

## Appendix 1 of Academic Board Paper

# Sustainability Implementation Plan

### **Sustainability Plan 2020**

Positive Footprint Phase 2.1

University of the West of England, Bristol

May 2017



# Sustainability Implementation Plan

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ISO 14001:2004



# Sustainability Implementation Plan

## **Sustainability Implementation Plan**

### **Introduction**

The Sustainability Implementation Plan provides further details on how the individual themes of the Sustainability Plan are to be implemented, managed, integrated and reported. The Implementation plan is subordinate to the Sustainability Plan which, in turn, draws its authority from and is subordinate to Strategy 2020. The Sustainability Plan is designed to support attainment of the objectives of Strategy2020 in the most sustainable manner possible.

The thirteen themes of the plan follow a similar structure setting out the

- Introduction/purpose
- Aim
- Vision
- Metrics
- Target 2020
- Inter and co dependencies with other Plan themes
- Baseline 2016
- Post 2020 Ambition
- Underpinning Plan
- Responsible party/ies
- Key Stakeholders
- Contribution to meeting the UN Sustainable Development Goals

Sustainability risks are considered for each theme with the overall intention of supporting the university in avoiding avoidable sustainability risks and mitigating the impact of unavoidable risks.

Professor Jim Longhurst

Assistant Vice Chancellor

May 2017

## 1 Health and Wellbeing

### Introduction / Purpose

UWE is committed to a whole university approach to health and wellbeing. We have already achieved a great deal in creating and ensuring a healthy and sustainable environment for UWE Bristol students, staff and our wider community. We have a strong commitment to health promotion and have raised awareness of health and wellbeing services, increased opportunities to participate in physical activity, increased options for healthier and sustainably sourced food on all campuses. Our Healthy University Action Plan, along with other supporting plans including the Travel Plan have established the conditions to enable students and staff to easily participate in health and wellbeing enhancing choices while studying and working at UWE.

### Aim

UWE Bristol aims to provide a positive and enjoyable student, staff and visitor experience. It aims to enhance everyone's health and wellbeing by creating and promoting healthier working, learning, living and social environments.

### Vision

- To achieve a highly visible, co-ordinated and holistic approach to health, wellbeing and sustainability at UWE.
- Increase staff and student engagement with and awareness of positive health and wellbeing through comprehensive action plan e.g. Feel Good Focus and Feel Good February.
- Improve student and staff retention at UWE through strategic and innovative approaches to health and wellbeing.
- Improve student/staff experience and communications around health and wellbeing and create a culture of belonging and feeling connected.
- Raise UWE's reputation related to health and wellbeing.
- Enable UWE to react to current and emerging public health and wellbeing issues e.g. student alcohol and drug use; mental health etc.

### Metrics

- **Communication:** Increased diversity of the mechanisms for communicating health, wellbeing and sustainability information, initiatives, activities and support to all UWE Bristol staff and students. Comprehensive communication plan for health and wellbeing.
- **Engagement and involvement:** Increased engagement with health and wellbeing communications and participation in events and activities through increased: web stats data; event sign up; webpage views; Students' Union network sign up.
- **Coordination and awareness raising:** Coordinated UWE approach to promoting health through the work of the Healthy University Group. Increased awareness of health promotion and signposting information to health and wellbeing services through increased: web stats data; event sign up; webpage views; GP health centre sign up; Students' Union network sign up.
- **Staff experience:** Achievement of the highest 'Excellence' level on all 8 sections of the Workplace Wellbeing Charter targeted at staff but also of benefit to all students.
- **Student experience:** Increased numbers of student dissertations, projects, interns and work experience focused on health and wellbeing supported by Healthy University infrastructure.
- **Partnerships:** Increased number of external partnerships for health and wellbeing

### Target 2020

1. To achieve Excellence level in all 8 themes of Workplace Wellbeing Charter
2. To establish Health and Wellbeing as central theme for Welcome and Freshers' Start of Year Activities
3. To secure communication strategy for health and wellbeing with links to other themes.
4. To achieve Soil Association Silver Catering Mark in all UWE catering outlets
5. To achieve a health and wellbeing related Award
6. To increase engagement in health promotion initiatives e.g. Stoptober, FeelGood February, FeelGood Festival and FeelGood Focus.

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7. To utilise pre-arrival survey and year on year student satisfaction for wider priority setting.

### Inter and co dependencies with other Plan themes

- Sustainable Food
- Smarter Travel
- Sustainability Engagement
- Education for Sustainable Development
- Sustainable Procurement
- Campus Development
- Climate Change Adaptation.

### Baseline 2016

Feel Good Focus, Festival, February engagement numbers

Pedometer challenge numbers

Workplace Wellbeing Charter – 2016 levels

### Post 2020 Ambition

A university renowned for and proud of its commitment to promoting health and wellbeing with clear impacts on student and staff health, wellbeing and experience.

Enhance social engagement and create a supportive culture of belonging and feeling connected and decrease the need for wellbeing services.

### Underpinning Plan

Healthy University Five Year Strategic Plan and Action Plan

### Responsible party

Chair of the Healthy University Group

### Key Stakeholders

- Students and Staff,
- The Students' Union
- UWESU,
- Facilities,
- Faculties,
- Sports Centre,
- Health Centre,
- Human Resources,
- Wellbeing Services,

This theme of UWE's Sustainability Plan contributes to meeting the following Sustainable Development Goal

Goal 3. Ensure healthy lives and promote well-being for all at all ages

## 2 Engagement

### Introduction / Purpose

Sustainability is embedded in the Ambitions, Strengths and Values of our UWE Bristol Strategy 2020 and further amplified within our four key priorities for action: in particular, that Graduates 'be ...primed to play their part in developing a sustainable global society and knowledge economy'; and further emphasised within the Graduate Attribute framework, that they be 'globally responsible and future-facing.'

As such UWE Bristol is committed to enabling students and staff to make a positive difference in the world and to be active agents in our future. Inspiring and supporting people to do this is central to our approach to sustainability both within the University and the wider local and global community.

# Sustainability Implementation Plan

## Aims

Central to our ethos of active citizenship and working in partnership with The Student Union, we aim to:

- provide and facilitate wide-ranging opportunities for all students and staff to engage in sustainability as a key part of their experience at the University, whether it be through the curriculum and extra-curricular activities, the physical environment, such as the workplace, university grounds and student accommodation, internal networks, or community and public engagement, both on and off campus;
- raise awareness of best sustainable practice and inspire staff students and partners to make sustainable choices;
- develop the skills and knowledge of staff and students to actively contribute to a sustainable world.

## Vision

Our vision is for sustainability to be fully embedded across all areas of activity such that it is a normal and universally acknowledged part of University life.

## Metrics

- To achieve high levels of awareness of sustainability activity in an annual student sustainability survey run in conjunction with the Students' Union's Green Team coordinator.
- The number of staff and student supporters in the sustainability network.
- The running of an annual Big Green week, Fairtrade Fortnight and other engagement events plus support of Go Green week run by The Student Union.
- The running of campaigns and challenges in key theme areas such as Energy and Travel.
- Working within the curriculum, the number of student teaching sessions, projects, activities and placements.
- The number of students engaged on campus in the Community Garden and off campus in in the GreenSpace, Green ambassadors and Forest Schools programmes.
- The number of sustainability related public engagement activities and the number of students and staff involved.
- The number of Community Liaison initiatives with students on and off campus that embed sustainability messages in their communications.

