University’s increasing contribution to achieving the Global Goals.



3. OVERVIEW OF OUR APPROACH AND IDENTIFICATION OF OUR KEY COMMITMENTS

THEME 1: PROMOTING SUSTAINABILITY, SOCIAL RESPONSIBILITY AND WELLBEING

SDGs relating to Theme 1: Promoting sustainability, social responsibility and wellbeing



Our key commitments are to:

1. 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

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, sustainability strategy, actions and performance and build strong partnerships and collaborations to share sustainability learning.

We are dedicated to promoting active citizenship which has been recognised by GuildHE as best practice with Skills for Tomorrow our long running school children's conference bringing employers and, students and school children together to demonstrate all future careers require sustainability skills not just those in the clean growth and low carbon economies. Through this and other community engagement activities we endeavour to create an institution which encourages students and staff to become good citizens, both within the University community and in the wider world.

The University is dedicated to improving 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.

THEME 2: INTEGRATING SUSTAINABILITY THROUGH KNOWLEDGE, SKILLS AND EXPERIENCE

SDGs relating to Theme 2: Integrating sustainability through knowledge, skills and experience



Our key commitments are to:

4. Embed inclusion of sustainability principles in our formal curriculum and learning and teaching practice



5. Provide appropriate sustainability training for all our staff and students and encourage them to engage in sustainability practices
6. Ensure there are opportunities for students and volunteers to engage in applied sustainability projects

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.

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.

THEME 3: MITIGATION, ADAPTATION AND RESOURCE EFFICIENCY

SDGs relating to Theme 3: Mitigation, adaptation and resource efficiency



Our key commitments are to:

7. Manage our estate to mitigate against climate change (through reduction of carbon emissions) and to ensure future resilience through engagement in adaptive strategies
8. Optimise resource efficiency and stimulate a shift to sustainable models of consumption amongst our stakeholders
9. Minimise campus pollution

The University recognises the potential impact of climate change and the strategic and operational need to control, manage and reduce carbon dioxide and other greenhouse gas emissions. We will continue to construct and refurbish our estate to the highest sustainability standards, adding to our range of accreditations and awards, for example BREEAM outstanding for The Hive, and the Riverside Building winning the Architects' Journal Retrofit award in 2011 and the Art House SKA gold rating in 2019.

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 and student and staff training programmes.

We will continue to operate our certified EMS which transitioned to the new standard in 2016, the second UK University to do so. 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 using of recycled materials and recycling.



THEME 4: GLOBAL SUSTAINABILITY ETHICS, PARTNERSHIPS AND LEADERSHIP

SDGs relating to Theme 4: Global Sustainability Ethics Partnerships and Leadership



Our key commitments are:

10. To invest in pedagogic innovation, scholarship and research on sustainability with global impact
11. To enhance our positive social and environmental contributions by working with our supply chain
12. To build beneficial partnerships and collaborations through our sustainability activities and enhance our sustainability reputation internationally.

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. We employ the NETpositive framework to help ourselves and our supply chain to gain more knowledge and transparency for workers' rights and ethical procurement and continually improve. 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.



4. REVIEW PROCESS

Monitoring against this strategy will take place annually and published through the annual sustainability report. Things change – this strategic plan will be reviewed and amended in line with changes to the University Strategic Plan, the Climate Emergency agenda and our ability to achieve net carbon neutrality.



ANNEX: CARBON EMISSIONS & TARGETS

The Sustainability Strategy should be read in conjunction with other key university documents such as the Energy and Water Management Strategy, Sustainable Waste and Travel Plan, Biodiversity Action Plan, annual quantitative and qualitative targets all of which provide detailed ‘road maps’ of how the university aims to meet the carbon reduction targets and sustainability goals.

Since the 2005/06 academic year, the University of Worcester has improved the quality and coverage of its greenhouse gas emissions measurement and reporting. In 2008/9 our baseline year was reset as the data collection methodologies improved and the envelop increased to include more scope 3 data. This is illustrated in Figure 1, and the table below.

