Circular Economy Plan

UWE Bristol

Contents

This plan has been developed through discussion with university and Students' Union colleagues across a range of specialisms, through the Food Waste Action Group, Plastics Action Group, Climate Action and Sustainability Group, Furniture Sustainability Special Interest Group, the Estates and Facilities Executive, and the Procurement team.

1. Rationale and context

There has been increasing pressure to respond to the climate and ecological emergency quickly and decisively. This pressure is coming particularly from the younger generations: our students and future students. In February 2020 the UWE Bristol Board of Governors joined many other organisations and governments in declaring a Climate and Ecological Emergency. The university's core strategy for 2030 contains ambitious sustainability commitments, expanded upon through the Transforming Futures Climate Action and Sustainability (CAS) Strategy. This document is one of the implementation plans for the CAS Strategy. It details how the university can embed circular economy principles into its operations, thereby reducing both our consumption and our waste as well as reducing the carbon emissions in our supply chain.

We have all witnessed the speed and efficacy with which change can be implemented in response to the clear and present danger of a global health emergency in the shape of COVID 19. The climate crisis is the younger generation's health emergency, and it is vital that we include the views and expectations of our students when deciding upon our vision for the future. This issue will only be solved through major transformation across all sectors in the way we shape our economy and consume material. Maintaining traditional patterns of consumption is not an option.

In order to respond adequately to the climate and ecological emergency this plan aims to:

- promote sustainable and circular consumption
- reduce carbon emissions
- take a holistic 'whole-institution' approach
- promote joint working across communities of interest (i.e. local authorities, third sector and other higher education institutions)
- exert control/influence over our supply chain

This document also explains the connection between UWE Bristol's commitment for a plastic free approach and circular economy principles and sets out what we will do to reduce consumption of non-essential plastics.

The plan provides a sufficient level of detail that departments and services can – in collaboration with colleagues and suppliers – significantly reduce waste generation and adopt circular resource systems. The plan contains a set of sustainability standards relating to materials with higher environmental risk. Further standards will follow.

This plan should be understood in the context of other sustainability action plans implemented in pursuit of the aims of the Transforming Futures CAS Strategy. To avoid duplication, this plan signposts to other documents where appropriate. The table (appendix 2) demonstrates how this plan contributes to the other Strategy 2030 sustainability objectives.

2. Understanding circular economy in a university context

This section summarises what is meant by the term 'Circular Economy' and describes how it applies in the context of UWE Bristol. The diagram below illustrates the distinction between a linear economy – often summarised as a 'take, make, dispose' model of resource use – and a circular economy, which aims to keep materials and resources within circulation. In simple terms, a circular economy eliminates the need for the environmentally damaging resource extraction phase in material lifecycles. This is done by using the outputs (waste) from consumption as inputs into new production but also by keeping materials in use for as long as possible before they become waste.

Circular economy and embedded carbon (scope 3)

According to the Carbon Trust, up to 90% of an organisation's carbon and ecological footprint is in its value chain – through the consumption of goods and services. This is because of accumulated impacts throughout material lifecycles: extraction/agriculture → transportation → manufacture → processing → further transportation → packaging, etc. all before the goods have even arrived with us.

Through circular economy measures we can reduce consumption and eliminate impacts associated with the primary extraction phase of material lifecycles, and therefore reduce overall carbon emissions.

A distinction can be made between the goods that are under institutional control (i.e. that the university purchases, uses and then discards) and those that are consumed by our people in their everyday lives. The measures that we will adopt via this plan will be tailored to meet both categories.

However, it is not possible for us to establish a circular economy confined to the university. The university's various functions and operations require the consumption and discarding of a variety of items and materials within the context of a wide and complex web of material lifecycles. For the university to fully integrate circular economy principles into its operation, it will be necessary to not just consider this as an issue of waste management, but to consider the complex lifecycle impacts in our purchasing decisions, and to design our operations – in collaboration with our many suppliers and partners - in such a way as to eliminate the need for primary resource extraction.

This plan therefore takes a lifecycle approach to resource management – with measures aimed "up the pipe" as well as "down the pipe".

3. Actions and progress towards Sustainability Plan 2020

Summary of current status

The emphasis of the previous Resource Management Plan 2018-20 was on recycling and reuse, the latter particularly of furniture and end-of-term materials via the Bristol Big Give.

Approximately 1,500 to 2,000 tonnes of waste is disposed of per year (not including construction waste). The University separates around 30 different waste streams to derive the best financial and sustainability outcome for this material. The overall recycling rate has more than doubled from less than 30% in 2007 to nearly above 60% in 2020. As well as the environmental benefits of recycling this makes good financial sense, as recycling costs 60% as much as general waste disposal.

Successes

Several successful interventions impacted how the university manages waste materials up the waste hierarchy:

- All mixed non-recyclable waste sent to treatment facility instead of to landfill (from 2013)
- Introduction of food waste segregation (2013) with separated food sent to anaerobic digestion facility
- Annual student facing Big Give campaign to divert unwanted items to British Heart Foundation (BHF) charity shops
- Introduction of managed furniture reallocation project (from 2013)
- Sending redundant IT equipment for asset management process
- Regular Students' Union 'Bring Your Own bowl' food waste awareness raising events (from 2016)
- First pop-up charity reuse shop (2019)

Lessons learnt and what to take forward

Reuse and waste prevention focus

Through the lifetime of the previous strategy the focus shifted from recycling towards reuse and waste prevention. These are more complex actions than setting up recycling facilities. They benefit from senior level support. They sometimes need resource allocation, and they require more planning and multi-stakeholder engagement, but these initiatives are also the most rewarding by many measures. They also have the potential for facilitating greater student involvement. Section 5 describes our plan for taking this further and enhancing our current work and introducing new circular economy activities.