## Targets

- a 70% awareness rate amongst students that sustainability is important at UWE Bristol, to be increased by 5% year on year to 90% by 2020.
- 5% increase year on year number of staff and student supporters in the sustainability network., i.e. 20% increase by 2020.
- number of events activities and participants to increase by 10% by 2020.
- increase in campaign activity by 10% by 2020.

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- increase in sustainability team activity within the curriculum by 25% by 2020.
- 10% increase on current participants sustainability volunteering activity by 2020.
- 10% increase in sustainability related public engagement activities by 2020.
- to maintain current levels of Community Liaison communications work on sustainability.

### **Inter and co dependencies with other Plan themes:**

Sustainability engagement is inextricably connected with all plan themes.

### **2016 Baseline**

See metrics above for which we have current figures.

### **Post 2020 ambition**

UWE Bristol to be recognised as a leader and innovators in sustainability engagement within the University and by the local community and beyond.

### **Underpinning plans**

Sustainability Engagement plan,

The Student Union Community strategy,

UWE Employability & Enterprise Service plan (includes UWE Volunteering)

### **Responsible party**

Sustainability Engagement Coordinator

### **Key Stakeholders**

- Students and Staff,
- UWE Sustainability team,
- UWE Public Engagement coordinator,
- UWE Volunteering,
- UWE Community Liaison Officer,
- The Student Union.

This theme of UWE's Sustainability Plan contributes to meeting the following Sustainable Development Goals

Goal 1. End poverty in all its forms everywhere

Goal 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture

Goal 3. Ensure healthy lives and promote well-being for all at all ages

Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

Goal 5. Achieve gender equality and empower all women and girls

Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

Goal 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

Goal 17. Strengthen the means of implementation and revitalise the Global Partnership for Sustainable Development

### **3 Education for Sustainable Development**

#### **Introduction / Purpose**

Strategy 2020 commits UWE to ensuring that our graduates are well equipped to make a positive contribution to society and their chosen field of work or further study; and primed to play their part in developing a sustainable global society and knowledge economy. In order to achieve this we must foster a culture that encourages our students, staff and partners to co-develop knowledge and skills and demonstrate behaviours that support the goal of reconciling human needs and aspirations with the environmental limits of the planet, as articulated in the United Nations' Sustainable Development Goals.

#### **Aim**

To ensure that a sustainability culture permeates our curriculum, research and the knowledge base and behaviour of our staff and students, evidenced by the ability of staff and students to articulate links between sustainable development and their discipline and by accreditation of our ESD provision within the university's ISO14001 EMS accreditation and by the NUS Responsible Futures accreditation scheme.

#### **Vision**

By 2020, all staff and students will be familiar with the UN SDGs and have an awareness of their relevance to the individual's own discipline.

#### **Metrics**

- % of students who agree that UWE has provided them with the opportunity to learn about the United Nations Sustainable Development Goals (SDGs), which include climate action.
- % of staff who are aware of the contribution that their teaching makes to the SDGs and/or the university's ESD commitments.
- % of programmes, which offer opportunities for the development of skills and acquiring of experience aligned to SDGs (using QAA-HEA ESD guidance list).
- % of students completing UWE e-learning on sustainability
- % of students who take up an optional experience opportunity aligned to the ambitions of the UN SDGs
- Institution-wide engagement with the UN Principles of Responsible Management Education (PRME), where appropriate.
- Integration of sustainability-related research into teaching on relevant programmes.
- Ongoing accreditation by NUS Responsible Futures
- Ongoing incorporation of ESD into ISO 14001 Accreditation

#### **Targets**

- By 2020, 80% of students, when surveyed, agree that UWE has provided them with the opportunity to learn about SDGs.
- By 2020 all departments have engaged in mapping of UN SDGs against programme content, relevant disciplines, professional practice and/or departmental activity.
- By 2020, all programme handbooks explicitly reference ESD.
- By 2020 all programmes include opportunities for the development of skills aligned to the SDGs, as articulated in the QAA-HEA ESD guidance.
- By 2020, 50% of programmes will provide opportunities for practice-oriented experience for students.
- By 2020, 50% of enrolled students have completed UWE e-learning on sustainability

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- By 2020, 25% of students will take up optional experience opportunities aligned to the ambitions of the UN SDGs (delivered by UWE and/or the SU at UWE or external partners)
- UWE's Sharing Information on Progress (SIP) reports to the UN contains examples of PRME engagement from an increasing number of disciplines within the university.
- By 2020, all designated centres of research excellence will contribute to UG and/or PG teaching.
- The university will maintain its accreditation under the NUS responsible Futures scheme.
- The university will maintain its accreditation of ESD under ISO 14001

### Inter and co dependencies with other Plan themes

- Sustainability Engagement
- Climate Change Adaptation

"Student learning relates not only to the formal curriculum but also to the campus environment, the local community and the culture of the institution" (QAA-HEA, 2014, p17). Subsequently, the commitment by the institution to achieving the objectives outlined in all other Plan themes will impact upon the ability of the institution to develop responsibility and stewardship in graduates and to deliver authentic education for sustainable development.

### Baseline 2016

- 34% of students are 'aware of the Sustainable Development Goals at UWE'
- 3 departments have engaged in mapping of UN SDGs against programme content, relevant disciplines, professional practice and/or departmental activity.
- 100% of students exposed to concepts of ESD within their programme of study.
- PRME SIP report contains examples of PRME engagement from two disciplines within the university.
- The university has obtained NUS Responsible Futures accreditation.
- No baseline data is available for the other metrics/targets.

### Post 2020 Ambition

UWE states that it is ambitious and not afraid to shape, challenge and tackle the big issues. A key challenge to deep and meaningful ESD provision in HE is the 'siloed' nature of programmes and academic management structures. If UWE is to maintain its current status as a leading UK HEI in the context of ESD, it should look to open out the curriculum to enable development of a set interdisciplinary (issues-based project) modules, which are open to all disciplines and taught by interdisciplinary teaching teams. This vision is in line with the expectation of the NUS Responsible Futures criteria and the QAA-HEA ESD Guidance.

### Underpinning Plan

ESD Action Plan

### Responsible Parties

AVC Environment and Sustainability

SL ESD

Knowledge Exchange for Sustainable Education (KESE)

## Sustainability Implementation Plan

### Key Stakeholders

- Students and Staff
- Associate Deans for Teaching and Learning (or equivalent titles)
- Heads of Department
- Programme leaders
- Module leaders
- SU at UWE
- Alumni

This theme of UWE's Sustainability Plan contributes to meeting the following Sustainable Development Goals

Goal 1. End poverty in all its forms everywhere

Goal 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture

Goal 3. Ensure healthy lives and promote well-being for all at all ages

Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

Goal 5. Achieve gender equality and empower all women and girls

Goal 6. Ensure availability and sustainable management of water and sanitation for all

Goal 7 Ensure access to affordable, reliable, sustainable and modern energy for all

Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

Goal 10. Reduce inequality within and among countries

Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable

Goal 12. Ensure sustainable consumption and production patterns.

Goal 13. Take urgent action to combat climate change and its impacts

Goal 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development

Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

Goal 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

Goal 17. Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development

### 4 Sustainable Procurement

#### Introduction / Purpose

In 2015/16 UWE Bristol procured in excess of £110 million of goods and services (including construction). We continuously improve the sustainability of UWE Bristol and its wider supply chain by working collaboratively with other public sector partners and factoring into procurement environmental protection, the pursuit of social and corporate objectives as well as economic efficiency. We strive to reduce whole life costs and minimise our exposure to supply chain risk.

