

## Sustainability Report



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## Foreword

When we wrote our Vision and Strategy for the University in 2016, I was particularly keen that sustainability play a key role in its delivery.

We have been successful to date, reducing carbon emissions by 27%, diverting 99% of waste from landfill and now running two bus services carrying over 750,000 passengers a year. This is against the backdrop of continued estate and student number growth.

Our ambitious plans for developing world class teaching and research facilities at the new Temple Quarter Enterprise Campus continue our sustainability commitment, aiming to be low carbon and car free, as well as providing key assets for the local community in Bristol.

Our students are particularly engaged with sustainability, taking part in online courses as part of the Bristol Futures initiative and volunteering for a wide range of sustainable and socially impactful projects.

I'm pleased with the progress we have made, but know we still have many challenges on the journey to becoming a completely sustainable university.

I hope this inspirational report encourages us all to think further about how we can contribute to the building of a safe, sustainable future society. We owe it to our student body, and the generations to come, who will live with the decisions that we make in this moment.

Martin Wiles, Head of Sustainability





We have used the UN Sustainable Development Goals throughout this report to track our progress with reference to these global goals.

Please visit www.un.org/sustainabledevelopment/ sustainable-development-goals/ for more information.











## Sustainability at a glance



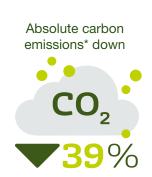
Sustainable Lab and Green Labs saved



Unibus U1 carried



- \* from sites over which we have operational control
- \*\* from baseline year 2007/08







for the Clifton Campus in the Merchant Venturers Building









completing over 4,000 actions to improve their sustainability and wellbeing.



**Bristol Big Give** 





donated to local charities.



allocated towards new electric fleet vehicles and electric bikes





## Circular Economy



The University of Bristol has adopted a circular economy approach to managing its resources. This offers potential cost savings as well as sustainability improvements and redefines how our institution manages its resources, away from a linear model of 'make, purchase, consume and dispose'.

## Sustainable consumption, waste prevention and reduction

Sustainable consumption best practice is key to our circular economy targets, as well as waste prevention and reduction. 'Whole Life Costing' models were developed in 2018-2019 and our key focus is working with teams across the University to embed sustainability into the tendering process to ensure waste costs are considered in the process, along with other broader sustainability criteria.

## Reuse, Recycle, Compost and Anaerobic Digestion

With COVID-19 the University's waste profile changed significantly; with far fewer staff onsite in office environments and students learning remotely, the 'domestic' waste profile (recyclables and general non-hazardous wastes) was significantly reduced. Laboratory and specialist activities continued to operate onsite and increased several waste streams during the pandemic.

Despite the challenges, our end of term reuse scheme in student accommodation, The Bristol Big Give, reused 14 tonnes of materials and generated up to £24,000 for local charities. In total, since the beginning of the Bristol Big Give 10 years ago, over £1.4m has been raised. In addition, 12.5 tonnes of food were donated to local charities from across the University and its students. The University also supported six local charities with reusable donations in 2020-21 including Digilocal, The Children's Scrapstore, Sofa Project and Better World Books.

In 2020/21, new agreements with furniture suppliers mean that the University has a new circular model for this commodity. Options for leasing, remanufactured furniture and reupholstered items are now available as alternatives to purchasing new items.

In Summer 2021 we partnered with Reworked UK to install over 100 internal recycling facilities for even more single use plastic items including crisp packets, confectionery wrappers, single use non-hazardous PPE and Lateral Flow test kits. While we aim to provide recycling facilities where this is a sustainable option, our focus will be on promoting reusable options, where these are available, again in 2021/22.

## Incineration, Energy from Waste and landfill

Energy from waste (EFW) has been increasing annually at the University, despite COVID-19 activity, due to an increase in laboratory activity and an increased reliance in the UK, and globally, on EFW as a waste management solution.

We continue to send less than 1% of waste to landfill, with less than 0.05% of waste going to landfill in 2020/21. Incineration rates dropped compared to previous years, with access to EFW over incineration for chemical waste. Current incineration rates are 5.3% compared to 11% in 2019/20.



