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Residential and Cleaning Services

Sustainability Action Plan

January 2026

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Foreword



Lisa Atkinson Brown
*Operations Manager –
Residential and
Cleaning Services*

As Operations Manager for Residential and Cleaning Services (RCS) at Heriot-Watt University, I am proud to present our Sustainability Action Plan.

This plan reflects our shared commitment to creating a cleaner, greener, and more responsible campus environment. Every aspect of our work, from maintaining residences to delivering high quality cleaning services, offers an opportunity to make a positive impact on the planet and our community.

Our progress is shaped not only by the RCS team, but also by the wider Hospitality Services Department and Estates Directorate colleagues, whose ongoing work plays a vital part in advancing the University's sustainability ambitions.

We recognise that prioritising sustainability is no longer optional; it is essential. Through the very nature of our role in Residential and Cleaning Services, we have a unique opportunity to make a direct and meaningful difference. By leading through action, we aim to inspire change across the Edinburgh campus and demonstrate that sustainability can be embedded in everything we do.

Sustainability is not an add on; it is central to how we operate. Through this plan, we set out clear actions to reduce waste, improve energy efficiency, source responsibly, and embed sustainable practices into our everyday decisions. We are investing in training and innovation to empower our teams and ensure that sustainability becomes part of our culture.

I invite everyone to join us on this journey to embed sustainability as a core part of our daily practices and decision making.



Professor Mercedes Maroto-Valer
*Deputy Principal of
Global Sustainability*

Sustainability at Heriot-Watt University is a lived commitment that defines our global community. The Residential and Cleaning Services (RCS) Sustainability Action Plan directly advances the delivery of our institutional **Ten Commitments to sustainability** and demonstrates how RCS colleagues are taking ownership in developing targeted actions that support our **Climate Action Framework**.

The RCS Sustainability Action Plan embeds sustainable thinking and action into every hallway, student room, and shared space across our campuses. By aligning operational practice with institutional strategy, the plan ensures that residential living and cleaning operations play an active role in reducing emissions, minimising waste, enhancing resource efficiency, and empowering our community to make informed sustainable choices.

I am personally inspired by how the RCS Team translates our global ambitions into tangible, local actions. As proud winners of the 2025 Heriot Watt Team Sustainability Champion Award, the RCS Team continues to showcase leadership and ambition in driving impactful change. From pioneering the use of biological cleaning solutions that reduce hazardous toxins to diverting over 20 tonnes of waste from landfills through the UniRecycle Working Group, the RCS Team is a catalyst for positive climate action throughout the University.

This plan is an invitation to our entire community to take personal and collective action. By working together- staff, students, and partners- we can embed sustainability into the way we work, learn, and make decisions every day. Join us in delivering this Action Plan and taking meaningful steps to make sustainability a defining part of life at Heriot-Watt.



Introduction

The Residential and Cleaning Services (RCS) Team is proud to contribute to the delivery of Heriot-Watt University's Global Environmental Sustainability Climate Action Framework, embedding sustainability as a core principle of our day-to-day operations. This report sets out how RCS translates the University's strategic sustainability ambitions into practical action across our services.

The Heriot Watt University Global Environmental Sustainability Strategy outlines ten commitments to advancing sustainability across the University and our global community. Whilst supporting all 10 commitments, the RCS team are uniquely positioned to have a direct and meaningful impact on commitments 1, 2, and 5 through our Sustainability Objectives.

HWU Commitments (1, 2 and 5):

1. We will inform, empower and support our global community in taking personal and collective action to assist in delivering the SDGs.
2. We will commit to achieving net-zero carbon emissions by a suitably ambitious date, between 2030 and 2035 depending on outcome of detailed planning.
5. We will challenge ourselves, industry and national governments to achieve progress towards the SDGs.

At the Edinburgh campus, Residential and Cleaning Services oversee soft facilities for our 11 student residences and deliver cleaning services across the campus estate. While this plan focuses on the Edinburgh based Residential and Cleaning Services, we recognise that sustainability activity is delivered collaboratively across the wider Hospitality Services Department, the Estates Directorate, and the University's global campuses. This plan is designed to support and align with the broader sustainability work already underway.