#### Aim

To maximise the opportunity provided by procurement to improve the sustainability of the UWE Bristol purchasing decisions and the wider supply chain.

#### Vision

A lower carbon supply chain providing sustainability benefits for staff, students and the local community by the reduction of emissions and risk

#### Metrics

- Carbon footprint of the UWE Bristol supply chain
- Supplier engagement in collaborative performance improvement
- Completion and consideration of lifecycle analysis for all significant procurement decisions (tender threshold)
- % by value of local, SME and Fairtrade goods and services
- Delivery against our Sustainable Food Policy
- CSI Index score of the UWE Bristol supply chain
- No examples of modern slavery discovered in the Tier 1 supply chain

#### Target 2020

- By 2020 to have achieved a 30% absolute reduction in the carbon footprint of the UWE Bristol supply chain (excluding construction)
- To year on year increase the spend on ethically sourced and fairly traded goods
- All high/medium risk suppliers have undergone a sustainability accreditation/assessment (CIPS CSI/ Net Positive Futures/ISO etc.)
- Lifecycle analysis is included as part of all building projects

#### Inter and co dependencies with other Plan themes

- Energy and Carbon Management
- Campus Development
- Waste Emissions and Discharges
- Water
- Green IT
- Smarter Travel
- Sustainable Food

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- Climate Change Adaptation

### **Baseline 2016**

2016 Supply Chain Carbon Footprint: 62465 tCO<sub>2</sub>e including construction

### **Post 2020 Ambition**

An established trust in a transparent sustainable and socially responsible UWE Bristol supply chain.

### **Underpinning Plan**

Sustainable Procurement Strategy

### **Responsible party**

Head of Procurement and respective budget holders

### **Key Stakeholders**

- Students and staff
- Suppliers
- Professional services
- Faculties
- Local community

This theme of UWE's Sustainability Plan contributes to meeting the following Sustainable Development Goals

Goal 1. End poverty in all its forms everywhere

Goal 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture

Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.

Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

Goal 13. Take urgent action to combat climate change and its impacts

Goal 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development

## **5 Energy and Carbon Management**

### **Introduction / Purpose**

The 2008 Climate Change Act commits the UK to a carbon reduction target of 80% by 2050 (1990 base), with an interim target of 34% by 2020 set in the 2009 budget. The Committee on Climate Change has recommended the 2020 target be raised to 42%. Since 2011 HEFCE capital allocations have been linked to scope 1 and 2 carbon reduction, and UWE has been set a target by HEFCE of 22.5% absolute reduction by 2020 (2005 base).

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South Gloucestershire Council has set renewable energy targets for the equivalent of 7.5% of South Gloucestershire's total energy demand (or 508GWh) to be generated from renewable energy installations located within South Gloucestershire by 2020 in line with the UK Target. This is equal to 23% of electricity and 8% of heat. To support the UK aims to decarbonise the grid, the University recognises the need to reduce peak demands as much as possible. This can be achieved using demand management technology, battery storage, and behaviour change. The Carbon Management Plan sets targets for demand management. Our approach to carbon management includes scope 3 emissions (CO<sub>2</sub> emissions from water use, waste management, business and commuter travel and procurement) in addition to scope 1 (emissions from the burning of fuels on site) and scope 2 (emissions from the generation of purchased electricity). This will ensure that carbon is included in the management of all of these key areas, encouraging greater integrated resource management. The University's estate is growing and as such, we recognise the importance of reporting the absolute carbon emissions of the university, alongside benchmarked figures with respect to key metrics including: floor area, weather adjustments and FTE students. We believe that the absolute values allows us to demonstrate our contributions to the UK's carbon reduction target, whilst continuing to be a growing University; furthermore the benchmarked figure (kWh/m<sup>2</sup>, kWh/FTEstudent) allows us to demonstrate that we are operating efficiently for the building types on the estate. This will be particularly important when assessing efficiency use of space, room booking and managing areas with 24-hr access. The University is committed to on-site energy generation where possible, to reduce carbon footprint and increase security of supply. A target for on, or near site, generation has been set based on a percentage of total energy consumption.

### Aim

Continually reduce absolute and relative energy and water consumption in line with the University's Carbon Management Plan.

Adhere to the Strategic Objectives in the Energy and Water Policy 2016.

### Vision

For UWE to be not only reducing energy and water consumption, but actively contributing to the national decarbonisation agenda, through managing our peak demands on the electricity grid, and developing strategies to be able to operate heating plant with natural gas alternatives.

### Metric

- Total CO<sub>2</sub> emissions in scope 1, 2 and 3. (TCO<sub>2</sub>/yr)
- Buildings consumption related carbon (including any consumption from renewables)
- FTE student (number) (based on EMR [D04.C01])
- GIA Floor Area (m<sup>2</sup>) (based on EMR [D11.C01])
- Degree Day adjustments
- Total Renewable electricity generated from on site photovoltaics (kWh/yr.) (based on EMR [D38a.C01f])
- Total electricity consumed from grid or on-site generation (kWh/yr.)
- Total heat supplied by heat networks (kWh/yr.)
- Total heat consumed (kWh/yr.)
- Space Utilisation (based on EMR [D38a.C01f])

### Target 2020

The original target of 30% reduction in relative CO<sub>2</sub> emissions between 2001/2 – 2011/12 has been increased and extended to 2020/21. To bring our targets in-line with external requirements a new absolute target has been developed, and the baseline year has been moved to 2005/6.

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- Carbon Reduction: Scope 1&2 Absolute reduction from 2005/6 – 2020/21:
  - 1.5% annual reduction
  - 2016/17 interim target: 16.5% total reduction
  - Equating to 22.5% total reduction by 2020/21
- Energy Efficiency: Building consumption related carbon, relative to floor area, reduction from 2005/6 - 2020/21:
  - 2016/17 interim target: 38% relative reduction
  - 50% relative reduction (based on kg CO<sub>2</sub> per m<sup>2</sup> and average weather)
- Scope 3 emissions from 2014/15 - 2020/21
  - By 2018/19 to have developed a specific Scope 3 reduction strategy identifying projects to reduce scope 3.
  - 10% absolute reduction (including construction) over 2014/15 baseline by 2020/21
  - 5% relative reduction (excluding construction) over 2014/15 baseline by 2020/21 (based on kg CO<sub>2</sub> per FTE student)
- Low Carbon Electricity Generation in 2020/21
  - 10% of University's electricity consumption in 2020/21 to be generated from on-, or near -, site low or zero carbon technologies.
- Low Carbon Heat Networks in 2020/21
  - 20% of University's heat and hot water demand in 2020/21 to be supplied by low carbon heat networks.
- Space Utilisation Strategy
  - By Spring 2018, to have developed a cross-discipline strategy with Central Timetabling and Masterplanning, for improving space utilisation to ensure efficient usage of space whilst delivering best service to staff and students.