### Sustainable Procurement

Sustainable procurement best practice is key to our circular economy targets and supports the University's progress towards our targets in waste prevention and reduction. The University's Responsible Procurement Plan 2019-23 sets strategic objectives for sustainable procurement, social value and ethical sourcing.

The policy and subsequent processes that followed work towards embedding into all tenders a balanced consideration of social, ethical, environmental and economic impacts as well as value for money.

### Key achievements in 2020/21 include:

- Working with other public sector bodies to promote the social enterprise sector in the sub-region.
- Achieving re-accreditation to the national CIPS ethical procurement standard, showing a commitment to safeguard the highest standards for environmental sustainability, human rights
- & modern slavery prevention, and fraud prevention.
- Achieving accreditation as a Fairtrade organisation in June 2021.
- Maintaining accreditation as a Living Wage Employer and a University of Sanctuary. Suppliers are expected to support these aims.



## Sustainable Travel



We maintain a framework to support sustainable modes of transport to work and study at the University by staff and students, for example: walking, cycling, public transport and car sharing.

T e target is achieving 85% staff sustainable travel (baseline 79% in 2007) and retaining 96% student sustainable travel (baseline 96% in 2008) by 2022. We're currently not on track for our staff target, with the March 2021 rate of staff sustainable travel at 65%. Student sustainable travel remains at the baseline of 96% (February 2020).

The bi-annual staff travel survey that was due to take place in December 2020 was postponed due to the pandemic, however data from the March 2021 Staff Travelwest Travel to Work survey showed an increase in increase in walking and cycling, an increase in car usage and a decrease in public transport usage as a result of COVID-19.

### **Public Transport**

Total patronage on the Unibus U1 and U2 bus service was significantly lower than previous years due to the pandemic - a combined patronage

reduction of 52%, based on 2019/2020 data. The Unibus U1 bus service carried 303,075 passengers between September 2020 and June 2021. The U2 carried 14,271 passengers between August 2020 and July 2021. U1 bus service supported five significant timetable changes during the year to accommodate the changes in Covid travel restrictions and the demand or travel.

### Car parking

The temporary Clifton Campus Covid parking policy was extended in to the 2021/2022 academic year to support the Blended Working trial. In July 2021, a total of 1,414 Cat 1 staff Covid permits were awarded to staff.

### **Business travel**

The coronavirus pandemic continued to restrict business travel resulting in significant cuts in the associated carbon emissions, which were cut by more than half from 10.600tCO2e in

2018/19 to 5,200tCO2e in 2019/20. The total distance travelled by staff for business and academic purposes fell to just 1.7 million km, compared with around 30 million km in 2019/20 (which saw the start of coronavirus travel restrictions) and over 57 million km in the pre-pandemic academic year of 2018/19.

### Fleet Management

In May 2021, the University allocated £235,000 in capital funding to kickstart a transition towards zero carbon fleet transport operations. This investment will contribute towards the purchase of new electric vehicles and e-cargo bikes for campus transport operations and electric pool bikes for staff business travel.



for the Clifton Campus in the Merchant Venturers Building



### Active travel

The University launched a new Cycle to Work Scheme, partnering with Halfords, in April 2021. This provides a range of benefits, including an increased scheme limit of £2,500 and a network of more than 1,000 independent bike shops. A new Clifton Campus Cycle Hub was also delivered in the Merchant Venturers Building with capacity for 290 bikes, alongside dedicated spaces for adapted bikes and bikes with trailers, and a DIY bike repair station. This new facility was previously occupied by 14 car parking bays and has nearly doubled the quantity of secure bike parking facility on the Clifton Campus. Fortnightly cycle clinics between August 2020 and July 2021 attracted around 390 staff and students.



## Energy, Carbon and Water



Emissions from our buildings due to the use of electricity, gas, oil, and district heat/steam are measured against the benchmark year of 2005/6, which are the figures against which our net zero target is based.

B oth 2019/20 and 2020/21 were dominated by lower activity on Campus due to the COVID-19 pandemic, however, as Winter 2020/21 was the coldest year in ten, and increased ventilation has been required for safety reasons, gas consumption rose. Carbon dioxide emissions are 39% below the baseline, a slight rise compared to the 41% recorded for last year's figures.