Communication and engagement

It will continue to be necessary to communicate how people can best use the waste and recycling infrastructure. Despite ongoing annual communications, behaviours around food and food waste within student accommodation require further bold interventions. We will continue to refine our cyclical efforts around waste communications and find ways to keep the messages fresh and student focused. Section 6 expands upon this.

Item quality

Reuse potential is limited by the quality and style of the originally purchased items. As a society and in the university, we often dispose of more things than necessary due to a lack of reuse potential (because durability or repairability is not specified or valued). It will be necessary to work with our suppliers to innovate on circular economy practices, consider whole life costs in our purchasing decisions (Section 4), and be ready for wider changes and innovations that will be forthcoming with the UK waste and resources strategy (Section 5).

Material choice

Decisions that have been made with the best of intentions can have unintended consequences. For example, the university has moved towards biodegradable packaging in its food service in response to stakeholder pressure to move away from petrochemical-derived plastics. This *may* be preferable environmentally by some measures, but if we are to achieve carbon neutrality we will need to understand the lifecycle carbon impacts of these choices. Compostable packaging is still a single use disposable material, and does not decompose quickly enough in the natural environment to avoid many of the same littering and pollution issues as traditional plastics. Section 4 expands on the university's general approach to this and with the intention of adopting a more systematic approach, a set of sustainability standards has been produced and will be expanded on within the first six months of the plan (Appendix 1).

Visibility of good practice

There are many examples of staff and students embedding circular economy principles of their own accord. In many cases it would make sense to share and celebrate this good practice so that others can learn and adopt similar procedures. Section 6 describes our approach to this.

Carbon management

The university is committed to being carbon neutral by 2030. This commitment includes Scope 3 carbon, much of which is embedded within the materials we consume and dispose of. We will identify opportunities to drive down carbon emissions within our supply chain, working with suppliers to encourage them on their net-zero pathways (Section 4), and continue to find ways to systematically reduce consumption through the introduction of greater resource circularity.

National policy and regulation

The new *Resources and waste strategy for England* will introduce policy drivers that may affect how the university must manage its waste:

- extended producer responsibility for packaging and other product types
- potential taxes on certain materials e.g. plastic packaging with less than 30% recycled content
- improved management of chemicals and hazardous waste
- improved consumer information on sustainability of purchases
- supporting the market for remanufactured goods
- measures to support cutting down on food waste
- a move away from tonnage-based reporting towards carbon and natural capital accounting

The application of national strategy will result in changes that we will adapt to operationally, as well as measures that present opportunities for UWE Bristol to be involved in supporting research and innovation in finding solutions.

Stakeholder interest in resource management is not likely to wane in the light of the global challenges of marine plastic and climate change. Resource management risks and opportunities range from operational (e.g. material selection and diversion into correct bins) through to strategic (e.g. embedding the latest thinking within our teaching, the potential for new research and entrepreneurial activity). In addition, resource efficiency and waste prevention can improve staff engagement, collaboration across departments and reduce risk (e.g. of resource scarcity) whilst also realising direct and indirect cost savings[1].

4. Waste prevention and circular economy through sustainable procurement activity

Effective procurement policy and strategies helps eliminate unnecessary consumption and can help prevent waste from occurring. This section covers measures that we will introduce that will reduce and eliminate waste from arising throughout the procurement cycle.

We will continue to lead on influencing of Purchasing Consortia in considering sustainability, including circular economy thinking, within the framework agreements on offer.

As part of the management of commercial risk, UWE Procurement will work with internal clients to ensure that we promote circular economy thinking within tenders whilst ensuring we remain compliant with relevant procurement legislation.

[1] The real cost of waste (i.e. including material purchase, time spent handling, storage etc) is estimated as 5-10 times the direct cost.

Procurement will monitor best practice in this area and seek to provide updates on innovative thinking via the UWE Sustainability Board and its sub-groups.

Identification and assessment of procurement need

We will explore if the goods need to be bought in the first place. If there is a market for making the purchase as a service (e.g. leasing) this should be further explored through market research and market engagement. Buying second hand goods may help prevent used goods from ending up in waste streams.

Market engagement

For significant procurements, conducting supply chain analysis for the goods will allow us to identify where key resource use risks exist, explore maximising lifespan and identify end of life scenarios. Where we are making significant or higher risk service purchases, supply chain analysis should identify how and where goods are being used so that these can be considered from a circular economy perspective. This activity will also help identify scope 3 carbon hotspots enabling us to manage these down over time, towards our net zero target.

Engagement with suppliers helps to ensure our needs are fully understood and tested and that we understand what the market can do through innovation. Through this engagement we can also explore whether suppliers offer a buy-back service for goods at the end of our intended use.

Research will help us establish if items are adaptable and easily refurbished, modular so that individual components can be replaced, can be easily dismantled for end of life disposal and made from recyclable materials.

Agreeing the procurement strategy

Ensuring we have clear ownership of supplier relationships and contract outcomes allows us to monitor performance effectively and drive improvements in the management of the lifecycle for the goods.