### **Inter and co dependencies with other Plan themes**

Plan themes related to Scope 3 emissions:

- Sustainable Procurement
- Water
- Smarter Travel

### **Plan themes relating to space utilisation and carbon management:**

- Campus Development
- Climate Change Adaptation

### **Baseline 2016**

Scope 1&2	Absolute emissions	Target Reduction over 2005 baseline	Actual Reduction over 2005 baseline
	TCO <sub>2</sub> /yr	%	%
2005/6	13,376		
2011/12	12,391	-9%	-7.4%
2015/16	14,565	-15%	+8.8%

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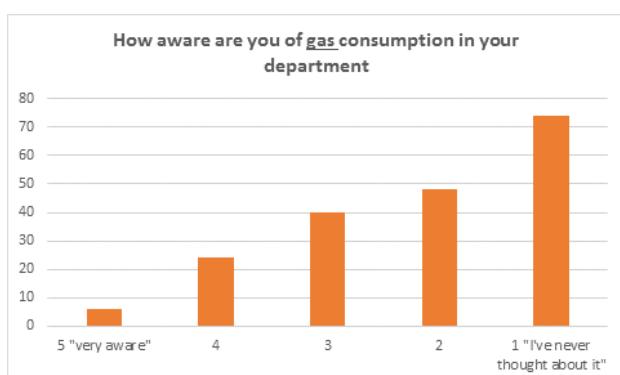
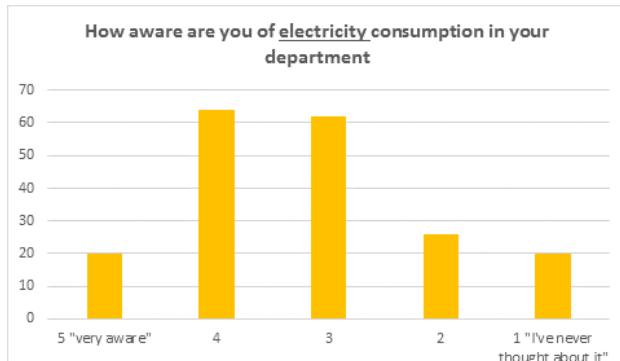
The table above demonstrates that although a reduction in absolute CO<sub>2</sub> emissions was achieved in 2011/12, our emissions have been rising. For the 2015/16 year, these reductions are beginning to decrease at a suitable rate to meet the 2020 targets.

<i>Buildings emissions</i>	Normalised emissions to 2001 DD	Target Relative Reduction over 2005 baseline	Actual Relative Reduction over 2005 baseline
	kgCO <sub>2</sub> /yr/m <sup>2</sup>	%	%
2005/6	91		
2011/12	52	-20%	-42%
2015/16	59	-35%	-35%

The table above demonstrates that the target of 35% relative reduction over 2005/6 baseline has been achieved.

These two tables show that although the absolute emissions target has not been met, the relative targets have. This is largely due to the increase in estates area. With further new buildings being occupied in 2016/17 these targets should continue to be monitored closely in order to meeting the 2020/21 targets.

The total Scope 3 baseline for 2014/15 is 39,388TCO<sub>2</sub> (including construction) and 23,523TCO<sub>2</sub> (excluding construction).



### Post 2020 Ambition

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From 2020/21, UWE Faculties and services to operate a carbon budget and fully understand their impact on scope 1&2 carbon emissions.

From 2020/21, to be developing a robust plan for managing energy demand using smart controls on site including turning off equipment during peak demands, and storing energy generated in off-peak times to be used during peak times.

By 2040, for UWE campuses to be “off-grid capable”, using onsite generation, demand control technologies and battery storage.

Or where this is not possible, for that campus to be net carbon neutral across a year (Aug-July) based on scope 1 & 2 emissions.

### **Underpinning Plans**

- Carbon Management Plan
- Energy Policy

### **Responsible party**

- Energy Manager

### **Key Stakeholders**

- Students and Staff
- Estates
- Accommodation
- Sustainability Team
- Campus Masterplan
- Central Timetabling
- Students Union

This theme of UWE’s Sustainability Plan contributes to meeting the following Sustainable Development Goals

Goal 7 Ensure access to affordable, reliable, sustainable and modern energy for all

Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable

Goal 13. Take urgent action to combat climate change and its impacts

## 6 Campus Development

### Introduction / Purpose

During the life of the Sustainability Plan the University will progress with the development and delivery of campus master planning. Sustainable campus development is critical to the long-term sustainability performance of the University. All of the aims and KPIs associated with this Plan will support sustainable campus development. Described below are construction and refurbishment specific aims and KPIs.

#### Aim

Sustainability will be included from the outset in all construction, refurbishment and landscaping projects utilising smart design, innovation and procurement to address all relevant aspects of sustainability described within this Plan and in particular human and social impacts, climate change mitigation and adaptation.

#### Vision

Provide a green, pleasant, healthy and sustainable campus

#### Metrics

- New Buildings - Industry Recognised Standard (e.g. DEC, SKA, etc.)
- Building Emission Rate (CO<sub>2</sub>)
- % against Design Stage Energy Model
- Significant Landscaping and Civils Projects - Industry Recognised Standard
- Significant Refurbishment - Industry Recognised Standard
- Number of Student Engagements per annum
- Number of Projects to be connected to District Heating Network
- Number of Public Realm Projects

#### Target 2020

- All new buildings, significant landscaping and civil engineering and significant refurbishment projects to be assessed against industry recognised standards.
- Completed projects to exceed by 5% Building Regulations Part L2A targets for carbon emissions.
- a) By the end of the Post Occupancy Evaluation period new buildings to perform to within 20% (check % is appropriate/ ambitious enough) of energy efficiency of design prediction. CIBSE TM54/ 39 guides to be utilised to produce design stage predicted energy use model to enable comparison during post-occupancy period.
  - b) BSRIA soft landings principles to be adopted for major schemes as a minimum, incorporating a soft landings champion, an independent commissioning agent and 18 months' post-occupancy support (including thermographic imaging during suitable heating period within 6-months of completion) is provided.
- All significant landscaping and civil engineering projects to be assessed against industry recognised standards and to promote Biodiversity
- Every significant refurbishment project to be assessed against industry recognised standards
- Student engagement opportunities during the design and build stages to be explored for all major projects.
- During their design stage, all new buildings to be assessed for the potential to connect into the University's District Heat Network.
- At project and Master planning level, greater emphasis to be provided on external realm:
  - NEC Supervisor duties to extend to external spaces

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- Public Realm Schemes to be initiated to 'bind together' individual projects.

### Inter and co dependencies with other Plan themes

- Energy and Carbon Management
- Sustainable Procurement
- Waste, Emissions and Discharges
- Water
- Green IT
- Smarter Travel
- Biodiversity

### Baseline 2016

- 1) Environmental Assessment – % of significant projects formally/ informally assessed against recognised Environmental Assessment Standard. For projects completed by 2015/16 this was 67% (these being Student Residences Phase 1 and Bower Ashton Refurbishment).
- 2) Building Regulations - % of significant projects achieving more than a 5% betterment of Part L2A Building Regulations. For projects completed by 2015/16 this was 0%. All significant completed projects achieved compliance or above (these being Student Residences Phase 1, Student Union and Bower Ashton Refurbishment).
- 3) Soft Landings/ Post Occupancy Evaluation - % of significant projects adopting Soft Landings and Post Occupancy Evaluations. For projects completed by 2015/16 100% adopted soft landings and are in the process of completing Post Occupancy Evaluations (these being Student Residences Phase 1, Student Union and Bower Ashton Refurbishment). For the Bower Ashton refurbishment, this formed part of the Highly Commended submission to EAUC Green Gown 2016 award for the implementation of Soft Landings.
- 4) Landscaping and Civil Engineering projects – % of significant projects formally/ informally assessed against recognised Environmental Assessment Standard. For 2015/16 this is Not Applicable as no relevant projects delivered.
- 5) Remaining Targets are new to the Mid Plan Review; therefore, the Baseline information does yet not exist.

