

## **BU Sustainability Annual Report 2017/18**

### **1. Introduction**

This report summarises the progress made by the Sustainability Team working in partnership with staff and students to embed the principles of sustainability (as defined by the United Nations Sustainable Development Goals (UN SDGs)) across the University during 2017/18. The report covers the period 1<sup>st</sup> August 2017 to 31<sup>st</sup> December 2018. Data is reported for the 2017/18 academic year, as reported as part of the Estates Management Return (EMR).

The report provides evidence of progress against the BU2025 outcomes and actions:

#### **C: We are a catalyst for sustainable social, environmental and economic growth and development**

C1: We are a catalyst for impact by advancing knowledge, creativity and innovation

C2: We drive social and economic growth and development through our staff, students and graduates

#### **C3: We lead thinking on sustainability and support the development of the region**

#### **D: We enrich society by having a significant impact on challenges world-wide**

D1: Through Fusion we have a positive impact world-wide on the challenges facing society

D2: Staff, students and graduates enrich society as active citizens in their communities

D3: Our worldwide partnerships strengthen our shared impact

44 Support our staff from all parts of BU and students to take a responsible approach to the environment and sustainable development by:

- including sustainable development in our programmes and support our students and staff to make responsible choices about their environmental impact;
- bringing together our academic work on environmental sustainability with our approach to the physical environment at BU
- driving significant worldwide impact on sustainability and the environment through our strategic investment areas

45 Take a leading position on our own environmental impact:

- informed by our work on sustainability through the strategic investment areas and Fusion themes
- by improving the biodiversity of our estate, minimising use of resources and production of waste, reducing our carbon emissions and supporting more sustainable travel choices for staff, students and visitors
- by providing opportunities for staff to use the Estate as a living lab for health and well-being and sustainability
- by continuing to develop our estate sustainably
- by taking a responsible position on sustainability in our investments, purchasing and our work with partners

The format of the report reflects progress against the UN SDGs. The majority of the Goals are referenced and progress against the remaining Goals will be reported elsewhere.

Overall, there has been much to celebrate over this period, and in particular continuing to reduce carbon emissions through investment in the estate, the strong staff engagement in sustainability actions and SUBU aligning their Vision to the UN SDGs.

## **2. Annual report**



The report is detailed below.


## **3. Forward look**


- Publication of climate change adaptation risk assessment and action plan
- Publication of refreshed Travel plan
- Publication of THE Global University Ranking and People and Planet University League
- Complete Student travel survey
- Implement new car parking management scheme
- ESD Community of Practice to encourage academics to align programmes to the UN SDGs
- Install IT Comms rooms and data centre energy saving solutions
- Continue to promote Green Rewards with a target to achieve at least a 50% sign up
- Implement an Energy Management System to achieve the Energy Management Standard (ISO50001)
- Support the implementation of SUBU's Vision
- Opening of the two Gateway buildings and refurbishment of SH and CH
- Supporting Dorset LEP Clean Growth strategy
- Encouraging staff and students to take part in the UK government's Year of Green Action (YOGA) 2019 which aims to connect people all around the country with nature, and show how we can all take positive action to improve our environment


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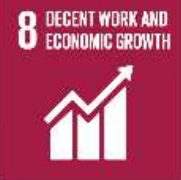




Note figures quoted are for 2017/18 unless otherwise stated and comparisons are against 2016/17 data unless otherwise stated.