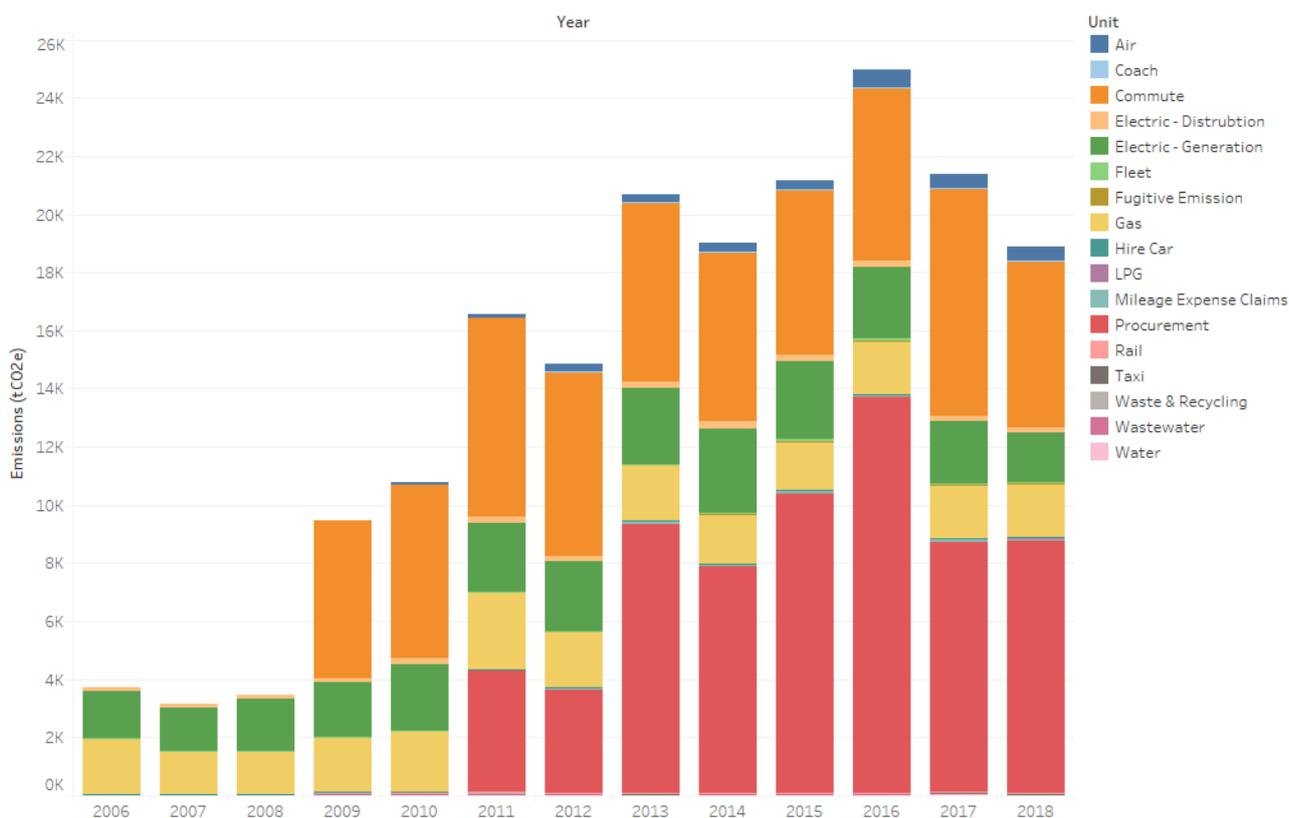


Figure 2 University of Worcester's Emissions by Type Since 2008/09

Scope	Unit	First Year of Data	% of 2017/18 Emissions
1	Fleet	2006	0.3%
1	Gas	2006	9.8%
2	Electric - Distribution	2006	0.8%
2	Electric - Generation	2006	9.0%
3	Hire Car	2006	0.1%
3	Rail	2006	0.1%
3	Wastewater	2006	0.2%
3	Water	2006	0.1%
3	Waste & Recycling	2009	0.1%
3	Air	2011	2.4%
3	Commute	2011	30.5%
3	Procurement	2011	46.0%
3	Coach	2012	0.1%
3	Mileage Expense Claims	2012	0.4%
3	Taxi	2012	0.0%
1	Fugitive Emissions	2014	0.1%



CARBON EMISSIONS TARGETS

The current carbon targets set by the University are as follows:

- 5% p.a. reduction in carbon emissions in Scopes 1, 2 & 3, against a 2008-09 baseline, from 2010 to 2015
- 3% reduction p.a. against the 2008-09 baseline from 2015 to 2020
- Scope 3 emissions baseline year varies as the envelop has increased;
- The profile of reductions reflects the fact that it will become incrementally harder to achieve reductions as improvements take place.

These targets will secure a 40% reduction in emissions by 2020 compared to 2008-09 levels.

Annual SMART carbon reduction and other quantitative and qualitative targets are set as milestones towards reaching this overarching target.

PROGRESS AGAINST CARBON TARGETS

The existing Carbon Management Strategy was last updated in 2016 and outlined the intended approach to achieving a 40% emissions target by 2020, against a 2008/09 baseline. Carbon Credentials has reviewed the trend in scope 1 and 2 emissions and compared this to the stated 2020 target of a 40% reduction against the baseline of 3,757 tCO₂ (Figure 1).

The University of Worcester must deliver a reduction in scope 1 and 2 emissions from 2017/18 of 1,366 tCO₂ to achieve the current 2020 target. While significant improvements have been seen since 2016, it's evident that the pace of reductions must accelerate if the 2020 target is to be achieved. This will require further investments in building energy efficiency and low carbon generation capacity, and a reliance on further decarbonisation of the UK's electricity grid.

