

UWE Bristol

Resource Management Plan 2018 - 2020

Introduction

This plan builds upon the preceding Waste Management Plan. Many of the elements of that plan have been implemented successfully, leading to improved material resource efficiency and reduced organisation costs. UWE is now achieving much higher levels of material reuse and recycling and very little material is sent directly to landfill. The Appendix at the end of this document summarises progress up to 2016.

This plan adopts the terminology *resource* management as opposed to *waste* management, reflecting the philosophy that all wastes are in fact resources if managed effectively.

Key drivers

This plan aligns to the following strategies and drivers:

- UWE core business strategies including Strategy 2020 and Sustainability Plan 2020
- Alignment with circular economy principles
- Maximisation of materials resource efficiency
- Achievement of financial savings from improved resource management
- Increased focus on lifecycle impacts of material choices
- Alignment with UWE Environmental Management System (ISO14001)
- Bristol regional resource management, sustainable development and resilience strategies
- Alignment with UN Sustainable Development Goals, in particular SDGs 11 and 12

Vision

To collaborate with colleagues and partners to embed sustainable resource management, circular economy principles and material resource efficiency consistently across the University and in its supply chain.

To support the movement to a circular economy and resource efficiency objectives, through systematic and curricula-integrated practical applications.

To contribute to the University's teaching offer, providing a wide range of formal and informal opportunities for students to enhance their learning through facilitated interaction with the resource management system.

To provide quality cost efficient resource management services to the University.

Summary of objectives and indicators

This plan is divided into four key work streams as shown below.

	Objective	Benefits and alignments with organisational and other objectives	Key Performance Indicators
1	Supporting transition to a circular economy	UWE Sustainability Plan 2020: aims for UWE Bristol to be wholly integrated in a circular economy. <i>Closing the loop</i> - An EU action plan for the Circular Economy. Protecting against scarcity of resources and volatile prices.	<ul style="list-style-type: none"> • Reuse rate <i>tonnes</i> and <i>% of overall waste</i> (excluding construction waste).
2	Provide financial savings to the university	Cost savings. UWE Strategy 2020 Key enabler 2 – a strong and confident financial position.	<ul style="list-style-type: none"> • Annual monetary saving to UWE from waste prevention and material resource efficiency initiatives.
3	Supporting of learning opportunities	UWE Strategy 2020 priority 2 – supporting teaching programmes in “prime graduates to play their part in developing a sustainable global society and knowledge economy”.	<ul style="list-style-type: none"> • Number of students supported in their learning. • Number of placements facilitated.
4	Continually improving waste and resource management service to the university	Continued compliance with legal requirements. Student experience, campus aesthetics and organisational efficiency benefits.	<ul style="list-style-type: none"> • Source separated recycling rate % • Recovery rate % (construction and non-construction) • Absolute and relative/FTE Student solid waste (tonnes) excluding construction • Hazardous waste (tonnes) • Legal non-conformances identified through ISO14001 audit processes

Targets for end of 2020/21 academic year

The following targets are set for the end of the 2020/21 academic year.

- 70% recycling¹ rate² (excluding construction)
- 95% recovery rate³
- 15% reduction in relative (per FTE student) solid waste (excluding construction)⁴
- 5% reuse rate
- £150,000 annual savings from waste prevention and valorization
- Zero legal non-compliances per year

Progress towards these targets will be monitored, and reported through our sustainability governance and other mechanisms. We will also feedback on progress to UWE Faculties and professional services.

¹ The difference between recycling and reuse is that with *recycling* the item is broken down and turned into a new item or product normally off-site, whereas in the latter the item is used in its original form either on or off site. For the purposes of monitoring and reporting we include reuse of items off-site (i.e. outside of the organization via charitable donation for example) in the recycling calculation. Materials that are reused on-site have not become waste and so are not factored into the calculation.

² the quantity of discarded material recycled **divided by** the total quantity of discarded material, expressed as a percentage.