UN SDG	Progress	Comment	Opportunities	Risks
 <p>2 ZERO HUNGER</p>		<ul style="list-style-type: none"> <li>▪ Student placement researched &amp; designed new healthy offers in food outlets (smoothie, breakfast toppings, Kimchi noodles)</li> <li>▪ Chartwells donated leftover food to the local night shelter</li> <li>▪ Student Volunteers working with local charity Hope For Food at local soup Kitchen</li> <li>▪ Annual Big Give - end of year unopened food donated by students to homeless charity Hope for Food</li> <li>▪ Two food donations to Bournemouth Foodbank from Finance &amp; performance team for winning Green Rewards</li> <li>▪ Allergen information available at all outlets</li> </ul>	<ul style="list-style-type: none"> <li>▪ Review of Fair Trade accreditation against new NUS/FT Foundation scheme</li> <li>▪ Government nutrition initiatives, such as the sugar tax</li> </ul>	<ul style="list-style-type: none"> <li>▪ Brexit (potential impact on food supply chains and costs)</li> </ul>
 <p>3 GOOD HEALTH AND WELL-BEING</p>		<ul style="list-style-type: none"> <li>▪ A Talbot Campus cycle event held in May 2018 brought together 8 external exhibitors to promote cycling to students and staff on campus.</li> <li>▪ Local Authority grant funding secured for 2 intercampus</li> </ul>	<ul style="list-style-type: none"> <li>▪ Support Bournemouth and Poole bike share scheme expected to launch in May 2019.</li> <li>▪ BU to input into Local Cycling and</li> </ul>	<ul style="list-style-type: none"> <li>▪ Bike share scheme could impact on campus site operations (informal parking of dock less bikes)</li> <li>▪ Potential increase</li> </ul>

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		<p>electric bikes to support a new staff bike pool scheme for intercampus and business travel.</p> <ul style="list-style-type: none"> <li>▪ BU by bike loan scheme provided 70 loan bikes to students and staff for travel to/from campus.</li> <li>▪ Improved cycle and pedestrian routes as part of ongoing campus development</li> <li>▪ In 2018, staff involved in the Green Rewards scheme cycled/walked/ran about 1400 km (equivalent to travelling from Lands End to John O'Groats and back 55 times)</li> </ul>	<p>Walking Infrastructure Plan for Bournemouth and Poole.</p> <ul style="list-style-type: none"> <li>▪ Lobby and influence the Transforming Cities Fund bid.</li> </ul>	<p>in cycle accidents and incidents due to inexperience of new cyclists</p> <ul style="list-style-type: none"> <li>▪ 2000 additional student beds in Lansdowne.</li> </ul>
	<p>80% of BU students(555 responded) agreed or strongly agreed that Sustainable Development should be incorporated and promoted within their course</p>	<ul style="list-style-type: none"> <li>▪ NUS survey in 2017 found 78% of 397 BU students agreed or strongly agreed that Sustainable Development should be incorporated and promoted within their course</li> <li>▪ Delivery of PGCert session on Education for Sustainable Development</li> <li>▪ Promotion of first NUS Teach In</li> <li>▪ Third competition to reward best practice examples of ESD across all Faculties</li> <li>▪ Continued leadership by Annie</li> </ul>	<ul style="list-style-type: none"> <li>▪ Set up of ESD Community of Practice</li> <li>▪ Development and publication of KPIs for ESD and Research aligned to UN SDGs</li> </ul>	<ul style="list-style-type: none"> <li>▪ Resources available to continue progress with embedding UN SDGs in the curriculum</li> </ul>

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	(2018 NUS Sustainability Skills Survey)	<p>East, Senior Lecturer (Academic) In Film &amp; Television Production, FMC, to champion the Sector and Bafta collaboration on embedding sustainability in TV programme creation</p> <ul style="list-style-type: none"> <li>▪ Faculty of Management workshops on embedding sustainability in Project Management</li> </ul>		
	<p>Potable water</p> <p>↓ <b>43%</b></p>	<ul style="list-style-type: none"> <li>▪ Resolution of water loss at EBC</li> <li>▪ 27% increase in rainwater used in Fusion building - first full year of system in use</li> <li>▪ Installation of water efficient appliances and staff/student engagement (Stop the Drop campaign)</li> <li>▪ Exit from Cranborne House</li> </ul>	<ul style="list-style-type: none"> <li>▪ Installation of rainwater harvesting in BGB</li> <li>▪ Installation of ultra-low flush toilets in PH</li> </ul>	<ul style="list-style-type: none"> <li>▪ Climate change impact on increased heat waves</li> </ul>