From Oct 2019, we began to buy 20% of our electricity via a "Power Purchase Agreement" (PPA). This means we buy the output from wind farms in Scotland and Wales, through our Contracting Authority for energy, The Energy Consortium.

### Newly upgraded Building Energy Management System

With During 2020/21 the newly upgraded Building Energy Management System has allowed us to pay continued close attention to consumption and environmental conditions. Over the next twelve months we are targeting a great

deal of activity to make sure that control in buildings is as good as it possibly can be, and to address overconsumption, particularly, in laboratories and our larger halls of residence.

### **The Carbon Management Plan**

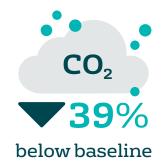
The Carbon Management Plan aims to address emissions in all of the University's space, including leased space, and to put us on a path to net zero emissions from Scope 1 and 2 emissions, measured by ISO 14064, by 2030. It also aims to monitor and control our Scope 3 emissions more effectively.

### The 8-point plan includes:

- Action to use energy sensors to optimise the use of space.
- · Action to reduce costs.
- Action to save energy by avoiding and reducing its use, as well as employing efficient equipment.
- Action to reduce reputational risk and to satisfy funders and potential funders.

- Linking carbon management measures with educational opportunities for students and research opportunities for the academic community.
- A focus on highly serviced areas.
- Actions to increase our purchases of power and heat from lower carbon sources.
- Action to investigate the effectiveness of offsetting for emissions we can't reduce by other means.

Under our ISO standard, progress against our Scope 1 and 2 emissions is counted from 2007/8, not the sectoral standard of 2005/6. Below are figures up to 2019/20 – our most recent audited year. Besides emissions from buildings on our owned and operated estate, they also comprise emissions from owned transport and fugitive emissions from chillers, as well as leased halls and hospital space: our financial boundary rather than our operational boundary.



ISO 14064 figures	07/08	18/19	19/20
Scope 1 Scope 2 Scope 3 Mandatory Scope 3 Additional Scope 3 One time	17,375.68 29,552.47 9,962.76 0.00 0.00	16,083.26 19,574.57 12,809.60 0.00	15,923.93 15,999.03 6,974.15 0.00 0.00
Total gross emissions	56,890.91	48,467.43	38,897.11

### Water

Water consumption is down by 38% compared to the 2007/08 benchmark.

In the last decade, many reductions have been due to the wholesale replacement of the ring mains at the Clifton Campus, Langford, and Stoke Bishop. The avoidance of tap water for cooling electrical equipment is now a key strand of our water conservation and cost saving activity.



## Sustainable Science & Green Labs



STEM Laboratories at the University of Bristol account for 40% of our energy and waste budget as well as 32% of our annual water bill, but only occupy 6% of our space, equating to just over £3 million annually.

This year the Sustainable Science & Green Labs initiative helped realise an estimated savings of £493,821 coming from energy, water, waste, behaviour change and procurement projects, although there are further financial savings from value added, staff time savings and space efficiencies.

### **Circular Economy**

Our sustainability managers are part of the Lab Circular Economy Steering Group, working alongside technicians, Safety and Health Services and Procurement. Some key achievements this year include:

- Awarding a cold storage 5-Lot tender alongside the world's most comprehensive cold storage performance study, with annual savings of £237,628
- Introducing pipette repair and reuse in Biomedical Sciences
- Saving the equivalent of 16.5 tonnes CO2 through equipment and lab furniture reuse service and diverting 5.37 tonnes of lab equipment from waste for reuse

 Weighting sustainability specifications and inclusion of the international eco-label for laboratory products, the ACT label within all STEMed procurement tenders through Green Labs.

## **Engagement and Behaviour Change**

In July 2021, The University of Bristol became the first university in the word to gain 100%, institutional Green



Lab Certification via the Laboratory Efficiency Assessment Framework (LEAF). This scheme increases collaboration across the campus and enables behaviour change in labs, as well as improved water, energy and waste management. The year saw 220 submissions across 990 laboratories, saving a conservatively estimated 258 tonnes of carbon (£150k).

### Research and Knowledge Transfer

University of Bristol Green Labs initiatives were featured on Sky news, the Bristol Green Capital Partnership, HEaTED, Lab Conscious, the Sustainability Exchange and The Alliance for Sustainability Leadership in Education (EAUC). We also delivered workshops to the GW4 alliance and multiple UK universities.