We will consider longer term contractual arrangements where relevant for the longevity of resources allowing us greater flexibility to work in partnership with the supply chain.

Determining relevant contract Key Performance Indicators at this stage ensures we can effectively align measures and any targets with those at a UWE corporate level and that suppliers fully understand these at the time of bidding.

Issue tender

Where appropriate, provide support and explanation of the circular economy considerations to suppliers e.g. through answering questions through our procurement portal or for more complex procurements, offer webinars open to all suppliers.

Evaluation and award

Where relevant, we will work with stakeholders to ensure criteria are included for the approach towards circular economy and given proportionate weightings.

Using whole life cost assessment rather than assessment of purchase cost only will allow us to price in potential end-of-life factors. This will require us to include relevant considerations in the procurement process (warranty, service/repair, packaging, return to supplier, etc). Procurement will lead on establishing a set of tools to assist with this analysis within procurement exercises.

Contract management

Adopting supplier engagement tools will help us to develop understanding and collaboration on circular economy opportunities across our supply chain, to build on our supplier engagement to enhance sustainability and social value.

Ensuring that circular economy is a standing agenda item for contract review meetings will ensure that, where relevant, performance in this area is considered regularly. These discussions should cover reporting against agreed measures, new innovations and opportunities to further improve waste reduction.

Procurement will encourage and support the generation of cases studies that can be used to help promote good practice within the University and with peers.

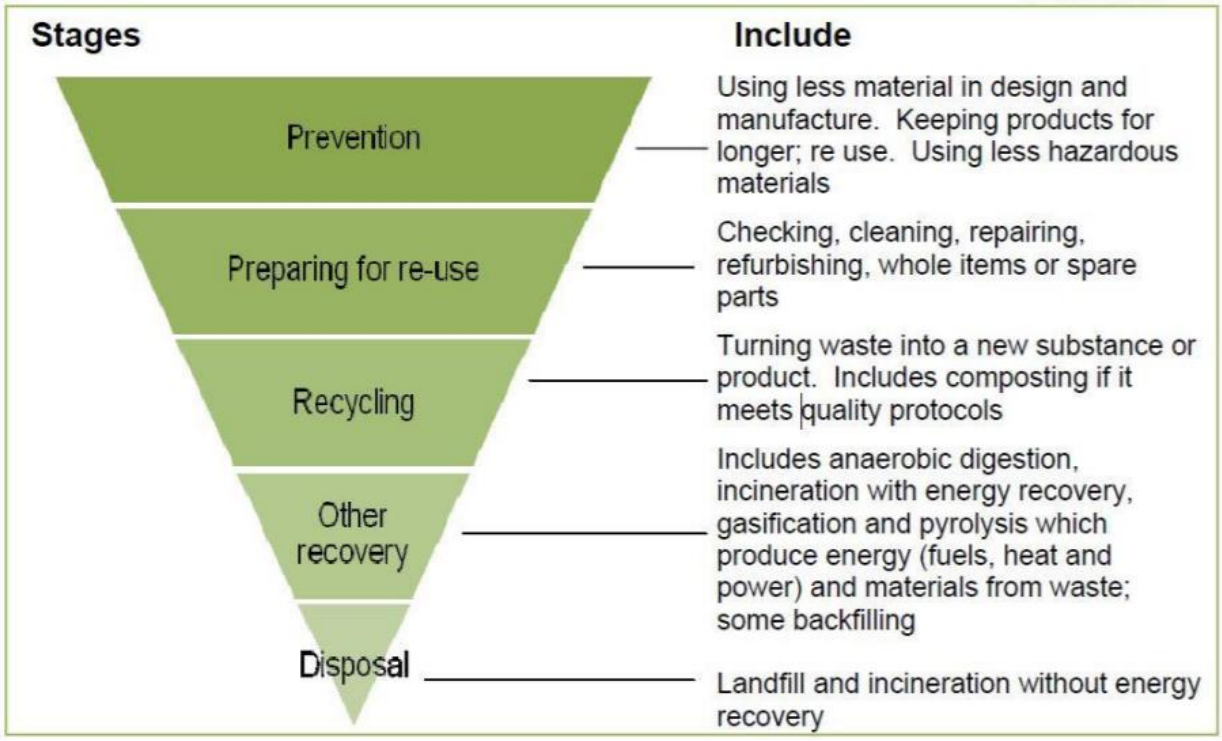
End of contract

Procurement will support clients to ensure that contractual obligations are met in terms of end of life considerations.

For significant procurements a lessons learnt exercise will be conducted to ensure that for repeat purchases, the procurement strategy is modified to seek improvements in future outcomes.

5. Developing a culture of circularity

This section describes the measures the university will take to develop greater resource circularity. The waste hierarchy shows the order of preference to follow in making resource management decisions and will be used to guide university activity.



