



Annual Environmental Report 2024 / 2025

Energy and Environment Committee



Cover photo: *'As the sun sets behind a fragile dandelion, nature reminds us that even the smallest moments can hold light and wonder' photo by MSc student Soniya Verma Dey as part of June 2025 nature photography contest.*

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Statement



Ian Sibbald, Chair Energy and Environment Committee

Our vision is to be valued globally for tackling the real-world issues of today to deliver a sustainable future. This report highlights progress on our environmental targets which are largely focused on the performance of our estate and facilities. Our academic contribution to sustainability is featured on the University website.

Key performance indicators highlighted below and through the report are correlated with the Times Higher Education Impact Awards criteria giving an indication of the contribution to the UN Sustainable Development Goals (SDGs). Cranfield supports the UK government’s commitment to the UK reaching net zero by 2050. This is evidenced in our academic endeavours, our community outreach and by our challenging 2030 target.

We remain indebted to our staff and students who contribute to our on-going improvements and to our Energy and Environment Team, Energy and Environment Committee and working group members who lead and coordinate our combined efforts. We are grateful for the on-going support of our contractors who help with the efficient running of the estate.

Key performance indicators

Issue	Description	Latest	Previous	SDG Contribution	Status	Comments
Carbon	Scope 1&2 emissions tCO2	7,593	9,071	THE – SDG* 13.4.1	G	16% reduction compared with the previous year
Carbon	Energy efficiency GJ/m2	0.65	0.77	THE - SDG 7.3	G	More efficient use of energy
Carbon	Renewable energy GWh	4,254	2,481	THE - SDG 13.2.3	G	Increase in biomass and solar output
Waste	Avoidable waste %	13.3%	18%	THE - SDG 12.2.4	G	Waste which could have been reduced, re-used, recycled
Waste	Total waste tonnes	775	942	THE - SDG 12.3.2	G	Less green waste and lower student numbers
Travel	Commuting alone by car %	45%	38%	THE - SDG 11.4.1	A	Continuing impact of working from home
Water	Water use m3/head	42.3	39.8	THE - SDG 6.2.2	R	Total water usage has decreased by 3.5%
Biodiversity	Biodiversity Action Areas ha	9.0	9.0	THE – SDG 15.2.3	G	Biodiversity areas sustained

Above: table shows key performance indicators for our environmental targets and progress, including SDG (Sustainable Development goal) contribution and comments.

* THE-SDG refers to the Times Higher Education Impact Awards Sustainable Development Goals categories.

Note: There are more indicators and objectives highlighted under each section in the report.

Environmental Targets

2030 environmental targets

Net zero carbon by 2030

Zero avoidable waste by 2030

50% water reduction against 2010 consumption by 2030

Single occupancy car commuting reduced to 50% for Cranfield Campus by 2030

Net environmental gain including biodiversity to be increased by 20% to maximise potential on site

Pollution control monitoring systems in place by 2023

Develop a climate change adaptation strategy by 2023 to improve the resilience of the campus to climate change

The SDG Accord
The University and College Sectors' Collective response to the Global Goals

SUSTAINABLE DEVELOPMENT GOALS

In 2020 the University Council committed to a new set of environmental targets. The strategy for delivering these targets can be found at:

<https://www.cranfield.ac.uk/about/our-sustainable-university/our-2030-environmental-targets>

The targets are to be achieved by academic year 2030/31. They include All Cranfield University activities including the activities of any subsidiaries including MK:U.

The aim of the Net Zero Carbon target is to reduce Scope 1 and 2 carbon emissions as quickly as possible through energy saving and renewable energy. Any remaining emissions will require other measures. The strategy for Scope 3 emissions is still being developed, and these emissions will be included as deemed appropriate for the sector.

The Zero Avoidable Waste target aims to minimise waste ending up in landfill or going for incineration and embraces the application of circular economy principles.

The water reduction target aims to be consistent with best practice and future supply pressures in this part of the UK.

The sustainable commuting target continues to focus on promoting alternatives to the car. Walking, cycling and bus are the main options.

Biodiversity will benefit from the new target ensuring any development on site results in a net environmental gain. The masterplan for the University sets out areas for new buildings and also a wildlife corridor where new habitats can be established.

The application of sensors on campus through the Urban Observatory is helping with the monitoring of air, water and soil.