As a team, we are committed to enhancing our sustainable practices while fostering understanding and engagement campus wide. This plan will highlight our current sustainability performance, identify key areas for improvement, and present our strategy to further contribute to the University's sustainability goals. Our plan encompasses all areas of RCS, including operations, materials and equipment, sustainable procurement, and community engagement. It serves as a roadmap for minimising our environmental impact, enhancing our social responsibility, and driving cost efficiencies.

Current initiatives

Our team has already made significant advancements towards sustainability through ongoing projects and practices. These efforts consistently drive us closer to achieving our objectives while delivering clear, measurable results that showcase our commitment and progress.

Eco-friendly cleaning solutions

Over a sustained period, we have successfully implemented and maintained a range of eco-friendly cleaning solutions. These include transitioning to biological cleaning products developed through advanced biotechnology, and prioritising reusable equipment to minimise our environmental impact.

Sustainability highlights:

- **Biological cleaning products:** For over six years, we have successfully employed biological cleaning solutions, most recently transitioning to BioHygiene. These innovative biotech alternatives harness the power of microbes, enzymes, and plant-derived ingredients to deliver natural and effective cleaning products. Free from hazardous toxins and containing minimal volatile organic compounds (VOCs), they represent a safer and more sustainable alternative.

The specially engineered bacteria in these products generate enzymes that break down waste and form a biofilm, ensuring long-lasting cleaning and effective odour elimination. The multi-purpose and highly concentrated formulations, significantly reduce transport and storage needs, lowering CO₂ emissions. Packaging is both PCR-certified (Post-Consumer Recycled) and FSC-accredited (Forest Stewardship Council), further minimising environmental impact.

- **Reusable cleaning equipment:** We prioritise reusable cleaning equipment in order to significantly reduce waste to landfill. Our refillable spray bottles are used with BioHygiene concentrates, minimising single-use plastic. We use durable microfibre cloths that require less water and can be machine washed up to 200 times. Non-microfibre cloths have a life cycle of up to 40 washes, along with mop heads, requiring replacement only once or twice per year.

*Using microfibre
reduces cloths to landfill
by 83%*

Kimberly-Clark dispensers

In 2023, we successfully completed a campus-wide project to standardise toilet rolls, hand towels and soap. The primary drivers behind this initiative were to ensure consistency, minimise wastage and enhance sustainability. Following product research and trials, Kimberly-Clark's Scott Control range was selected as the preferred solution.

Sustainability highlights:

- KC Scott Control Toilet Rolls: Dispensed in single sheets to control usage and minimise waste, these rolls are made from 100% recycled fibre. They are biodegradable, recyclable, and accredited with both FSC and ECO Label certifications.
- KC Scott Hand Towels: Featuring a 25% larger and more absorbent design, these towels significantly reduce waste. Like the toilet rolls, they are made from 100% recycled fibre, are biodegradable and recyclable, and accredited with both FSC and ECO Label certifications.
- KC Scott Control Foaming Hand Cleanser: Designed to rinse away easily, this cleanser reduces water consumption. It is ECO Label accredited with a fully recyclable cassette.

As part of the initiative, Kimberly-Clark collected and recycled all existing dispensers through their 'RightCycle' programme. These were broken down and repurposed, enabling the diversion of 1,088kg of waste from landfill.

*1.09 tonnes
diverted from landfill*



Recycling initiatives

With over 2,000 beds, our student residences generate a substantial amount of waste annually, particularly around departure periods. Items such as left property, mattresses, bedding and electricals account for a significant portion of this waste. We are committed to addressing this challenge through innovative and sustainable solutions that minimise waste sent to landfill and support a circular economy.

Sustainability highlights:

- **Mattress recycling:** Our mattress replacement cycle is embedded within the routine upkeep of student residences. When a building undergoes mattress renewal, all mattresses are assessed and those in good condition are retained as spares for future use. The remaining mattresses are collected and transported to a dedicated recycling centre where they are disassembled into their individual components such as foam, metal springs, and fabric, ensuring maximum recyclability. Each component is then directed to appropriate recycling streams, supporting full circular economy and significantly reducing waste to landfill.