Systematic sharing, repairing and reusing

We will enable and promote physical and software solutions to facilitate a sharing economy across and beyond UWE, as set out below:

Action step	Timeframe*	Responsibility	Anticipated cost
Continued promotion of 'Too Good to Go' or equivalent to enable sharing of surplus food	Ongoing	General Manager Hospitality	Already underway
Introduction of online furniture and equipment reuse platform	Short	Waste & Resources Manager	£2000 (Payback within year 1)
Mandate all furniture purchasing to first use existing surplus furniture - requisition workflow process to include step to review reuse availability	Short	Senior Procurement Manager	Within current UWE staffing
Include specification within refurbishment projects to reuse furniture and other items	Medium	Director of Estates	Savings

Introduce a 'Library of Things' to enable the sharing of materials. This will build on our successful furniture reuse store, focusing on a wider variety of higher value items	Medium	Waste & Resources Manager	Within current UWE staffing Modest promotional costs (<£1k)
Expand our reuse offer to include electrical items with PAT testing and function testing	Short	Waste & Resources Manager	Within current UWE staffing Modest training costs (<£1k)
Establish managed reuse pods for commonly used student project materials	Medium	Waste & Resources Manager	£5-10k capital 0.5FTE support
Develop a programme of pop-up reuse and repair events aimed at students and staff e.g. continued development of the start of term 'Heartzone' pop-up charity shop in partnership with BHF	Medium	Waste & Resources Manager Students' Union	Managed through existing staffing. Student staff to be employed as and when (<£2k per year).
Establish repurposing clothing events in welcome week	Long	Waste & Resources Manager Students' Union	Within existing staffing
Facilitate Students' Union or faculty hosted 'Repair Cafés'	Medium	Sustainability Engagement Coordinator	Within current UWE staffing
Introduce an annual student competition for practicable circular economy ideas (initial focus on plastics reduction)	Medium	Head of Environment & Sustainability	Within current UWE staffing Prize budget (<£1k)

**Indicative timeframe – short: < 6 months, medium: 6-18 months, long: 18-24 months*

Food service – moving away from single-use disposables

As catering operations recover following the COVID-19 pandemic we will continue to move away from single-use disposable packaging for food service, by implementing the following strategies:

Action step	Timeframe*	Responsibility	Anticipated cost
Facilitate and promote refillable systems for food service within our catering operations	Medium	General Manager Hospitality	Nil cost

Adopt policy that customers must request disposable/takeaway packaging as opposed to this being the default option	Medium	General Manager Hospitality	Nil cost
Continue and extend the disposable item levy to include a wider range of disposables	Short	General Manager Hospitality	Income, though impact on sales would need to be considered
Continue and extend refillable items on sale at catering outlets e.g. cutlery, lunchboxes	Short	General Manager Hospitality	Cost neutral if sold “at cost”
Investigate deposit return and reverse vending technologies to facilitate and incentivise circular foodservice packaging	Medium	General Manager Hospitality Waste & Resources Manager	Capital expenditure £10k indicative
Ensure effective coverage and maintenance of water ‘hydration stations’ across the estate	Ongoing	Director of Estates	Within existing UWE design guide
Consideration given to the lifecycle impacts of materials selected for food service packaging and pro-active consideration given to necessary new waste streams that may be required	Ongoing	General Manager Hospitality Waste & Resources Manager	Within UWE staffing Student placements (£5k per annum)

**Indicative timeframe – short: < 6 months, medium: 6-18 months, long: 18-24 months*

Waste and recycling

To maintain effective waste and recycling infrastructure we will:

Action step	Timeframe*	Responsibility	Anticipated cost
Review and update the external litter bin provision and enhance recycling on the go options	Medium	Waste & Recycling Manager Grounds Manager	£20k
Conduct annual anti-littering campaigns	Short	Sustainability Engagement Coordinator Internal Comms	Within current UWE staffing Modest campaign costs (<£1k)
Conduct waste reviews across departments and services to identify resource efficiency opportunities and optimum recycling bin placement	Ongoing	Waste & Recycling Manager	Within current UWE staffing
Review waste and recycling systems in student halls beginning with a waste composition analysis within the first 6 months of the plan	Short	Waste & Recycling Manager	Within current UWE staffing £8k costs within budget
Review waste removal strategy to identify optimum treatment/disposal methods including methods for effectively returning organic nutrients to the soil	Long	Waste & Recycling Manager	Within current UWE staffing
Conduct training aimed at operational staff involved in waste management	Short	Waste & Recycling Manager	Within current UWE staffing

**Indicative timeframe – short: < 6 months, medium: 6-18 months, long: 18-24 months*

Waste removal contracting

We will continue to specify resource management solutions to achieve the optimum environmental and social outcomes.

Reuse

We will maintain ongoing arrangements with external third sector partners as a means of sharing the value of surplus items.

Recovery

This should come as a last resort once other options have been exhausted but effective energy recovery via incineration of waste materials can be included as a legitimate element of circular resource use. If there is nothing else productive that can be done with the materials and they have no further use then incineration for energy production helps to prevent further extraction of non-renewable resources (i.e. fossil fuels).

6. Communication and engagement

The principles of circular economy are to be embedded in all our communications and engagement work.

Our work will contribute to the Carbon Literacy training and the Climate Action Programme and will be guided by the Sustainability Communications and Engagement Framework. We will work closely with the Students' Union, the Trades Unions and other services within the university to ensure clarity, prioritisation and synchronisation of messaging.

