University of Bristol
Sustainability Report 2019/2020

Key Performance Summary

- Environmental Management System – ISO14001, re-certification covering all activities including education delivery.

- Absolute carbon emissions from sites over which we have operational control are down by 40% from baseline year 2005/06. Relative to income/staff and student numbers, energy use is down by 46% per person from baseline year 2005/06.

- Sustainable Science & Green Labs activity saved almost £172,618 throughout the year.

- Water consumption down by 40% from baseline year 2007/08.

- Staff commuting via single-occupancy car journeys is 18%. Only 3% of students use a car to travel to lectures (meeting and exceeding our target of 4%).

- Publication of an online business travel toolkit providing guidance for staff and PGRs on making more sustainable choices for business and academic travel.

- Unibus U1 bus service carried 631,276 passengers between Sept 19 and June 2020. The U2 carried 40,219 passengers between Sept 2019 and Sept 2020. Both services saw a reduction in patronage due to the COVID pandemic and service suspension, 22% and 23% respectively based on 2018/2019 data.

- A COVID Travel Plan was developed. It sets out how the University aims to ensure all aspects of travel and transport at the University are COVID-secure while also contributing to longer term sustainability objectives.

- A Department for Transport grant was secured to deliver a complementary bus service for the Unibus U1 service from September 2020 onwards. To assist with the reduction in available passenger capacity due to social distancing restrictions.

- Walking as a mode of transport within the student population increased by 2% to 58%.

- Less than 1% of waste goes to landfill, with over 70% being reused, recycled, composted or put through anaerobic digestion. With the rest going to energy from waste.
• 98% of non-hazardous construction waste reported by Capital Development works was recycled.

• Furniture reuse via ‘Re-store’ amounted to 10.6 T, a decrease on previous years due to covid-19. This furniture reuse has avoided £96,000 expenditure on new furniture.

• The Bristol Big Give (end of term reuse scheme in student accommodation) reused over 22 T of materials and generated up to £32,000 for local charities. In total since the beginning of the Big Give 10 years ago, over £1.375m has been raised.

• The University has maintained the Green Flag certification.

• 16 teams have taken part in Green Impact implementing 800 actions. With all Laboratories taking part of the Lab Efficiency Assessment Framework (LEAF).

• The behaviour change scheme Be the Change saw 1,500 members of staff and the student body take part, implementing 14,000 actions to improve their sustainability and wellbeing.

• The University completely disinvested in fossil fuels in February 2020, after pledging to do this within two years back in March 2018.

• The University declared a climate emergency, becoming the first higher education institution in the UK to do so.
Emissions, Discharges and Environmental Management System (EMS)

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

Energy, Carbon and Water Management

As in previous years, here we have considered the estate for which we have full operational and financial control. These buildings are owned and leased by the University where we contract and pay for fuel. This is the area considered by the government's Carbon Reduction Commitment. Estates Management Records and ISO 14064 now require us to also consider leased areas where we do not pay for fuel and or have maintenance control, including space within hospitals and leased accommodation. We have limited control over consumption in these areas.

From the table below we note that carbon dioxide emissions are 40% below the baseline, a further fall compared to the 33% noted last year. This change is due to a combination of factors: 2019/20 has been dominated by the first Covid Lockdown, which reduced energy consumption by up to 40% in the April-July period. As the summer period was mainly affected, outside of the heating season, electricity reductions were more pronounced than gas.

However, University energy efficiency measures and staff/student engagement activities, played a part, as did further decarbonisation of the electricity grid.