In 2024, we recycled 373 mattresses diverting over 13 tonnes of waste from landfill.

- **Residences departure collections:** We lead the UniRecycle Working Group, combatting the waste left behind after student departures. Kitchen items such as cookware, crockery, cutlery, and utensils are collected, along with any salvageable food. The kitchenware is delivered to the Chaplaincy where it is cleaned and prepared for Welcome Week. Food items are donated to local food banks, supporting our community and reducing waste.

We also support the British Heart Foundation's 'Pack for Good' campaign, encouraging students to donate any unwanted clothing via collection banks across campus. This initiative promotes reuse, supports charitable causes and reduces textile waste.

In 2025, over 3,000kg of kitchenware was salvaged for the Chaplaincy, over 500kg of food was donated to local food banks, and 4.3 tonnes was collected by BHF. In total, over 7 tonnes of waste diverted from landfill.

*Over
20 tonnes
diverted from landfill*



Case study: UniRecycle working group

The UniRecycle Working Group, led by the RCS Operations Manager, brings together colleagues from the Chaplaincy, ResLife, Sustainability, Logistics and Residences teams with a shared goal to minimise end-of-tenancy waste sent to landfill.

Each year, the group coordinates a programme aligned with the Residences departure clear-out to recover reusable or recyclable items from more than 500 student kitchens.

Through this collaborative effort:

- Non perishable food is donated to local foodbanks.
- Homewares and textiles are passed to the British Heart Foundation for resale and reuse.
- Kitchenware is provided to the University Chaplaincy to support new students during Welcome Week.

In 2025, the initiative diverted over 7 tonnes of waste from landfill. This work not only reduces environmental impact but also strengthens community partnerships and supports students transitioning into university life.

Sustainable procurement

As part of our responsibility for evaluating, selecting, and managing suppliers and contractors, we ensure adherence to the HWU Supply Chain Code of Conduct. We hold our partners accountable for their environmental commitments and actively collaborate to identify sustainable solutions across products, services, and logistics.

Sustainability highlights:

- Domestic appliance contractor: In 2023 we appointed a new domestic appliance contractor. Previously, our Estates Maintenance Team investigated malfunctioning appliances, often resulting in replacements due to limited specialist knowledge. Our appointed contractor demonstrated a 'repair before replace' ethos and we have seen a significant reduction in replacements.

Over 92% of appliances are now repaired rather than replaced, resulting in substantial cost savings and considerable diversion of waste from landfill.

Supporting energy solutions

We work closely with the Estates Environment and Energy Team to support energy-saving initiatives across campus. From switching off lights in unused spaces to reporting vacant areas in residences where heating and lighting can be reduced, our team plays an active role in identifying and enabling energy efficiencies.

Sustainability highlights:

- Lord Home Hall energy upgrade: In 2025 we supported the Estates team in delivering a major energy upgrade at Lord Home Hall. This included the installation of new radiators, an air-source heat pump, solar panels and smart thermostatic valves. Our role involved coordinating with resident students and liaising with project and installation teams to ensure the work could proceed smoothly throughout the academic year.

92%
*of appliances
repaired rather
than replaced*



Case study: Jean Muir Student Village sustainability initiatives

Operating at around 10% of the scale of Edinburgh's residential estate, Jean Muir Student Village at the Borders Campus delivers core University sustainability practices alongside initiatives shaped by its smaller, community-based setting. This scale supports close working relationships between students, staff, and partner teams, enabling collaborative projects to be delivered efficiently.

Initiatives include a community fridge for surplus food redistribution, a permanent Swap, Take, Donate clothing rail, a weekly DIY and Craft Hub, and a duvet donation scheme supporting local animal shelters.

The clothing rail is a collaborative initiative led by Student Wellbeing, who share office space within Jean Muir, and supported by the Halls team. Based

in a shared communal area and available year-round, it integrates clothing reuse into everyday campus life rather than as a one-off event.