Action step	**Timeframe***	**Responsibility**	**Anticipated cost**
Inclusion of circular economy elements in Carbon Literacy Training	Medium	Carbon Action Manager/ Learning development centre	Within current UWE staffing
Inclusion of circular economy elements in Climate Action Cafes	Short / ongoing	Sustainability engagement coordinator	Within current UWE staffing
Supplier and market engagement and comms relating to circular economy to be reviewed	Short	Head of Environment & Sustainability / Senior Procurement Manager	Within current UWE staffing
Updated posters to be displayed at all bin banks (where possible)	Short	Waste & Resources Manager/ Logistics/ Cleaning	Already underway
Inclusion of messaging in relevant student communications / student newsletters	Short / Annual / As required	Student comms team/ SU	Within current UWE staffing
Review and update Accommodation Services' literature	Short / annual	Waste & Resources Manager / AS	Within current UWE staffing
Annual food waste reduction campaign in student halls	Medium / annual	Waste & Resources Manager	£3-5,000 p.a.
Promotion of "Too Good to Go" food app	Short	Catering department	Already underway

Training of staff involved in operations that relate to the management of food waste	Medium	Waste & Resources Manager / Other relevant HoDs	External support (< £5,000)
Promotion of refillable options for food service	Short	Catering department and SU	Minimal cost
Students' Union events and activities, as appropriate	Medium / annual	SU	SU staffing
Staff communications such as the weekly e-news.	Short / Annual	Sustainability engagement coordinator	Within current UWE staffing
Inclusion of CE in online staff induction and at the staff welcome fairs	Short / ongoing	Sustainability engagement coordinator	Already underway
Inclusion in student inductions within the curriculum	Ongoing	Sustainability engagement coordinator	Already underway
Building relationships with external organisations	Medium	Head of Environment & Sustainability / Waste & Resources Manager	Within current UWE staffing
Case study content writing e.g. blogs, vlogs, pops ups, articles	Short	Sustainability engagement coordinator / student placements	Within current UWE staffing
Volunteering opportunities will be offered on circular economy campaigns and activities through the Students' Union at UWE Green Team and UWE Volunteering.	Medium	Waste & Resources Manager with Green Team coordinator / UWE volunteering	Within current UWE staffing
Establish network of plastics ambassadors with regular calls for feedback/opportunities to reduce plastic use	Medium	TBC	Additional staff time required (0.5 FTE estimate)
Communications and engagement associated with UWE ambition for plastic free approach	Medium	TBC	

**Indicative timeframe – short: < 6 months, medium: 6-18 months, long: 18-24 months*

7. Circular Economy in the curriculum

The inclusion of circular economy principles within the curriculum has direct relevance to numerous programmes e.g. Product Design, Economics, Business, Entrepreneurship, Engineering, ABE, Human Geography, Environmental Law; and a lesser but no less compelling relevance to the Social Sciences, Education, Creative Arts (such as Film, Fashion and Drama), Environmental Psychology, Science and Communication. It is of significant value to the programmes in terms of student engagement to have real world learning and teaching

examples provided by the University where they study. As such, the generic training packages referred to in section 6 will be suitable for use by a wide range of courses, with minor alterations depending on context and need.

To ensure inclusion of real-world circular economy principles, proactive contact with relevant courses will be made on an ongoing basis, prioritising those which might be most interested e.g. Sustainable Economics, Geography and Environmental Management. In all presentations sustainable behaviours will be identified and encouraged as a matter of course. The development of the materials and training will need updating regularly in the light of feedback from our audiences and changes in the operational and cultural context.

Building on work in the past, courses that use significant amounts of materials will be identified and prioritised in terms of changing practise and embracing the circular economy in how they procure, promote, use and dispose of materials (e.g. Architecture, Product Design, 3D printing, Textiles and Fashion, The Fabrication centre at City Campus), both in their day to day running and their degree shows. There will be a specific focus on plastics in line with UWE's commitments on plastics.

Real world learning opportunities by the Sustainability Team will be offered to students within the curriculum. As a priority in the academic year 2020/2021, support in the development and delivery of engagement materials and activities will be sought from different course modules e.g. Film, Graphic Design, Events Management.

Research and student placement opportunities to work on specific persistent materials will be pursued and offered via academic colleagues, in partnership with private companies.

We will facilitate ongoing student interest to re-work waste materials into new products and artwork via the offering of reuse pods aimed at appropriate teaching programmes. We will investigate the development of a circular economy hub and innovation/enterprise space.

8. Reporting requirements and targets

Progress will be reported in annual university sustainability reporting mechanisms at an appropriate level of detail e.g. material focus, staff/student, department etc.

Qualitative measures

We will report on the total number of circular economy / waste prevention initiatives in operation across the university. Reporting on this will detail the material on which the initiative focuses – e.g. food waste or plastics.

An annual survey may be needed in order to capture the extent of this activity.

Quantitative measures

- Annual Scope 3 carbon emissions from “procurement of goods and services” and waste disposal
- Clarify additional KPIs around supplier engagement
- Annual total waste quantity (tonnes)
- Recycling and reuse rates %
- Economic value (£)

Construction waste, recycling & reuse data to be reported separately.

Material specific measures

The materials over which we introduce sustainability standards may also be subject to more granular monitoring and reporting, details of which are included in the relevant sections of Appendix 1.

Targets

- Scope 3 supply of goods and services and waste disposal – roadmap to be established to set clear targets aligned with 2030 commitments and science-based principles
    - Establish scope 3 working group (end Dec 2020)
    - Clarify any new supplier KPIs required (March 2021)
    - Develop carbon metrics database (July 2021)
    - Set reduction targets in line with TF:CASS carbon reduction plan (by July 2021)
- Annual total waste – annual 3% reduction in relative arisings against 2018/19 base (not including construction waste)
- Recycling rate: 70% by mass of all waste to be recycled by 2022
- Reuse rate: 10% by mass of all waste to be reused by 2022
- Match direct expenditure on waste removal with shared value from Circular Economy activity by 2022 (will require us to measure and report value derived from Circular Economy activities)

Note on climate change adaptation: we will build resilience into the circular economy system to withstand extreme weather events, and in the short term assess and plan for any adaptation requirements.