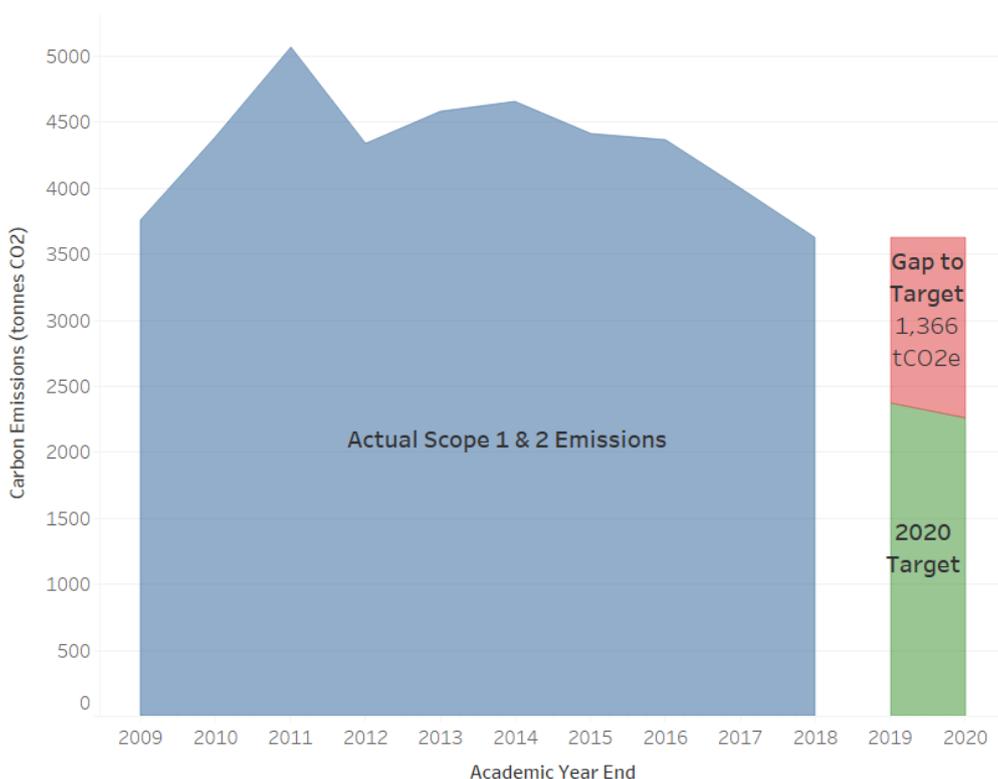


Figure 3 Scope 1 & 2 emissions and gap to 2020 target



Given the growth that the university has experienced since 2008/09 the trend in carbon emissions was 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 2008/09 to 2017/18.

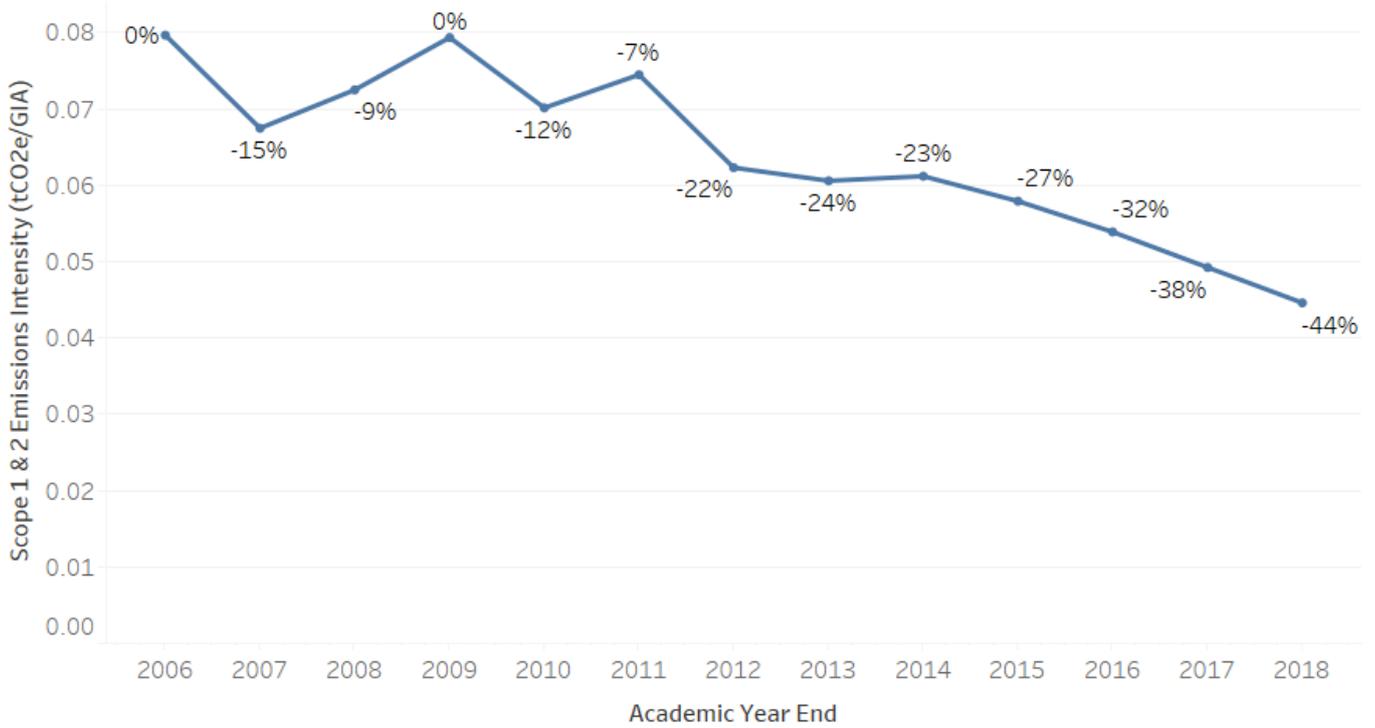


Figure 4 Emissions from gas and electricity relative to gross internal area since 2005/06