Energy saving projects included were led by the commencement of an upgrade to the Building Energy Management System, which will allow better oversight and control of all our main buildings.
<table>
<thead>
<tr>
<th></th>
<th>Grid Elec</th>
<th>Gas</th>
<th>Oil</th>
<th>Steam</th>
<th>Elec</th>
<th>Gas</th>
<th>Oil</th>
<th>Steam</th>
<th>CO2 (t)</th>
<th>Var</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>GWh</td>
<td>GWh</td>
<td>GWh</td>
<td>GWh</td>
<td>Total</td>
<td>tCO2</td>
<td>tCO2</td>
<td>tCO2</td>
<td>tCO2</td>
<td></td>
</tr>
<tr>
<td>05/06</td>
<td>60.0</td>
<td>79.9</td>
<td>1.2</td>
<td>1.4</td>
<td>142.5</td>
<td>31,229</td>
<td>14,801</td>
<td>336</td>
<td>335</td>
<td>46,701</td>
</tr>
<tr>
<td>06/07</td>
<td>55.2</td>
<td>77.4</td>
<td>0.6</td>
<td>0.9</td>
<td>134.1</td>
<td>28,630</td>
<td>14,329</td>
<td>167</td>
<td>207</td>
<td>43,333</td>
</tr>
<tr>
<td>07/08</td>
<td>56.8</td>
<td>85.1</td>
<td>1.2</td>
<td>0.5</td>
<td>143.6</td>
<td>28,969</td>
<td>15,753</td>
<td>320</td>
<td>124</td>
<td>45,166</td>
</tr>
<tr>
<td>08/09</td>
<td>57.8</td>
<td>86.4</td>
<td>0.9</td>
<td>0</td>
<td>145.1</td>
<td>30,146</td>
<td>16,000</td>
<td>259</td>
<td>0</td>
<td>46,405</td>
</tr>
<tr>
<td>09/10</td>
<td>56.3</td>
<td>87.4</td>
<td>0.3</td>
<td>0</td>
<td>144.0</td>
<td>29,767</td>
<td>16,187</td>
<td>95</td>
<td>0</td>
<td>46,049</td>
</tr>
<tr>
<td>10/11</td>
<td>56.5</td>
<td>84.0</td>
<td>0.4</td>
<td>0</td>
<td>140.9</td>
<td>28,520</td>
<td>15,552</td>
<td>108</td>
<td>0</td>
<td>44,180</td>
</tr>
<tr>
<td>11/12</td>
<td>57.5</td>
<td>81.6</td>
<td>0.3</td>
<td>0</td>
<td>139.4</td>
<td>28,425</td>
<td>15,111</td>
<td>81</td>
<td>0</td>
<td>43,617</td>
</tr>
<tr>
<td>12/13</td>
<td>57.8</td>
<td>94.5</td>
<td>0.3</td>
<td>0</td>
<td>152.6</td>
<td>28,246</td>
<td>17,436</td>
<td>70</td>
<td>0</td>
<td>45,752</td>
</tr>
<tr>
<td>13/14</td>
<td>60.6</td>
<td>81.0</td>
<td>0.3</td>
<td>0</td>
<td>141.9</td>
<td>31,226</td>
<td>14,957</td>
<td>75</td>
<td>0</td>
<td>46,258</td>
</tr>
<tr>
<td>14/15</td>
<td>62.1</td>
<td>83.6</td>
<td>0.3</td>
<td>0</td>
<td>146.0</td>
<td>31,020</td>
<td>15,413</td>
<td>55</td>
<td>0</td>
<td>46,488</td>
</tr>
<tr>
<td>15/16</td>
<td>63.1</td>
<td>76.4</td>
<td>0.2</td>
<td>0</td>
<td>139.7</td>
<td>28,421</td>
<td>14,057</td>
<td>63</td>
<td>0</td>
<td>42,542</td>
</tr>
<tr>
<td>16/17</td>
<td>65.3</td>
<td>74.7</td>
<td>0.2</td>
<td>0</td>
<td>140.2</td>
<td>25,101</td>
<td>13,737</td>
<td>67</td>
<td>0</td>
<td>38,904</td>
</tr>
<tr>
<td>17/18</td>
<td>63.7</td>
<td>78.0</td>
<td>0.7</td>
<td>0</td>
<td>142.7</td>
<td>19,567</td>
<td>14,344</td>
<td>198</td>
<td>0</td>
<td>34,109</td>
</tr>
<tr>
<td>18/19</td>
<td>63.2</td>
<td>75.1</td>
<td>0.3</td>
<td>0</td>
<td>138.5</td>
<td>17,525</td>
<td>13,809</td>
<td>55</td>
<td>0</td>
<td>31,390</td>
</tr>
<tr>
<td>19/20</td>
<td>56.2</td>
<td>73.8</td>
<td>0.2</td>
<td>0</td>
<td>130.2</td>
<td>13,902</td>
<td>13,561</td>
<td>51</td>
<td>0</td>
<td>27,840</td>
</tr>
</tbody>
</table>

Total energy use per staff and student FTE are given below to 18/19 to demonstrate how quickly our per-head use of energy has been falling. The Covid-affected figure for 19/20 is included for completeness.
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 more effectively inventory and control our Scope 3 emissions.

The plan includes:
- Action to reduce costs.
- Action to use energy sensors to optimise the use of space.
- 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 the installation and implementation of measures with didactic 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.

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 2018/19 – 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.

<table>
<thead>
<tr>
<th>ISO14064</th>
<th>07/08</th>
<th>12/13</th>
<th>13/14</th>
<th>14/15</th>
<th>15/16</th>
<th>16/17</th>
<th>17/18</th>
<th>18/19</th>
<th>19/20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>45,901</td>
<td>47,590</td>
<td>49,472</td>
<td>47,221</td>
<td>42,466</td>
<td>39,465</td>
<td>34,109</td>
<td>31,890</td>
<td>28,340</td>
</tr>
<tr>
<td>FTE Staff &amp; Student</td>
<td>20,849</td>
<td>23,722</td>
<td>24,530</td>
<td>25,814</td>
<td>25,905</td>
<td>27,829</td>
<td>29,019</td>
<td>31,171</td>
<td>33,915</td>
</tr>
<tr>
<td>tCO2 per FTE</td>
<td>2.2</td>
<td>2.0</td>
<td>2.0</td>
<td>1.8</td>
<td>1.6</td>
<td>1.4</td>
<td>1.2</td>
<td>1.0</td>
<td>0.8</td>
</tr>
</tbody>
</table>

Again, Covid-affected figures for 19/20 are included for completeness.