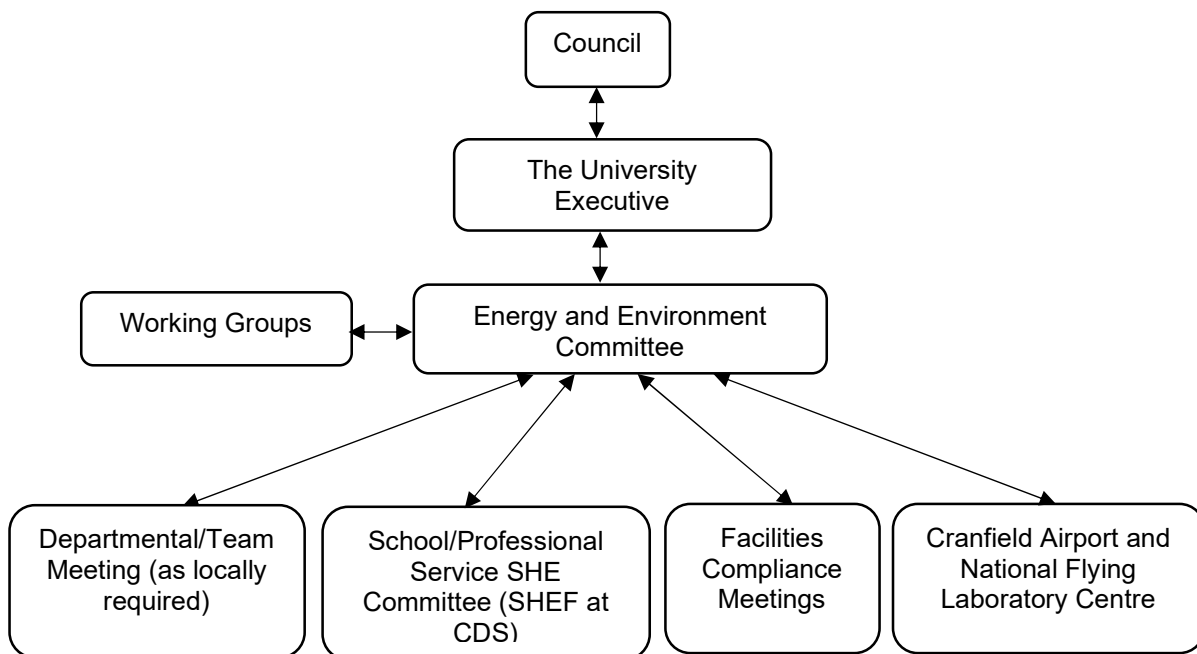
An Climate Adaptation Strategy is published on the University webpages. This details climate related risks to the campus, and mitigation measures.

The University has signed the SDG Accord. This has lead to more focus on the SDGs and how the university's contribution can be better communicated and developed.

Quality assurance

Governance

The Energy and Environment Committee (EEC) is an executive sub-committee reporting to the Cranfield Executive and Council on energy and environmental management issues. The priority of the Committee is to ensure Cranfield University demonstrates a leading capability in environmental performance by providing oversight and direction. The Committee consists of senior managers from across the University along with student representation and members of the Energy and Environment Team. The Committee has working groups, with members drawn from operational and academic staff and students, to progress key environmental objectives. A dedicated Energy and Environment team facilitates delivery of the objectives and reports progress to the Committee on a regular basis. This Annual report is approved by EEC and then the University Executive and Council. The Committee aims to ensure a close relationship between EEC’s environmental activities across the University and the teaching, learning and research taking place within the Themes on environmental best practice. The Governance structure is outlined below.



Above: Diagram shows governance structure for the Energy and Environment Committee

ISO 14001:2015

Cranfield University operates a university wide environmental management system. The system provides a framework for managing our environmental impacts, risks, and opportunities, for setting environmental objectives and establishing programmes to achieve them. The scope of the certification covers all University operations including Cranfield Defence and Security at the Shrivenham and COTEC sites. A successful surveillance audit was carried out by BSI in May and June 2025.

ISO 50001:2018

Cranfield University operates a university wide Energy Management System, which provides a framework for managing our energy use. The scope of the certification covers all University operations on the Cranfield campus, Cranfield Defence and Security at the COTEC site and MK:U at Bouverie House. A successful surveillance audit was carried out by BSI in August 2025.

Scope of reporting

The environmental targets on page 4 encompass activities taking place on the Cranfield Campus, including subsidiary companies and some tenants on site (*see Notes section near end of document*). The University's operation at the Cranfield Ordnance Test & Evaluation Centre (COTEC) is included. The University is not directly involved in the management of Shrivenham Campus, so the University activities there do not contribute to the key performance indicators such as carbon emission in this report (*see Notes section near end of document*).

Other reporting

In line with the Higher Education Statistics Association (HESA) requirements, the University submits environmental data as part of the annual estate management reporting statistics. This data attempts to exclude tenant data and differs slightly from the data that appears in this report. Under the new Streamlined Energy and Carbon Reporting (SECR) rules, which replaced the Carbon Reduction Commitment (CRC) Energy Efficiency scheme in 2020, the University reports its annual carbon emissions in the University's annual Finance report. That data includes all primary energy use by the University Group, all imported electricity use and all fuel put into University owned vehicles or private or hire vehicles used for Business Travel.