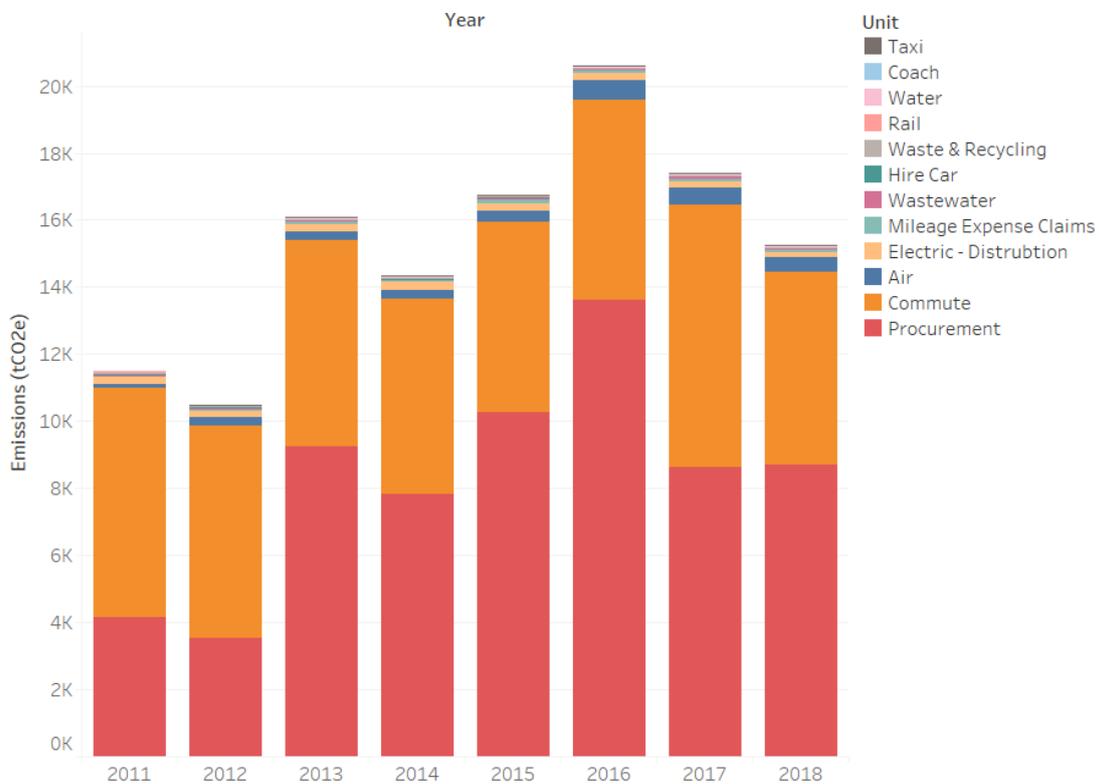


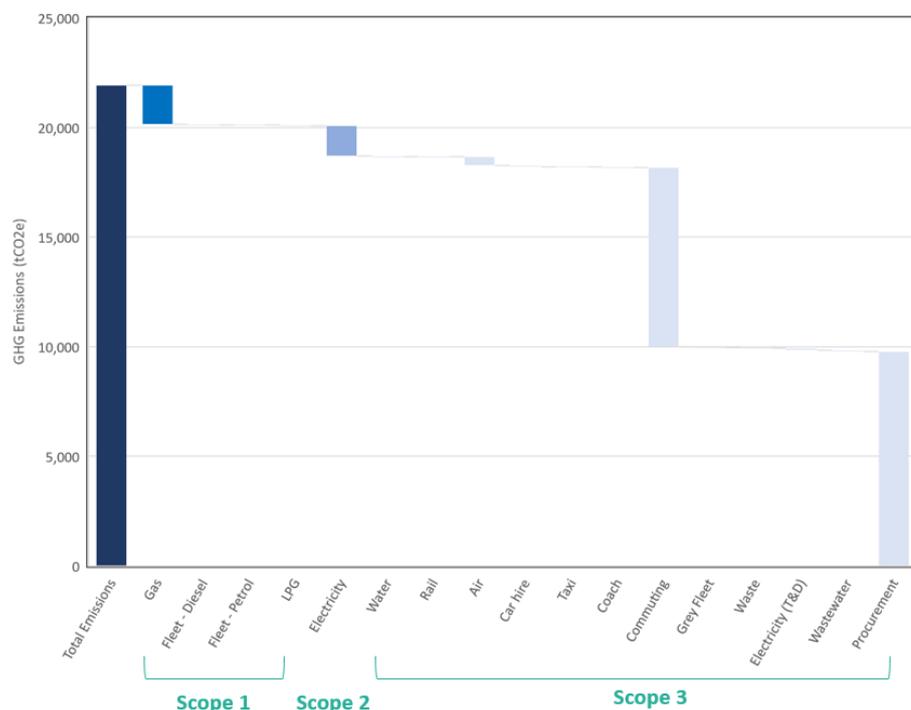
Figure 5 Scope 3 emissions since 2010/11



SETTING CLEAR & ACHIEVABLE TARGETS

By declaring a climate emergency the University has committed to reduce our greenhouse gas emissions in line with limiting warming to 1.5 degree, and to balance any remaining emissions by enhancing carbon sinks which remove carbon dioxide from the atmosphere such as planting managed woodlands. The University has committed to be net zero carbon by 2030, in all three scopes. We are taking part in a pilot with SOS UK and Worcestershire County Council to undertake some research that will contribute to a sector-owned carbon offset scheme based on managing university farmland more sustainably – namely for maximum soil health and carbon sequestration.