³ the quantity of discarded material reused, composted, recycled or subject to energy recovery **divided by** the total quantity of discarded material, expressed as a percentage.

⁴ To be monitored separately as reductions in non-residential waste and residential waste.

Implementation Plan

Objective 1 Supporting transition to a circular economy

Desired Outcome	<p>UWE Bristol to be wholly integrated in a circular economy where discarded materials are kept within the economic cycle in such a way to maximise their value. To fully engage with a circular economy model will require a programme of works addressing resource management and identification of circular economy opportunities in UWE's supply chain as well as continued efforts to enhance product durability, reparability and value reclamation at point of discard.</p> <p>Integration of circular economy thinking into appropriate parts of the education programme.</p>
Current Situation	<p>There has been good progress in certain areas: a managed furniture reallocation project, textiles reuse during the Big Give campaign at the end of student accommodation contracts, food waste collection across all campuses, mixed (residual) waste stream now sent for treatment rather than directly to landfill.</p>

Action Steps	Commencement	Responsibility	Further description
1. Inclusion of circular economy principals in UWE product procurement.	Ongoing	Purchasing Team and Waste & Resource Manager	Specifying product design for durability, dismantlability, ease of repair etc. As well as specifying the inclusion of secondary raw materials in supplied products and packaging.
2. Initiate method for identifying improved resource management opportunities within UWE supply chain.	August 2019	Purchasing Team Other UWE "buyers". Waste & Resource Manager	
3. Develop and promote suit of "material use and	August 2018	Environment & Sustainability Manager	In relation to materials with more significant lifecycle sustainability risks, to aid interpretation,

sustainability guidelines”			understanding and a consistent approach across faculties, departments, professional services and university suppliers.
4. Commence repair service.	August 2018	Waste & Resources Team and term contractor	Following a resource management assessment it may be cost effective to repair certain items. Potential for apprenticeship to be involved.
5. Instigate “repair cafes” targeting student & staff personal items	September 2019	Waste & Resources Team Student Union	Provision of repair workshops as an offering to students and staff.
6. Improved asset management across all departments.	Ongoing	IT Services Facilities & Estates Term and other contractors	
7. Integration to incipient sharing economy across the city-region.	Ongoing	Waste & Resources Team	Offering of surplus items to other organisations and charities in the region, where the other option would be disposal. Closer liaison with embryonic Bristol Reuse Network.
8. Involving curricula and extra-curricular learning opportunities	Ongoing	Waste & Resources Team ESD & KESE Student Union	Taking a “living lab” approach to UWE circular economy activity. Expanded further in Objective 3.
9. Set up materials reuse facilities (i.e. student project materials, residential items, stationery).	September 2018	Waste & Resources Team ACE, FET technical services Accommodation Services	Investigation into best format for set-up needed: internal space adjacent to waste/recycling compound area or shipping container type storage adjacent to faculties.

		Print & Stationery Services	
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Objective 2 Provide financial savings & income to the university

Desired Outcome	Demonstrable financial benefits to the university through a range of enabling measures – i.e. programme of resource management audits; waste prevention workshops; and staff training to identify, implement, record and report on waste reduction.
Current Situation	High recycling levels save the university money on the waste collection budget, because recycling is now the cheaper option over disposal. Significant savings (i.e. >£150,000 p.a.) have been gained through reuse of furniture across the estate.

Action Steps	Timeframe	Responsibility	Further description
1. Development of waste/resource management review programme	End of 2018	Waste & Resources Team Environment Officer Sustainability engagement officer	This can integrate with ISO14001 internal audit programme as well as being a proactive offer of the sustainability team. Also an opportunity for student involvement.
2. Development of waste prevention workshops	End of 2018	Waste & Resources Team Environment Officer Sustainability engagement officer	Succinct workshops focused on identifying actionable changes.
3. Develop simple method for recording impact / financial savings	End of 2018	Waste & Resources Team Environment Officer	A method for gathering, analysing and reporting financial benefits of this work stream.