### Post 2020 Ambition

Towards and beyond 2020,

Campus Developments aim to:

- deliver at least one new zero carbon building.
- report on the embodied carbon of all major projects
- Incorporate more SUDs and create a climate resilient campus

### Underpinning Plan

## Sustainability Implementation Plan

Sustainable Campus Development Implementation Plan

Design Guide

### **Responsible Party**

Pro Vice-Chancellor: Commercial Director supported by Director/ Deputy Director of Masterplanning

### **Key Stakeholders**

- Students and staff
- Sustainability Board
- Campus Programme Board
- Masterplan Executive
- Estates
- Accommodation
- Sustainability Team
- Students Union

This theme of UWE's Sustainability Plan contributes to meeting the following Sustainable Development Goals

Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable

Goal 13. Take urgent action to combat climate change and its impacts.

## 7 Waste Emissions and Discharges

### Introduction / Purpose

How we use natural resources and discard of materials has significant direct and indirect sustainability impacts, and how we manage waste and resources in our operations can have an impact on student and staff experience of our estate - from the convenience and clarity of recycling facilities through to the visual impact of bins around external areas. Managing resources responsibly by following the waste hierarchy (prevention > reuse > recycling > energy recovery > landfill) is also usually the cheaper option. Furthermore, UWE is keen to bring about benefits to the local social economy through participation in sharing and reuse networks.

### Aim

To reduce the quantity and hazardousness of our waste materials and to manage waste in ways that bring about financial, environmental and social benefits.

The university will continue striving to manage material resources more efficiently. We will follow the waste hierarchy principle and continue finding ways of supporting a more circular economy. We wish to use materials in a way that maximises their value to the university, and to the wider economy once they are discarded.

Students and staff come to the university from all over the world, so our recycling system needs to be simple, clear and well communicated. UWE will work to raise awareness of responsible waste management amongst our students.

We will also work to prevent uncontrolled emissions and discharges to the natural environment.

### Vision

To embed sustainable resource management and material resource efficiency consistently across the University and to influence the supply chain in the achievement of these aims.

To use resource management operations and the business decisions surrounding effective resource management (e.g. life cycle assessment) as an opportunity to engage staff and students in sustainability, and as an opportunity for learning and research for our students.

To prevent the escape of ecologically damaging materials in our control into the natural environment.

### Metrics

- Quantity of discarded material (tonnes)
- Recovery rate %
- Recycling rate % (non-construction waste)
- Reuse rate %
- Quantity of hazardous waste (tonnes)
- Financial savings through waste prevention activities
- Number of incidents of proscribed discharge to sewer
- Number of incidents of uncontrolled pollution (to air, land or water)

### Target 2020

- 15% reduction in quantity of discarded material (non-construction waste per student FTE)
- 70% recycling rate (non-construction waste)

## Sustainability Implementation Plan

- 95% recovery rate (including construction waste)
- 5% reuse rate (non-construction waste)
- £120k p.a. savings from waste prevention work
- Zero reportable environmental incidents (i.e. reportable to or by the local authority, the environment agency or the university's sewage operator)

### Inter and co-dependencies with other Plan themes

- Sustainable Procurement
- Campus Development
- Sustainability Engagement

### 2015/16 Baseline

- Quantity of waste: 1,279 tonnes (excluding construction waste)
- Recovery rate: 91.6% (excluding construction waste)
- Recycling rate (non-construction waste): 60.6%
- Reuse rate: 3.1% (excluding construction waste)
- Quantity of hazardous waste (tonnes): 16.3 tonnes (excluding construction waste)
- Financial savings through waste prevention activities: £80,000
- Number of reported incidents of proscribed discharge to sewer: 0
- Number of reported incidents of uncontrolled pollution (to air, land or water): 0 (excluding construction waste)

### Post 2020 Ambition

To consider the impact of all the materials used in university operations – in the construction and furnishing of our buildings, the feeding of our staff and students, the packaging, clothing, technology, paper and general “stuff” of the day-to-day running of the institution - and to systematically find ways of supporting wider efforts towards a circular economy:

- by returning our discarded items and materials into economic use,
- by specifying for the inclusion of secondary materials where appropriate
- by specifying for ease of recycling and reuse at the end-of-life
- and by educating our students to be ready and able to partake in a circular economy when they enter employment.

### Underpinning Plan and Documents

- Resource Management Plan 2020
- Spill response procedure
- Estates Design Guide
- Waste and resources risk description

### Responsible Party

Sustainability Operations Manager

### Key stakeholders

- Students and Staff
- UWE Accommodation Service
- UWE Hospitality/Catering

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- UWE Cleaning Services
- UWE Campus Support Officers
- UWE Estates
- Waste contractors
- Local social economy
- Local Residents
- Students' Union

This theme of UWE's Sustainability Plan contributes to meeting the following Sustainable Development Goals

Goal 12. Ensure sustainable consumption and production patterns

Goal 13. Take urgent action to combat climate change and its impacts

## 8 Water Management

### Introduction / Purpose

Water shortage due to falling water reserves and higher demand, the carbon footprint of water supply and the social and economic impacts associated with water supply all require UWE to take action to reduce the consumption of supplied water. By using less water UWE will save money on water supply costs, on wastewater disposal charges, and the energy used to heat hot water that may be wasted.

### Aim

Continually reduce absolute and relative water consumption in line with the University's Water Management Plan.

Adhere to the Strategic Objectives in the Energy and Water Policy 2016.

### Vision

For UWE to operate as a robust estate with low water consumption from the regional network, and use on-site recycled water to improve water resilience in a changing climate.

### Metric

- Absolute water use from the supply network
- Relative water use per student FTE
- Total rainwater harvesting capacity
- Staff awareness of water use (based on surveys)

### Target 2020

- 10% absolute reduction in supplied water use, over 2011/12 baseline, by end of 2019/2020
- 20% relative reduction in supplied water use, over 2011/12 baseline, by end of 2019/2020
- By 2018/19, to have carried out an assessment of rain water harvesting and greywater recycling capability in existing and possible future developments.
- Improved water use awareness. By 2020 to have over 50% of the respondents either 'aware' or 'very aware' to questions on water use awareness.

## Sustainability Implementation Plan

### Inter and co dependencies with other Plan themes

- Carbon Management
- Campus Development
- Climate Change Adaptation

### Baseline 2016

2011/12 baseline

Absolute supplied water usage: 216,833 cubic meters

Relative supplied water usage: 7.9 cubic meters/FTE student

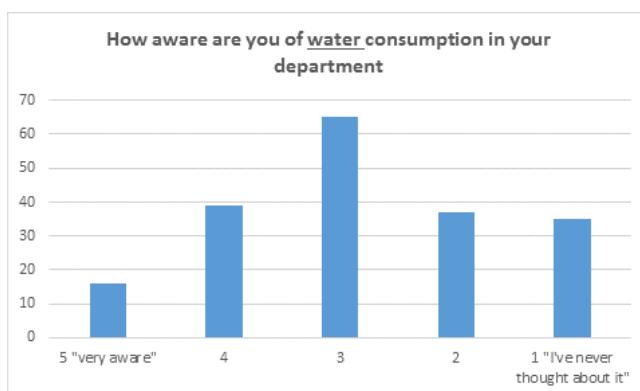
### 2014/15 progress

2014./15: absolute supplied water usage: 324,976 cubic meters (50% increase over baseline)

2014/15 relative supplied water usage: 11.71 cubic meters/FTE student (48% increase over baseline)

### 2016 Baseline Awareness

The baseline of staff awareness from a survey in 2016 from a pilot study in HAS, SU, UWE Exec, Accommodation and Sport) is shown below:



### Post 2020 Ambition

2020/21 all Master Planning maximises the opportunity for sustainable urban drainage system management of water, including full adoption of rainwater harvesting, grey water systems and habitat creation.