Therefore, emissions are down from 2007/08 to 18/19 by 31%, whereas staff & student FTE’s are up by 50%. Emissions per FTE are down by 54%. Again, this is largely due to a sharp decrease in the carbon intensity of electricity, but efficiency and space optimisation have also played a key role in holding energy consumption below 07/08 levels.

From April 2017, we began to buy electricity for our contracted sites from UK wind farms via our supplier, EDF. From Oct 2019, we began to buy 20% of our electricity via a “Power Purchase Agreement” buying the output from wind farms in Scotland and Spain, through our Contracting Authority for energy, the Energy Consortium. We also have a contract that will allow us to buy biogas at a premium, though we haven’t yet used this facility.
Water

The University’s water consumption in 2018/19 was again slightly higher than in 2017/18, at 24% below consumption in the baseline year of 2007/08, despite staff and student numbers rising by 10% and increased activity.

Again, estimated, pre-audit, Covid-affected figures for 19/20 are included.

<table>
<thead>
<tr>
<th>Year</th>
<th>Consumption</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>07/08</td>
<td>491,473</td>
<td>-25%</td>
</tr>
<tr>
<td>12/13</td>
<td>367,037</td>
<td>-23%</td>
</tr>
<tr>
<td>13/14</td>
<td>379,022</td>
<td>-22%</td>
</tr>
<tr>
<td>14/15</td>
<td>384,067</td>
<td>-28%</td>
</tr>
<tr>
<td>15/16</td>
<td>354,425</td>
<td>-28%</td>
</tr>
<tr>
<td>16/17</td>
<td>352,159</td>
<td>-25%</td>
</tr>
<tr>
<td>17/18</td>
<td>369,804</td>
<td>-24%</td>
</tr>
<tr>
<td>18/19</td>
<td>373,225</td>
<td>-25%</td>
</tr>
<tr>
<td>19/20</td>
<td>291,574</td>
<td>-40%</td>
</tr>
</tbody>
</table>

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 use for cooling electrical equipment is now a key strand of our water conservation and cost saving activity.

Sustainable Travel

Transport target

Maintain a framework to support sustainable modes of transport to work and study at the University by staff and students (e.g. walking, cycling, public transport and car sharing), achieving 85% (baseline 79% in 2007) and retaining 96% (baseline 96% in 2008) respectively by 2022 for sustainable modes of transport.

- **Staff: On track for target achievement, 82%**
- **Student: Target achieved, 96%**

The bi-annual student travel survey was undertaken in February 2020, just before the COVID pandemic started. The data below shows that all modes of transport are relatively static compared to the 2018 survey. The Staff travel survey has been postponed to 2021 due to the COVID pandemic.
Transport Plan

A draft University Transport Plan was developed in 2020. This document sets out the University’s travel and transport vision for 2025 and our strategy for achieving this over the next five years. The plan outlines the University’s aims for travel and transport in the context of local, national and global challenges, our priorities and indicative actions required to achieve these aims and the Key Performance Indictors (KPIs) that will be used to measure progress. With a supporting framework of delivery plans, policies and standards, this Plan will ensure the transport aims of the Sustainability Strategy are achieved while providing flexibility for the University to transition to post-covid ways of working and travelling as these emerge over the next five years.

Emergency COVID Travel Plan

This Travel Plan was approved by the Institutional recovery group in May 2020 and developed in response to the COVID pandemic. It sets out how the University aims to ensure all aspects of travel and transport at the University are COVID-secure while also contributing to longer term sustainability objectives. Example measures include:

Walking and Cycling

- The University’s largest secure cycle hub (290 cycle parking spaces) - to be delivered in 2020/2021
- The procurement of the University’s first electric bike share scheme - to be delivered in 2020/2021
- The re-procurement of the University’s Cycle to Work Scheme - to be delivered in 2020/2021
- Partnership with BCC’s Streetspace team and the introduction of measures to aid walking and cycling on and around the University estate.

Public Transport

- Management of the Unibus U1 and U2 bus services during the early stages of the COVID pandemic and the first national lockdown, followed by the re-launch of both services in September 2020.
- Negotiated a Department for Transport fully funded grant for a U1e bus service, to complement the Unibus U1 service and to assist with the on-board social distancing restrictions.

Car Parking

- Delivery of a Temporary COVID parking policy and continued management
Bus Services

The Unibus U1 and U2 services were both temporarily suspended in March 2020 due to the COVID pandemic, therefore patronage levels were lower than anticipated in 2019/2020. The May 2020 Unibus satisfaction survey was also postponed to 2021.

Cycling

Due to the COVID pandemic, investment in cycling was limited during the period of February to July 2020. Total capacity (excluding non-university owned properties) remains at circa 3,500 spaces. Committed investment in 2020/2021 will increase this figure by a minimum of 8%. Fortnightly cycle clinics between August 2019 and March 2020 attracted around 500 staff and students, and 143 members of staff purchased a bike in the Cycle to Work scheme, an increase of 40% on last year. The successful Bicycle User Group membership decreased to 1,400 - a reduction of 29% due to the introduction of a new system and the purging of old email address.
**Business travel**

Following the first analysis of the University’s air travel footprint completed last year, an online toolkit was published and promoted via internal communications channels to support staff and PGRs in making more sustainable choices for business and academic travel.