Data submitted to HESA is also used by the '*People and Planet University League*' (a student-led, People and Planet voluntary league table of University environmental performance). In People and Planet's University League, comparisons are made per student or per m² total floor area. Cranfield is a wholly Postgraduate University undertaking industrial scale research. This makes environmental impacts per student or per m² appear high. This annual report focuses on how the environmental performance of the University is improving over time. The University is also participating in the THE (Times Higher Education) Impact Awards. The contribution of the environmental management of the university estate to the SDGs in line with the THE criteria is highlighted in this report.

Base year recalculation policy

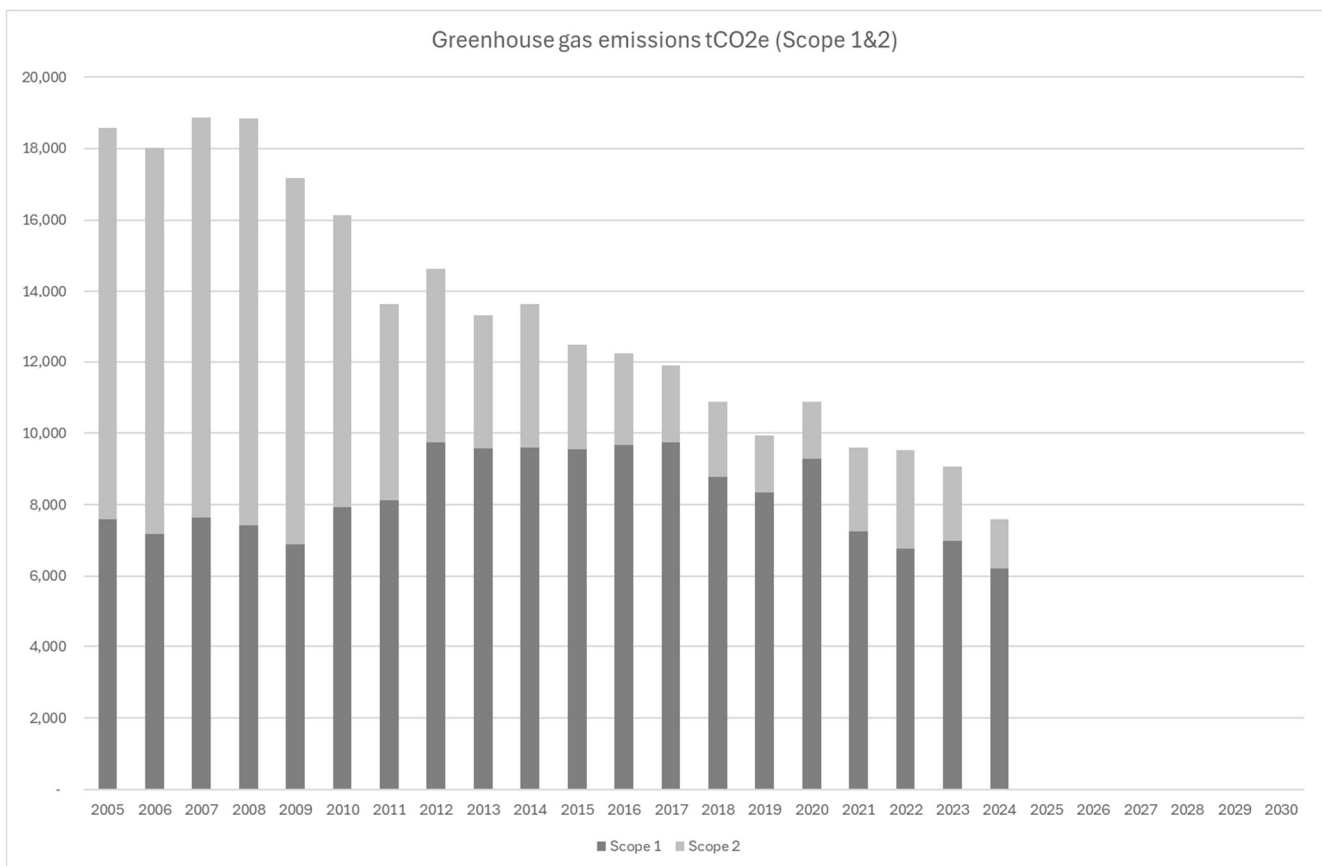
Our base year figures for reporting are reviewed from time to time to ensure like for like reporting. (*see Notes section near end of document*).

Carbon and Energy



Progress

Current Scope 1 and 2 emissions are 7,593 tonnes CO₂. A 16% reduction compared with the previous year at 9,071 tonnes. Recent investments in renewable energy and energy efficiency infrastructure are beginning to take effect. These measures include replacing gas boilers with air source heat pumps, adding buildings to the campus district heating system, improved heating and ventilation controls, insulation, LED lighting, solar photovoltaic installations, and a large battery. The district heating has been extended to the residential estate and two large buffer tanks added to the new Energy Centre. This year a project is underway to further extend the district heating and to also add additional high temperature air source heat pumps and a ground source heat pump.



Above: Graph showing the amount of greenhouse gas emissions in tonnes of carbon dioxide equivalent scope 1 and 2, from 2005/6 to 2024/5. Graph shows a downwards decrease in emissions with time. **Note:** Year 2005 runs from August 2005 to July 2006, etc.