### Underpinning Plan

- Water Management Plan
- Masterplan Documentation

### Responsible party

- Energy Manager

## Key Stakeholders

- Students and Staff
- Estates
- Accommodation
- Sustainability Team
- Campus Masterplan
- Students Union

This theme of UWE's Sustainability Plan contributes to meeting the following Sustainable Development Goals

Goal 6. Ensure availability and sustainable management of water and sanitation for all

## 9 Green IT

### Introduction / Purpose

IT plays a significant role in the sustainability of UWE Bristol in many ways including data centre energy use, the life cycle of hardware materials, enabling e-learning and working, operation of campus buildings and delivery of services.

### Aim

To continually improve the sustainability of the IT infrastructure whilst maximising the wider social and environmental benefits enabled by IT.

### Vision

UWE Bristol's IT is positioned in the upper two quartiles for common sustainability measures across the University Alliance Group and all parts of the university's IT supply chain have a published sustainability policy with associated targets.

### Metrics

UWE Bristol's position in relation to green IT industry best practice for:

- Data Centre efficiency
- Virtualisation
- Hardware life cycle impact
- Numbers of devices (Desktop PC, Laptops, Tablets).
- Reduce reliance on printed documents
- Power Usage Effectiveness

### Target 2020

Simplifying the ITS landscape through rationalising systems and adopting an enterprise architecture thus reducing hardware and power requirements

- Calculating the carbon consequences of a move to Cloud Technology to provide most or all IT services.
- Raised awareness within UWE of sustainable IT solutions
- Power Usage Effectiveness 1.5

#### **Inter and co dependencies with other Plan themes**

- Energy and Carbon Management
- Simplifying the IT estate is dependent upon the Student Journey Director's student CRM roadmap, the introduction of a new student information system, HR Online and PIMS
- Working with the Energy plan on how to reduce energy within the Data Centre and comms rooms.

#### **Baseline 2016**

Current Power Usage Effectiveness 2.0

#### **Post 2020 Ambition**

To fully understand the sustainability benefits to UWE of utilising cloud solutions and/or shared datacentres to provide IT services.

#### **Underpinning Plan**

- ITS Strategy

#### **Responsible party**

- Assistant Director IT Operations

#### **Key Stakeholders**

- Students and Staff
- Sustainability Team
- Campus Masterplan

This theme of UWE's Sustainability Plan contributes to meeting the following Sustainable Development Goals

Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

Goal 10. Reduce inequality within and among countries

Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable

Goal 12. Ensure sustainable consumption and production patterns

## **10 Smarter Travel**

#### **Introduction / Purpose**

Travel and Transport are major contributory factors to the overall carbon emissions of the university both in terms of daily commuting and also its operations and business travel. The university is also required to comply with planning regulations imposed as a result of campus 2020 and the future development of the university whilst taking into account both our own and wider regional growth projections. Solid progress has already been made with regard to reducing reliance on car travel and we have already removed circa 1000 single occupancy daily return commuter trips following the full implementation of the UWE travel smart programme. This has removed the equivalent of around 5 miles of standing traffic and its associated pollution from Bristol's road network, many more if the traffic is flowing. One other benefit of this reduction has also been in financial

## Sustainability Implementation Plan

terms as the university has saved around £6m resulting from not re-provisioning additional car parking spaces to meet this demand.

### Aim

To promote and embed active and smart travel choices as the natural choice of travel at the university.

To minimise unnecessary travel through the promotion of alternatives. For example, adoption of agile working practices, use of IT systems (Skype, Video Conferencing, Webinars).

To reduce the impact of business travel, fleet and service vehicles.

To reduce carbon emissions and improve air quality through promotion of sustainable working practices and encouraging the uptake of ultra-low emission transport (ULEV).

### Vision

To make active travel the first choice of travel at UWE

1. Active travel (walking & cycling)
2. Public Transport
3. Car Share / ULEV
4. Vehicle on own / Taxi

To enable and embed low carbon, low pollution travel.

To deliver multi modal travel options, through closer integration with the wider regional transport network.

### Metric

- Single occupancy car travel.
- Uptake of active travel modes
- Business travel impact
- ULEV in own fleet

### Target 2020

- Achieve 25% single occupancy car journey (daily commute)
- Achieve 30% active travel (daily commute)
- Reduction of 5% in expenditure on business travel
- Increase number of ULEV's in fleet to 30%

### Inter and co dependencies with other Plan themes

- Health and Wellbeing – To promote the benefits of active travel to staff and students.
- Sustainability Engagement – Embedding active and sustainable travel initiatives into UWE's programme of engagement activities
- Sustainable Procurement – Ensuring the environmental performance of direct / indirect travel and transport are considered during procurement of all goods and services.
- Energy and Carbon Management – Reducing the carbon footprint and scope 3 emissions related to Travel and Transport operations.
- Campus Development – Delivering the key infrastructure to enable further development of sustainable transport modes and multi modal transport options.

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- Waste, Emissions and Discharges – Minimising the impact of all operations on the environment through collaboration and contract management.
- Green IT– A key emerging area in relation to providing alternative working methods, travel information connected technology and management systems.

### Baseline 2016

- 30% Single occupancy car journey (Daily Commute)
- 21% Active Travel (Daily Commute)
- Combined business travel expenditure £1,272,816
- 20% ULEV in UWE own fleet

### Post 2020 Ambition

- 80% of all daily commute journeys are made by sustainable modes of travel
- To create low emission zones on all large campus sites.
- Increase use of ULEVs in fleet to over 50%

### Underpinning Plan

- 2016/17 Travel Plan

### Responsible Party

- Travel & Access Manager

### Key Stakeholders

- Students and Staff
- Users of the University's facilities

This theme of UWE's Sustainability Plan contributes to meeting the following Sustainable Development Goals

Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable

Goal 12. Ensure sustainable consumption and production patterns

## 11 Biodiversity

### Introduction / Purpose

UWE Bristol campuses cover an area of 150ha, with large areas of Glenside and Bower Ashton campuses designated a conservation area. The embedding management of biodiversity into the University vision will enhance the natural environment in which to live, study and work in.

UWE Bristol campuses are continuously evolving through construction, refurbishment and changes in land use. UWE Bristol is committed to encouraging and enhancing biodiversity across all of its campuses. UWE Bristol recognises the need to develop the campuses but maintain a high level of biodiversity with new projects and external refurbishment. The management of our estate for the benefit of Biodiversity encourages more people to build a relationship with these spaces and gain appreciation for the external environment.

### Aim

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- To increase and enhance Biodiversity across all campuses including measures to create; enhance and manage habitats, with improved access to campus green spaces for students and staff.
- Encourage engagement with biodiversity on our campuses

### Vision

UWE Bristol to have an enhanced level biodiversity across the estate whilst improving the aesthetics of the estate.

To have a campus which is harmonised with the wider biodiversity agendas of Bristol City Council and South Gloucestershire.