Objective 3 Supporting learning and employability

Desired Outcome	<p>Use of the university resource management system as a “campus laboratory” enabling the incorporation of aspects of resource management in a live university setting into teaching modules and informal learning opportunities.</p> <p>Utilisation of opportunities within UWE material value chains for study projects, placements and internships.</p>
Current Situation	<p>Students on certain sustainability related courses are offered study projects related to resource management, the Waste & Resources Team have hosted student placements, and a number of related dissertations have been conducted.</p>

Action Steps	Timeframe	Responsibility	Further description
1. Consultation with ESD team and other professionals	June 2018	Collaboration, coordination by Engagement Officer.	Campus labs approach is a wider opportunity that extends to other aspects of sustainability.
2. Map opportunities	December 2019	Collaboration, coordination by Engagement Officer.	Detailed mapping of UWE and value chain formal and informal opportunities for student involvement.
3. Promotion of campus labs approach to resource management / circular economy	Ongoing	Tbc	Determined by above tasks.

Objective 4 Continually improving resource management services to the university

Desired Outcome	Provision of a legally compliant and efficient waste collection and disposal service to internal customers. Improvements to parts of the external environment through further concealing of waste facilities.
Current Situation	Service is generally good but requests rely heavily on email request system which makes performance monitoring difficult.

Action Steps	Timeframe	Responsibility	Further description
1. Review Disposal of Equipment process	By July 2018	Collaboration led by Facilities Technologies	UWE Financial Regulations require Disposal of Equipment forms – but the process can be improved.
2. Implement new porter request process to include removal of unwanted items	By July 2018	Collaboration led by Facilities Technologies	Incorporation of waste collection requests into an online booking system for porter requests.
3. Customer feedback and review	July 2018	Waste & Resources Team Environment Officer	Opportunity to revise the system to better match customer expectation.
4. Improve waste compound drop off logistics	By December 2018	Waste & Resources Team	Creation of designated drop-off point for all surplus/unwanted/broken items and training / instruction of logistics team to support more sustainable resource management practices.
5. Retender waste collection services	April - July 2018	Waste & Resources Team	Potential for financial benefits and service improvements.

6. Targeted communications and engagement activities: waste prevention officer role (business case needed, or via alternative mechanism)	August 2018	Waste & Resources Team Engagement Officer	Provision of effective resource management facilities and logistics needs to be supplemented by effective communications in order to get the best outcome. This strand of the plan aims to implement best practice soft measures. Alt mechanisms may involve waste/recycling contractor support for this activity.
7. Improve signage in bin stores (particularly student facing ones)	By Dec 2018	Waste & Resources Team Engagement Officer Accommodation Services	Bright, clear, graphical recycling instruction Feedback to students on recycling performance Feedback to students on fate of materials New waste/recycling contracts may offer opportunities in the communications support they can bring.
8. Improve waste/recycling facilities	Throughout plan period	Waste & Resources Team	Upgrading of provision is ongoing; opportunities will be identified with student experience, efficiency improvements and campus aesthetics the main drivers. Examples of this include: visual improvement of bin stores, investigation of provision of pedal operated wheelie bins for student areas, and improved bin/caddy logistics for student residents.
9. Introduce mixed recycling collections – student halls	August 2018	Waste & Resources Team	Dependant on findings of January - July trial at 2 accommodation blocks
10. Review internal waste and recycling strategy and bin specification	Spring 2019	Waste & Resources Team	Responding to trends in material use across the estate, e.g. introduction of

			glass and compostable packaging
11. Investigate reverse vend technologies for collection of plastics and other materials	August 2018	Waste & Resources Team	In line with wider national trends

Appendix 1 - Progress to 2016

The UWE Waste Plan 2011-2016 aims are shown in the table below along with a R-A-G summary of progress and some relevant examples.