The majority of the University’s emissions fall into Scope 3.



	Emissions (tCO2e)
Scope 1	1,833
Scope 2	1,399
Scope 3	18,701
Total emissions	21,933

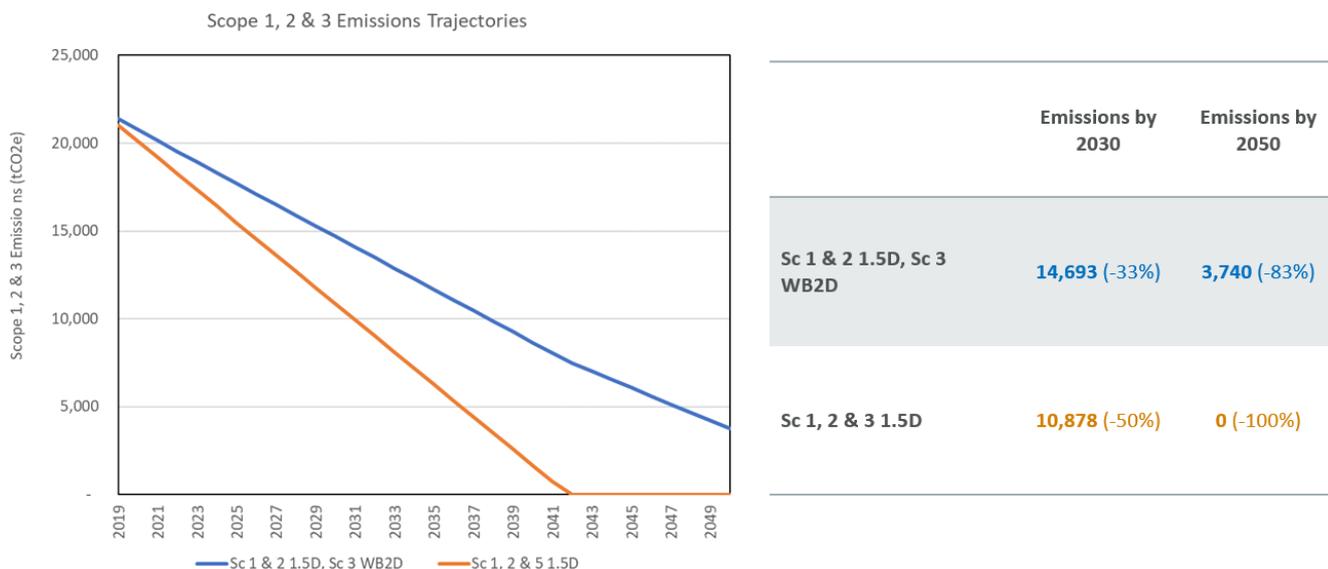
Carbon reduction requirements to 2030

Carbon Credentials has taken an in depth look at the universities carbon footprint and considered likely trajectories for all carbon scopes in a 1.5 degree warming scenario. For comparison they have also projected the reductions in emissions required to be consistent with limiting warming to 2 degrees.

This analysis has confirmed that the University needs to reduce total Scope 1, 2 and 3 emissions by 50% by 2030, against a 2018/19 baseline.