### Metric

- The length in metres of native hedgerow
- The area of nectar rich planting and Wildflower meadows in m<sup>2</sup>
- The number of artificial habitats
- The number of projects from January that have incorporated 10% edible planting
- The number of plants in pots grown in the ground's greenhouse
- The biodiversity index count on an annual basis

### Target 2020

- Total length of native hedgerows to have achieved a net increase of 75m by 2020
- Increase the extent of nectar rich planting by 30% by 2020
- Increase the extent of artificial habitat creation by 30% by 2020
- Increase the extent of wildflower meadows by 30% by 2020
- 10% edible planting in all new planting projects.
- Annual increase in plants grown in the on-site greenhouse in peat free medium to achieve a total of 30% by 2020
- Carry out an annual biodiversity index count

### Inter and co dependencies with other Plan themes

- Campus Development – To include biodiversity targets within campus development projects
- Health and wellbeing – To promote the benefits of engagement with UWE external spaces such as community garden and orchard
- Climate Change Adaptation – Minimising the potential impacts of climate change on campuses through planting schemes and management of water courses
- Sustainability Engagement - to actively engage students and staff within projects and events
- Waste, emissions and Discharges – On-site composting of green waste

### Baseline 2016

- 175m of native hedgerow.
- Nectar rich planting 720m<sup>2</sup>
- Number of artificial habitats 42
- Area of wildflower meadow 700 m<sup>2</sup>
- Edible planting is zero and the count in 2017 will become the base line.
- The biodiversity index count is zero and the count in 2017 will become the base line.

### Post 2020 Ambition

To have an increased level Biodiversity across all campuses and a high level of engagement for students and staff with biodiversity.

### Underpinning Plan

## Sustainability Implementation Plan

- Biodiversity action plan
- Design Guide
- Biodiversity and Visual environment risk description

### Responsible Party

- Grounds manager
- Environment officer

### Key Stakeholders

- Students and Staff
- Grounds team
- Master Planning

This theme of UWE's Sustainability Plan contributes to meeting the following Sustainable Development Goals

Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

## 12 Sustainable Food

### Introduction / Purpose

UWE Bristol Hospitality Services provides catering to over 28,000 staff and students, as well as external organisations, through a range of facilities across our three campuses. This section outlines our commitment to provide sustainable and healthy food at all of our outlets in support of the delivery of the University's Sustainability Plan 2013-2020.

### Aim

In the delivery of our Service we aim:

- to provide food which is local, seasonal, ethical, organic, fresh and healthy.
- to inform and engage our students staff and visitors in issues of food production and procurement so as to enable them to make sustainable food choices.

### Vision

Our vision is to provide a service within which issues sustainability and wellbeing are fully embedded.

### Metrics

- **To increase the provision of seasonal fruit and vegetables**  
By 2020 60% of fruit and vegetables used and sold on campus will be seasonal. (2016 baseline – 52%).
- **To source food locally**  
By 2020 50% of our food (by value) will be sourced locally within the UK; (our definition of 'local' is taken from the Soil Association Food for Life accreditation)
- **To increase vegetarian and vegan food consumption**  
To build on current initiatives to increase vegetarian and vegan food consumption by a further 5% by 2020 and thereby to reduce meat consumption.
- **To purchase only free-range eggs**  
All eggs used and sold in products on campus are currently free range - we will maintain this on an ongoing basis for the next four years until 2020.
- **To provide 100% organic milk in all our outlets**

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All the milk sold and used at UWE Bristol is organic from our local dairy. We will maintain this until 2020.

- **To use 100% MSC certified fish in all our dishes**  
All fish and shellfish served at all our outlets is currently MSC certified: we will maintain this until 2020.
- **To increase the sales of Fairtrade products**  
To maintain our 2020 target already reached of increasing our sales by 25% (in value) of Fairtrade products (2012 base) – and to review annually.
- **To provide tap water in all outlets**  
To maintain our established practice of providing tap water in water machines and jugs in all outlets and to increase provision for water bottle filling on an ongoing basis to supplement machines elsewhere.
- **To reduce food waste**  
To establish the base-lines for reduction and an associated system of measurement of food waste through accreditation under the new Soil Association and The Carbon Trust sustainable Food for Life award by 2020.

### Target 2020

To develop our sustainable food practices so that they are fully embedded by 2020.

### Inter and co dependencies with other Plan themes:

- Waste Emissions and Discharges,
- Engagement,
- Procurement,
- Health and Wellbeing.

### Baseline 2016

- 52% of fruit and vegetables used and sold on campus will be seasonal.
- All eggs used and sold in products on campus are free range
- All the milk sold and used at UWE Bristol is organic from our local dairy
- All fish and shellfish served at all our outlets is currently MSC certified.
- 2020 target already reached of increasing our sales by 25% (in value) of Fairtrade products against a 2012 base
- Tap water available in all outlets

### Post 2020 Ambition

For UWE to be recognised as a provider of sustainable Hospitality Services within the city region and beyond.

### Underpinning Plan

- Food Policy plan

### Responsible party

- General Manager Hospitality Services

### Key Stakeholders

- Students and Staff,
- Hospitality Services,
- Sustainability team

This theme of UWE's Sustainability Plan contributes to meeting the following Sustainable Development Goals

Goal 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture

Goal 12. Ensure sustainable consumption and production patterns

Goal 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development

Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

### 13 Climate Change Adaptation

#### Introduction / Purpose

With the internationally recognised United Nations Framework Convention on Climate Change (UNFCCC), Climate Change Adaptation is now a vital aspect of any sustainability plan and business resilience strategy. The changing climate is expected to increasingly impact on services from both extreme weather events, and long-term gradual changes. Therefore, Climate Change Adaptation, is about how we act now, to reduce future risk from adverse climate change in order to protect the health of our staff and students; the financial health of the University and our overall reputation. This is a new theme to the Sustainability Plan introduced at the mid-point review to reflect the importance of the theme.

The Bristol City Council Core Strategy Adopted June 2011 states that “mitigating and adapting to climate change is [...] an overarching principle of the Core Strategy” and the South Gloucestershire Council have a Climate Change Strategy adopted in 2015. The new ISO14001 also requires organisations to consider not only their impact on the environment, but also how the environment impacts on the organisation, for example, adaptation to a changing climate.

The University's priorities for action are:

- Carry out an independent risk assessment of expected impacts of Climate Change on the University's estates and operations.
- Ensure revised flood risk assessments are carried out for all campuses particularly City Campus and Alexander Warehouse, which have already been highlighted as being at risk of flooding, and the Frenchay Campus which has expanded into new land and new buildings.
- Use future weather tapes in assessing resilience of new buildings and refurbishments.
- Enable staff, students and local community to adopt healthy lifestyles as the climate changes, for example, provisions for cycling to work in all weathers.
- Embed climate change awareness in all student, staff and contractor training to ensure all learners can be responsible citizens and globally aware.

The above priorities reflect that although the University has done some work to incorporate climate change awareness into our operations and services, we are at the early stages of truly understanding the impact that this changing climate will have on the University. Following the risk assessment stages, further targets post 2020 will be set to monitor and report progress against adapting to a changing climate.

The scope for this plan is the University's UK estate only, and therefore would not assess need for climate change adaptation at partner institutions. However, a target is included to share knowledge and expertise with partner institutions globally for example, Maldives, Nepal, Hong Kong, Nigeria, Vietnam and Finland.

Currently, the best sector-recognised metrics for appraising baseline and performance against climate change adaptation issues is from the AUDE Green Scorecard. This scorecard was first introduced in Spring 2016 and therefore the first assessment that the University of the West of England completed was based on the 2015-16 performance. The Green Scorecard is auto-populated from the HESA EMR annual data, and has additional, voluntary, self-assessing credits. The results are benchmarked against all other Universities included in the HESA EMR data return.

The six criteria of Adaptation in the AUDE Green Score card are as follows:

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### **A1 - Climate change risk assessment**

An appraisal of the use and maturity of a climate change risk assessment for a university's buildings and operations. This should be used to inform policy.