### Green Labs: Energy and Water Management

Upgrading our Building Energy Management System (BEMS) resulted in £80k annual energy savings from heating and cooling optimisation in the Life Sciences Building. We also saved at least £150k worth of energy through Green Lab Certification via LEAF and made £13,973 in savings from efficient laboratory cold storage.



# Staff and Student Engagement and Behaviour Change





Our communication plan includes numerous campaigns and initiatives to engage and collaborate with a diverse mix of staff and students across the University, in addition to engagement with the wider sector.

The impact of COVID-19 has been to reduce the face to face engage with staff and students, but many events and activities happened during 2020/21 both virtually as well as in person.

Below are some of the key activities

### **Sustainability Council**

The Council has representatives from Education, Research, Civic Engagement, Communications, the Student Body and Operations. It is chaired by a Pro-Vice Chancellor. The Council meets every quarter, and wrote a revised Sustainability Strategy during 2020/21.

### **Climate Action Plans (CAPs)**

Each School and Division has been asked to write a plan and to nominate a CAP Coordinator for the Sustainability team to work with in writing the plans. During 2020, a planning tool was developed to assist departments in writing the plans and several introductory webinars were run to introduce CAPs. To date,

about 70% of departments have nominated a coordinator, with 50% starting a plan and 25% moving onto implementing actions.

### Be the Change

The points-based behaviour change programme continued to run for both staff and students in two threemonth seaments in 2020/21. The programme encourages participants to complete actions related to their own sustainability and wellbeing on a weekly basis, awarding them points for each action. Prizes were given out to those who took part and achieved the highest scores. The staff scheme involved over 1,000 members of staff who logged over 3,000 actions. The student scheme involved over 500 students, resulting in over 1,000 actions logged.

### **Green Impact**

Green Impact has run for over ten years and was originally developed at the University in partnership with NUS/SOS. This year, five teams took part in the

scheme from academic, professional services and student areas.

### **Carbon Literacy Training**

In February 2021, 30 students undertook Carbon Literacy Training to help departments manage their Climate Action Plan activities.

### **Fair Trade**

As part of our effort to gain Fairtrade accreditation for the University and ensure maintained commitment to Fair Trade, a new Fair Trade policy was written by Sustainability staff and interns and supported by Procurement and the Fair Trade steering group. The University gained Fairtrade University Status in June 2021.

In 2021, Fairtrade fortnight was held from Monday 22 February to Sunday 7 March. It focused on communicating with staff and students through Fairtrade competitions with the Source Café and bake your own cake with Fairtrade produce. Fairtrade Fortnight was mainly run through Instagram,

### Welcome Fair 2020

The virtual welcome fair occurred on 7 October 2020. On the day, 606 students visited the Sustainability booth. It is difficult to know the impact of this, but it was felt that it was good to have a presence at this key event.

### **IEMA** Corporate partnership

In the Summer of 2021, the University became an IEMA (Institute

of Environmental Management and Assessment) Corporate Partner. This partnership programme aims to develop staff and student skills in environment and sustainability, by offering training and networking opportunities, ultimately helping the University address the significant sustainability challenges it faces. This partnership will be developed in 2021/22 for staff and student benefit.

### The Bristol Big Give Campaign



The Bristol Big Give
(BBG) campaign promotes
re-using goods and giving
within the community. At the
end of term, students can
donate unwanted items via
donation points across campus,
which are then collected by the
British Heart Foundation. Due

to COVID-19, engagement for the Bristol Big Give was mainly virtual. Information about the Christmas Big Give was published in staff and student email newsletters, along with digital screens and student portal advertisements, as well as printed posters and social media. For one day in December, the Students' Union allowed a 'take over' of their Instagram page which enabled the promotion of the BBG to thousands more people. We also hosted a pop-up stall was at Hiatt Baker Hall to promote to advise people on where to donate goods and food.



# The Living Estate, Biodiversity and the Natural Environment



We proactively manage land and resources to benefit wildlife and conserve biodiversity. We do this by implementing Habitat Action Plans, minimising chemical use, and conducting regular monitoring surveys. Our biodiversity strategy comprises of The University of Bristol's Biodiversity strategy comprises of six steps which we report against:

### 1. Identify and record

Wessex Ecological Consultants once again carried out key species monitoring during 2021.