A combination of sustainability considerations and a separate risk review resulted in a change to University travel policy, mandating the use of the travel management service for all air and rail journeys except where the required itinerary is unavailable. At the same time, work was begun to incorporate sustainability criteria in the itineraries offered by the travel management service, e.g., displaying overland rail options as an alternative to short-haul flights and displaying the carbon emissions of different journey options.

---

**UoB carbon emissions by source, tCO\(_2\)e (estimated), 2018/19**

An update to annual business travel report showed that in 2018/19 staff and students travelled a total of 36 million miles on academic and other University business with flights responsible for over 90% of the resulting CO2 emissions. Separate analysis of daily and termly commuting patterns (including an estimate of emissions from student flights) suggested the University’s total travel-related carbon footprint might reach around 48,000tCO\(_2\)e, around one third higher than the total emissions associated with energy use across the University owned and leased estate (see chart below).
Fleet Management

Building on an earlier fleet management review, an analysis was undertaken of the potential impacts on University transport operations of Bristol’s proposed Clean Air Zone. A range of possible mitigation measures were proposed as part of ongoing work (paused as a result of the coronavirus pandemic) to develop a fleet management strategy for the University.

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’. This builds on work already done in the University around sustainable waste management, moving processes to align with the Waste Hierarchy.

Sustainable Procurement waste prevention and reduction

Sustainable procurement 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 are being rolled out through key tendering processes to ensure waste costs are considered in the process along with other criteria.

Waste per FTE was not recorded this year due to COVID and uncertainty around staff and student on campus numbers throughout the year.

Recycle, compost, anaerobic digestion and reuse

The University has continued to manage waste in line with the waste hierarchy with a strong focus on waste prevention. Overall reuse, recycling and anaerobic digestion accounts for over 70% of waste disposal destinations. Energy from waste (EFW) has increased proportionally 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.

Reuse fell significantly in 2019-2020 due to COVID. The Bristol Big Give did not take place in full, and the University was closed or operating at a much-reduced capacity for a long period of time. Total reuse recorded in 2019-2020 was 42.6 tonnes compared 222.5 tonnes in the previous year. In 2018-2019 reuse was 6% of total waste produced and in 2019-2020 it was 2% of total waste. In 2019-2020 new agreements with furniture suppliers meant that refurbishment of furniture started to happen again supporting targets for reuse in circular economy.
The Bristol Big Give campaign, of which the University is a partner has over the last 10 years raised over £1.375m pounds for national and local charities.

Reuse, recycling, composting and anaerobic digestion of food waste remained consistent with 2018-2019 (70%) with 69.7%. This is encouraging as there has been a large increase in non-recyclable waste due to COVID cleaning activities.

**Incineration, Energy from Waste and landfill**

Landfill diversion rates remained low in 2019-2020 with less than 0.05% of waste going to landfill. Just over 11% of waste was incinerated and 18% was sent to energy recovery plants that produce energy to power local homes. Clinical and chemical waste production decreased in 2019-2020 due to reduced laboratory activity overall.

**Sustainable Procurement & Responsible Investment**

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 2019/20 include:

- Working more effectively with diverse and SME suppliers in line with EU public procurement regulations, prior to the UK’s departure from the EU. The Procurement team led various BME engagement events within the local community and with SMEs. The team have also carried out further SME engagement, through West of England Partners in procurement events. We have worked with other public sector bodies to promote the social enterprise sector in the sub-region. This includes being a named partner (along with UWE, WECA, Bristol City Council, and Bath and North East Somerset Council) of a successful bid to attract national funding to promote social enterprises in Bristol and the surrounding area. The Procurement Team is working with the host organization, Black South West, to delivery training, and will co-sponsor a suppliers’ conference on this theme when the progress of the pandemic allows.
- The University worked with Sustainable Procurement experts Net Positive Futures to develop professional guidance.
- All procurement tenders contain sustainability specifications as appropriate to the product or service being procured in line with industry standards including Whole Life Costing, Sustainability Impact Analysis and a life cycle analysis of activities. These processes will be internally and externally audited under the University’s Environmental Management System ISO 14001:2015 and support the University’s Circular Economy Strategy.
- The University’s Procurement team have undergone CIPS ethical training as published on the Corporate Ethics Register. This shows a commitment from the University, in the last 12 months, to safeguard against unethical conduct in procurement and supply management.
- The University updates its Modern Slavery Statement in each year immediately following the approval of the statutory accounts by the Board of Trustees. The MSS is signed by the Vice Chancellor.
- The University maintains accredited as a Living Wage Employer and a University of Sanctuary. Suppliers are expected to support these aims.
- The University completely disinvested from fossil fuels in February 2020.
The Living Estate, Biodiversity and the Natural Environment

The following report captures the University of Bristol’s Biodiversity plan in six steps – see diagram above for further details.

**Identify and record**

Wessex Ecological Consultants once again carried out key species monitoring during 2019/20. Separately, ecological surveys were carried out and received for the potential building site centred on national grid reference ST580735: a proposed library development on Woodland Road.