Waste Plan 2011-2016 aims	Progress	Examples, or further commentary
To ensure that waste is managed according to the waste hierarchy		2013: Specifying treatment solution for unsegregated waste stream, resulting in zero waste to landfill.
To gain environmental and financial benefits of improved resource efficiency		2014: Commenced managed furniture reallocation project resulting in annual saving to UWE of more than £150,000 per annum.
To ensure that waste is managed in accordance with all applicable legislation		Adoption of ISO14001 environmental management system provides ongoing assurance of legal compliance.
To develop effective waste management facilities that will facilitate progress towards the wider aims set out here		Improvements to Glenside Campus external waste storage delayed due to planning issues. Frenchay waste compound operations significantly impacted by campus development project.
To reduce arisings of hazardous waste		Quantities of hazardous waste have reduced from 32t to 21t. However more work is required in order to tackle these waste streams.
To develop a suitable programme of student and staff engagement		Clarity of messaging around waste prevention, reuse and recycling can be improved further and made more student-oriented.
To maintain an effective monitoring and reporting framework, enabling transparent progress review		Waste data from contractors has improved over the course of the plan period.

The table below shows how total quantity, recycling rate and reuse of waste materials have changed over the last five years.

	Quantity (tonnes)	Recycling rate %	Reuse quantity (tonnes)
2010/11	1652	46.3	4.8
2011/12	1836	52.3	4.8
2012/13	1641	56.3	18.5
2013/14	1588	60.9	65.0
2014/15	1822	62.2	63.9

There is a clear increase in recycling performance over this five year period. In addition, the increased focus on reuse is evident. This is down to the introduction of a managed furniture store to reallocate surplus furniture, a change in the way redundant IT equipment is

managed and more concerted end-of-term campaign to capture unwanted items from student accommodation.

Appendix 2 – Standards for provision of internal waste/recycling facilities

Waste and recycling infrastructure is to be budgeted into project costs for refurbishments and new builds.

Funding for the provision of recycling infrastructure outside of that funded by projects will be subject to agreement between the faculty/service and Estates & Facilities and will require local funding.

Waste & Resources Team provide advice regarding waste and recycling facilities. Internal waste and recycling bins are provided as standard in communal areas and in offices of >5 staff, as per the table below. For new offices of fewer than 5 staff and on refurbishment, the Waste & Resources Team will work with project team to determine the optimum strategy for waste/recycling provision.

Subject to funding, recycling bins will be supplied within 4 weeks if order required (subject to budget approval).

Room type	Waste type						Notes
	General waste	Paper	Cans/plastic	Cardboard	Food and compostable packaging	Glass	
Office (>5)	Y	Y	Y	Y			Where space allows. Cardboard for recycling should be flattened and placed alongside recycling bins.
Office (<5)	Y	Y		Y			On refurbishment Waste & Resources Team will work with project team to determine strategy for waste/recycling provision.
Teaching room (<50)	Y	Y					If space allows and the room is busy then a bank of 4 may be provided.
Lecture hall (>50)	Y	Y	Y				Where space allows.
Staff kitchen	Y	Y	Y	Y	Y	Y	Where space allows. Cardboard for recycling should be flattened and placed alongside recycling bins.

Communal areas	Y	Y	Y				Where space allows and footfall is sufficient to warrant a recycling bank.
Cafes and canteens	Y	Y	Y		Y	Y	"Recycling station" cabinets appropriate to café spaces. Provision of glass receptacles if glass packaging issued in café.
Receptions	Y	Y	Y				Where space allows and footfall is sufficient to warrant a recycling bank.
PC Lab	Y	Y					Where space allows.

Note 1 Cardboard for recycling should be flattened and placed alongside paper recycling bin. Smaller items of card can be placed in the paper recycling bins.

Note 2 The Waste & Resources team offers bespoke advice and support to effectively provision room types not listed.

Note 3 Waste strategy for student accommodation is not shown in the above table.