Energy trends and efficiency

Total energy used has decreased and overall energy efficiency continues to improve with less energy used per building floor area. Renewable energy generation has increased with the better performances from the solar farm and the biomass boiler. The University does not currently purchase “green” electricity as typically green electricity offered on the UK market does not provide additionality. The University is however exploring Power Purchase Agreements for new renewable energy electricity which will provide new capacity.

	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Total energy used (kWh)*	44,841,986	50,176,963	48,022,910	44,241,083	40,758,465	34,564,434
Renewable energy on site (kWh)	2,138,441	2,236,208	3,297,839	3,022,661	2,481,154	4,254,480
Renewable energy imported** (kWh)	2,599,468	3,061,439	4,716,080	5,444,942	4,324,709	3,287,400
Nuclear energy imported** (kWh)	1,138,553	1,223,056	1,961,987	1,855,017	1,271,384	1,264,985

*Includes electricity generated on site from gas and therefore excludes that gas from the total

**based on UK Grid Average

Above: table shows total energy used in kWh and renewable energy generated/used in kWh, from 2019/20 to 2024/25.

	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Total energy used (GJ)	161,431	180,637	172,882	159,268	146,730	124,432
Low Carbon energy used (GJ)	21,155	23,475	35,913	37,161	29,078	31,705

Above: table shows total energy used in GJ and low carbon energy generated/used in kWh, year on year, from 2019/20 to 2022/23.

Note: the table includes corrected figures for past years, where the low carbon energy used was undercounted.

	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Total energy used (GJ)	161,431	180,637	172,882	159,268	146,730	124,432
Floor area (m²)	169,005	185,856	192,495	193,201	190,448	190,818
Efficiency (GJ/m²)	0.96	0.97	0.9	0.82	0.77	0.65

Above: table shows total energy used in GJ, total floor area in m², and energy efficiency per floor area in m² from 2019/20 to 2023/24 showing an increase in energy efficiency per m² with time.

Scope 1 and Scope 2 emissions

	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Scope 1 (tCO₂)	8,343	9,277	7,252	6,769	6,998	6,211
Scope 2 (tCO₂)	1,599	1,613	2,357	2,763	2,073	1,382

Above: table shows scope 1 and scope 2 carbon emissions. The total for scope 1 and 2 emissions has decreased significantly.

Both Scope 1 emissions and scope 2 emission have declined this year. The strategy to switch from gas to electricity is starting to pay off. This has been helped by higher solar output this year and a significant reduction in carbon intensity on the UK Grid.

Scope 3 emissions

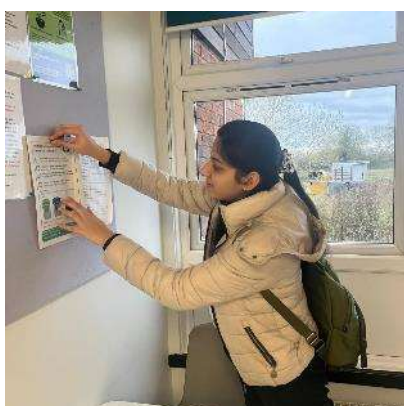
The measurement of Scope 3 emissions relies largely on third party data based on spend and there is a lag in obtaining and verifying realistic information. As soon as figures are available this report will be updated.

The University is developing its reporting for Scope 3 guided by the Standardised Carbon Emissions Framework (SCEF) established by the Environmental Association for Universities and Colleges (EAUC) the environmental and sustainability champion within Further and Higher Education in the UK and Ireland.

Energy and Water Champions Campaign

Energy and Water champions were recruited for an Energy and Water saving campaign which ran from November 2024 – May 2025. Activities included completing building surveys to check for energy and water saving opportunities, the Christmas shutdown campaign, and a talk from Greensand Community Energy group on being an energy champion at home. A group of student Green Team members were further engaged in performing energy and water surveys for halls of residence blocks and Tech Site buildings to identify where lighting upgrades were needed, and to look for leaks. Eight buildings were surveyed in total.

A communications campaign focused on changing behaviours to help save energy. This was communicated on internal staff and student channels and social media.



Above left to right: Student putting up posters in halls of residence blocks as part of the 'waste, energy and water check-up' for halls of residence survey, awareness piece created for Instagram.

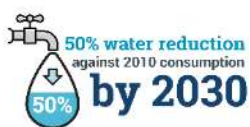
Table of SDG KPIs relating to Carbon & Energy

The SDG indicators below are taken for the Times Higher Education (THE) Awards criteria. The measures are what the university is doing to meet that indicator.