**Evaluate**

The mapping system, reported upon last year, is now fully developed and training continues to be undertaken. The new mapping system allows for analysis of all University landholdings, scalable from individual properties to entire sites. Accurate mapping allows us to manage habitats and evaluate biodiversity against space. In addition, it enables us to better inform people about methodology and appraisals. Training has been attended for ‘Building with Nature’ (BwN) with the aim that the University will adopt the scheme and seek accreditations for all its future developments. The structure, laid out by BwN, will also be actively followed by External Estates to record Green Infrastructure.

**Monitor**

Surveys of key indicator species were completed once again in 2020 for birds on three University sites (this is the sixth year running), following BTO Breeding Bird Survey techniques, and butterfly species at Stoke Bishop campus (this is the third year running) using Pollard methodology as used by the UK Butterfly Monitoring Scheme.

**Conserve**

As reported last year, 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 BREEAM to identify the ecological value of the site and mitigate against losses and seek to increase species diversity through, for example, intensified landscape species or green roofs. With the government promoting
biodiversity net gain attaining accreditation with Building with Nature is also a key objective for future developments.

Where there is no development risk, the habitats are maintained to a high standard. For example, having been awarded a Green Flag in 2016, External Estates have retained it between 2017 and 2020. The Green Flag "recognises and rewards well managed parks and green spaces, setting the benchmark standard for the management of recreational outdoor spaces across the United Kingdom and around the world"

**Enhance**

The University continues to hold a Bees Needs award for the Royal Fort site. Swift nest boxes will be a consideration for all future developments in outlying developments.

**Inform**

The Gardens and Grounds team continue to provide activities which attract local community groups, clubs and schools. During lockdown in 2020 it has been difficult to run the level of activities run in previous years, but some on-line events have been held. This area of the policy has been delivered by the External Estates Team.

---

**Staff and Student Engagement and Behaviour Change**

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 2019/20 both virtually as well as in person. Below are some of the key activities.

**Sustainability Council**

One of the key actions taken by the University in 2019 was to set up a senior level board to overview sustainability activity. The Council has representatives from Education, Research, Civic Engagement, Communications, the Student Body and Operations. It is chaired by a Pro-Vice Chancellor.

Its role is to:

- Provide sustainability governance,
- Leadership regionally, nationally and within the sector,
- Monitor progress around Sustainability,
- Enable sustainability Communications,
- Identify resources for sustainability,
- Lead institutional change,
- Scan horizons for developments around sustainability.

The Council meets every quarter and they wrote a revised Sustainability Strategy during 2020. During 2021 it will oversee the writing of Delivery Plans for the four key pillars of the Strategy, Education, Research, Civic Engagement and Operations.
Climate Action Plans (CAP)

Much of the engagement activity to date has focused on smaller groups or individuals within the staff and student community. Following the announcement of the Climate Emergency in April 2019, and the creation of the Sustainability Council, the University Executive Board agreed that all Academic Schools and Divisions should write a plan for how they will reduce their carbon emissions.

Each school and Division have been asked to write a plan and to nominate a contact for the University 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 CAP’s.

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 3-month segments in 2019/20, Autumn 2019 and Spring 2020. 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 autumn staff scheme involved 953 members of staff who implemented 3,477 actions, the spring scheme had 900 staff involved, but took 4,401 actions – jointly saving about 50 tonnes of carbon emissions.

The autumn student scheme involved 534 students and resulted in 1,219 actions being undertaken. In the Spring number significantly increased to 785, undertaking 4,632 actions. Overall, the student scheme saved about 30 Tonnes of carbon emissions.

Green Impact

Green Impact has run for over ten years and was originally developed at the University in partnership with NUS/SOS. This year 16 teams took part in the scheme from academic, professional services and student areas. Over 800 actions were completed and engaged with around 4,000 staff, generating carbon savings of 58 tonnes and £15,000 worth of savings. Departments undertook allotments, plant sales and awareness events during the year. The scheme was audited by 5 trained student volunteers.

The Bristol Big Give Campaign

Due to COVID-19, most engagement for the Bristol Big Give was virtual this year, and it was not possible for Community Liaison Officers to continue their regular door-knocking work. Information about the Christmas Big Give was published in staff and student email newsletters, alongside digital screen and student portal advertisements across the campus, as well as physical posters. It was also promoted across Facebook, Twitter and Instagram. 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.
A popup stall was arranged for the staff Christmas Fair for the British Heart Foundation and to provide a place for people to donate goods and food as part of the Big Give. A launch event was planned for April 2020, but this had to be cancelled due to COVID-19. This would have involved CPR training from the British Heart Foundation as well as information stalls about the Big Give and the benefits it has for the environment and the charity.

Competitions

In February, the Sustainability Team collaborated with the Students’ Union to run a Sustainability Month which aimed to engage students in all aspects of sustainability. As part of this, an inter-halls competition was run to specifically engage those living in halls of residence. The competition ran from 3rd February to 28th February 2020. A full report on the impacts of this is available, in total 120 students signed up for the competition and completed over 500 actions. A celebratory event was held in March for the winning halls in which participants got free vegan ice cream and watched Wall-E in the SU Living Room.

