



UNIVERSITY OF  
GLOUCESTERSHIRE

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# Annual Sustainability Report 2020-2021



REGIONAL CENTRE OF EXPERTISE  
ON EDUCATION FOR  
SUSTAINABLE DEVELOPMENT

ACKNOWLEDGED BY



UNITED NATIONS  
UNIVERSITY



**Stephen Marston**  
**Vice-Chancellor,**  
**University of Gloucestershire**

It gives me great pleasure to share our Annual Sustainability Report for 2020-2021 and to celebrate our achievements and performance improvements this past year.

One of the most pressing issues we all face is the need to make deeper carbon emissions reductions, in response to accelerating climate change. We have now developed and released a Carbon Net Zero Strategy with targets to reach by 2030, as explained on page 7.

We have dedicated plans to address all areas of direct and indirect emissions in our next steps on decarbonisation. Our net zero objectives will also inform our new City Campus in Gloucester and its ambition for positive change within our wider region.

But we remain committed to expanding our collective brainprint in sustainability, not just reducing our operational footprint. This report underlines the continued dedication of our academic community to leading that change through our education and research.

At this time of transition and despite the challenges of the pandemic, I commend our staff, students and partners for their inspiration and contributions to securing a better collective future for all.



**Dr Alex Ryan**  
**Director of Sustainability,**  
**University of Gloucestershire**

The release of our Annual Sustainability Report 2020-2021 offers an opportunity to reflect on the resilience and growth of our 'whole-system' approach to sustainability.

Our original ambition was to be pace-setters on this agenda in our sector. We wanted to equip people to lead change, collaborate and find solutions, through delivery of our core academic activities. To focus purely on operational targets would be to miss the point.

So in this report, I am really proud to share not just our plans for the next phase of our carbon reduction work, but also some of the terrific impact we have been achieving through our research, as part of the national Research Excellence Framework assessment.

Our students, colleagues and partners continue to refresh our thinking, forcing us to join the dots, keep focus on the bigger picture, and ensure that this positive momentum continues.

Congratulations and sincere thanks to everyone guiding the moving parts in this ever-evolving system for positive change. We do hope you enjoy our report.

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# Introduction

Welcome to our Annual Sustainability Report 2020-2021 - the fifth report on the delivery of our Sustainability Strategy 2017-2022.

It shares our positive sustainability impact through learning, research and partnerships, and our ongoing work to reduce the negative impacts of running our University.

The report covers all 5 goal areas of our Sustainability Strategy:

- **Leadership and governance**
- **Student experience**
- **Academic innovation**
- **Business operations**
- **Engagement and partnerships.**

Sustainability is one of 6 cross-cutting strategic pillars of our University Strategic Plan 2017-2022. This report evidences how we oversee sustainability development and enables public scrutiny of our performance by stakeholders inside and outside the university.

The Annual Sustainability Report is compiled with input from senior managers and academic teams as well as our students and external partners. It is reviewed and approved by University Executive and University Council, and used for sharing progress and guiding teams in annual planning and priority setting. The images you see in this report are our actual activities and the people who led them.

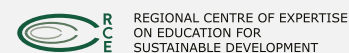
The report explains our top risks and priority challenges, linked to the performance improvement targets of our externally audited ISO 14001:2015 accredited Environmental Management System (EMS). Performance against our EMS targets for our main material impacts is shown on page 6. For an update on sustainability issues in our response to the Covid-19 pandemic see page 25.

Our report demonstrates the critical material impact of integrating sustainability into student development and academic activities. We hope you enjoy this spotlight on the positive benefits and ongoing legacies of equipping our people to take sustainability forward in all industries and professions.

## UNU Regional Centre of Expertise

The University is a designated Regional Centre of Expertise (RCE) in sustainability education, acknowledged by the United Nations University.

The RCE logo shows how we work with our partners on sustainability learning activities for mutual benefit.



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## Reporting on the UN Global Goals

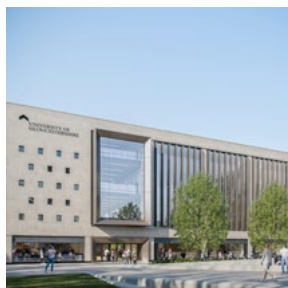
This report meets our annual reporting commitments on the Sustainable Development Goals (SDGs) as an institutional signatory to the tertiary sector SDG Accord.

On pages 26-27 we record how the actions and results shown in this report contribute to the delivery of the UN SDGs.

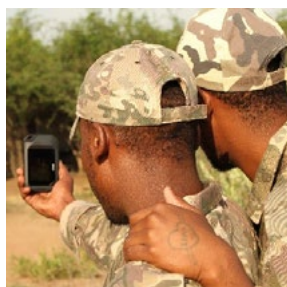


# Impact highlights

Our top sustainability stories for 2020-2021 are shown below, with our headline impacts for overall performance, operations, student experiences, academic impact and partnership activities:



**Carbon Net Zero strategy released**



**Research Impact Case Studies in sustainability**



**2 Heist Awards for Who Cares campaign**



**£1.2m grant for low carbon heat projects**



**RSP research Green Gown global award**



**Student-led carbon analysis at festivals**

## University staff award in sustainability

The following staff were shortlisted as the finalists for our 2021 Sustainability Staff Award:

- **Andrew Lansley and Tom Soper** - Senior Lecturers in Music Business
- **The Oxstalls Biodiversity Project Team**
- **Professor Arran Stibbe** - Professor in Ecological Linguistics

Congratulations to our winner – Professor Arran Stibbe! Arran has championed sustainability at the University over many years and continues to be impactful in Education for Sustainability.

The award recognised his online course development combining EfS with TESOL, co-delivering on EfS in the Postgraduate Certificate in Academic Practice with the Sustainability Team, and his free open online course 'The Stories we Live By' that educates people on unsustainable narratives in society.

## UK Green Gown Awards 2020

The university was recognised in 3 categories:

**UK and International Winner** – Next Generation Learning & Skills – RSP project  
– Dr Paul Vare and Rick Millican

**Finalist** – Sustainability Institution of the Year

**Finalist** – Next Generation Learning & Skills – Radical Sustainability project

## Heist awards 2021

We were awarded twice for our campaign that ceased the printed prospectus, at these awards for excellence in education marketing:

**Gold Award** – Best Undergraduate Prospectus – 'Who Cares? We Do' campaign

**Silver Award** – Best Use of Content – 'Who Cares? We Do' campaign

## UN Regional Centres of Expertise Awards 2020

**Outstanding Flagship Project**  
Live Smart - Community Challenge in partnership with Gloucester Cathedral

# Operational performance

This Annual Sustainability Report records performance against the objectives of our Environmental Management System (EMS) which is accredited to ISO 14001: 2015 and audited by British Standards Institute. The EMS passed its full recertification audit in 2020 which covers the next 3 years to 2023.

## EMS targets performance

Running an EMS and reporting on progress is key to our sustainability governance and is the system for identifying risks, reducing negative impacts, and addressing the concerns of stakeholders. The table below shows performance against the high-level operational targets of our EMS (last year's % shown in brackets).

EMS Objective	20-21 Data	19-20 Data	Target	20-21 Result (19-20%)	Status
Reduce % carbon emissions scope 1 & 2 (against 2005 baseline)	2,498 tonnes	1,955 tonnes	40%	45% (63%)	●
Reduce % waste produced (against 2010 baseline)	213 tonnes	216 tonnes	25%	63% (63%)	●
Increase % waste diverted from landfill (against 2010 baseline)	ZERO to landfill	ZERO to landfill	81%	100% (100%)	●
Increase % waste recycled (against 2010 baseline)	98 tonnes	109 tonnes	75%	47% (51%)	●
Reduce % water consumed (against 2010 baseline)	44,143m <sup>3</sup>	40,702 m <sup>3</sup>	30%	+8%*	●

● **Target met** - we need to keep it up   ● **Target in sight** - we are nearly there   ● **Target not met** - we need to do better

\* Previous year data non-comparable due to change of supplier and reporting practice - new 19/20 baseline adopted.

