



# Environmentally sustainable waste reduction and management service for hospitals

**A joint statement of demand for innovation in  
healthcare waste management**

## **A JOINT STATEMENT OF DEMAND FOR ENVIRONMENTALLY SUSTAINABLE WASTE REDUCTION AND MANAGEMENT SERVICE FOR HOSPITALS**

*This joint statement of demand has been developed by University Hospitals Bristol and Weston NHS Foundation Trust (UHBW). It is being launched in partnership with North Bristol NHS Trust and with the support of NHS England and NHS Improvement. It describes the current situation and its limitations, why innovation is needed, and the outcomes required of a new solution.*

*In order to demonstrate a credible market demand for a solution that can deliver these outcomes, we are reaching out to other hospitals, public sector bodies or private organisations that may have a similar need and may, in the future, be interested in buying such a solution and / or collaborating in this initiative.*

*We therefore invite you to read this statement of demand and provide your feedback via a short survey. Alternatively, get in touch with us via email. You can find the link to the survey at the end of the document. Please pass this document on to anyone you think would be interested.*

*"NHS England and NHS Improvement firmly believe that we need to transform our approach to waste management and be proactive in driving the circular economy. I encourage other NHS Trusts to get behind this initiative and help bring forward new solutions."*

Fiona Daly, National Sustainability and Workforce Lead, Estates and Facilities NHS England and NHS Improvement, Commercial Directorate

*The following organisations have confirmed that they support this initiative and share this unmet need:*

*County Durham and Darlington NHS Foundation Trust  
Great Ormond Street Hospital for Children NHS Foundation Trust  
Manchester University NHS Foundation Trust  
Newcastle upon Tyne Hospitals NHS Foundation Trust  
North Bristol NHS Trust  
Royal Cornwall Hospitals NHS Trust  
East Lancashire Hospitals NHS Trust  
Norfolk and Norwich University Hospitals NHS Foundation Trust*

## Introduction

UHBW, in partnership with North Bristol NHS Trust (NBT), plans to launch a tender for waste management services towards the end of 2021. This provides an ideal opportunity for the Trusts and their partners to fundamentally rethink the way that 'waste' is managed. In order to deliver on our progressive sustainable development strategy and our commitment to environmental protection, carbon reduction and the circular economy, we will need to adopt a forward-looking, integrated and environmentally sustainable solution to both the reduction and management of waste.

This shift is in line with the NHS vision to drive towards more sustainable, environmentally friendly waste management methods, successfully reduce carbon emissions from waste disposal, and to invest in clinical waste infrastructure to increase capacity and proactively work to reduce harmful emissions, improve local air quality and achieve the NHS 2050 net zero carbon target. [1]

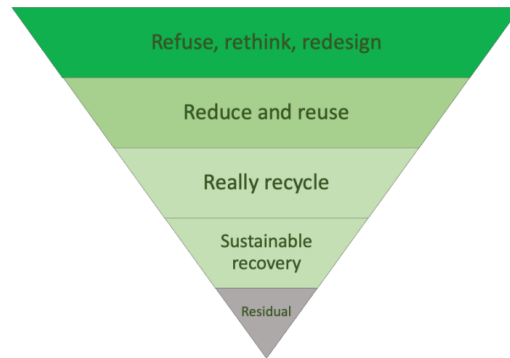
*"We strongly believe that this is the direction of travel for healthcare waste management. Current approaches are both environmentally and financially costly and we need to do better, transforming the NHS' waste management solutions to respond to our needs."*

Fiona Daly, National Sustainability and Workforce Lead, Estates and Facilities NHS England and NHS Improvement, Commercial Directorate

While the NHS has had guidance in place since 2013 (HTM 07-01) which details the environmental benefits of the safe management and disposal of healthcare waste and opportunities for cost savings, safer working practices and reducing carbon emissions related to the management of waste, there has been no wholesale shift in practice and limited innovation within the NHS. That is not to say that there have not been cases of good practice and innovation. Individual Trusts and waste managers have introduced new solutions such as reusable sharps boxes, take-back schemes and onsite processing of some plastics. An example of where changes in these practices have worked is at Great Ormond Street Hospital, where they have managed to save 21 tonnes of plastic a year by reducing the unnecessary use of non-sterile gloves, aprons and syringe bungs.