The weekly DIY and Craft Hub provides a practical space for repair, repurposing, and upcycling, supporting waste reduction through skills-sharing and creative reuse.

Additional infrastructure, including a campus allotment and on-site composting, further embeds sustainable behaviours into daily routines.

The smaller scale of Jean Muir Student Village allows new initiatives to be piloted quickly through partnership working, creating a practical testbed for behaviour change and waste reduction activity that can inform delivery across the wider University estate.

Our objectives

Building on our current achievements, the Residential and Cleaning Services team will continue to drive sustainability through targeted actions aligned with HWU's Climate Action Framework commitments and through the identification of key sustainability objectives.

We have identified three key objectives aligned with HWU Commitments 1,2 and 5, establishing a clear framework to support the University's sustainability goals. By outlining our strategies for achieving and measuring these objectives, we are reinforcing our commitment and strengthening our action plan.



Complete a comprehensive review of our cleaning operations, implementing sustainable practices wherever possible.

HWU Commitment 2, 5

Develop our [RCS] waste management processes to significantly reduce waste generation and streamline recycling methods.

HWU Commitment 2, 5



Act as sustainability advocates within the HWU community, encouraging engagement and contributing to education around eco-friendly practices.

HWU Commitment 1, 5

Objective	How	Performance measurement
<p>Objective 1: Complete a comprehensive review of our cleaning operations, implementing sustainable practices wherever possible</p>	<p>Review current practices to ensure the use of eco-friendly products, introducing energy efficient practices, reducing water consumption, demanding sustainable procurement and logistics.</p>	<ul style="list-style-type: none"> • Completion of audit phases (assessment, strategy development, staff engagement, pilot, final review) • Products/practices that are environmentally sustainable (baseline vs. post-review) • % of suppliers meeting sustainability criteria (e.g. via CO₂ reports or sustainability certifications)
<p>Objective 2: Develop our waste management processes to significantly reduce waste generation and streamline recycling methods</p>	<p>Maximise recycling and reuse opportunities, innovative waste reduction strategies, streamline waste disposal methods</p>	<ul style="list-style-type: none"> • Certifications from recycling partners (e.g. British Heart Foundation, mattress recycling, chaplaincy initiatives) • Waste reports showing volume and type • % of waste diverted from landfill • Number of items reused or repurposed • Number of new strategies trialled/adopted
<p>Objective 3: Act as sustainability advocates within the HWU community, encouraging engagement and contributing to education around eco-friendly practices</p>	<p>Promote awareness amongst students and staff through campaigns, articles and information signage. Foster a culture of sustainability within our own department and directorate.</p>	<ul style="list-style-type: none"> • Number and type of engagement activities (e.g. campaigns, articles, signage) • Awareness levels measured via surveys or feedback • Evidence of sustainability embedded into Residential and Cleaning Services (RCS) practices



Forward plan

Our forward action plan sits alongside the wider sustainability work of the Hospitality Services Department, and sets out the next steps RCS will take to deepen our impact, enhance operational efficiency, and foster a culture of sustainability across our global campuses. Our approach is structured around five focus areas, each driving innovation and accelerating progress toward our sustainability objectives.



Expand sustainable cleaning practices



Enhance waste diversion strategies



Strengthen sustainable procurement practices



Support energy efficiency projects



Increase community awareness





Expand sustainable cleaning practices

Drive continuous improvement in cleaning operations by embedding best practices and innovative solutions, reducing environmental impact across all campus services while aligning with HWU's sustainability goals.