## EMS risks and improvement priorities

The top EMS risks identified in our internal risk registers underpin our prioritisation to:

- Continue to review, update and meet all our legal environmental obligations
- Continue to deliver on our carbon reduction and waste management targets

Our EMS improvement priorities at the close of 2020-2021 are:

- **Action to increase recycling rates as the pandemic subsides** - to address the impact on waste arising (e.g. in catering outlets) and improve our recycling rate which is below target. We are aware of this need as we have been unable to implement new improvement actions during the pandemic.
- **Reviewing solutions to tackle our water use** - engaging with our new supplier to plan water saving opportunities. Data accuracy improved during 2020-2021 but shows an increase in use, which also reflects higher halls of residence occupancy from the initial pandemic lockdown.
- **Resetting sustainability objectives in our catering service** - as campus outlets return to normal, we want to reflect changing customer priorities on healthy food, plant-based protein and single use containers.
- **Developing cross-site biodiversity objectives** - following improvements at our Oxstalls campus, we now need to reset policy and resume surveys after the pandemic, to establish new conservation objectives.

# Carbon Net Zero Strategy



In 2021 we released our new Carbon Net Zero Strategy which is targeting net zero emissions by 2030.

'Net Zero emissions' agendas have gained prominence as societies recognise the accelerating rate of climate change. Responsible organisations see the need to act now, with deeper cuts to emissions, in line with scientific advice on current rates of global warming.

This strategy builds on solid results from our first 10-year Carbon Strategy 2010-2020. Our target was 40% reduction by 2020 against our 2005 baseline measure for Scope 1 and 2 emissions. By 2021 we had achieved 45% reduction - in spite of the COVID-19 pandemic effect.

Our new net zero ambitions are anchored into our Estates Strategy and Sustainability Strategy commitments, with an annual allocated budget agreed for delivery on low carbon.

We have already won £1.2m of public sector decarbonisation grants to start work on major low carbon heating projects. Our new City Campus in Gloucester (pictured above) will also be part of our net zero plan.

Learn more about our net zero work [here](#) and see page 20 for more on emissions scopes and carbon measurement.

## Developing our Net Zero plan

Our 'net zero' plan adopts these fundamental principles:

- To drive emissions down with real action not rely on carbon 'offset' purchases - we want to go as far as we can with the available technology by 2030.
- To include wider 'scope 3' indirect emissions which are harder to influence but make up around 80% of the emissions that arise from university activities.
- To recognise that if we grow our student numbers and campus footprint, we still need to hit these targets - our calculations have factored in our growth targets.

## Our Net Zero targets

We will be using the baseline of 2018-2019, as this pre-pandemic year gives a clearer picture of true energy usage in a year of university activities.

Our targets are:

### Scope 1 (direct energy use)

33% cut

### Scope 2 (indirect energy use)

32% cut

### Scope 3 (staff/student travel)

3% cut

### Scope 3 (supply chain)

34% cut

Our travel target looks lower as it factors in changed travel habits despite growth in students and staff by 2030.



# Research Impact

## Research Excellence Framework 2021

The UK's Research Excellence Framework is the periodic national assessment that rates the quality and impact of academic research.

The REF 2021 exercise concluded in March 2021 and selected the best research outputs from the period between 2013 and 2020.

We are delighted that sustainability research featured strongly across both our top academic publications and chosen Impact Case Studies.

Impact Case Studies showcase the research pathways each university has selected to go forward for national assessment. They are chosen for delivering the most powerful contributions to people, communities and industries who benefit from the research.

Of our entire research portfolio, we are proud that 6 of our 26 selected Impact Case Studies (23% of our most impactful research pathways) were chosen due to the significant real-world sustainability outcomes.



## Stopping the poachers: technological solutions for rhino conservation - led by Professor Anne Goodenough and Professor Adam Hart

Tackling the threat of extinction to white and black rhinoceros through illegal poaching, this collaborative research worked with rangers and NGOs in South Africa, Namibia and Botswana. Creating low-cost implementable solutions using thermal imaging technology, it has eliminated rhino poaching at the primary sites and seen the rhino populations growing, as well as improving ranger safety, saving money and boosting ecological surveying data.

## Pioneering co-design in agri-environmental governance - led by Professor Janet Dwyer, Professor Julie Ingram, Associate Professor Jane Mills and Associate Professor Chris Short

Our Countryside and Community Research Institute has developed innovative participatory action-focused research initiatives to advance sustainable land management and equip people to influence policy in this area. Projects brought in the expertise of farmers and local stakeholders, using creative methods mixing natural and social sciences, to deliver outcomes in areas from natural flood management to biodiversity improvement to community value.





### **Changing university education for sustainability via curriculum innovation – led by Dr Alex Ryan, Professor Daniella Tilbury and Dr Ingrid Mula**

The University's pioneering work to set the agenda for Education for Sustainability in higher education has achieved sector-wide impacts through a series of research projects that have influenced curriculum change in the UK, across Europe and internationally. This has included ground-breaking research with the Quality Assurance Agency to mainstream this agenda and EU-funded research with 52 educational organisations in 33 countries across Europe.

### **A Rounder sense of purpose: educator competences for sustainability – led by Dr Paul Vare and Richard Millican**

This EU funded research has worked with teachers and non-formal educators across Europe, including university partners in Cyprus, Estonia, Hungary, Italy, the Netherlands, Germany, Spain and Switzerland. The partners developed and tested a model for improving the competences of educators in sustainability. Over 500 educators and student teachers created over 200 classroom activities, and the approach features in our teacher education programmes.

### **Ecolinguistics and its impact on life and work – led by Professor Arran Stibbe**

Using innovative Ecolinguistics approaches to engage and educate people on the power of language in tackling unsustainability, this research has powerfully influenced people in formal education, business and community settings, and through open learning. Its educational materials and communication tools have a growing international influence, including over 2,000 learners worldwide who have participated in its free online course.

### **Evidencing social value for the public and third sectors – led by Professor Paul Courtenay and Dr John Powell**

New approaches to understanding, measuring and evidencing social value have generated real outcomes and extended funding for communities and service users in 8 key third sector projects and with public bodies in England. The Social Return Assessment tool developed by the researchers has supported and empowered initiatives, education and enterprise actions on a range of issues, from organic master gardening to rural community energy hubs.

# Live Smart

Live Smart is our student-led engagement programme that delivers transformative experiences and practical opportunities in sustainability that build skills for positive change. Run in partnership with students, it helps students and staff to live in smarter ways that support wellbeing, save money and build community while protecting the planet.

## Team

2 students took paid specialist roles to shape and deliver activities on Live Smart's themes in collaboration with other University teams, community partners and students:

Will Weaving (Geography) - Live Smart Co-ordinator

Nikki Rimell (Geography) - Communications Officer



## Community Challenge

Despite lockdowns, 9 student finalists worked with 6 community partners on action and innovation projects. These ranged from developing biodiversity signage for the local council, to creating a concept board of a sustainable art installation at a local orchard.

## Events

Bike maintenance sessions were held on campus to support active travel as well as gardening sessions for small groups at the Park allotment, to support wellbeing and a sense of belonging.

## Communications

21 blogs with 11 student contributors provided practical tips and covered topics from climate and colonialism, to carbon jargon, fast fashion and nature for wellbeing.