UN SDG	Progress	Comment	Opportunities	Risks
	<p>Grid electricity</p> <p>↓ 10%</p>	<ul style="list-style-type: none"> <li>▪ Installation of energy efficiency measures, LED lighting, pumps etc</li> <li>▪ Exit from Cranborne House</li> <li>▪ Staff and student engagement activities (see below)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Implementation of recommendations from Fusion optimisation project</li> <li>▪ Implementation of CMP projects (see below)</li> <li>▪ Certification of Energy Management System to ISO 50001</li> <li>▪ Energy conservation measures delivered for SH</li> </ul>	<p>More energy intensive facilities:</p> <ul style="list-style-type: none"> <li>▪ CH labs</li> <li>▪ WH offices</li> <li>▪ Gateway buildings</li> <li>▪ MRI</li> </ul>
	<p><b>Renewable electricity</b></p> <p>↑ 54%</p>	<ul style="list-style-type: none"> <li>▪ Installation of PVs on waste compound and in bus hub canopy</li> <li>▪ Only provides about 2% of electricity consumed</li> </ul>	<ul style="list-style-type: none"> <li>▪ Additional 349,070 kWh PV installed (PH &amp; Gateway buildings) should result in achieving on site generation of 500 kW target by 2020/21</li> </ul>	<ul style="list-style-type: none"> <li>▪ Cost impact on building rates</li> <li>▪ Review of how achieve on site generation of 1000 kW target by 2025/26</li> </ul>
	<p><b>Natural gas</b></p> <p>↓ 14%</p>	<ul style="list-style-type: none"> <li>▪ Installation of new boilers in CH &amp; DH</li> <li>▪ Exit from Cranborne House</li> <li>▪ Biomass &amp; GSHPs delivered 12.5% of heat consumed.</li> <li>▪ Biomass boiler heat output down by 10% due to mechanical issues</li> </ul>	<ul style="list-style-type: none"> <li>▪ New boilers for SH, PH and ToFS</li> <li>▪ Use of biomass boiler &amp; solar thermal to provide heat for PH</li> </ul>	<ul style="list-style-type: none"> <li>▪ Biomass boiler non-operational during Nov/Dec 2018 due to a mechanical failure</li> </ul>




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	<b>Utility cost</b>  <b>3.5%</b>	<ul style="list-style-type: none"> <li>Utility spend of £1.82M in 2017/18 (includes carbon) compared to £1.89M in 2016/17. Main change due to reduction in water/sewerage costs (see above)</li> <li>Continued investment in energy and water conservation measures to mitigate cost increases</li> <li>Unibus contract achieved cost neutrality for the first time</li> </ul>	<ul style="list-style-type: none"> <li>Introduction of flexible gas and electricity contracts to improve buying decisions</li> <li>Renewable Heat Incentive payments for Student Centre and Fusion</li> </ul>	<ul style="list-style-type: none"> <li>25% increase in grid electricity price</li> <li>Brexit uncertainty</li> </ul>
		<ul style="list-style-type: none"> <li>Use of bus hub</li> <li>New builds recycling rate (99.8%) achieved target (95%)</li> <li>Refurbishments recycling rate (90%) achieved target (90%)</li> <li>Gateway buildings on course to achieve BREEAM Excellent and EPC A ratings</li> </ul>	<ul style="list-style-type: none"> <li>BREEAM Excellent &amp; EPC A standards for PGB Phase 2</li> <li><b>BREEAM 'Very Good'</b> standard for SH refurbishment</li> <li>Mini Ska standard for CH labs</li> </ul>	<ul style="list-style-type: none"> <li>Energy consumption by Gateway buildings &amp; WH/CH refurbishments</li> </ul>
	<b>UNIBUS passenger journeys</b>  <b>2%</b>	<ul style="list-style-type: none"> <li>Increase to 1.04M passenger journeys</li> <li>Consistently achieved over 90% mystery passenger scores for quality of service.</li> <li>UNIBUS service generated £53k surplus.</li> </ul>	<ul style="list-style-type: none"> <li>Additional 2,000 bed spaces in Increase in Lansdowne</li> <li>Transforming Cities Funding – electric bus infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>Pedestrianisation of Holdenhurst Road</li> <li>Bus stop capacity and safety at Lansdowne bus stops.</li> </ul>
	<b>Staff single car</b>	<ul style="list-style-type: none"> <li>In 2018, 46% of staff travelled in cars on their own. This increase was mainly due to</li> </ul>	<ul style="list-style-type: none"> <li>Refreshed Travel plan launched</li> <li>New car parking</li> </ul>	<ul style="list-style-type: none"> <li>Continued congestion and air pollution on</li> </ul>