THE reference	Indicator	Measures	Comments
7.2.1	Energy and Efficient Renovation and Building	New buildings are assessed to the BREEAM standard	Key measures are being incorporated into University design guide / standards to address refurbishments / renovations
7.2.2	Plans to upgrade energy efficiency of buildings	These are set out in the annual Energy Plan	See on website: https://www.cranfield.ac.uk/about/our-sustainable-university/carbon-and-energy-management
7.2.3	Carbon management and emission reduction process	This is set out in the annual Carbon Plan	See above
7.2.4	Plan to reduce energy consumption	This is set out in the annual Energy Plan	See above
7.2.5	Energy wastage identification	This is set out in the annual Energy Plan	See above
7.3.1	Energy use density- Total energy used per floor space	Ratio 0.65 GJ/m ²	Energy used 124,432 GJ Floor space 190,818 m ²
7.5.1/13.2.2	Low-carbon energy use	Total energy 124,432 GJ Low carbon 31,705 GJ	Based on low carbon energy generated on site and low carbon electricity imported as part of UK grid mix.
13.2.1	Low carbon energy tracking	See table above for trends	Renewable energy generated and imported is tracked
13.3.2	Climate Action Plan	Carbon Plan on website	Climate adaptation strategy adopted
13.4.1	Commitment to carbon neutral university	Net zero carbon by 2030 target	Includes scope 1&2. The option to include scope 3 is being developed
13.4.2	Carbon neutrality date	2030	
11.4.8	New build standards	New buildings are assessed to the BREEAM standard	
11.4.9	Building on brownfield sites	The University is using brownfield for new buildings	This is set out in the Campus Masterplan

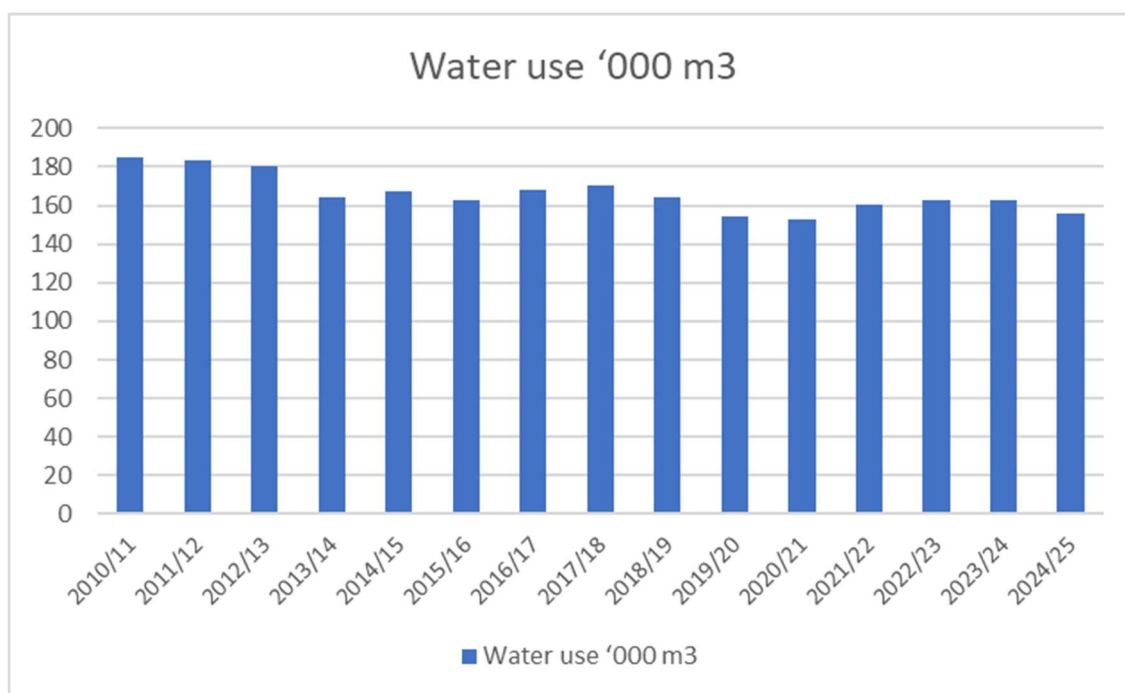
Above: Table of SDG KPIs (key performance indicators) relating to Carbon & Energy reduction

Water



Improving metering and monitoring across the main Cranfield Campus remains a challenge, although we have made improvements in the quality of fiscal meter data, with these meters now checked every month. On the smaller supplies, this has helped in the identification and resolution of leaks. We continue to promote and encourage efficient water use and the identification and reporting of leaks amongst staff and students. We do this through a variety of communication methods including the Energy and Water Champions Network, team / committee meetings and campus wide screen displays. A dedicated section on water saving is also included in the Canvas Environmental Awareness Induction, for students.

The university published a revised Water Management Plan in March 25, to deliver commitments of the Water Policy. The Water Policy is a statement of the University commitment to reducing water use, promoting water efficiency and considering water re-use measures through education and research, our operations and our ambitions. All staff, students, consultants and contractors are expected to collaborate to deliver water consumption reductions and efficiencies.



Above: graph showing water usage in Cubic Meters from 2010/11 to 2024/25. The total usage has reduced slightly, although not significantly.