## Community Challenge

- 33 Events Management students delivered 7 virtual or blended events in a live course brief
- 200 people attended the events across May Bank Holiday weekend
- Key partners included Gloucester Cathedral, Gloucestershire Wildlife Trust, Forest Green Rovers
- Events included sustainable cooking, sustainable sport, nature and wellbeing, allyship and panel discussions on how to influence change

## International recognition

Live Smart was recognised as an 'Outstanding Flagship Project' by the Regional Centres of Expertise network, co-ordinated by the United Nations University Institute of Advanced Studies in Sustainability.

The award recognised how Live Smart is co-created and led by students, as well as the collaboration and co-learning with community partners, notably our key partner Gloucester Cathedral.





# Student-led action



## Green Team society

Our Students' Union Green Team society ran a number of events to keep promoting sustainability ideas and action among the student community, despite the limits on in-person activities during the pandemic:

**Guest talks** - online speakers on topics such as wildlife, and cultural diversity in conservation.

**Online quizzes** - to build community and keep members engaged when away from campus.

**Biodiversity ID workshops** - sessions focused on the identification of different tree species.

As well as their own activities, the team were also invited speakers at Gloucester Cathedral's Gaia webinar programme, representing the voice of young people and sustainability in Gloucestershire.

## Billy Wassell - UK universities green investments campaign

Billy - who studies Ecology and Environmental Science - led a campaign based on a national policy motion to push the Higher Education sector on financing clean energy, as part of the Young Greens student and youth branch of the Green Party.

Working with other national campaign groups and using the University as a leading example that has already divested fossil fuel, Billy created a detailed action plan to research university investment policies. The plan targeted the worst offenders and demanded a commitment to divest from fossil fuels and re-invest in social and climate justice causes.

Further change actions Billy worked on included giving a talk to Education students on Green Party democracy and education policy, supporting Clean Air Cheltenham, and encouraging Young Greens members to participate in People and Planet's 'Fossil Free Careers' campaign.



# Learning experiences

Many universities map their course content relevant to sustainability but we aim to go further. We are designing it into whole course experiences including assessments and teaching methods.

This is education for sustainability - not just providing expert knowledge of sustainability, but developing graduate skills to apply it to all professions, with assignments that empower students to drive system change.

Here we share a sample of this year's curriculum stories, including change projects supported by our Learning Innovation for Tomorrow fund.



## Student-led carbon analysis at Download Festival

Students Kane Peters, Louie Townsend and Fraser Bryan helped shape a greener future for music festivals at Download Festival 2021. They developed a method to measure and communicate the carbon footprint of menu items at events and led a team of volunteers to deliver the work and inspire change at future events.

The initiative developed from the Sostenuto project which saw Music Business academics and students collaborating to change the course experience and develop its professional focus on sustainability.

## Students promote CheltenhamZero

Postgraduate Graphic Design students collaborated with Cheltenham Borough Council on research and development of a brand identity for CheltenhamZero - the Council's climate emergency response and ambition for carbon-neutrality by 2030.

Using creativity, applied research methods and knowledge from their course, students created visuals to communicate how Cheltenham town centre, its green spaces, campuses and infrastructure, might be imagined and communicated to advance the goals of CheltenhamZero.

The launch of this important initiative marked the start of an ongoing relationship between the University's School of Arts and the Council's climate emergency projects, using design to inspire and communicate a sustainable Cheltenham for its residents, students and visitors.



## Decolonising Learning

Our Decolonising Learning initiative aims to increase global perspectives and develop a more inclusive curriculum portfolio and wider University culture.

This year phase 2 of the project built on work in 2019-2020 and delivered a range of new activities:

- Redesigned 4 modules across business and education subjects as case studies of good practice
- Held dialogues with senior leaders and staff teams to establish strategic direction for future work
- Worked with 3 local secondary schools to share good practice and support change

Funded by our LIFT: Learning Innovation for Tomorrow programme

## Global Goals student internship

Geography student, Molly Gregory, completed an internship with the Chartered Institute for Logistics and Transport (CILT) as part of a professional experience module.

Supervised by the International Education Strategy and Business Development Lead, Molly gathered information from CILT's 40 international branches on how they are working towards the UN's Sustainable Development Goals, and supported the final report which was profiled by the CILT president in their inaugural green technology newsletter.



## Sustainability in Practice resource

The Sustainability Team collaborated with external organisations to create online learning resources that give students quick insights into sustainability in future workplaces and to support curriculum design.

Working with sustainability leaders The Heaven Company, who specialise in industry-education partnerships, the project developed adaptable case studies with short interviews and briefs, showing sustainability thinking in action in different sectors.

The featured organisations included sustainability pioneers Interface, Adnams, Holmen Iggesund and Gloucestershire Wildlife Trust, showing how the sustainability skills we are building into our courses can be applied to drive change in real work settings.

Funded by our LIFT: Learning Innovation for Tomorrow programme

## Business School Green Enterprise Competition

The Business School worked with the Start and Grow Enterprise (SAGE) project to run a student competition to turn waste into profit. Students took part in workshops with guest speakers to help develop their ideas and pitched their final submissions in a Dragons Den style event to an expert panel.

The Winning entry, by Julie Farr and Kiera Greenwood, offered a solution for turning household plastic waste into craft items.



# Research highlights

Research developments focused on sustainability challenges are developing across our Academic Schools, many of them working with partners focused on the implementation of findings in ways that can drive change and build collaboration with key stakeholders at local and global levels.

**Our highest performing research institute, the Countryside and Community Research Institute, secured over £1,267,092 of income for research geared to sustainability in 2020-2021.**

## Sustainable crop production to tackle climate change

2021 saw the completion of SOILCARE, an EU-funded research project led by Associate Professor Jane Mills from the University's Countryside and Community Research Institute.

The project tackled the challenges crop producers face of remaining competitive but without degrading soils. It involved 27 European organisations and evaluated soil-improving crop systems that will increase the profitability and sustainability of agriculture across Europe.

Soil is often a neglected focus of research linked to climate change, but soils are critical in providing food, storing water to prevent flooding and droughts, storing carbon and holding a third of global biodiversity assets.

SOILCARE worked with farmers across Europe, to identify and evaluate the new generation of soil-improving cropping systems. It developed a mapping tool for the best implementation sites, as well as guidance on barriers, policy levers and enablers to uptake.



## Professor takes the helm of the UK Agricultural Economics Society

In 2021 Professor Janet Dwyer was elected President of the UK Agricultural Economics Society, which promotes study and teaching in agricultural and food industries, rural society and the environment. Janet is currently co-director of the National Innovation Centre for Rural Enterprise (NICRE), funded by Research England, to develop resilient rural enterprise and unlock innovation potential for more sustainable rural economies through collaboration and co-design.





## International Award for Education Researchers

Researchers Dr Paul Vare and Rick Millican from our School of Education and Humanities were winners of a prestigious International Green Gown Award in 2021.

The award for 'Next Generation Learning and Skills' recognised the research project 'A Rounder Sense of Purpose', which was named winner at the UK level and went forward to the global competition.

Linked to the UNECE competences in education for sustainability, their research focused on the development of teachers to deliver sustainability learning in school settings across Europe.

Its implementation involved 9 education settings in European countries and the approaches have been used in teacher education courses at the University.

Linked to this ongoing research programme, in 2021 Dr Vare's new book with Professor Bill Scott 'Learning, Environment and Sustainable Development: a history of ideas' was published by Routledge.



## Research development and the UN Global Goals

In December 2020 Professor Kenny Lynch and Professor Julie Ingram held a conference to connect established academics and young researchers with shared interests in the sustainable development challenges faced by developing countries.

The event explored live research targeting delivery on the UN Global Goals. A range of academic specialisms and research settings were featured including:

- Transformation of sanitation systems in Hyderabad, India
- Building disaster resilience in Indonesia through partnerships
- The UN Sustainable Development Goals and food sovereignty
- Insights into municipal challenges from young agriculturalists in Sierra Leone
- Groundwater sustainability in Egyptian desert communities

The event also explored how we can 'decolonise' research practices, to enrich the equity, cultural diversity and global impact of our work.