However, going forward a step-change is required to align waste management practices with policy. Revisions to NHS waste guidance (HTM 07-01) will require Trusts to adopt environmentally sustainable and low carbon practices. The guidance will include a focus on reducing waste and adherence to the waste hierarchy, full consideration and reduction of the carbon impact related to waste through resource inefficiency, transport impacts and disposal arrangements, and the introduction of robust traceability and environmental impact assessment.

Figure 1. Routes to Zero Waste. We will explore what is possible with the supply chain and consult with suppliers as to how we can support and work with them to bring forward new solutions and better outcomes for healthcare, the environment and society.



## Why change and innovation are needed

Having identified that current waste management processes and arrangements are damaging the environment and driving excess carbon and other emissions, NHS England is very clear that the current approach to waste management will need to change if the NHS is to achieve net-zero carbon emissions by 2050. At UHBW, we will need to be at the forefront of changes if we are to reach our 2030 carbon neutral target.

*"We believe that the NHS and other healthcare providers have a duty to ensure that the provision of healthcare itself doesn't compromise the health of citizens both locally and globally by contributing to environmental harm and climate change."*

Amelia Pickard, Consultant Paediatric Anaesthetist, Bristol Royal Hospital for Children, UHBW

There is considerable scope for improvement, below are some of the specific issues that need to be addressed:

- Considerable volumes of waste continue to end up in landfill. Annually the NHS sends more than 86,000 tons of waste to landfill at a cost of £13 million. UHBW has committed to achieving Zero Waste to landfill by 2025, without compromising other sustainability targets.
- Waste is transported unnecessarily long distances for processing, creating significant avoidable air pollution from road miles.
- Current waste management operations are poorly monitored, in particular with regard to their environmental sustainability. There is currently very limited measurement of key sustainability metrics as the vast majority of Trusts do not currently calculate waste road miles for carbon monitoring, nor calculate carbon from waste. Waste continues to be exported without full traceability, often to countries with less developed waste management

practices which is unacceptable and unethical. Waste contracts rarely enable and support detailed monitoring and reporting on their ultimate environmental and societal impact.

- Clinical waste volumes remain unnecessarily high due to poor segregation leading to high levels of Incineration, Alternative Treatment and Offensive Waste treatments. This is environmentally and financially costly, and unnecessary.
- Packaging is thought to account for 20-30% of clinical and offensive waste streams and the continued use of high levels of plastics presents a challenge for achieving sustainability goals.
- Visits to waste incinerator plants have identified high volumes of reclaimable metals being left in clinical waste destined for incineration. For example, metals which could have been segregated, treated, and then reclaimed and recycled.
- Recyclable material still ends up being incinerated. Waste to Energy (WtE) incineration remains a common route to 'recycling'. It is now recognised that this creates a demand for waste and reduces waste reduction measures and recycling. The Confederation of European Waste to Energy Plants (CEWEP) has issued a statement highlighting the link between the need for WtE capacity and the amount of avoidable unrecyclable waste that society produces.[2]
- Increased collaboration is required between manufacturers and disposal companies to facilitate recycling and sustainability.
- Waste management and disposal practices typically focus on paying suppliers to dispose of waste appropriately. There are no incentives for reducing overall volumes of waste arising, adopting environmentally sustainable options nor enabling circular material flow.
- Waste contracts are inflexible and fail to drive innovation and progressive improvement.
- Rates of recycling can be significantly improved. Segregation of different waste types remains inadequate and opportunities for take-back schemes and similar are increasing.
- An unnecessarily high percentage of potentially recyclable waste undergoes costly Alternative Treatment / HTI treatment.