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	occupancy  2% (2018 compared to 2016)	fewer staff car sharing than predicted. <ul style="list-style-type: none"> <li>▪ There has been a 3% reduction in single car occupancy over the life of the Travel Plan (2012 -2018)</li> </ul>	management and enforcement system introduced	Wallisdown Road
	Student single car occupancy  2% (2017 compared to 2015)	<ul style="list-style-type: none"> <li>▪ In 2017, 6% of students travelled in cars on their own, as the majority of students travel by more sustainable modes.</li> <li>▪ There has been a 1% reduction in single car occupancy over the life of the Travel Plan (2012 -2018)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Student Travel survey March 2019</li> <li>▪ Reduction in student parking permit allocation</li> </ul>	<ul style="list-style-type: none"> <li>▪ Impact of Lansdowne developments on quality of UNIBUS service</li> </ul>
	Recycling  15%	<ul style="list-style-type: none"> <li>▪ In 2016/17, achieved a 70% recycling rate</li> <li>▪ Exit from Cranborne House (resulting in a significant reduction in general waste produced)</li> <li>▪ More accurate reporting of skip recycling</li> <li>▪ Promotion of mixed/food recycling scheme</li> <li>▪ Amount of waste per FTE (27.6 kg) is well below the sector median (53.4 kg per FTE) and</li> </ul>	<ul style="list-style-type: none"> <li>▪ Introduction of coffee cup recycling pilot</li> <li>▪ Providing staff and students with reusable mugs/water bottles</li> <li>▪ Provide improved guidance on LCA</li> <li>▪ Review sustainable procurement practice against best practice</li> </ul>	<ul style="list-style-type: none"> <li>▪ Contamination of dry mixed recycling by food/liquids</li> <li>▪ Continuing difficulties in UK recycling market resulting in a change to BU scheme</li> </ul>



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		<p>has declined from 33.8 kg waste per FTE in 2015/16.</p> <ul style="list-style-type: none"> <li>▪ Actions taken by Chartwells to tackle plastic waste: <ul style="list-style-type: none"> <li>▪ Plastic straws have been removed from all cafes and replaced with high quality paper ones</li> <li>▪ Takeaway plastic single use salad boxes have been replaced with fully biodegradable and compostable boxes made from board sourced from sustainable and renewable plantations</li> <li>▪ China bowls are now available for customers eating from the salad bar as a dine-in option</li> <li>▪ A plastic-free shelf has been introduced into all drinks chillers, so drinks are sold either in glass bottles or a non-plastic format</li> <li>▪ Plastic takeaway cutlery has been banished and replaced with wooden versions.</li> </ul> </li> <li>▪ Use of Life Cycle Analysis to improve sustainable procurement practice. For</li> </ul>	<p>guidance (ISO 20400)</p> <ul style="list-style-type: none"> <li>▪ New electric vans and hybrid vehicles replacing BU diesel vehicles.</li> </ul>	