# Partnerships and collaboration

Collaboration is key for our sustainability impact and we work with a wide range of partners, networks and organisations to achieve shared goals.

Some of this work takes shape through RCE Severn, our Regional Centre of Expertise in sustainability education, part of a global network of university-community learning hubs co-ordinated by the United Nations University.



ACKNOWLEDGED BY



## Cheltenham Education Partnership – Counting Threads

Our School of Education and Fashion Design course teams collaborated with Cheltenham Education Partnership of local secondary schools to empower their students and train their teachers in sustainable fashion.

The project delivered a series of ‘Love your Uniform’ workshops challenging pupils to design and make wearable fashion items from used and second-hand school uniform shirts. It developed legacy resources for teacher training to help scale project partnerships and influence the Art & Design curriculum in future years.

Funded by our LIFT: Learning Innovation for Tomorrow programme

## Mission Net Zero – expert insights webinar

In October 2020, we collaborated with Gloucester Cathedral to run a ‘Mission Net Zero’ webinar, part of the ‘Hope for Creation’ series of online events for local communities as part of their Gaia art installation.

The business-focused session featured expert speakers from Interface, Forest Green Rovers, Gloucester Cathedral and the University’s sustainability team. The organisations shared their action plans for reaching ‘net zero’ emissions as part of the effort for green recovery from the pandemic and more ambitious moves on decarbonisation.

## #futuregen Chancellor's Lecture with Jane Davidson

Our 2020 Chancellor's Lecture focused on the global challenge of accelerating environmental change and invited renowned sustainability leader and author Dr Jane Davidson to explore this theme of protection for future generations.

Drawing on her years of leading political change across government departments in Wales, Jane focused on ways to change decision-making in governments and institutions to create new habits based on resilience and long-term thinking. Leading the panel discussions, she explained how we can all make changes and have personal as well as professional impact, highlighting the essential role of our universities in transforming education and empowering students to lead change.

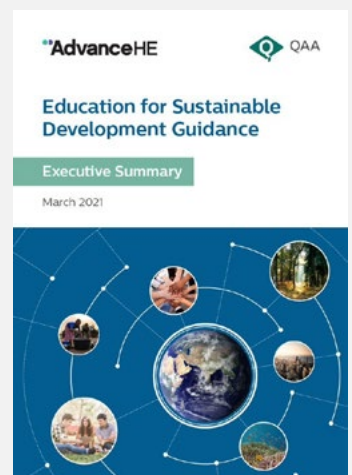


## Influencing sector curriculum change for sustainability

The UK higher education Quality Assurance Agency released new national guidance in March 2021 as part of its duty to improve curriculum standards across all courses regardless of subject specialism.

Director of Sustainability Dr Alex Ryan was one of the invited sector expert group convened to develop the guidance framework, recognising the University's pace-setting work to integrate Education for Sustainability into the design of all higher education course offerings.

To support the new publication the University was invited to headline at a webinar in May 2021 for curriculum quality professionals together with Keele University, as exemplar institutions for good practice in this area.



## Universities UK Climate Emergency Campaign

Ahead of COP26 in 2021, Universities UK – the collective voice of the UK higher education sector – released a new publication showcasing the action leading universities are taking on climate change.

The University of Gloucestershire featured in the publication in recognition of our substantial long-term impact and pioneering approach to tackling the academic 'brainprint' as well as the operational 'footprint' of university life.

The publication supports the policy commitments on climate action that have been made by over 140 UK universities, plus UUK's actions to support change within the sector in teaching, research civic engagement and reporting.





# Current student achievements

Current students who have experienced sustainability assignments in their courses have gone on to win a range of awards linked to their industry sectors and the impact they can make as future professionals.

## **Ingenuity – Impact Through Enterprise – National Finalist**

### **Sue Cass – MA Education**

The UK Ingenuity programme invites people to develop their ideas for sustainability change through the creation of innovative start-up businesses. Participants receive training and mentoring, to respond to challenges in four key areas: creating prosperity, building community, improving health and tackling climate change.

Sue developed an enterprise - 'Field School' - which seeks to connect people in combatting climate change. It aims to work with schools to facilitate positive behaviour change and improve the mental and physical resilience of whole communities.

**PhD students Bilawal Khan and Madeleine Mancey, were also shortlisted in 2021 as regional finalists for their 'HARV' business idea tackling food poverty and climate change.**



## **Earth Island 2021 Solutions Awards**

### **Harriet Lewis**

BA (Hons) Graphic Design

### **Highly Commended**

Project – 'Grow Your Community' – intergenerational gardening and skills building to improve wellbeing, part of the Brief Cases industry challenges initiative through course-linked sustainability projects.

## **Data & Marketing Association Breakthrough Award 2021**

### **Harriet Smith, Nicola Coombes and Ellie Matthey**

BA (Hons) Creative Advertising

### **Bronze Award**

The team developed their concept to double the sales of coffee at indie coffee shops, whilst halving the impact coffee consumption has on the environment.

## **You Can Now Student Awards 2021**

### **Ben Jennings and Scott Linney**

BA (Hons) Creative Advertising

### **Creative Team Winner**

On a brief from 'Patch Plants' this team developed a 'plastic-plant amnesty' concept with people donating plastic plants to Patch, who repurpose and recycle them into germination trays and offer a real plant in return.

## **Women in property award 2021**

### **Elizabeth Rimmer**

BA Landscape Architecture

### **South West regional winner**

Elizabeth's showed exceptional performance on two design project concepts including a sustainable public space design of St James Square in Cheltenham.

# Graduate professional impacts

## **Empowering Student Voices in Education at the UK Quality Assurance Agency**

**Amy Spencer, Quality & Standards Development Officer  
BA (Hons) English Language and Literature – completed 2008**

Having been inspired by her course experience, Amy Spencer has gone on to lead change to create a resource that will benefit the learning of students across the university sector.

Inspired by learning about the communication of sustainability, Amy's role at the UK Quality Assurance Agency sees her working in the team that supports teaching enhancement across the sector.

Amy took the opportunity to work with the QAA's Student Strategic Advisory Committee and then proposed and developed a resource to help them start the right dialogues within universities, to drive sustainability practice deeper into the experience of life and learning at university.



## **Hedgehog rehabilitation and conservation at Wild Hogs Hedgehog Rescue**

**Emily Harper  
MSc Applied Ecology –  
graduated 2020**

Emily is using skills from her Ecology masters on a British Hedgehog Preservation Society Project to conserve local hedgehog populations. It uses intelligent feeding stations to digitally upload camera feeds, weight recordings and microchip readings of hedgehog visits.



## **Helping remote mountain communities in Nepal adapt to Climate Change**

**Dr Morgan Phillips  
PhD, Education 2008**

Since his PhD, Morgan has worked in community development and education roles focused on change for sustainability. As Co-Director of The Glacier Trust he leads work on climate adaptation and in 2021 published a book that highlights the need to bring adaptation out of the shadow of mitigation in the debates around climate action.



## **Monitoring reintroduced pine martens in the Forest of Dean**

**Lydia Galbraith  
MSc Applied Ecology –  
graduated 2020**

Applying experiences from her Masters thesis, Lydia is now working on the feasibility and ecological impact of the Pine Marten Reintroduction Project. Based in the Forest of Dean, this critical work is monitoring pine marten population and catalogues breeding success, as the first such reintroduction project in England.

# Energy and carbon

Energy management and carbon reduction is critical for a cleaner economy and to tackle climate change. Our performance to date has been positive and steady but we are dedicated to moving as quickly as we can to deliver our Carbon Net Zero Strategy which is targeting net zero emissions by 2030.