Note: the water consumption figure for 2022/23 and 2023/24 is estimated due to repeated failure of the main supply meter.

	2020/21	2021/22	2022/23	2023/24	2024/25
Total water used (m3)	153,481	160,580	162,478	161,872	156,190
Staff & Students (FTE)*	4,241	4,671	4,726	4,063	3,693
Water use efficiency (m3/staff&student)**	36.2	34.4	34.4	39.8	42.3

Above: Table shows year on year comparison of water use and efficiency

*Includes Cranfield campus, MK:U, excludes Shrivenham. ** Excludes other Cranfield campus residents such as student partners and children and staff residing on site. The number for these in 2024/25 was 212.

Table of SDG KPIs relating to Water

The SDG indicators below are taken for the Times Higher Education (THE) Awards criteria. The measures are what the university is doing to meet that indicator.

THE	Indicator	Measures	Comments
6.2.1	Water consumption tracking	Water consumption reduction is key target;	Does not currently include water used by Cranfield University at Shrivenham as water metering and consumption is not under the University's control.
6.2.2	Water consumption per person	42.3 m ³ /person	This does not include staff and student partners residing onsite (see above)
6.3.1	Wastewater treatment	Wastewater is treated on site	
6.3.2	Preventing water system pollution	Procedures include Spill Prevention and Response, Discharge to Sinks and Drains:	Controlled through ISO 14001 certified environmental management system
6.3.3	Free drinking water provided	Provide free drinking water for students, staff and/or visitors (e.g. drinking water fountains)	Drinking water fountains and filtered water dispensers provided and stated on website
6.3.4	Water conscious building standards	BREEAM assessment on new buildings Compliance with Building Regulations	University Design Standards continue to be enhanced and developed.
6.3.5	Water conscious planting	Plantings are made at the appropriate time of year to avoid water stress	Guidance on suitable drought tolerant plants for the site is being developed
6.4.1	Water reuse policy	A water management policy has been developed and published	Options for water reuse and recycling are being explored
6.4.2	Water reuse measurement	None	This is still in the pilot stage
6.5.6	Promoting conscious water usage	Water conservation is promoted on campus	A project promoting efficient shower usage. Canvas Environmental Awareness module. Energy Champions campaign expanded to include water.

Above: Table of SDG (Sustainable Development Goals) KPIs relating to water reduction, measures, and comments

Resources and Waste



The university is committed to putting the principles of the Circular Economy into practice by putting processes in place to:

- prevent materials from becoming waste in the first place
- ensure waste that is created is recycled, composted, or sent for anaerobic digestion and not sent to landfill or incineration*.

*Recyclable, compostable or digestible waste that ends up in the residual waste stream (waste sent for landfill or incineration with or without energy recovery) is defined as AVOIDABLE.

Avoidable Waste

The overarching target is to reach Zero Avoidable Waste by 2030. The starting point is to gather information on the materials ending up in the residual waste stream and use best management practices to apply the waste hierarchy to these materials: prevent, reduce, reuse, and recycle.

Of the 776 tonnes of waste produced, 382 were segregated on site and either reused, recycled, composted or sent for anaerobic digestion. A further 77 tonnes were captured at the offsite treatment facility for recycling. Avoidable waste is 13.3% of total waste. Tonnages are summarised in the figure on the next page.

Total waste

Total waste produced by the Cranfield campus over 24-25 was less than the previous year reflecting reduced numbers of staff and (mainly) students. COTEC figures are included (40 tonnes).

	2022/23	2023/24	2024/25
Total waste (tonnes)*	988**	942***	776
Staff & Students (FTE)****	4,726	4,063	3,693
Waste per staff & student FTE (tonne/person)	0.21	0.23	0.21

Above: Table showing total waste, number of staff and students, and waste per staff/students

*Cranfield campus +COTEC waste only, not including construction/demolition waste from development sites.