Actions	Timeline	Owner	KPI
RCS Sustainability Audit: Conduct baseline audits of product ordering, usage and disposal. Identify areas for improvement and set reduction targets	Completed Q3-Q4 2025.	Senior Supervisor – Operational Planning	100% of product ordering, usage, and disposal audits completed by November 2025 Minimum of 3 key improvement areas documented within 4 weeks of audit completion
Implementation of Changes: Cloth Lifespan – increase number of uses by washing to extend lifespan by 10%. Chemical Usage- ensure accurate dosing through training or installation of dispensing unit	Q2-Q4 2026	Senior Supervisor – Operational Planning	Average cloth usage cycles increased by 10% compared to baseline within 6 months. 100% of relevant staff trained on accurate chemical dosing within 3 months. Dispensing units installed in all designated areas by Q4 2026 (budget allocation dependency) Reduction in chemical overuse by 10% within 6 months of implementation
Robotic Technology: Explore options for robotic technology, prepare and submit business case. Implement robotic technology and set review and upscale plan (budget allocation dependency)	Q4 2025-Q4 2026	Operations Manager Senior Supervisor – Central Cleaning Services	Business case for robotic technology submitted to Head of Service by Q4 2025 Pilot robotic technology, operational within 6 months of approval Measure and report % reduction/redeployment of manual cleaning hours and water usage within 3 months of pilot. Formal review and scale-up plan completed within 2 months following pilot evaluation





Case study: Robotics trial

In 2025, we explored the potential to enhance service efficiency and sustainability through robotic cleaning technology. A performance and coverage trial using the LionsBot R3 Scrub Pro, a cobotic scrubber dryer, demonstrated successful deployment across nine buildings, delivering a continuous clean of 2,578 m² in 3 hours and 22 minutes.

The R3 Scrub Pro uses up to 85% less water than traditional floor machines and approximately 40% less water than manual mopping. With a runtime of

up to 10 hours on a single charge, the unit operates with low energy consumption and reduces reliance on short lifespan consumables such as mops.

Introducing cobotics into our service would enable more efficient deployment of resources, allowing staff to focus on detailed, value adding tasks and further sustainable practices. The potential reductions in water use, energy consumption, chemical application and consumable waste would contribute directly to our sustainability goals and commitments.



Enhance waste diversion strategies

Advance targeted initiatives to minimise waste generated by Residential and Cleaning Services, increase recycling rates, and collaborate on campus-wide waste reduction strategies to deliver measurable environmental benefits.

Actions	Timeline	Owner	KPI
Waste Management Working Group: <i>(reporting to the University Global Committee for Global Environmental Sustainability)</i> Strategic member of this working group Use as platform/launching-pad for community engagement	Q2 2026 <i>(Ongoing)</i>	RCS Operations Manager	Attend 95% of scheduled working group meetings. Work with the Sustainability Unit to launch minimum 2 engagement campaigns/events within 12 months. Submit minimum of 3 actionable proposals to the group within 12 months
Reduce single-use plastics: Identify where we can replace disposable equipment/materials with reusable or biodegradable	Q1 2027	Senior Supervisor – Operational Planning	Complete full audit of single-use plastic items across operations by Q1 2027 Identify replacement opportunities to achieve 15% reduction in single-use plastics within 12 months of implementation
Recycling Initiatives: Explore duvet recycling Implement food waste in residences and across campus. Launch RightCycle pilot for paper towel recycling	Q2-Q4 2026	RCS Senior Supervisors	Duvet recycling feasibility-complete feasibility study and stakeholder engagement by Q3 2026 Food waste recycling implemented in 100% for S1 August 2026 RightCycle area identified, and pilot launched by Q4 2026 Track and report % increase in recycled materials



Strengthen sustainable procurement practices

Ensure all suppliers meet rigorous environmental standards and commitments, prioritise sustainable materials in purchasing decisions, and optimise procurement processes to reduce carbon impact and support HWU's sustainability objectives.