The graph below summarises our performance on Scope 1 and 2 carbon emissions during our first 10 year Carbon Strategy up to 2020, which measured progress against our 2005 baseline:

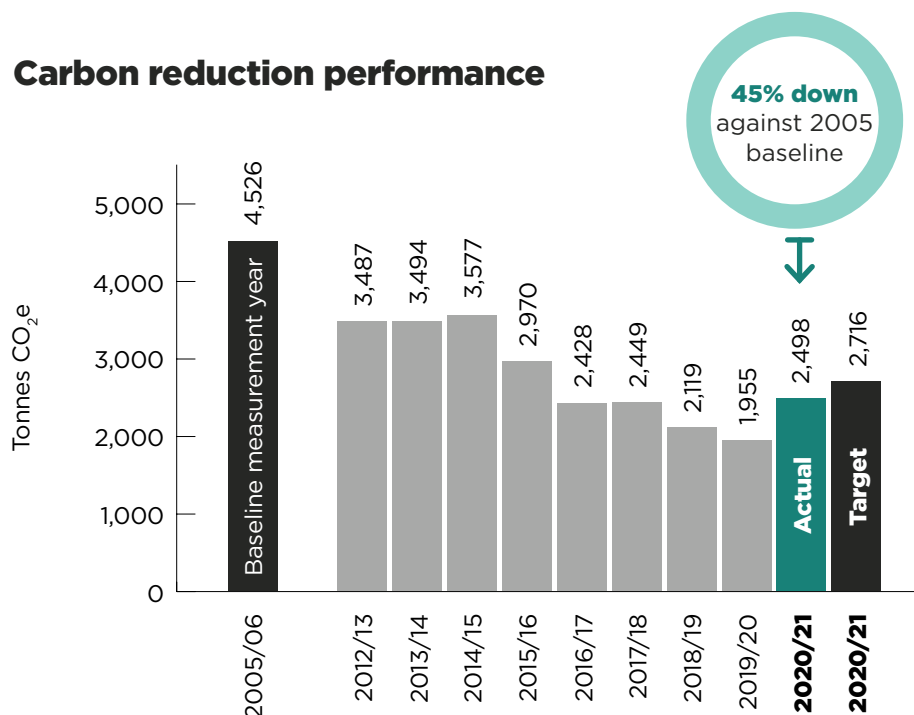
## Guide to emissions

**Scope 1 emissions** – from directly burning fuels and the road fuels for our vehicles

**Scope 2 emissions** – from energy we buy and off-site generation of electricity we use

**Scope 3 emissions** – from activities we do not own or control like travel, waste and purchasing goods and services.

## Carbon reduction performance



The pandemic created unusual energy use patterns and associated emissions in 2019-2020 and 2020-2021, due to the need for increased ventilation and heating, which saw gas use rise significantly (see page 25).

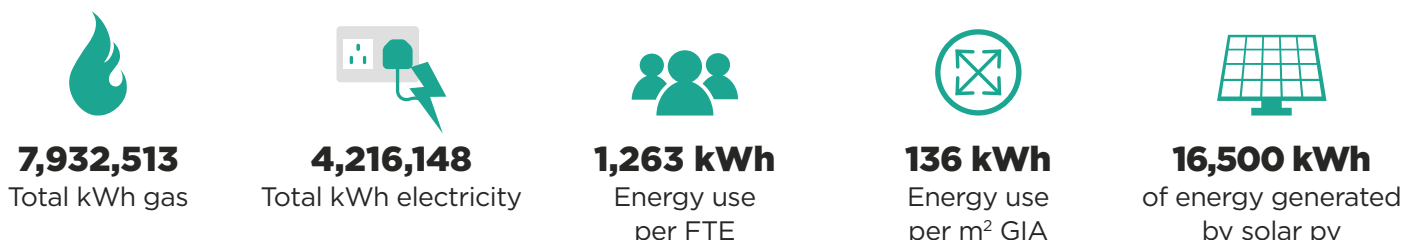
As we move into delivery against our net zero objectives we will be increasingly focused on tracking and reducing Scope 3 emissions (suppliers and staff/student travel) which are around 80% of overall emissions.

As well as recording total emissions, we monitor performance against relative measures. This gives us an insight into real progress as we can compare against similar organisations. We use 3 relative measures:



## Energy use and generation

We have purchased renewable energy since 1993 and we used **12,130,639 kwh** of energy in 2020-2021. The figures below show how energy was used and generated across our campuses:



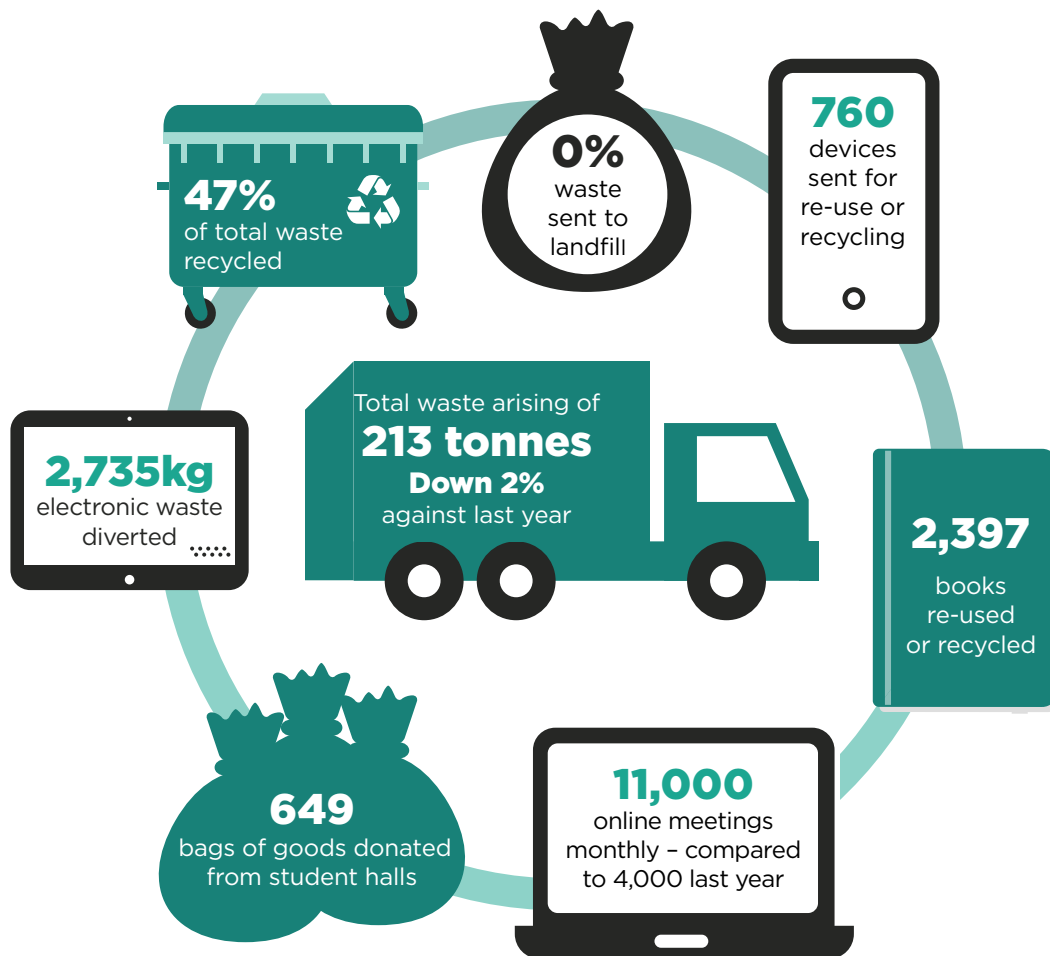


# Resource use

Efficient resource use is an important priority and we maintained zero waste to landfill in 2020-2021.

Occupancy of our campuses was again impacted by the pandemic, but the impact was lower than 2019-2020. Volumes of waste were similar overall - from 216 tonnes we recorded a slight decrease to 213 tonnes in 2020-2021.