9. Responsibilities

Overall responsibility for the delivery of this plan rests with Head of Environment and Sustainability. Procurement related measures rest with Procurement Director. Waste management related measures rests with Waste & Resources Manager. Other responsibilities are outlined in the action plans above.

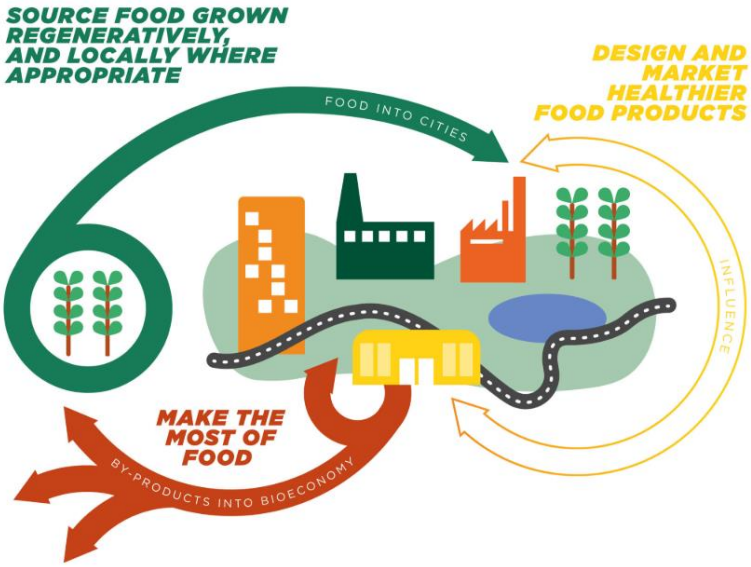
A working group is focusing on the development of the Scope 3 carbon reduction roadmap (targets and action plan). The Group comprises of:

- Head of Environment & Sustainability
- Energy Manager
- Environment & Systems Officer
- Senior Procurement Manager

Appendix 1: Material sustainability standards

A suite of UWE Bristol 'Sustainability Standards' covering materials with known high carbon and ecological impacts has been produced and will be expanded on within the first six months of the plan. Further CE/sustainability standards will be developed to cover construction materials, paper and electrical and electronic equipment.

Appendix 1A - Food and food service



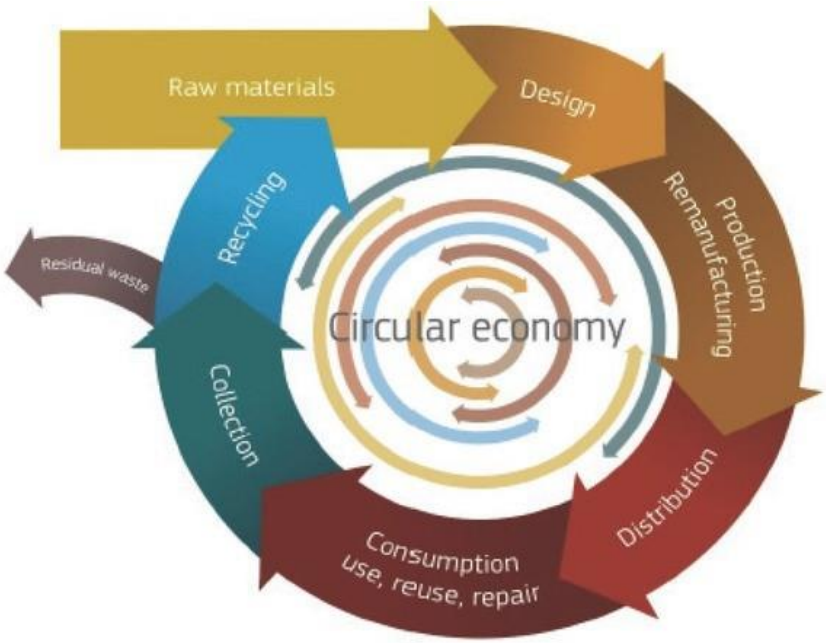
Source: Ellen Macarthur Foundation

Sustainability standard for food and food service	
Relevant departments/functions	*Hospitality services (managed and delivered catering)* *Accommodation services (self-catered halls of residence)* *Students Union catering operations* *SU Halls Life, Green Team* *UWE Waste and Resources and Engagement coordinator*
Environmental / sustainability risks	• *Food waste: major social and environmental inefficiency and reputational risk of inaction* • *High carbon and ecological impacts of certain foods and ingredients; associated cultural and reputational issues* • *Embedded carbon in transportation* • *Ethical and socio-economic equality considerations in supply chain*
Estimated annual scope 3 carbon	*~ 1,800 tonnes annual CO_2 (figure based on Hospitality Services managed and delivered catering only)*
Existing measures	• *Set of sustainability measures within UWE Hospitality Service as detailed here.* • *Segregated food waste collection sent to AD facility for conversion to electricity and fertiliser*