Combined Scopes 1, 2 & 3 Target

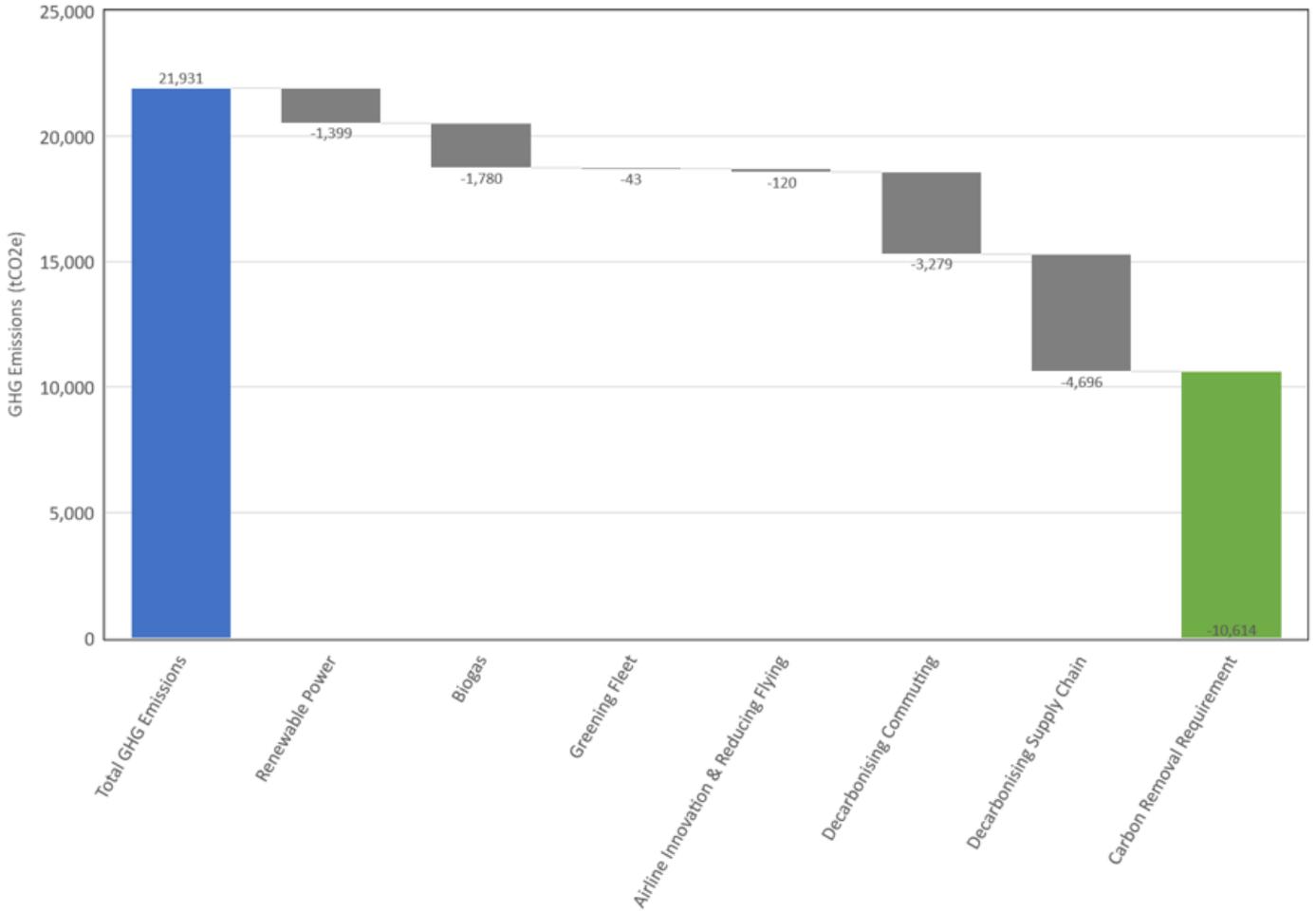


They have carried out a basic assessment of the following carbon reduction opportunities that could be implemented by 2030.

Emissions Source	Reduction opportunities assessed
Natural Gas & Electricity	<ul style="list-style-type: none"> Switching to renewable power and green gas
Purchased Goods and Services	<ul style="list-style-type: none"> Improve the quality of data by encouraging suppliers to report on emissions Encourage suppliers to set a science-based target and commit to net-zero
Business Travel - Flights	<ul style="list-style-type: none"> Aviation innovation Staff engagement <ul style="list-style-type: none"> Limiting the number people attending a meeting Increased use of video conferencing Behaviour change campaigns Policy changes within flight bookings Incentivise staff in teams by giving teams a "carbon budget" Reducing the number of high-carbon, high-class flights by moving to lower class
Fleet	<ul style="list-style-type: none"> Greening fleet
Decarbonising commuting	<ul style="list-style-type: none"> Zero emissions vehicle trends Engagement around car sharing

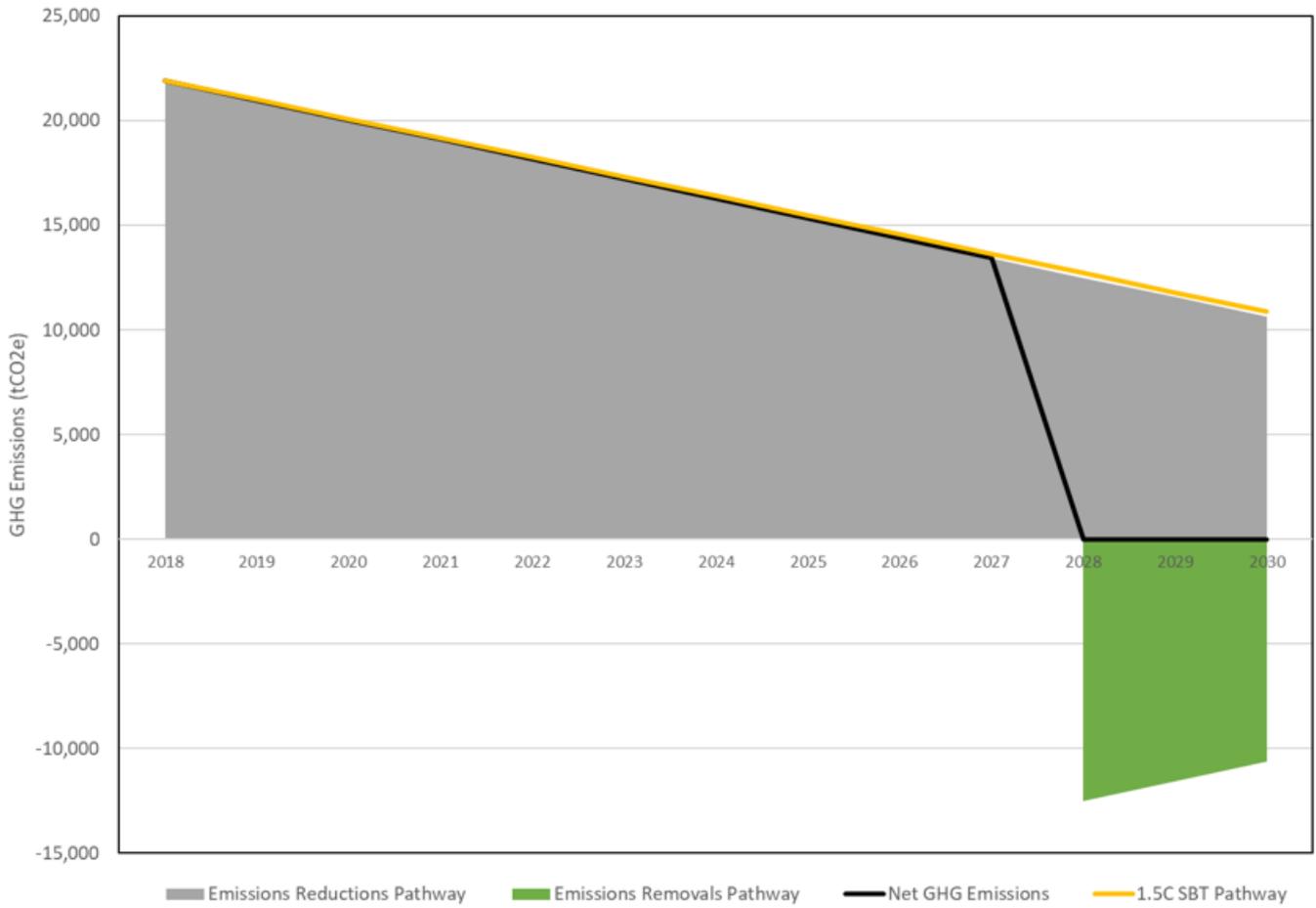
These carbon reductions opportunities total a 52% reduction by 2030 aligned to a target of 50%.