We monitor and improve waste management and re-use in several key impact areas:



## Value from Waste at Student Halls

We work with British Heart Foundation's Pack for Good initiative, creating value for the charity through donated goods as students move out of halls of residence.

Normally this averages around 1,250 bags of goods annually. Despite collections being interrupted by the pandemic again, results were up from 2020 where we had 369 bags collected in total. The 2021 collection brought in:

- **556 bags** from 8 donation points at our 3 main campuses
- **93 bags** from our Pittville Student Village campus

Value to BHF was **£9,086** from these donations. Environmental benefits were:

- **5.1 tonnes** diverted from waste streams
- **109 kgs** of carbon emissions saved

# Spaces and travel

Our sustainability plans are becoming more responsive to changes in workplaces, use of space and assets, and our patterns of study and work, helping us to run our university responsibly and efficiently.

## Space efficiency

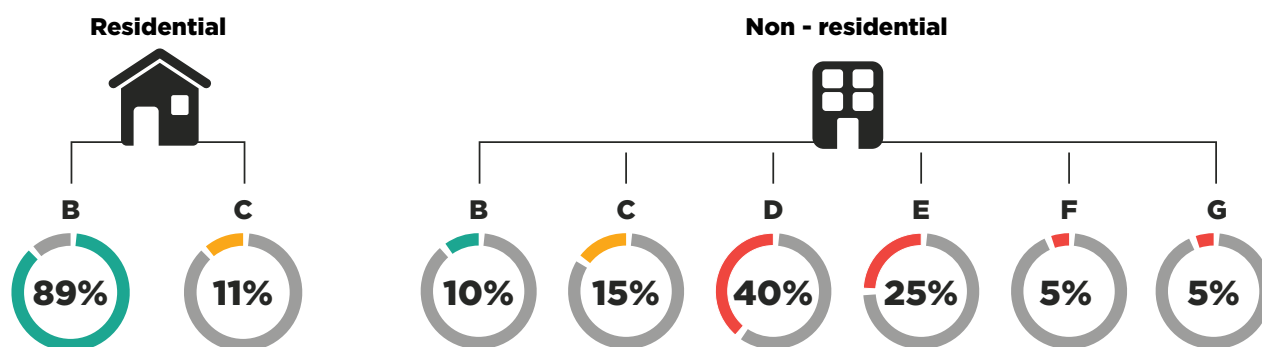
We monitor the efficiency of our campus spaces by measures of Gross Internal Area (GIA) against our staff and student headcounts and review these ratios each year to help manage the costs of our multi-campus spaces:



University GIA measure 2019-2020: **9.3m<sup>2</sup> per student and staff FTE**  
Currently available sector median: **7m<sup>2</sup> per student and staff FTE**

## Building performance






With a range of spaces across our campuses, including many older and listed buildings, we assess these annually to plan maintenance upgrades that improve energy performance. Display Energy Certificates are part of our Environmental Management System and the 2020-2021 data shows an increase of lower efficiency ratings compared to last year due to increased gas use in the pandemic.



## Cross campus travel

We survey staff and student travel patterns across sites annually to support healthier and sustainable travel choices, to mitigate negative impacts on local air quality and cut carbon emissions. The data below shows the main travel mode patterns staff and students used in 2020-2021 (including new students who arrived in September 2021). At our Pittville Student Village, the data show over 99% of students now use sustainable modes overall.

There are slight increases in student bus use and staff solo car use but staff commute journeys dropped by 45% compared to 2018-2019. From September 2020 Cheltenham and Gloucester benefitted from a government approved e-scooter rental scheme (provided by Zwings). On-campus scooter parking hubs are always in the top 10 bays for usage in both towns, with students a high % of users (0.5% of our students commute by e-scooter).

2021 Travel Survey Results (2020 results in brackets)	 Solo car use	 Car Share	 Bus	 Bicycle	 Walk
<b>Students</b> (response rate 12.5%)	<b>27%</b> (27%)	<b>5%</b> (8%)	<b>16%</b> (12%)	<b>3%</b> (3%)	<b>42%</b> (44%)
<b>Staff</b> (response rate 65%)	<b>64%</b> (62%)	<b>4%</b> (3%)	<b>4%</b> (4%)	<b>8%</b> (11%)	<b>13%</b> (15%)

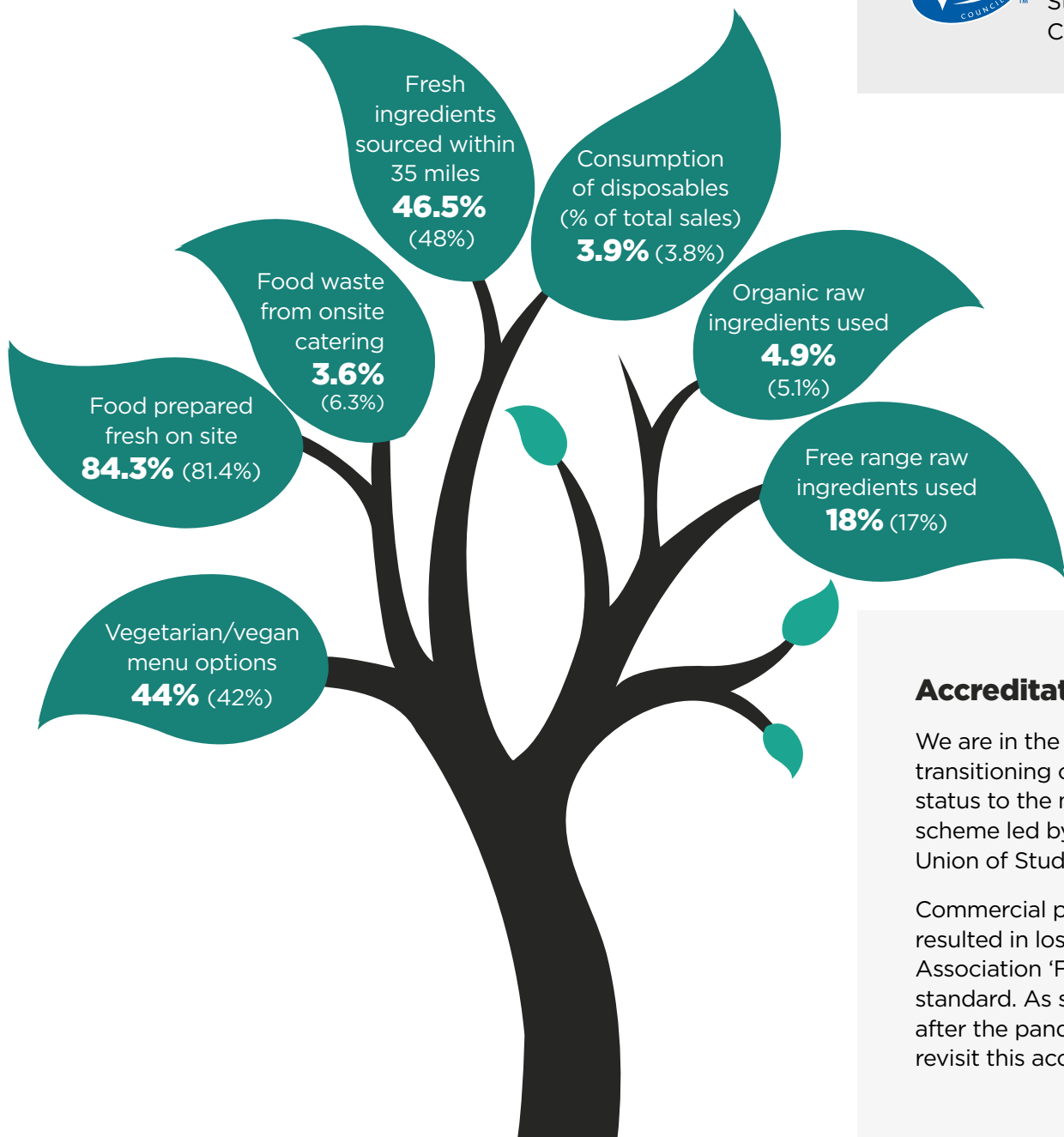


# Food and wellbeing

Our caterers, BaxterStorey, work with our policy requirements on healthy, seasonal and responsibly sourced food, as well as good environmental management in our refectories and kitchens.