**22-23 figures include for the first time CCCL tonnages

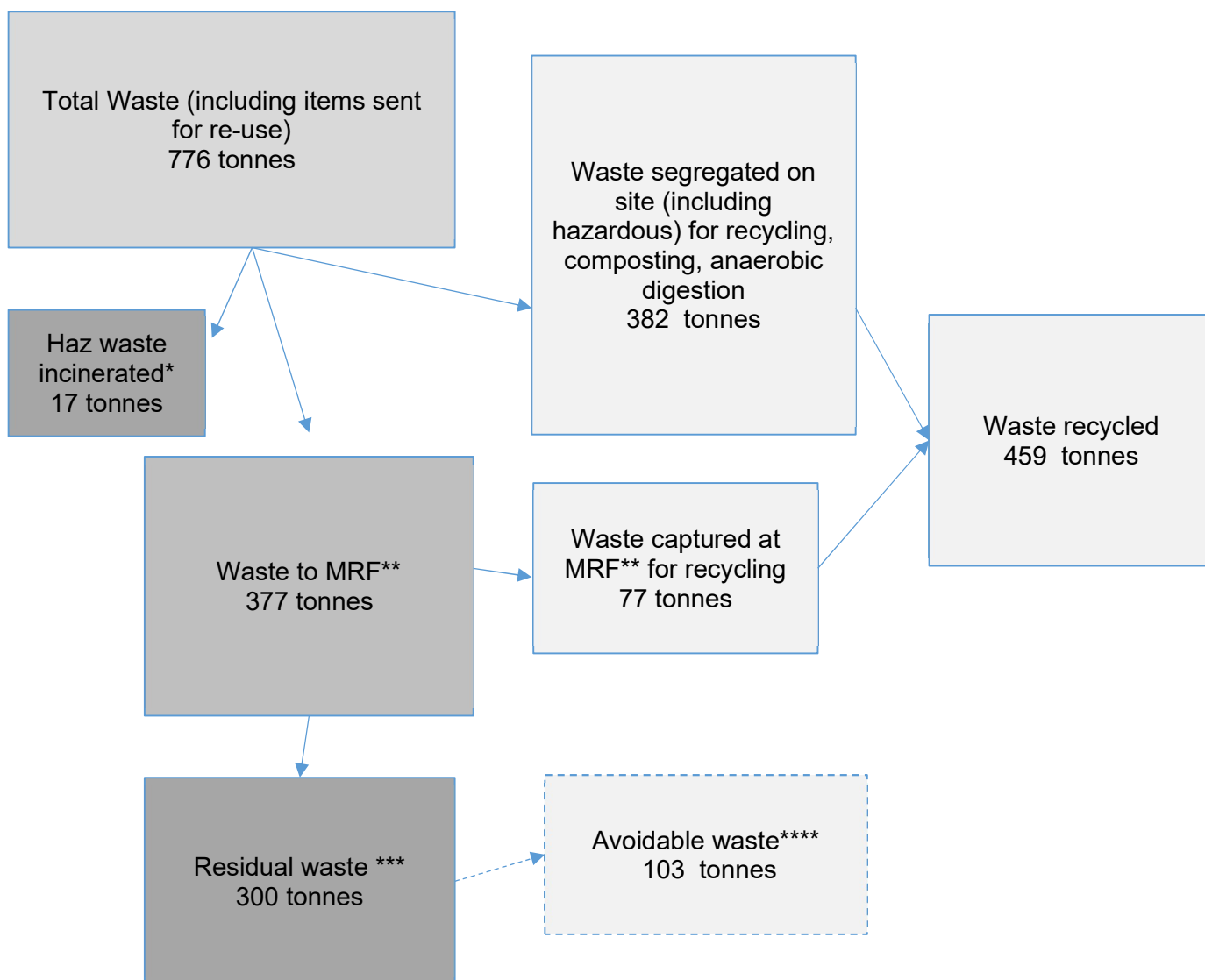
***23-24 figures include for the first time COTEC tonnages.

**** includes Cranfield and MKU, excludes Shrivenham. Excludes other Cranfield campus residents such as student partners and children and staff residing on site. The number for these in 2024/25 was 212.

Procurement of resources

We continue to strengthen our procurement processes to include circular economy principles and sustainability requirements at each procurement stage.

Where the waste goes



Above: The diagram shows the breakdown of total waste generated on campus, and how it is managed.

Notes: This data is from tonnage and compositional audit information provided by the University's waste contractor. It does not include construction waste from development sites.

*Haz waste – hazardous waste which is not recyclable..

**MRF – Material Recycling Facility.

***Residual waste – waste which is sent for incineration with energy recovery and landfill (0.5 tonnes bulky waste landfilled and the remainder energy recovery).

****Avoidable waste – waste which could have been recycled.

Reuse of resources

The university's objective to increase the amount of items reused has continued, made possible by the university's relationship with re-use organisations such as Reyooz, Milton Keynes Play Association (MKPA) and Unigreenscheme. These are items such as furniture and equipment which would otherwise have been sent for disposal. The 24-25 student moveout campaign saw a continued arrangement with the British Heart Foundation and The NEED Project for collection of good quality clothing and food. The donations provide much needed items for the charity shops and families in need in the local area.

Recording and monitoring of pre-consumer food waste from catering outlets

The University's Campus Services has placed reduction targets on food waste in an effort to reduce food being wasted during food preparation and service.

Food wastage (% revenue)	Reduction Target 24/25	Achieved	Reduction Target 25/26
Conference Centre	1.6%	1.06%	1.4%
Mitchell Hall	1.8%	1.86%	1.8%
Cranberries	1%	Closed	Closed
Overall	1.58%	1.52%	1.6%

Above: Table shows Campus Service's food waste reduction targets per centre with progress made

This year, the University has successfully retained the Soil Association's **Green Kitchen Standard across all food and beverage outlets with an improved score**, alongside the **renewal of Greengage Solutions ECOsmart certification** for Venue Cranfield. These achievements reaffirm the ongoing commitment to environmental best practice and responsible operations across catering and hospitality services.