	• *Intermittent engagement of students and staff via targeted campaigns such as Love Food Hate Waste* • *Student Union Bring your own bowl initiatives* • *"Coffee cup" levy* • *Decrease in meat consumption and increase in local seasonal veg/fruit* • *Fairtrade University status*
Additional measures **(for actioning by July *2022*)**	***Food sourcing*** • *Engage local and community producers and growers to expand direct supply of food to university* • *Identify and eliminate products with potential for supply chain deforestation and other high sustainability risk elements* • *Provision of fresh, local produce to students in halls (with recipe cards, aiming to develop cookery skills and reduce food waste)* • *Extension of vegetarian and vegan options and further reduction of meat and fish on offer* • *Actively promote sustainability of food sourcing to customers* • *Transition to new NUS/SOS Fairtrade University accreditation* ***Food waste*** • *Annual food waste prevention campaign aimed at staff and students; particular focus on resident students* • *Promote Too Good to Go and other app-based solutions that redistribute surplus food* • *Trial collection points in accommodation reception blocks for unwanted food* • *Trial a community fridge for resident students* • *Review food waste collection system in residences to see if improvements are needed* • *Review and expand existing food waste reduction initiatives across full range of hospitality services' offer* • *Cooking classes for students in halls (focus on leftovers – love food hate waste campaign)* • *Competitions to encourage students to cook communally to reduce waste* • *Provide training to all staff involved in operations that relate to the management of food waste* • *Report annually on food waste* • *Investigate instalment of on-site biogas reactor or composter* ***Food service system*** • *Extension of levy to wider range of disposables* • *Facilitate and promote refillable systems for food service within our catering operations* • *Adopt a policy that customers must request disposable/takeaway packaging as opposed to this being the default option* • *Continue and extend refillable items on sale at catering outlets e.g. cutlery, lunchboxes* • *Investigate deposit return and reverse vending technologies*
Related plan/policy	*Circular Economy Plan Material Sustainability Standard: plastics*

	Sustainable food plan 2030 (in development) *Carbon and energy management plan (in development)*

Appendix 1B - Plastics



Source: Environmental Protection and Natural Resources; The Journal of Institute of Environmental Protection-National Research Institute

Sustainability standard for plastics	
Most relevant departments/functions	*Hospitality services* *Conferencing and events* *Print & Stationery Services* *UWE Estates department* Procurement *Students' Union* *SU Halls Life, Green Team* *UWE Waste and Resources and Sustainability Engagement coordinator*
Environmental / sustainability risks	*High carbon and ecological impact of plastics – associated reputational issues* *Health concerns around use of plastics for containing food and drink* *Longevity resulting in unacceptable marine and land pollution and bioaccumulation in the food chain*
UWE Bristol Strategy 2030 commitment	As signatories to the UK Plastic Pact, eliminate all but essential single-use plastic and meet the 2025 targets for recycling and reuse.
Policy note	Transition to a more plastic free operation aligns with the university's Environmental Sustainability policy in acting "to protect the environment and prevent pollution to air, land and water" available here. Measures taken need to be wary of unintended consequences e.g. reduced hygiene, increased food waste or potential increased lifecycle impacts of switching to alternative materials. Plastics use in some applications is

	appropriate and can offer the most sustainable solution (hence starting out by defining which plastics are in scope of the elimination commitment).
Governance	Plastics action group to be established of key stakeholders, to report to UWE Sustainability Board
Definition of non-essential plastic and what is "in scope" of UWE's reduction plan	Within scope of **non-essential plastic**: single-use plastics including all products made wholly or partly of petrochemical or plant derived plastic and typically used once for only a short period of time before being disposed of. Typical examples are takeaway boxes, plastic drinks bottles, plastic drinking cups, disposable hot beverage cups and lids, cutlery, straws, stirrers, disposable wipes, promotional give-aways, containers for cleaning products, plastic wrap and polystyrene, including the packaging for food and ICT materials. Single-use plastics used in healthcare educational settings or laboratory settings, such as petri dishes and syringes are **out of scope**. Single use plastics purchased elsewhere by staff, students and visitors and brought to site are also **out of scope**. Plastics used in construction and infrastructure (e.g. pipework) are **out of scope**. Plastics deemed out of scope of the elimination commitment will still be subject to actions to bring about greater resource circularity in line with the wider UWE Bristol circular economy plan.
Existing measures	• Transition away from non-recyclable food packaging and single use beverage cups to compostable food service disposables • Introduction of a 20p levy on hot beverages served in disposable cups • Selling reusable keep-cups at cost • Elimination of plastic bags at the Fresher's Fair • Elimination of plastic straws in all catering outlets • Installation of a network of free water stations to reduce reliance on bottled water UWE Bristol is signed up as academic supporter of UK Plastics Pact
Proposed additional measures **(for actioning by July 2022)**	• Analyse and summarise results of UWE plastic survey • Conduct follow up data collection annually where applicable • Establish network of plastics ambassadors with regular calls for feedback/opportunities to reduce plastic use (review resourcing required by May 2021) • Rewards and recognition for individuals/teams demonstrating best practice • Introduce an annual student competition for practicable circular economy ideas • All new buildings and refurbishments to install and promote water refill stations • Encourage (via revised design guide & tender processes) high secondary material content in material inputs – e.g. recycled plastic in tarmac, floor tiles, furniture etc