As part of our commitment to Fairtrade, we collaborated with the Source Cafes to create two competitions this academic year one in December and one in February for Fairtrade Fortnight. In both cases, the prize was a Fairtrade hamper of items donated by suppliers. This raised the profile of Fairtrade on campus and engaged students and staff.
Fairs

In addition to the Staff Christmas Fair, detailed above, the Sustainability Department was represented at student fairs throughout the academic year 2019/2020. The Volunteering Fair was hosted at the Anson Rooms on 5th February. Here student interns advertised the volunteering opportunities availability within the department for example for the Bristol Big Give campaign and Be The Change. Engagement = 120 people.
**Fairtrade Fortnight**

In 2020, Fairtrade fortnight was held from Monday 22nd February to Sunday 7th March. We hosted a pop-up stall in the Living Room over a lunch period with freebies and information and attempted to host a wine tasting in the Balloon Bar. The manager of the bar, Dana, is open to hosting one but the student group (Wine and Cheese Society) were working with were unreliable, and shortly afterwards campus shut down due to coronavirus. There were also several promotions at Source Cafes and in Halls of Residence, as well as posters across campus.

The department received free Fairtrade samples from the Co-operative, Divine Chocolate and Tropical Wholefoods to use as samples. We also launched a survey into student opinions on Fairtrade at the University of Bristol to understand the values driving students and the barriers that prevent them from buying fairly traded goods. All activities as part of Fairtrade Fortnight also contribute to the University progress towards becoming a Fairtrade University and the city of Bristol’s campaign to achieve a Sustainable Food City Gold Award.

**Student Society Collaborations and Sustainability Month**

We collaborated with the Sustainability Network to organise a month of sustainability themed events. The program consisted of themed weeks outlined on the poster below; Hungry for Change, Climate and Ecological (In)Justice, Throwaway Living and A-Just Future. As part of this collaboration, we promoted events on social media and organised the Repair and Repurpose Café and the visit to the recycling centre.
The Repair and Repurpose Café was held in the Students' Union Living Room and involved a DIY Lavender Body Scrub, which encouraged people to reuse containers, as well as a sewing machine and area for repairing items. Surfers Against Sewage also held a stall at the event to promote other ways to reduce waste. The Facebook event reached 2,500 people and an estimated 30 people came to the event with a further 100 seeing the event in passing as they were in the Living Room for other reasons.

The visit to the recycling centre was limited in numbers by Bristol Waste. The Facebook event reached over 900 people and a video of the visit was shared after the event on social media. 10 people were on the visit and we walked to the centre to avoid carbon emissions.
Social media

The University of Bristol Sustainability Facebook page moderately increased its audience in the academic year 2019/2020 from 602 likes on 28th August 2019 to 761 on 20th July 2020. The most successful posts were videos that were made by student interns about various sustainability topics and posts about collaborations with students and the SU. The most popular post was one about free food at the launch of the new vegan and vegetarian café on campus (reaching 1,765 people). Other popular posts included facts with graphics about the importance of reducing food waste and recycling aluminium cans, and the promotion of ‘Buy Nothing Day’ as an alternative to Black Friday. Approximately 68% of people who like the page are women.

The Instagram page more than doubled its audience from 388 followers on 29th August to 835 followers on 20th July 2020. This grew even further to 1045 followers as of 7th October 2020 after a takeover of both the Bristol SU account for a day, and the University of Bristol stories for a day. 74% of the audience is women. The most popular posts were photos from a litter pick at the start of the year, a graphic about Buy Nothing Day, a photo about the Fairtrade competition held by the source café, a graphic about simple actions to take on climate change, a photo from a repair and repurpose café event, a photo from a Fairtrade pop up event, a photo promoting an indoor farm initiative and a graphic with a quote about the circular economy. Due to the increasing popularity of Instagram, an account was set up for the Bristol Big Give in November and has 175 followers as of 30th August 2020.

The Sustainability twitter has seen a moderate increase in followers from 619 followers to 831 in July 2020. The Bristol Big Give Facebook account (joint with UWE) also showed a small increase in followers from 885 likes on 28th August 2019 to 895 likes on 20th July 2020.

Videos

The interns created several videos over the academic year which engaged students and staff in a more meaningful way than image and text. The most engaging content was the Christmas Sustainable Shopping
Guide, the Be The Change competition launch, the tour of the recycling facility and a guide on getting involved in sustainability. They created a guide to share how to create videos available here.

**Virtual Events**

During COVID-19, interns attempted to create virtual events to engage students in sustainability. This included a screening of *The Story of Plastic* and a socially distanced litter pick over Instagram. Both were promoted using social media and in newsletters. The litter pick reached 834 people on Facebook, but the only contributors (via Instagram) were the interns and SU staff. The film screening reached over 8,500 people as it was a joint event with Surfers Against Sewage. It is difficult to know how many of those people participated in the event, as there was not a clear call to action afterwards. It was extremely difficult to engage people as lockdown had exhausted many people, and this was not a priority. For future events, it would work best when planned in collaboration with others e.g. a litter pick in collaboration with the Bristol Against Plastic society for example. This would ensure a reasonable reach and hopefully a higher engagement rate.

