

AS SIGNATORIES TO THE UK PLASTIC PACT, ELIMINATING ALL BUT ESSENTIAL SINGLE-USE PLASTIC AND MEET THE 2025 TARGETS FOR RECYCLING AND REUSE.

University-wide plastics consumption – a baseline position

As part of Strategy 2030 UWE Bristol has set out a commitment to eliminate all but essential single-use plastic and to meet the 2025 targets for recycling and reuse that are held within the UK Plastics Pact¹. The strategy also commits the university to two other relevant commitments:

- to achieve carbon neutrality by 2030, with net zero emissions of greenhouse gases (interpreted as inclusive of scope 3 carbon i.e. carbon associated with waste management and within procured goods and services)
- through the university's environmental management system (certified to ISO14001) to set clear targets and plans to reduce waste generation

The current position

The use of plastic packaging and plastic products is ubiquitous. It brings many benefits, for example in extending shelf-life of food and enables modern medical practice. However, the increasing volume and variety of plastic products and polymers, and the inability of existing systems to return all of it to the economic cycle means that it has significant environmental impacts through its durability once it enters the natural environment. Plastic consumption is also associated with carbon emissions with its lifecycle.

Plastics have become embedded in the operation of the university. The material is pervasive within, for example, our food and drink service packaging, incoming goods supply packaging, stationery supplies, medical equipment, information technology, and estates fixtures and furniture.

To date, the university and the Student Union have carried out actions on many levels to minimise the negative environmental impacts of plastics. Some examples within the food and drink packaging arena include:

- a transition away from non-recyclable plastic food packaging and single-use beverage cups to compostable food service disposables
- promotion of refillable drinks containers including the introduction of a 20p levy on hot beverages served in disposable coffee cups
- installation of a fleet of water refill stations across the estate
- selling reusable keep-cups at cost
- elimination of plastic bags at the Fresher's Fair
- elimination of plastic straws in all catering outlets

¹ In January 2020 the university signed up the UK Plastic Pact (<http://www.wrap.org.uk/content/the-uk-plastics-pact>). As an academic supporter of The Pact the university will be sent: regular newsletter e-updates, relevant information on challenges where academic input would be useful to solve them and invitations to appropriate meetings. In return we are asked to you share an overview of our research related to plastic waste and outputs of your research that we can cascade to Pact members.

The university monitors its waste quantities and currently estimates that 30 tonnes per year of plastic waste is segregated for recycling. However, this is only a small proportion (<20%) of the total plastic waste arising – the remainder is either disposed via the university general waste stream (estimated >150 tonnes per year²), littered, or taken off-site and disposed.

This gives an approximate flow of 180 tonnes of plastic (albeit not including that which is taken off site). Based on Defra conversion factors approximately 600 tonnes of carbon emissions are associated with the production and disposal of this quantity of plastic. The financial cost of disposing of this plastic waste is estimated as £70,000.

While data is available for the plastics arising as waste i.e. downstream of UWE, its accuracy is open to question and there is no available or historic data on the overall plastic footprint of the university.

A plastic action group – including stakeholders from the university and the student union - was established in the summer of 2018, out of which emerged the UWE Bristol statement on plastics: <https://www2.uwe.ac.uk/services/Marketing/about-us/pdf/Sustainability%20documents/Plastics-Position-Statement.pdf>

To begin to better understand our overall plastics consumption baseline a review of plastics consumption was undertaken in October 2019. A report on its findings is being compiled.

Actions Proposed in the Transforming Futures Climate Action and Sustainability Strategy

The CASS strategy commits the university to facilitating sustainable material consumption in line with circular economy principles, tackling food waste and **eliminating all but essential single-use plastics from our operations**. Actions on transitioning from single use plastics will be contained within a Circular Economy plan, which will cover a number of material lifecycles with particularly high associated carbon emissions and/or sustainability risks (e.g. food/food waste, electrical and electronic equipment, clothing, furniture, paper and construction material).