In addition, the University is acquiring land behind Temple Meads (Avon Street, Silverthorn Lane and Cattle Market Road). External Estates have been requesting and monitoring reports regarding species in those areas.

#### 2. Evaluate

There have been no major developments which would impact on the established and mapped habitats since the last report and acquired land is being monitored (as mentioned).

A General Project Requirement has been written to establish Building with Nature (BwN) as a standard assessment framework to be achieved for all future University developments. BwN will be used to protect the University's Green Infrastructure strategy.

### 3. Monitor

Surveys of key indicator species of birds on three University sites were completed for the seventh year running in 2021, following BTO Breeding Bird Survey techniques.

### 4. Conserve

The University is dedicated to conserving habitats for which it is responsible. Habitats are generally only at risk where they are impacted by development, and when this occurs Estates use Building Research



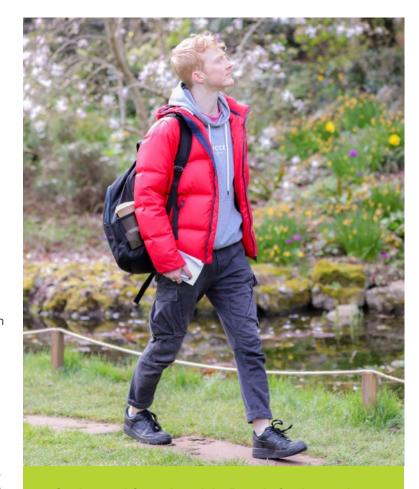
Establishment's Environmental Assessment Method (BREEAM). Where there is no development risk, the habitats are maintained to a high standard, with External Estates having retained the Green FlagAward since 2016.

### 5. Enhance

The University continues to hold a Hedgehog Friendly Campus award. Swift nest boxes will be a consideration for all future developments in outlying developments.

#### 6. Inform

The Gardens and Grounds team continue to provide activities which attract local community groups, clubs and schools. Due to COVID-19, the number of opportunities were reduced, however, Gardens and Ground and the Botanic Garden continue to engage students and staff in environmental projects such as vegetable growing activities, houseplant production and wellbeing events.



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# Education for Sustainable Development (ESD)



Our Bristol Futures initiative promotes interdisciplinary learning aiming to embed education relating to three core themes into the curriculum: Innovation and Enterprise, Global Citizenship and Sustainable Futures. The initiative introduces each theme via an online course, followed by integration of the themes into open units, leading ultimately to integration into all taught courses.

## During 2020/21 key activity included:

- Adopting strategic objectives:
   The University has adopted three strategic objectives related to Sustainability Education: embedding learning in all programs, offering additional options and pathways, and providing distance learning to reduce student travel.
- Including sustainability within the Bristol Futures curriculum framework as one of the aspects of its 'Global and Civic Engagement' strand.
- Forming a community of academics that shares ideas and best practice with regard to Sustainability Education.

- Creating an emerging best practice resource on Sharepoint, including case studies from across the University.
- Developing an interactive workshop to help staff systematically think through how discipline-appropriate Sustainability Education content can be integrated into their programs, and delivering this as part of the new lecturer training program.
- Providing the Sustainable Futures
   Online Course, as studied by
   approximately 12,000 people
   and is well received, particularly
   by our students.
- · Influencing beyond the University: Our academics play a leading role in national and international conversations on ESD. The international network on Transforming Education for Sustainable Futures is co-ordinated from Bristol. Our academics have contributed to the QAA Guidance on Education for Sustainable Development, the United Nations Sustainable Development Solutions Network Case Studies, and the COP26 Universities Network working paper on Mainstreaming Climate Education in UK Higher Education Institutions.



Sustainable
Futures
Online course
provided to students



Including sustainability within the Bristol Futures curriculum framework as one of the aspects of its 'Global and Civic Engagement' strand.



## Ethical and Sustainable Food





In 2020, an innovative Catering strategy proposed a new direction for the Catering department, supporting the University's Strategic Vision and Campus Division goals by enhancing the student and staff experience; offering greater choice and variety; adapting to the changing trends in food consumption and incorporating a global offer; operating as a 'cost neutral' operation; and adopting sustainable values.