*"Reducing overall volumes of waste together with good 'waste' management and ongoing innovation is critical to reducing the negative environmental impacts and carbon footprint of hospitals."*

Joaquim Duarte, Sustainable Waste Manager, UHBW

Different Trusts also face specific challenges, for example UHBW's Bristol campus is an inner-city site where onsite storage of waste poses a considerable operational challenge on a daily basis. This has been a problem particularly highlighted during the pandemic, when waste volumes have increased in some cases by one third. This reinforces the need for overall reduction in waste volumes.

Finally, waste management is costly. In 2019 NHS Trusts reported a spend of £115 million [3] on waste management, almost half of which was disposed of as clinical waste.

*"We cannot continue to work on the basis that our handling of waste does not harm the planet and people. We urgently need to find ways to reduce waste first and foremost, and then adopt measures that put us on a progressive route to zero waste, circular operations."*

Joaquim Duarte, Sustainable Waste Manager, UHBW

## **A joined-up approach**

The best option is to avoid generating waste in the first place and to find more ways to reuse and recycle. The Trust is therefore working on a parallel initiative, 'Towards Zero Waste Operating Theatres'. You can find out more and read this Statement of Demand at [www.ecoquip.eu/procurement-projects.html](http://www.ecoquip.eu/procurement-projects.html).

Our sustainable procurement team is actively focused on driving sustainability improvements across the full procurement life-cycle, exploring all avenues and working with our suppliers in the progressive reduction of waste.

*"Achieving our objectives will require action on multiple fronts, changes in the procurement choices we make, and innovation in the supply-chain. For example, we will work with suppliers to achieve a progressive reduction in packaging volumes arriving at the Trust and a transition to Zero Waste Operating Theatres."*

Rachael Pemberton, Deputy Director of Procurement, Bristol & Weston  
NHS Purchasing Consortium



## Wider market demand

Achieving our ambitions also means demonstrating to our suppliers that there is a credible market demand, i.e. that other healthcare providers and public and private sector organisations have similar commitments and requirements and will change their purchasing patterns to achieve them.

We are therefore working with NHS England, NHS Improvement and Health Care Without Harm to reach out to other hospitals and healthcare providers to find those that have a similar commitment and would be interested in buying solutions to support this objective. We will also reach out to our local partners, including University of the West of England and the Local Authority to identify scope for cooperation.

*"We want to join forces with other healthcare providers and local partners that want to take positive action to address this problem which will have benefits for both the environment and health, and it makes economic sense."*

Joaquim Duarte, Sustainable Waste Manager, UHBW

Following this consultation with other Trusts and healthcare providers across Europe, we will embark on a market consultation to determine the best way to work with the supply chain to support the transition to sustainable waste management. We hope to identify 'quick wins', market-ready or near market solutions and opportunities for innovation and co-creation with our suppliers.

## The requirement

The unmet need that we have identified is for integrated and environmentally sustainable waste reduction and management services for hospitals, supporting a transition to zero waste, circular economy.

The outcomes we are looking to achieve over the life of the new contract(s):

- Overall and progressive reduction in 'waste' volumes
- Step-change in the management of 'waste' in support of circular material flow
- Increase in segregation, accuracy of segregation and recycling across all waste streams
- Zero export of waste and recyclables
- Zero waste to landfill by 2025
- Progressively minimise the need for incineration, including waste to energy incineration
- Eliminate the harmful environmental effects of any necessary incineration
- Reduce carbon footprint of waste management operations, including transport miles

Services should:

- Be fully auditable to enable the monitoring and reporting on environmental and social impact and carbon footprint.
- Deliver ongoing innovation and progressive improvements over the life of the contract(s)
- Be fully compliant with all required standards and regulations



## **If you are a supplier or part of the supply chain, what can you do nex?**

Please complete the market survey to provide feedback and register for the market consultation event.

**[Complete the market survey.](#)**

## **If you are a buyer, what can you do next?**

Thank you for taking the time to read this Statement of Demand. UHBW is keen to identify and engage with other hospitals and public and private sector organisations, in the UK and beyond, that have the same or similar needs or may be aware of potential solutions before we start communicating with the supply-chain. At this stage, we have the flexibility to adapt the Statement of Demand to include particular needs that would increase the relevance for other interested healthcare customers.