Actions	Timeline	Owner	KPI
Sustainable Procurement Focus: Consider environmentally friendly options for all purchases	<i>Ongoing</i>	RCS Leadership Team	At least 30% of all purchases meet sustainability criteria within 12 months
Supplier Accountability: Request carbon emission and sustainability reports and certifications from suppliers/contractors. Monitor performance against promise	Q2 2026	RCS Operations Manager Senior Supervisor – Operational Planning	Obtain sustainability reports from 80% of active suppliers by Q2 2026 Yearly review of supplier sustainability performance completed on schedule
Consider Logistics and Emissions: Work with suppliers to consolidate orders for less frequent delivery	Q1-Q4 2026	RCS Leadership Team	Reduce delivery frequency by 20% within 6 months without impacting service levels. Track % reduction in transport-related emissions within 12 months
Closed Loop Recycling: Work with our current supplier, UNICO to form a closed loop recycling process for own-brand bottles	Q4 2025-Q2 2026	Senior Supervisor – Operational Planning	Feasibility study completed by UNICO by Q1 2026 Closed loop recycling system operational for UNICO's own-brand bottles by June 2026 (where feasible)



Support energy efficiency projects

Partner with Estates and Sustainability teams to accelerate energy-saving upgrades and identify practical opportunities to reduce energy consumption across all operations.

Actions	Timeline	Owner	KPI
Appliance Energy Ratings: Review energy ratings of appliances and cleaning equipment. Verify energy ratings before equipment purchase	Q3 2026	RCS Leadership Team	100% of existing appliances and cleaning equipment reviewed for energy ratings by Q3 2026 80% of new equipment purchases verified to meet minimum energy efficiency standards (e.g., A-rated or equivalent)
Energy Efficiency Upgrade Projects: Collaborate with Estates on upgrades (radiators, heat pumps, solar panels)	Ongoing	RCS Operations Manager	Energy upgrades proceed smoothly with minimal disruption to residents
Reduce Energy Consumption: Identify opportunities to reduce energy consumption across operations (switch off lights, radiators etc)	Ongoing	RCS Leadership Team	List at least 3 actionable energy-saving measures by Q2 2026 Achieve 90% compliance with "switch-off" policy in monitored areas by Q4 2026



Increase community engagement, awareness and change

Promote sustainability awareness among staff, students, and the RCS team in line with the **University's waste prevention and management plan**. Strengthen partnerships and foster active participation in initiatives that support HWU's environmental objectives.

Actions	Timeline	Owner	KPI
RCS Team: Secure team buy-in and commitment (training, focus groups, toolbox talks, team meetings)	Q3 2025-Q3 2026	Senior Supervisors	100% of RCS team members complete sustainability training by Q3 2026 Embed sustainability into all team meetings
Recycling Campaigns: Support and contribute to waste education campaigns – food waste, dry recycling, specialist recycling etc Report contamination levels of recycling stations	Q3 2025-Q4 2026	RCS Leadership Team	Actively support waste education campaigns Support reporting of contamination levels. Reduce contamination rates by 10% by Q4 2026
Waste Signage: Prepare waste posters for recycling stations. Implement rotation plan to eliminate information fatigue	Q4 2026	Senior Supervisor – Central Cleaning Services	100% of recycling stations equipped with updated waste signage by Q4 2026 Signage rotation implemented monthly to maintain engagement
Community Partnerships and Social Impact: Strengthen partnerships with BHF, FourSquare, foodbanks, charities	Ongoing	RCS Operations Manager	Track and report number of items donated or supported initiatives annually. Deliver minimum 2 joint sustainability community projects annually

Our vision for the future

Our vision is to embed sustainable thinking into everything we do, ensuring that our operations are efficient, responsible, and future-focused.

We want to move beyond short-term fixes and build a culture where sustainability is part of everyday decisions. This means balancing environmental responsibility with practical solutions that work for our team, our community and our partners.

What our future looks like

- Smarter resource use: reducing waste and increasing recycling so that materials stay in use for longer.
- Energy-conscious operations: lowering energy consumption through technology, monitoring, and simple behavioural changes.
- Collaborative action: engaging our community to share ideas and take ownership of sustainability goals.
- Continuous improvement: using data and feedback to track progress and adapt as we learn.

This vision underpins the priorities set out in our Sustainability Action Plan. Each goal, whether it is reducing carbon emissions, improving waste management, or enhancing biodiversity, connects directly to these principles. By aligning our day-to-day decisions with this vision, we ensure that sustainability is not a separate project but part of how we operate.





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