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		<p>example, Biomass tender delivered lower price for locally sourced wood chip which is returned to the supplier as a soil improver (circular economy)</p>		
	<p>Carbon emissions</p> <p>↓ 36%</p>	<ul style="list-style-type: none"> <li>▪ Continued good progress against 40% reduction target by 2020/21</li> <li>▪ Installation of energy conservation measures</li> <li>▪ Reduction in UK grid electricity carbon emission factor due to decarbonisation of supply</li> <li>▪ Scope 1 and 2 carbon emissions of 53 kg CO2 per square metre (compared against 54 kg/m2 sector upper quartile)</li> <li>▪ 27 tonnes CO2 saved in Halls energy saving Student Switch Off campaign</li> </ul>	<ul style="list-style-type: none"> <li>▪ Exit from RLH &amp; BH</li> <li>▪ Publication of climate change adaptation risk assessment and action plan</li> <li>▪ Implementation of CMP projects: IT (data centre &amp; comms rooms optimisation; HV:LV optimisation; &amp; EDF projects)</li> <li>▪ Two electric vans added to fleet (over 50% now electric or hybrid)</li> <li>▪ Continued decarbonisation of the grid</li> </ul>	<ul style="list-style-type: none"> <li>▪ See above</li> </ul>
		<ul style="list-style-type: none"> <li>▪ Ongoing BU support for the Dorset Devils and beach cleaning programme</li> </ul>	<ul style="list-style-type: none"> <li>▪ Staff and student volunteering</li> <li>▪ Opportunity to contribute to YOGA 2019</li> </ul>	

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		<ul style="list-style-type: none"> <li>20% of Talbot Campus classified as green space (student placement project)</li> <li>Student led group to educate on growing food sustainably - poly tunnel erected on TC.</li> </ul>	<ul style="list-style-type: none"> <li>Soft landscaping as part of EDF 2</li> <li>Improve the quality of the green spaces</li> <li>Use of Defra metric for measuring biodiversity</li> <li>Opportunity to contribute to YOGA 2019</li> </ul>	
		<ul style="list-style-type: none"> <li>Certification of Environmental management System to ISO14001:2015</li> <li>New Energy and Water and Sustainable Construction Policies approved</li> <li>Achieved Silver standard in the first Sustainability Leadership Scorecard</li> <li>Publication of Living Lab examples</li> </ul>	<ul style="list-style-type: none"> <li>Review of Sustainability Committee ToR and membership</li> <li>Implementation of building focused internal audit programme</li> <li>Position in People &amp; Planet University League</li> <li>Position in first THE World University Rankings (based on UN SDGs)</li> </ul>	<ul style="list-style-type: none"> <li>Resources available to deliver internal audit programme and benchmarking exercises</li> </ul>
		<p>For Jan - June 2018:</p> <ul style="list-style-type: none"> <li>Over 40% of staff signed up to Green Rewards</li> <li>Over 130,000 miles travelled sustainably to and from the University</li> </ul>	<ul style="list-style-type: none"> <li>Supporting Dorset LEP Clean Growth Strategy</li> <li>Increased engagement through staff</li> </ul>	<ul style="list-style-type: none"> <li>Staff engagement wanes</li> </ul>

UN SDG	Progress	Comment	Opportunities	Risks
		<ul style="list-style-type: none"> <li>▪ 515kg of wasted disposable cups avoided</li> <li>▪ Nearly 10,000 hours of exercise completed</li> <li>▪ Over 400 tonnes CO2 emissions avoided across all behaviour themes</li> </ul>	<p>induction</p> <ul style="list-style-type: none"> <li>▪ Increased Green Rewards team engagement through team sprints &amp; charity donations</li> <li>▪ Continue to maintain staff engagement through keeping the platform interesting and dynamic</li> <li>▪ Short-listed for Edie Sustainability Employee and Behaviour Change award</li> </ul>	