Some of the changes we have seen over the last year have brought the catering strategy to life and the department have seen a marked improvement to the student experience and our sustainability credentials through the publication of a new Sustainable Food Action Plan in 2021. This plan aims to deliver key objectives under six areas for a holistic approach to sustainable food. Some of our key targets for 2021 and our progress against these are detailed below:

- Remove the sale of all drinks in plastic bottles
- Bottled water no longer sold at the University
- · Removed plastic straws
- Launched a convenience shop with a range of zero waste products
- Removed plastic pints of milk and implemented a milk dispenser

- system with a deposit scheme for glass bottles
- Sell at cost price sustainably sourced reusable hot drink cups and stainless-steel BPA free reusable water bottles.
- 2. Run Fairtrade activities to promote the importance of the various Fair Trade schemes
- Awarded Fair Trade One Star Status in 2021by the fairtrade.org
- Created a Fair Trade steering group engaging with the Fair Trade Network
- Continued to promote Fair Trade in catering with promotions and events in Fairtrade fortnight.
- 3. Introduce deposit return schemes (DRS) in all Source Café outlets
- DRS has been delayed by the government in England and is

- anticipated to go live in 2023. Once DRS is established it will be delivered though University retail operations at Source cafes.
- 4. Promote the environmental and health benefits of plant-based foods supported by staff & student campaigns
- Adapted menus to reflect the emerging meat-free trend, which has decreased our food costs and helped increase our sustainability credentials.
- Increased the number of vegetarian or vegan dishes from one, to two options per day, increasing our plant-based offering to 66% of our menu.
- Increased the vegetable component of traditional meatbased dishes e.g. lentils in lasagne.





# Ethical and Sustainable Food Continued.



- Run education campaigns encouraging staff and students to carry out carbon footprint monitoring/reducing
- Continued to focused on reducing food waste as this is one of Catering's biggest carbon impact areas. In June 2021 the University won a three-star Zero Waste award.
- Introduced the 'Too Good to Go' app in January 2021, giving the University an opportunity to not only reduce the food waste from our cafes, bars and halls of residences, but a way to reach to the local community beyond the student population. This has saved over £3,000, 600 meals from being discarded to food

- waste and with that, 1.5 tonnes of Co2 emissions.
- Started to weigh and record all the kitchen waste into the three main areas of food waste; kitchen preparation, counter and plate waste and kitchen spoilage.
- Increased our buying of lesser used foods, like chicken thighs in place of breasts, and wonky vegetables, which reduces waste outside of our direct business.
- Streamline offerings and pricing for non-dairy based milks to ensure they are accessible to all, re-imagining traditional dairy as a supporting role
- Started in this area, but full results are due in 2021/22.

- 7. We will be transparent about our food sourcing and preparation
- Created our peer-to-peer Food
  Development Group to support
  our Food Charter, consider our
  social value and effect on the
  UoB sustainability strategy in
  food procurement, work towards
  food and drink accreditations
  and accolades and develop
  our a healthy eating strategy.
- The city achieved Gold Sustainable Food City status with the support and transparency of our sustainability practices within Source Catering.
- We will proactively engage our supply chain in our sustainability criteria and report on KPI's
- Sustainability is at the core of Senate House Marketplace and throughout Source we aim to incorporate it into all aspects of the food system, making sure products are either sustainable and/or ethical and contain as little plastic as possible, while supporting local producers, where feasible.

## Emissions, Discharges and Environmental Management System (EMS)

The University successfully passed an audit for ISO 14001:2015 in October 2020. The University's system examines the University's output and not just its operation.

The University has included Education for Sustainable Development within this management system since 2012/13. This made Bristol one of the first universities within the Russell Group and one of only a handful in the sector to do this.

Sustainability continues to maintain an annually reviewed environmental legislation register, available on our website, which covers all emissions and discharges, providing assurance for pollution prevention and compliance with legislation. The new ISO 14001:2015 standard provides the University with the opportunity to include additional sustainability criteria in the EMS over and above environmental considerations. This provides a framework for other strategic themes including Circular Economy, Sustainable Procurement, and Ethical and Sustainable Food.





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