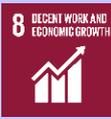


To achieve net zero emissions by 2030, the remaining emissions will need to be balanced with carbon removals, such as tree planting in managed woodlands and managing university land more sustainably – namely for maximum soil health and carbon sequestration.





TARGETS

Theme 1: Promoting sustainability, social responsibility and welfare	
Commitment 1: Embed sustainability principles within our communities' working and social lives	
<ul style="list-style-type: none"> By 2020, we will increase student awareness of the University's sustainability activities from 2016-17 baseline year of 47% to 65%. 	
<ul style="list-style-type: none"> By 2020, we will increase student sustainability actions from 2016-17 baseline year of 64% to 75%. 	
<ul style="list-style-type: none"> By 2023, we will have further developed our active calendar of community-based events as an exemplar of best practice model, collaborating with an even greater range of businesses, not for profit organisations, local authorities, and schools / colleges. 	
Commitment 2: Encourage active citizenship both locally and globally	
<ul style="list-style-type: none"> By 2020, we will further develop the 'Skills for Tomorrow' secondary schools-based sustainability conference, promoting sustainability career awareness across both Worcestershire and Herefordshire. 	
<ul style="list-style-type: none"> By 2021, we will generate further opportunities for collaborative projects and programmes in the multi-award-winning HIVE library and history centre. 	
<ul style="list-style-type: none"> By 2023, we will nurture further global sustainability partnerships supporting students flowing between countries doing city based experiential projects. 	
Commitment 3: Provide projects and programmes that directly enhance wellbeing	
<ul style="list-style-type: none"> By August 2020, we will Achieve level 3 standard of Worcestershire Works Well framework. 	
<ul style="list-style-type: none"> By 2021, we will build on our best practice sector leading approach to enhancing wellbeing for students and staff e.g. 'Safer-Suicide' campus. We will aim to provide exemplar sustainable food choices, provision of facilities for exercise and relaxation, and increased biodiversity. 	
<ul style="list-style-type: none"> By 2023, we will have strengthened sustainable travel options for students and staff, reducing the negative impacts of our growth on the city and alleviated pressures on campus car parking. We will build on our innovative award-winning bike share scheme Woo Bikes and helped to introduce this throughout Worcestershire. 	

Theme 2: Integrating sustainability through knowledge, skills and experience	
Commitment 4: Embed inclusion of sustainability principles in our formal curriculum, learning and teaching practice	
<ul style="list-style-type: none"> By 2020, we will have developed a sustainability-benchmarking tool to evaluate the integration of sustainability in curriculum and research that can be applied to other higher education institutions in the UK. 	
<ul style="list-style-type: none"> By 2021, we will further develop cross-university opportunities for engagement in Education for Sustainable Development (ESD) through use of initiatives such as Sulitest or cross-school project working/living-labs and ensure ESD continues to have prominence in key University documents such as the Learning, Teaching and Assessment Strategy, Graduate Attributes and Employability. 	
<ul style="list-style-type: none"> By 2023, we will have created opportunities for all undergraduates to access experiential learning in ESD within their taught programs. 	
Commitment 5: Provide appropriate sustainability training for all our staff and students and encourage them to engage in sustainability practices	
<ul style="list-style-type: none"> By 2020, we will refresh our bespoke sustainability blog (www.susthingsout.com) mapping it to the United Nations Sustainable Development Goals and promote this to all students and staff and encourage posting and comment. The University 10 Golden Rules for living and studying sustainably will similarly be refreshed. 	
<ul style="list-style-type: none"> By 2021, we will develop methods to measure levels of knowledge and skills to map the progress of students and staff in sustainability literacy. 	
<ul style="list-style-type: none"> By 2023, we will ensure all staff have appropriate discipline or service based ESD training to support their teaching or service delivery. 	