Monitoring of the sustainability indicators across our catering offer and how products are sourced is shown below. These indicators show performance for 2020-2021 (2019-2021 data in brackets).

The pandemic impact on the catering service has been significant and is triggering further changes to suit new patterns of more flexible study and work on campus. The fact that positive performance has been maintained on several target areas related to sustainability is great credit to the commitment of our caterers.



## Accreditation held

We continue to specify:



100% of meat is Red Tractor scheme approved



100% of fish is Marine Stewardship Council approved

## Accreditation changes

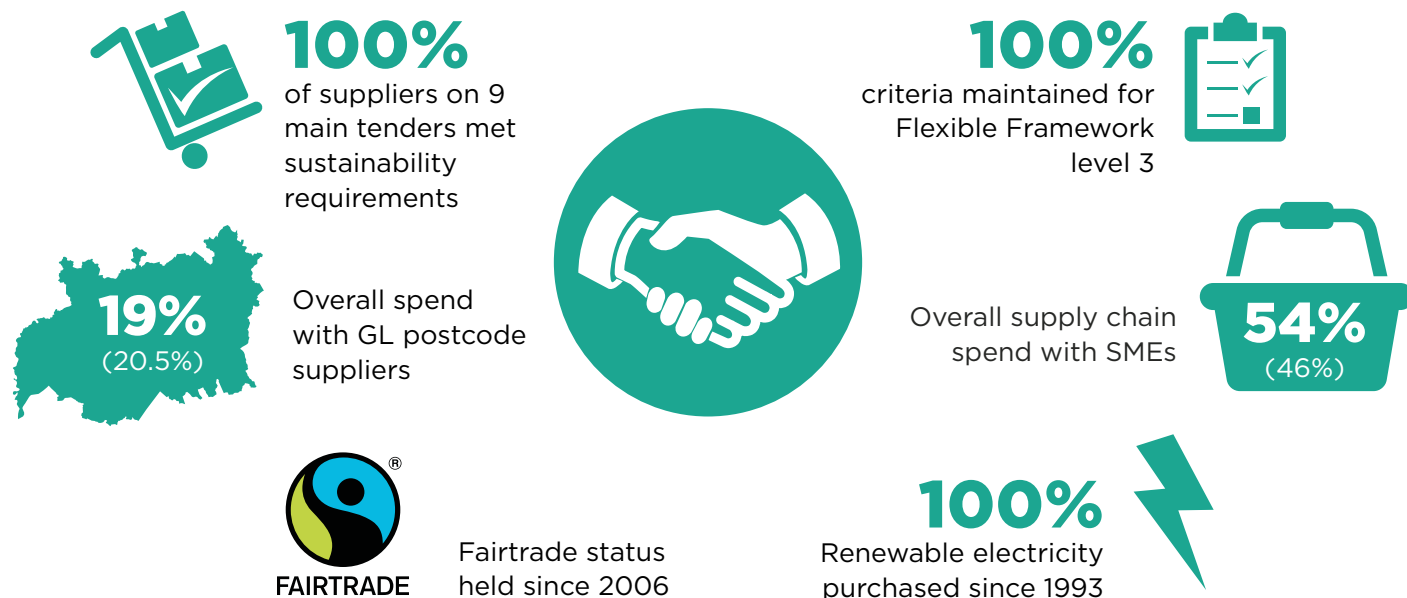
We are in the process of transitioning our Fairtrade status to the new accreditation scheme led by the National Union of Students.

Commercial pressures have resulted in loss of Gold Soil Association 'Food for Life' standard. As services resume after the pandemic we will revisit this accreditation.



# Supply chain and finance

We continue to work to integrate sustainability into purchasing decisions across the University, to improve lifecycle perspectives, alongside cost efficiency within project planning. This helps us to increase lower carbon purchasing and positive impact through our supply chain. Support to our local economies through our purchasing is shown against two indicators below, with last year's figure for comparison in brackets.



## Environmental efficiencies

Improvements through projects we carried out this year, alongside changes to our activities due to the pandemic, have increased efficiency and sustainability across our operations. These included:

Biosciences Laboratory refurbishment - LED lighting and secondary glazing installed

Francis Close Hall & Oxstalls campuses - heat pumps installed to increase energy efficiency

Printing and copying volumes reduced by 66% over the past 2 years - saving 14.7 tonnes CO<sub>2</sub>

All IT training has been undertaken online - 7 tonnes CO<sub>2</sub> saved compared to previous year

We completed 3 estates refurbishment projects works in 2020-2021 leading to:

**31 tonnes** CO<sub>2</sub> emissions saved

## Savings and Sustainability Benefits

The pandemic continued to change spending patterns, leading to significant reductions in:

**Capital IT** - £350K less this year

**Soft services** - £240K less this year

**Couriers** - £56K less this year

Total savings from these actions were:

**£646,000 cost savings**

**335 tonnes of carbon savings**

Our Southern Universities Purchasing Consortium scope 3 emissions report for 2020-2021 showed:

**11,135 tonnes** for supply chain emissions

# Coronavirus Effects

Our ongoing response to the COVID-19 pandemic through the academic year 2020-2021 saw a mixture of on-campus and online activities to support learning and the wellbeing of our student and staff community. Some of the positive and negative impacts for sustainability are captured below.



## Positive impacts

**Positive uses of our campuses for wellbeing and biodiversity** – in early autumn 2020 students were able to enjoy the use of our gardens and allotments to grow food and spend time together outdoors, whilst local people continued to enjoy nature on walks through the parkland at our campuses.

**Reduced commuting led to lower carbon emissions** – about 45% less commute journeys compared to 2018-2019 before the pandemic, saving about 400 tonnes of carbon emissions per year.

**New options for low carbon travel locally** – the pandemic speeded up the rollout of micro-mobility travel options. The Zwings e-scooter scheme in Cheltenham and Gloucester is reported to have been one of the most successful in the country and students and staff are regular users. See page 22.

**Online meetings minimising staff time travelling** – the ongoing shift to online meetings continues to bring staff time gains and carbon emissions benefits, from these changes to routine work practices.

**Returning to better halls of residence waste collections** – our British Heart Foundation collections picked up, diverting 5.1 tonnes from waste streams compared to 2.9 tonnes the previous year.

## Negative impacts

**Increased gas use of 39%** – ventilation requirements meant an increase in heat and cooling wastage that drove gas consumption up, although we still exceeded our emissions reduction target. See page 20.

**Impact on recycling practices** – an increase in takeaway food packaging and single use drinks containers during the pandemic is part of the ongoing challenge in hitting our recycling targets and building understanding about contamination of waste with non-recyclables.

**Rises in solo car use** – the pandemic and unsettled patterns of travel to campuses has played its part in the increases we have seen in solo car use – 1% among students and overall 4% among staff, across the 2 years affected by lockdowns.

**Carbon emissions from home working** – it is not yet common practice for organisations in any sector to measure this area of emissions but this consequence of flexible working will be of public interest as societies shift towards ‘carbon net zero’ economies.

# UN Global Goals reporting



The University supports the UN Sustainable Development Goals (SDGs) as signatory to the tertiary education sector's SDG Accord and as host of RCE Severn, our UN-recognised Regional Centre of Experts in sustainability education.