### **A2 - Flood risk - existing campus**

An appraisal of the degree of understanding of flood risk issues within existing buildings on campus

### **A3 - Flood risk - new projects**

An appraisal of the degree to which new building projects are informed by potential future flooding issues

### **A4 - Overheating - existing campus**

An appraisal of the degree of understanding of overheating issues within existing buildings on campus

### **A5 - Overheating - new projects**

An appraisal of the degree to which new building projects are informed by potential overheating issues

### **A6 - Adaptation Policy**

A clear policy relating to the incorporation of climate change adaptation issues into future development including soft and hard landscaping and operational issues, based on an assessment of the risks. These six criteria are the basis of the baseline and targets in this 2020 Plan.

Following the completion of the risk assessment, further targets should be considered that pick up Ecosystem Services, Water scarcity and other issues relating to Climate Change Adaption.

### **Aim**

Ensure the risks of climate change at all campuses are fully understood and are well integrated in to operations, services and future developments.

### **Vision**

The University's estates and services to be able to adapt in a changing climate, without adverse effect on the University's absolute carbon emissions, or the quality of academic service.

### **Metrics**

- Use of the AUDE Green Scorecard rating system and scores.

### **Metrics to start monitoring as a baseline for post-2020 target setting:**

- No. closure days as a result of severe weather conditions.
- No. of incidences of interruption of services as a result of severe weather conditions, or external delivery of services (e.g. loss of power due to national infrastructure failure, or transport disruption due to extreme weather)
- No. of staff absence days as a result of either severe weather or climate change related sickness (for example dehydration due to heat waves)
- No. of hours per year that the indoor temperatures of critical spaces (e.g. major lecture theatres) exceed an agreed threshold, keeping in line with Building Regulations Approved Documents Part L.
- No. of works requests raised, or complaints logged on the works request system (Archibus) relating to indoor environment i.e. excessive heat/coolness. Although, difficult to relate directly to

## Sustainability Implementation Plan

changing climate, the trend of complaints will demonstrate how well, or poorly, the buildings are performing, as well as, how much the outdoor environment is changing.

- No. of incidents when the Frenchay storm drainage system “the ravine” fails to perform, or is close to overflow. Anecdotally, the ravine has never failed and should not fail, however this should be monitored as part of the plan.
- No. of undergraduate and postgraduate taught programmes including Climate Change Adaptation as assessed in the audit.

### Target 2020

The following targets are based on the AUDE Green Scorecard criteria to make it easy to cross-reference

#### A1 - Climate change risk assessment

By Spring 2018, to have completed an independent risk assessment of Climate Change on the University’s estates and operations, in partnership with academics and student body, to ensure that they are fully understood. By academic year 2018/19 to have integrated the findings from the assessment into functional areas and future construction plans that might be affected.

#### A2 - Flood risk - existing campus

By Spring 2018, to have completed a flood risk assessment, as well as a water scarcity risk assessment, for all campuses, taking into account future weather predictions or climate modelling. During 2018/19 develop a Flood Risk Strategy to identify actions such as upgrading existing drainage, installing rain water harvesting, and implementing sustainable urban drainage solutions.

#### A3 - Flood risk - new projects

For any new buildings or major refurbishments, at RIBA concept stages by the time this plan is published, to carry out an assessment of flood risk with an inclusion for climate change, to ensure all major changes to the estate are fully protected for 1 in 100 year events.

#### A4 - Overheating - existing campus

By Spring 2018, to have completed a comprehensive risk assessment of overheating in the existing estate and, over the 2018/19 year, develop a cross-discipline strategy (mechanical, electrical and fabric) for improvement of internal conditions in a changing climate. In addition, by 2020, to have an active dialogue with building users about their behaviour and usage of the space, to ensure the strategy is effective in all spaces.

#### A5 - Overheating - new projects

For any new buildings or major refurbishments, at RIBA concept stages by the time this plan is published, to use future weather tapes, in assessing resilience of new buildings and refurbishments, and ensure buildings are designed to cope with temperatures expected during their first refurbishment cycle (~25yrs). The UWE Design Guide will be the mechanism to ensure this is adopted on all projects.

#### A6 - Adaptation Policy

By 2019, to have approved a wide-ranging and integrated Climate Change Adaptation policy based on the outcomes of a detailed risk assessment. The policy would be ratified by Governors and be made publicly available by the end of 2019.

#### Further targets, in addition to the AUDE scorecard:

##### Student Learning

By Spring 2018, to have carried out an audit of student programmes to assess climate change adaptation content. Use the annual meetings with Heads of Departments as the mechanism to have climate change adaptation included in 50% of the programmes.

### **Share knowledge and expertise with Partner Institutions**

By Spring 2018, to have developed a cross-institution strategy setting out how knowledge and expertise in climate adaptation can be shared with partner institutions overseas where UWE curricula are taught. For example, through virtual conferencing, research and knowledge exchange, mentoring, and support.

### **Post-2020 plan for target setting**

Following completion of the risk assessment, by late 2018, to review suitability of the AUDE Scorecard targets and develop additional targets for the post-2020 strategy, to address issues not picked up in the Scorecard, for example water scarcity, food sources, Ecosystem services etc.

### **Inter and co dependencies with other Plan themes**

- Health and Wellbeing
- Education for Sustainable Development
- Carbon Management
- Campus Development
- Water
- Smarter Travel
- Biodiversity

### **Baseline 2016**

Based on the AUDE Green Scorecard submission for the period 2015-16 the University performs against the above target areas in the following way:

#### **A1 - Climate change risk assessment**

There is a general awareness of potential future risks but no work has been done to understand the issues specifically affecting the University and its specific campuses and operations.

#### **A2 - Flood risk - existing campus**

Although Frenchay Campus has a well establish SUDs system that copes well under current flood risk conditions, there is minimal understanding at the other campuses, of potential flood risk above anecdotal historical events or basic flood risk data.

#### **A3 - Flood risk - new projects**

Currently, on any new building there is a basic consideration of secondary flood effects on surrounding landscape and utility supplies.

#### **A4 - Overheating - existing campus**

There is minimal understanding of potential overheating risk above anecdotal historical events at our historic buildings, and no current understanding of overheating in our new acquisitions for example Arnolfini.

#### **A5 - Overheating - new projects**

Currently, on any new building, the design will aim to meet Building Regulations in terms of overheating risk based on current climate conditions. In addition, the design team will either qualitatively or quantitatively consider the potential future overheating issues based on future predicted weather tapes.

#### **A6 - Adaptation Policy**

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Currently the University of the West of England does not have a dedicated Climate Change Adaptation policy, however consideration of adaptation aspects are included in other policies such as the Energy and Water Policy, and the Environmental Policy.

### **Post 2020 Ambition**

- By 2025, 100% students, staff and contractors informed on climate change impacts on their personal lives, and their impact on climate change; and for them to be able to make informed decisions on a healthy and sustainable lifestyle.
- By 2030, operate a robust University facility in the event of severe weather and long-term changes to the climate.

### **Underpinning Plan**

- None currently available.

### **Responsible parties**

- Director of Estates and Facilities
- Assistant Vice Chancellor for Environment and Sustainability

### **Key Stakeholders**

- Students and Staff
- Estates and Facilities
- Faculties
- Professional and academic services
- Directorate
- Governors
- Students Union
- Local Communities
- Contractors and Suppliers

This theme of UWE's Sustainability Plan contributes to meeting the following Sustainable Development Goals  
Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable

Goal 13. Take urgent action to combat climate change and its impacts

### **End of Sustainability Implementation Plan**