Applying circular economy principles to these materials' influenceable lifecycles will reduce our scope 3 carbon emissions through reduced consumption and waste prevention. Reduced consumption and resource efficiency are also often aligned to improved security of supply, reduced cost and reduced risk.

The circular economy plan will therefore employ a lifecycle approach to affecting systemic change: not just covering how we manage our materials once they have become waste, but taking collaborative measures across departments aimed at reducing consumption, preventing waste and increasing the circularity of resource use.

The circular economy plan will be drafted by August 2020. The CE plan will continue work already commenced by cross-departmental furniture, plastics and food waste action groups.

² Data based on snapshot analyses of general waste to determine composition of the general waste stream.

Proposed approach relating to the specific plastics target:

Based on dialogue with key stakeholders at UWE and drawing on best practice evidence from the UK public sector, the next steps in terms of meeting the specific plastics commitment will involve:

Phase 1 - Initial launch and scoping exercise (by end August 2021)

- Material mapping exercise: refining our understanding of plastic consumption – completion of baseline audit covering all departments and the student union
- Defining “essential” single-use plastics: what categories of material are being targeted for elimination and are there any exclusions? Set system boundaries.
- Review existing university procurement and finance processes with a view to identifying sustainability improvements and resource efficiency savings potential
- Launch of plastic action roadmap within *Circular Economy Plan* (first quarter 2020/21)
- Set up plastic action network/ambassadors; this will in practice overlap with the climate action programme and associated climate cafes.

Phase 2 - Initial implementation (by end December 2022)

- Conduct annual plastics consumption audits
- Identify and prioritise opportunities to eliminate single use plastics from UWE operations e.g. installation of refill facilities at appropriate locations – i.e. “wash” stations for customers’ refillables, promotion of refill and commence withdrawal of disposables

Phase 3 – Comprehensive implementation phase 2022 to 2025

Little detail on this at present: to be informed by findings of first phases survey etc. Initial thoughts:

- Plastic ambassadors - regular calls for feedback/opportunities to further reduce plastic use
- Rewarding of individuals/teams
- Alternative food & drink service delivery mechanisms, as marketplace allows
- Target to follow commitments of UK plastic pact (100% reusable, recyclable or compostable plastic packaging/70% effectively captured for recycling/composting): in line with supply chain capability.
- Encourage (via design guide & tender processes) high secondary material content in material inputs – e.g. recycled plastic in tarmac, floor tiles, furniture etc

Guiding principles from best practice include:

- measures should be cost-neutral, either directly, or as a result of savings elsewhere in the supply chain, in the waste management process; or it is agreed that benefits outweigh costs
- need to be wary of unintended consequences e.g. increased food waste or potential increased lifecycle impacts of simply switching to alternative single-use disposable material such as glass packaging
- need to be aware of the limitations of supply chain capacity to deliver alternative product delivery systems
- need to factor in and respond to wider legislative requirements e.g. deposit return schemes and extended producer responsibility
- needs senior level commitment and ongoing support to drive change

There are a number of clear synergies between eliminating non-essential plastics and reducing scope 3 carbon emissions. Measures to reduce supply packaging waste through consolidated procurement and delivery methods will also result in lower on-site particulate emissions, lower CO2 emissions from deliveries, and more circular delivery systems (i.e. set up to facilitate efficient backward logistics as well as zero emission onward dispatch).

Monitoring Progress

Plastic is used and disposed across the whole of UWE Bristol. The university's environmental management system is a framework in which progress will be managed and monitored. The Climate Action & Sustainability Strategy is supported by a series of action plans providing the shorter-term engagement within the ambitions of the CASS. The Circular Economy plan will contain most of the measures associated with reducing single-use plastic.

The Sustainability Board will review progress with each of the action plans on a quarterly basis. The ISO 14001 certification will provide external verification of our progress in all environmental sustainability matters, including the commitment to reduce plastic. An annual audit of single-use plastic will be used to measure progress across all areas of the university within the scope of the target.