**Welcome Fair 2020**

While not part of this academic year, for future reference the virtual welcome fair occurred on 7th October 2020. On the day, 606 students visited the booth and we had over 140 link clicks and over 80 video views. The fair is available for a further 4 weeks, so these figures may increase. 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.

**Blogs**

Interns wrote blogs about various sustainability linked topics for the Cabot institute to reach a wider audience and to connect these topics to work done by the University. One of these was about Fairtrade and how this is connected to the climate crisis, and why the University should therefore support this going forward.


Another was about the *Teach the Future* campaign run through the NUS to get the climate crisis on the curriculum. The interns attended the launch event in Westminster (through winning a competition) and wrote about this experience.


A further blog was written about food waste to coincide with the Love Food Hate Waste campaign post-lockdown. More messaging on this is continued this academic year through social media posts.

[https://www.goingforgoldbristol.co.uk/calling-all-students-how-to-save-money-and-reduce-waste/](https://www.goingforgoldbristol.co.uk/calling-all-students-how-to-save-money-and-reduce-waste/)

**People’s Assembly**

In October 2019, a joint initiative was run between sustainability and students from Extinction Rebellion. This aimed to generate a range of ideas to help deliver the aims of the climate emergency declared in April 2019. The event focused on energy, circular economy, education/research and general sustainability. Over 300 staff and student members attended and generated 700 ideas. Of these ideas, roughly a third were already in place, a third were being implemented and the final third were included in University sustainability plans for the future.
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.

The Sustainable Science & Green Labs initiative in 2019/20 helped realise an estimated savings of £172,618 coming from energy, water, waste, behaviour change and procurement projects, although there are further financial savings from value added, staff time saving and space efficiencies. These cost and consumption savings can be seen in the table below:

<table>
<thead>
<tr>
<th>Energy</th>
<th>Water</th>
<th>Waste</th>
<th>Other*</th>
</tr>
</thead>
<tbody>
<tr>
<td>kWh</td>
<td>£</td>
<td>m³</td>
<td>£</td>
</tr>
<tr>
<td>15/16</td>
<td>755,927</td>
<td>73,325</td>
<td>0</td>
</tr>
<tr>
<td>16/17</td>
<td>479,845</td>
<td>46,545</td>
<td>14,150</td>
</tr>
<tr>
<td>17/18</td>
<td>794,845</td>
<td>77,100</td>
<td>24,990</td>
</tr>
<tr>
<td>18/19</td>
<td>550,433</td>
<td>53,392</td>
<td>7,502</td>
</tr>
<tr>
<td>19/20</td>
<td>1,501,617</td>
<td>139,066</td>
<td>0</td>
</tr>
<tr>
<td>Total yearly savings</td>
<td>4,082,667</td>
<td>389,428</td>
<td>46,642</td>
</tr>
</tbody>
</table>

*procurement, space, staff time etc.

Green Labs: Energy and Water Management

Projects include:
- The Smart & Efficient Buildings programme (reducing building energy consumption by 40% in the highest consuming STEMed buildings) didn’t receive capital funding after March 2020 due to COVID-19. The below projects were completed between August 2019 and March 2020.
  - Replaced 15 ducted biosafety cabinets with recirculating units in the Dorothy Hodgkin Building replacement saving 204,032 kWh, £13.2k and 51 tCO2e, as well as £17,995 in procurement savings.
  - Lighting replacements with LEDs and smart controls in the School of Physics and the School of Chemistry (11,121 kWh, £1,079).
  - Synthetic Chemistry HVAC upgrades – new fume cupboard controls in five laboratories enabling fine tuning and improvements on existing savings of (£72,750) 750,000kWh a year, from previous controls changes.
- Green Lab Certification via LEAF (£118,400), Freezer Challenge (£6,387, 12.5 tCO2e)

Green Labs: Circular Economy

The Lab Circular Economy Steering Group, comprised of technicians, the Sustainability team, Safety and Health Services and Procurement. The following actions have been taken:
- A cold storage 5-Lot tender specification has been developed alongside the world’s most comprehensive cold storage performance study.
- Pipette repair and reuse in Biomedical Sciences saved £3,500.
• Tip reuse – decontamination stations in Southmead L&R, Biological Sciences teaching labs.
• A whole life cost (WLC) and life cycle analysis (LCA) study of single use plastics at the University.
• Deliver of ACT – Equipment standard.
• An equipment and lab furniture reuse service has saved a total of £12,057 for the University of Bristol and a further £25,657 of savings for the sector. This is equivalent of 14.9 tonnes carbon dioxide.
• All STEMed procurement tenders through Green Labs contained weighted sustainability specifications and inclusion of the international eco-lab for laboratory products, the ACT label.