	Customer facing measures • Promote the use of reusable crockery & cutlery (need to include safety aspects/contact-free) – recommence 20p levy on disposable items • Catering outlets to sell other reusable items as well as the keep cups (e.g. bottles, lunchboxes, cutlery, straws) • Investigate and trial alternative food & drink service delivery mechanisms such as deposit return systems • Phase out bottled water sales • Phase out issue of plastic water cups adjacent to water coolers • Review optimum material for food service (pending elimination of single-use materials): traditional or plant-based plastic? • Promote and retail sustainable period products **Supply chain innovation** • Much of the plastic consumed through UWE Bristol activity can only be avoided via sometimes complex changes along supply chains. UWE Bristol and its Students' Union will encourage sector purchasing consortia and NUS to consider how single use plastics can be reduced and eliminated via tender processes and supplier engagement. **Waste management measures** • Review recycling infrastructure suitability • Continue to raise stakeholder awareness of preferred end-of-use outcomes (e.g. home composting versus industrial composting solutions for biodegradable packaging options) • Investigate and trial on-site recycling options for post-consumer plastic packaging • Investigate collection and recycling solutions for plastic film
KPI and targets	• Improve data quality and availability (by July 2021) • When possible report quantity of non-essential plastics within scope • By 2025 – zero non-essential plastics within scope sold or given out by the university or its students' union • By 2025 – all essential plastics within scope to be 100% reusable, recyclable or compostable • By 2025 - 70% of all essential plastics within scope to be effectively captured for recycling/composting
Related plan/policy	*Sustainable food plan 2030 (in development)* *Carbon and energy management plan* *Plastics Pact*

Appendix 1C - Furniture and associated items

Relevant departments/function	*Estates, space management, finance, procurement, sustainability team, Faculty technical and support teams*
Estimated annual scope 3 carbon	*1,200 tonnes CO_2 equivalent*
Annual expenditure	*>£1.7 million per annum*
Annual waste (tonnes)	*tbc*
Annual reuse saving	*Approximately £100,000 p.a. over last 5 years*
Reuse target	*10% by value*

Sustainability standard for furniture (for actioning by July 2021)

UWE Bristol departments to adhere where possible to the university's furniture catalogue. Greater uniformity across the university will, over time, allow for significantly increased internal reuse of furniture and facilitate greater resilience and flexibility in furnishing rooms at short notice.

Incoming furniture will be tagged with a unique identifier and entered on an asset tracker. This will enable tracking of furniture asset and more efficient addition of surplus items to an online reuse portal.

We will make use of sharing platforms and other technology solutions to first maximise internal reuse and second offer items for sale or for free to local charities.

Where suitable we will make use of refurbished items and receive furniture via sharing platforms to offset the need for new purchases.

We will relaunch the furniture reuse project as the library of things, extending the range of shared and reusable items and encouraging a culture of sharing across departments.

We will review intranet guidance associated with furniture procurement, reuse and disposal and align it with the intentions of this standard.

When procuring new furniture UWE Bristol will take a "whole life" approach, allowing us to factor in-use and end-of-use costs to the decision process. We will aim to purchase furniture that:

- *Has high secondary material content (provide % by weight) of recycled, refurbished and reused wood, metal, plastics and textiles.*
- *Is modular and has long production runs to ensure that individual items or components can be replaced*
- *Is designed to aid disassembly - to facilitate reuse, refurbishment, repair and ultimately recycling, either in part or as a whole.*

- *Has readily available spare parts to facilitate refurbishments and repair*
- *Only contains certified sustainable timber* i.e. FSC or PEFC
- *Is delivered in returnable packaging systems – i.e. for multiple use (all associated supply packaging to be removed by the supplier for reuse by themselves)*
- *Minimises hazardous chemicals used in the manufacture of items*

Supplier "take back" of end-of-use and legacy items will be increasingly anticipated in supply contracts in order to maximise producer responsibility. Services employed by the university for furniture disposal will be procured in a way that ensures best outcomes for sustainability and reuse.

We will aim to encourage sector purchasing consortia to adopt circular economy drivers such as the above, or equivalent standards, as the norm for future tenders.

Appendix 1D – Construction materials (to follow)

Appendix 1E – Paper (to follow)

Appendix 1F – Electrical and electronic equipment (to follow)

Appendix 2: Circular Economy Plan contribution to the sustainability commitments in Strategy 2030: Transforming Futures

Transforming Futures Sustainability Commitments	How this plan impacts on these
Be carbon neutral as an organisation, with net-zero emissions of greenhouse gases by 2030.	• Reduced CO_2e emissions from "procurement of goods and services" and waste disposal • Supplier engagement to result in refined data on supply chain carbon emissions
Work through the ISO 14001 standard to set clear targets and plans to reduce water and energy use, cut waste generation including food waste, and support biodiversity.	• Cutting waste generation, including food waste and plastics is a key element of the Circular Economy Plan • ISO14001 processes will be used as a framework to embed material sustainability standards and to monitor progress
As signatories to the UK Plastics Pact, eliminate all but essential single-use plastic and meet the 2025 targets for recycling and reuse.	• This is a key element of the Circular Economy Plan – see Appendix 1 (plastics).
Establish all our campuses as clean air and smoke-free zone.	• Measures within this plan will have an indirect impact on the campus clean air commitment through reducing the numbers of supplier deliveries.
Invest in and secure year-on-year improvement in travel sustainability for staff, students and visitors.	
Work with our students to explicitly address climate change and environmental challenges through our teaching, learning and curriculum.	• Inclusion of real-world circular economy challenges and solutions into the curriculum. • Articulating linkage between circular economy and climate action.

Support research that addresses issues relating to climate change, environmental challenges and biodiversity.	• Addressing real-world circular economy challenges and solutions through UWE research community. • Linking UWE Bristol research community to UK Plastic Pact research opportunities.