Here we capture how the impacts shown in this 2020-2021 report contribute to 12 of the 17 UN Global Goals, including the critical role and impact of our education, research and student-led innovations.



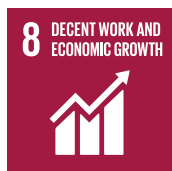
- Over 84% of all food in our refectories is prepared fresh on site – up from 81% last year
- Active use of gardening and allotment spaces across all our major campuses to grow food and improve both physical and mental wellbeing



- UK and International Green Gown Awards for Rounder Sense of Purpose research into educator competences for sustainability
- Students recognised in 5 national awards schemes for sustainability innovations derived from their course specialisms
- Learning Innovation for Tomorrow fund supported Schools to deliver 3 curriculum change initiatives in Education for Sustainability
- Collaborations and expert group input to the UK Quality Assurance Agency's guidelines and webinars on Education for Sustainability



- Carbon emissions Scope 1 and Scope 2 reductions reached 45% against 40% target on 2005 baseline in spite of pandemic impacts
- Grant funding of £1.2M won for our gas boiler replacement programme from the Public Sector Decarbonisation Fund



- Business School and Growth Hub Start & Grow Enterprise project supported student solutions on sustainability challenges
- New Sustainability in Practice learning resources created in collaboration with 6 leading organisations as case studies
- 2 current students held paid year-long roles working in the Sustainability Team to deliver the Live Smart project



- Research impact case studies selected in 6 areas of outstanding sustainability benefit to industry sectors and local communities
- Music Business students designed and led carbon footprinting initiative on catering services at Download Festival
- 4 graduates featured for driving professional change projects in education, conservation and climate adaptation





- Decolonising learning initiative redesigned modules in 4 curriculum areas and developed practices with 3 local secondary schools
- Research conference held on the UN global goals focusing on international settings and global development inequalities



- United Nations University Outstanding Flagship Project award for our student-led Community Challenge with Gloucester Cathedral
- 6 community projects supported by 9 students and 7 online events held for our Live Smart community challenge and festival
- 46.5% of ingredients in refectories sourced within 35 miles of campus supporting local suppliers



- 2 national awards for our sector leading move to cease producing printed prospectuses to deliver and promote waste avoidance
- Maintained zero waste to landfill across all campuses working with waste contractor – against target of 81%
- 63% reduction in waste produced exceeding our 2020 target of 25% - with 2,735kg electronic waste diverted from landfill
- 5.1 tonnes of waste diverted and £9,086 value from waste donated to charity via BHF Pack for Good initiative in student halls



- Carbon Net Zero Strategy developed to target net zero emissions by 2030 including the refurbishment of City Campus in Gloucester
- 99% of students at Pittville Student Village adopt sustainable modes of cross-campus travel
- Ongoing university policy commitment to remain fully divested from fossil fuel since 2018



- SOILCARE research project evaluating new soil-improving crop systems across Europe



- Highly Commended at the 2020 UK Green Gown Awards for our Annual Sustainability Report
- Live Smart educational communications – 21 tips and insight blogs written by students
- Support to the UUK climate action campaign showcasing carbon reduction actions and good governance on climate by universities



- Highly Commended at the 2020 UK Green Gown Awards for our Radical Sustainability industry/education partnership
- Events Management students delivered an online festival with local partners for over 200 people on sustainability themes
- Mission Net Zero collaboration on business transformation with Gloucester Cathedral's Gaia exhibition programme
- Masters' design students collaborated with Cheltenham Borough Council to communicate its CheltenhamZero low carbon initiative

# Stakeholder feedback

Sustainability is about linking environmental protection with social impact and financial viability, to create overall benefit for the wider world. We aim to create positive impact for students, staff and partners by connecting these issues - and we seek regular feedback to help us improve.

## National Union of Students Skills Survey

Our primary stakeholders are students and our main source for their opinions is their responses to the NUS annual skills survey questions on sustainability in their university experience. Responses to 3 headline questions nationally, and in our university dataset, are below (last year's in brackets).

	Responses 2020-2021	"universities should actively promote sustainability"	"sustainability should be integrated into all courses"	"my university takes action to limit negative impacts"
<b>University of Gloucestershire results</b>	<b>471</b> (234)	<b>91%</b> (89%)	<b>85%</b> (78%)	<b>78%</b> (81%)
<b>National results across UK universities</b>	<b>8,000</b> (6,000)	<b>91%</b> (91%)	<b>84%</b> (83%)	<b>74%</b> (79%)

## Student Representatives

In the lead up to reviewing how we have integrated sustainability learning opportunities across our core courses, we held workshops with our student subject representatives in July 2021.

These focus groups with 10 representatives from our academic subject clusters gave feedback on how they value the inclusion of this new focus into core higher education courses and its relevance for their careers.

Student representatives' views		Yes	No	Don't know
Is sustainability something you think should be in your course?	Before the workshop	10	0	0
	<b>After the workshop</b>	<b>9</b>	<b>0</b>	<b>1</b>
Is sustainability something you think should be in all courses?	Before the workshop	8	2	0
	<b>After the workshop</b>	<b>8</b>	<b>0</b>	<b>2</b>
Do you think you need sustainability as a professional skill?	Before the workshop	9	0	1
	<b>After the workshop</b>	<b>10</b>	<b>0</b>	<b>0</b>

# Oversight of sustainability

## Sustainability programme

**Sustainability staff:** We have 4 permanent core staff in our Sustainability Team plus 8 staff in other departments who have formal responsibilities in sustainability. The Sustainability Team work collaboratively with staff, students and partners. Students also take up paid part-time roles in the team to help deliver our strategy.

**Sustainability policy:** Sustainability has been one of our core values since 2010 and is one of 6 pillars of our Strategic Plan 2017-2022, delivered through the Sustainability Strategy 2017-2022.

**RCE Severn:** Our Regional Centre of Expertise in sustainability education, acknowledged by the United Nations University, supports public engagement and learning partnerships in sustainability.

## Sustainability governance

Our governance systems include both internal oversight and external validation, to ensure we meet quality standards, maintain compliance obligations and monitor continual improvement.

Our Environmental Management System is an externally-accredited vehicle for transparent review and reporting on material impacts, key risks and improvement priorities. EMS objectives are built into our Sustainability Strategy and performance is monitored at external audits.

The University is required to follow Streamlined Energy and Carbon Reporting (SECR) protocols and these data are included in our [2020-2021 Annual Financial Statements](#).

This robust process helps us to assess our operating context and identify sustainability issues most critical to our activities. Key stakeholder groups we consider include our executive, students, academic and professional staff, regional and international partners, and University Council as our governing body.

Delivery against our Sustainability Strategy is monitored internally through our University operating plan and annual Sustainability business plan. Other departments take responsibility for specific priorities within their business plans and reporting, including EMS targets shown in this report.

Internal assurance is reinforced by an annual Sustainability Performance Review chaired by our sustainability executive lead, involving senior managers with responsibilities in sustainability and our Students' Union. Our accounting and finance students review this report annually and provide feedback as part of their formal studies.

## Our people:

- 10,134 Students (FTE 8,716)
- 1,571 Staff (FTE 890)

## Our locations:

- 4 sites in Cheltenham
- 1 in Gloucester

## Our footprint:

- 88,932 m<sup>2</sup> Gross Internal Area (GIA)

## Our activity:

- 8 Academic Schools
- 10 Professional Services Departments







## Find out more

### **Sustainability Online**

**[www.sustainability.glos.ac.uk](http://www.sustainability.glos.ac.uk)**

**e: [sustainability@glos.ac.uk](mailto:sustainability@glos.ac.uk)**

### **Sustainability Strategy**

**[www.sustainability.glos.ac.uk/about/strategy-performance/](http://www.sustainability.glos.ac.uk/about/strategy-performance/)**

### **Key Contact**

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