<p>Commitment 6: Ensure there are opportunities for students and volunteers to engage in applied sustainability projects</p>	
<ul style="list-style-type: none"> By 2020, we will have extended the number of D term Worcester Polytechnic (US) student projects from 16 to 24. 	
<ul style="list-style-type: none"> By 2021, we will create a sustainability 'Living Lab' as a user-centred, co-creation approach to integrating research and innovation processes in real life communities and settings; the 'Golden Triangle' of professional education. 	
<ul style="list-style-type: none"> By 2023, we will aim to expand the Living Lab to include services operating out of The Hive. 	

<p>Theme 3: Mitigation, adaptation and resource efficiency</p>	
<p>Commitment 7: Manage our estate to mitigate against climate change (through reduction of carbon emissions) and to ensure future resilience through engagement in adaptive strategies</p>	
<ul style="list-style-type: none"> In 2020 we will set new science based targets to a 1.5 degree warming to achieve net carbon neutrality by 2030. These will be based on scopes 1, 2 and 3 from a new base line of 2018-19. 	
<ul style="list-style-type: none"> By 2020 we will investigate the viability of utilising geo-thermal within the re-development of the Riverside Campus and connecting all University Buildings to a district heating system. 	
<ul style="list-style-type: none"> Average DEC rating for the university significant buildings is 60 in 2019. By September 2023 reduce the average DEC rating to 45. 	
<p>Commitment 8: Optimise resource efficiency and stimulate a shift to sustainable models of consumption amongst our stakeholders</p>	
<ul style="list-style-type: none"> By 2019/20, we will implement the SU-Eatable sustainable food project within our new catering contract to help promote suitable food choices for students and staff, including the roll out of the GreenApes App. 	
<ul style="list-style-type: none"> By 2021, all development and refurbishment projects will increase the efficiency of resources used whilst seeking to reduce the building's impacts on human health and the environment. System controls will be set to ensure buildings are fully optimised and real-time energy monitoring and analytics will be used to monitor performance. These principles will be embedded into projects to allow building users to occupy and control buildings simply and effectively. 	
<ul style="list-style-type: none"> By 2023, we will for capital projects and major refurbishments ensure 15% of energy required for the development be produced from renewable sources. 	
<p>Commitment 9: Minimise campus pollution</p>	
<ul style="list-style-type: none"> By 2019/20, we will do additional pollution awareness-raising training including annual spill test drills for all first responder radio users. We will complete second phase of storm/foul indicator and direction of flow drain covers. 	
<ul style="list-style-type: none"> From a 2018/19 baseline year, by 2021 we will reduce by 10% the number of students travelling alone in their own car between their home address and term address. 	
<ul style="list-style-type: none"> By 2023, we will have fully synchronised parking policies for students and staff to support and prioritise sustainable travel options. 	

<p>Theme 4: Global sustainability ethics, partnerships and leadership</p>	
<p>Commitment 10: To invest in pedagogic innovation, scholarship and research on sustainability with global impact</p>	
<ul style="list-style-type: none"> By 2019/20, we will create further opportunities within the Learning for Responsible Futures scaffolding program for staff targeted on the development of existing or new areas of the curriculum. This could include collaboration with professional departments or external partners. At least one award will be made to a support department seeking to connect sustainability thinking and practice with its work to extend learning support, collaboration with the Student Union, community or informal learning for staff and students. 	



<ul style="list-style-type: none"> By 2021, we will develop further collaborative CPD courses under the Emerging Leaders programme. 	
<ul style="list-style-type: none"> In 2023 we will hold a conference on pedagogic innovation, scholarship and research on sustainability with global impact. 	
<p>Commitment 11: To enhance our positive social and environmental contributions by working with our supply chain</p>	
<ul style="list-style-type: none"> By 2019/20, the University will encourage its contractors and its supply chains to bring added social impact (Social Values Act) through the project. This may include providing apprentice opportunities, use of local suppliers and labour force, undertaking works for local charitable organisations or providing education opportunities for local groups. 	
<ul style="list-style-type: none"> By 2021, we will ensure all major services and suppliers utilise the Net Positive Tool for reporting to help develop a more sustainable supply chain. 	
<ul style="list-style-type: none"> By 2023, we will reduce the carbon emissions attributed to contracts the University is able to influence by 5% against a 2018/19 baseline. 	
<p>Commitment 12: To build beneficial partnerships and collaborations through our sustainability activities and enhance our sustainability reputation internationally</p>	
<ul style="list-style-type: none"> By 2019/20, we will work hard to attract high quality researchers and grow our research income in sustainability. Our research and educational partnerships continue to extend across the world with projects on wetlands in Africa and with Worcester Bosch on boiler controls in student housing. We were the most improved university for research in the 2014 REF. 	
<ul style="list-style-type: none"> By 2021, we will further harness our infrastructure and knowledge to find innovative sustainable solutions to the ‘wicked problems’ faced by society. 	
<ul style="list-style-type: none"> By 2023, we will have developed further international research collaborations and evidenced several examples of international sustainability visibility. 	