Demonstrating that there is a wider potential market will better encourage potential suppliers to invest in developing innovative solutions that meet the unmet needs identified and create a competitive market for environmentally sustainable 'waste' services.

Your voice is vital to encourage suppliers to innovate to provide solutions. If you also believe that this is an unresolved issue or unmet need or would like to provide feedback, then please follow the link below. This will take you to a short survey which will help us to gather views and gauge interest.

**[Complete the buyer survey.](#)**

## About the buyer

University Hospitals Bristol and Weston NHS Foundation Trust (UHBW) was formed on 1 April 2020 following the merger of University Hospitals Bristol NHS Foundation Trust and Weston Area Health NHS Trust. We aim to be a beacon for outstanding education, research and innovation.

Bringing together a combined workforce of over 13,000 staff, the new Trust delivers over 100 different clinical services across 10 different sites serving a core population of more than 500,000 people.

We aspire to be a leader in the field of sustainable healthcare using our influence to enable our staff, patients, suppliers and healthcare partners to achieve a sustainable and resilient health and care system for our region. We are committed to become carbon neutral by 2030, improving air quality and reducing our use of single use plastics.

North Bristol NHS Trust provides hospital and community healthcare to the residents of Bristol, South Gloucestershire and North Somerset, plus we're a regional centre for neurosciences, plastics, burns, orthopaedics and renal. Our aim is to deliver exceptional healthcare for all our patients and carers.

In 2019/20 the Trust declared both climate and ecological emergencies in recognition of the fact that we need to do more and at a faster pace to limit our contribution to climate change and the decline of biodiversity. As a healthcare provider we are subject to scrutiny over our contribution to protecting and enhancing the natural environment and it is a duty we take extremely seriously. We fully recognise the detrimental impacts our services can have on the environment and by association the impacts on health.

Our Trust strategy commits us to being an Anchor in the Community with the associated responsibilities for sustainable development, local product sourcing and population health and illness prevention. As part of this we will seek to urgently reduce our impacts and engage with our staff, patients, visitors and the local community to encourage them to do the same, for the benefit of public health and the natural environment for now and generations to come.



## References

1. [www.england.nhs.uk/greenernhs/2020/10/nhs-becomes-the-worlds-first-national-health-system-to-commit-to-become-carbon-net-zero-backed-by-clear-deliverables-and-milestones/](http://www.england.nhs.uk/greenernhs/2020/10/nhs-becomes-the-worlds-first-national-health-system-to-commit-to-become-carbon-net-zero-backed-by-clear-deliverables-and-milestones/)
2. <https://waste-management-world.com/a/cewep-only-invest-in-additional-waste-to-energy-capacity-where-needed>
3. Estates Returns Information Collection (ERIC) 2018/19

### General information

[gaynor.whyles@jeraconsulting.com](mailto:gaynor.whyles@jeraconsulting.com)  
[www.ecoquip.eu](http://www.ecoquip.eu)

### Specific information on this document

[joaquim.duarte@uhbw.nhs.uk](mailto:joaquim.duarte@uhbw.nhs.uk)  
[www.uhbw.nhs.uk/](http://www.uhbw.nhs.uk/)

---

## About EcoQUIP+

EcoQUIP Plus ([www.ecoquip.eu](http://www.ecoquip.eu)) is a collaborative innovation procurement project in the healthcare sector. EcoQUIP Plus aims to demonstrate how pro-innovation procurement methods can improve the efficiency, quality and sustainability of healthcare and to increase the take up of much needed innovative solutions through collaborative actions.

If you would like to find out more about EcoQUIP+ please visit:



[www.ecoquip.eu](http://www.ecoquip.eu)



[@EcoQuipPlus](https://twitter.com/EcoQuipPlus)



Co-funded by the COSME programme  
of the European Union

The content of this document represents the views of the authors and the EcoQUIP Plus Consortium only and is their sole responsibility, it cannot be considered to reflect the views of the European Commission and/or the European Innovation Council and SMEs Executive Agency (EISMEA) or any other body of the European Union. The European Commission and the Agency do not accept any responsibility for use that may be made of the information it contains.