Green Labs: Engagement and Behaviour Change

• Green Labs has doubled its staff engagement within our online networks: LEAF (74), Sustainable Science & Green Labs (113), Green Labs Network (59) including seven steering groups. The Green Labs Network enables two-way communication between Sustainability and the science community, empowering staff to make real change in the University by identifying and implementing new initiatives.
• Green Lab Certification via the Laboratory Efficiency Assessment Framework (LEAF) 2019 saw 32 teams gain Green Lab Accreditation, saving 92 tonnes of carbon (£17k). This scheme increases collaboration across the campus and enables behaviour change in labs, as well as improved water, energy and waste management. Student interns and volunteers took part in the scheme, working directly with academic and technical staff to audit and support their accomplishments.
• Bristol became the first University in the world to set a 100% Green Lab Certification goal.
• 71 student volunteers signed up to Green Labs.
• Social media engagement (Twitter and Facebook) increased by 25%.
• Green Labs employed three students. Their responsibilities included managing LEAF, the student volunteers and Green Labs communications.
• Consistent communications to staff and students via monthly Green Labs newsletters and weekly.
• Six members of staff completed the My Green Lab Accredited Professional Ambassador Programme.

Green Labs: Research and Knowledge Transfer

• University Green Labs initiatives were featured in The Guardian, Nature, Lab Conscious and The Alliance for Sustainability Leadership in Education (EAUC).
• The Sustainable Science Manager coordinates the Laboratory Efficiency Action Network (LEAN), a group of UK Higher Education and research STEMed professionals (45 institutions, 103 members). In the past year the group has achieved:
  o A successful year of the national sustainable science certification, Laboratory Efficiency Assessment Framework (LEAF). This saved over half a million pounds and 558 tonnes of carbon dioxide.
  o UK development of the international eco-label ACT for lab equipment, consumables and chemicals.
Education for Sustainable Development (ESD) - Formally Sustainability through Education

During the period 2019/20, delivery of ESD activity was via the Bristol Futures initiative. This 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. On top of this is the development of graduate attributes and skills (via a skills framework), personal development planning (PDP) and ‘learning by doing’, mainly through volunteering.

During 2019/20 key activity included:

- Adoption of Strategic Objectives: The university has adopted 3 strategic objectives related to Sustainability Education: embedding learning in all programs, offering additional options and pathways, and providing distance learning to reduce student travel.
- Sustainability Education delivery plans: A wide consultation of stakeholders as to how to deliver on these has been conducted, and a plan is currently being developed by PVC Education and the Academic Head of Sustainability for agreement by UEC.
- Sustainable Futures Online Course: Taken by approximately 12,000 people now. Very well received, particularly by our students. We have many testimonials of its value to them – for example: “This has been such a brilliant course! It has changed my mindset so much and made me really proud to be a University of Bristol student, thank you!” Awarded the UK&I Green Gown Award for Next Generation Learning, 2019.
- Influence beyond the university: Prof Preist is part of the team developing the new UK QAA guidelines for Education for Sustainable Development, and the university’s Sustainable Development unit has been selected as a case study for use by the UN Sustainable Development Solutions Network.

Ethical and Sustainable Food

The University developed an Ethics and Sustainability Catering Food Policy and Procurement Strategy and a Catering Food Waste Policy in 2017 which set out targets and commitments for the University. These Policies and Strategies underwent a review in 2019-2020 with a view to publish a new forward plan in early 2021.

The existing policies include the following:

A commitment to support Fairtrade and the Southwest Fairtrade Network. The University has signed up the NUS Fairtrade University and College Award with a range of sustainability champions within the University engaged in this two-year programme. All new suppliers are vetted according to the TUCAO agreement including ensuring sustainability and Fairtrade credentials.

The University has signed up to the ‘Sustainable Food Cities’ Going for Gold award and achieved Sustainable Food Champion status in 2018/19. Work on promoting sustainable food initiatives continued in 2019-2020. This aims to show best practice for all aspects of food procurement, preparations and waste management and engages with growers in the community and through the student population.
In addition to larger commitments we continue to ensure the following:

- Coffee is Fairtrade and Rainforest Alliance accredited.
- All eggs are free range.
- All milk is organic
- All fish is sourced from Marine Stewardship Society approved suppliers
- Catering has increased its vegan offering by 30% in 2018/19 and has opened a vegetarian and vegan café and re-introduced a ‘Meet Free Monday’ as part of its Planet Mark Accreditation for major food suppliers in 2019-2020
- Waste catering oil is manufactured to a biofuel

The University supports the City to Sea Campaign and the RAW Foundation through free water refill points and sales at cost of reusable BPA-free stainless-steel water bottles.

Onsite bottling of water continues to reduce transport-related carbon emissions. New water fountains have been introduced to promote use of tap water over disposable bottled water. A post-consumer single use Plastic Action Plan was developed and implemented in late 2018/19 and revied and republished in 2019-2020 with the removal of plastic water bottles from sale by March 2020.

Retail outlets continue to sell reusable KeepCups at cost to staff and students to encourage reuse and to reduce disposable packaging. They have expanded the range to also use plastic free Husk Up cups. Where disposable packaging is retailed it is made of Vegware, a compostable alternative to plastics.

---

**Space Utilisation/Research & Knowledge Transfer/Engaging with Communities/Sustainable Buildings**

There is no progress update on these areas for the year 2019/20, partly due to the impact of Covid-19 but also due to the review of University Sustainability Strategy. An update will be given in 2020/21.