Sustainable sourcing of food continues to be strengthened, through the forging of new partnerships with local suppliers. A key highlight is a collaboration with Wooden Hill Coffee Roasters, whose roastery is located just a short distance from campus. Their environmental ethos aligns closely with the University's, including initiatives such as tree planting in the Marston Vale Forest. For every 10 kg of beans purchased, one tree is planted — and with the Vincent Café alone using more than 10 kg each week, this partnership makes a meaningful contribution to local reforestation.

Access to free drinking water has also been expanded. Drinking water is now available throughout campus via more than 150 mains-fed fountains and dispensers located in teaching spaces, public areas, catering outlets, and hotel rooms. In addition, the CMDC hotel has phased out small, bottled water in guest rooms, eliminating approximately 20,000 plastic bottles annually and saving an estimated 16.5 tonnes of CO₂ emissions each year.

Table of SDG KPIs relating to Resources & Waste

The SDG indicators below are taken for the Times Higher Education (THE) Awards criteria. The measures are what the university is doing to meet that indicator.

THE	Indicator	Measures	Comments
12.2.1	Ethical sourcing policy	Promoting Fair Trade	Sustainable Food and Beverage policy adopted
12.2.3	Hazardous waste disposal policy	Procedures in place handling and disposal of hazardous waste	Hazardous waste procedure adopted
12.2.4	Disposal to Landfill policy	Target to monitor what goes to landfill/incineration and what can be recycled	Waste Code of Practice adopted
12.2.5	Minimisation of plastic	Single use plastics promotion	Waste Code of Practice adopted
12.2.6	Minimisation of disposable items	Single use plastics policy	Waste Code of Practice adopted
12.2.7	Extending disposal policies to supply chain	Currently ask suppliers for their environmental policies	This is being developed and incorporated within procurement processes
12.2.8	Extending minimisation policies to supply chain	Currently ask suppliers for their environmental policies	This is being developed and incorporated within procurement processes
12.3.1	Waste tracking Amount of waste generated and recycled	Waste and recycling figures made available on web site. Whole university / partial coverage	Does not include Shrevenham site as waste is not under the control of Cranfield University. COTEC now included.
12.3.2	Amount of waste generated (tonnes)	655 tonnes	Does not include construction waste.
12.3.2	Amount of waste recycled (inc energy recovery)	638 tonnes	This figure includes tonnage sent for energy recovery via incinerator
12.3.2	Amount sent to landfill	0.5 tonnes	Remainder is hazardous waste incinerated
12.4.1	Sustainability Report	SDG reporting on web site: https://www.cranfield.ac.uk/sustainable-development-goals . Also report to EAUC for SDG Accord annually.	This Annual Environmental Report is in effect the University's "Sustainability Report"

Above: Table of SDG (Sustainable Development Goal) KPIs relating to Resources & Waste

Sustainable Commuting



Travel Plan published with related policy and Sustainable Business Travel Plan

The Cranfield University Campus Travel Plan was published in July 2024, and an update is currently in development. Alongside this, a new Sustainable Travel Policy and Sustainable Business Travel Plan was published. The Sustainable Business Travel plan outlines a plan to reduce our scope 3 carbon emissions associated with business travel, including a target to reduce emissions from flights by 35% by 2035.

Modeshift STARS ‘Good Travel Plan’ award level



The University registered with Modeshift STARS platform as supported by Central Bedfordshire Council. The University successfully achieved ‘Good Travel Plan’ level and is working towards a ‘Very Good Travel Plan’ level by increasing engagement with sustainable travel on campus. This includes hosting a ‘Road safety’ event within the CSA during October 2024.

Travel Survey

A travel survey in early 2025 shows an increase in single car occupancy as a commuting method for staff and students to campus. It should be noted that overall student participation in the survey was low for 2025, which would have affected the results, particularly the low bus usage figures. ‘Working at home’ remains relatively high and is likely to remain this way as the Flexible Working Framework continues. The survey will be repeated in early 2026.

Journeys/week	2011/12	2013/14	2015/16	2017/18	2021/22	2022/23	2023/24	2024/25
Car alone	70%	58%	59%	59%	35%	38%	38%	45%
Car share	13%	11%	13%	10%	5%	7%	9%	8%
Motorbike	1%	1%	1%	1%	0%	1%	1%	1%
Bus	7%	19%	13%	18%	14%	13%	17%	9%
Cycle	6%	8%	8%	7%	5%	4%	6%	6%
Walk	2%	3%	5%	3%	3%	2%	3%	2%
Other	1%	1%	2%	1%	5%	3%	5%	4%
Working at home					34%	29%	23%	27%

Above: Table shows percentages of staff and student travel modes from 2011/12 to 2024/25 according to travel survey data. Working at home is measured as “avoided journeys”. Note: the number of students taking the part in the survey this year was very low which has probably skewed the data – particularly for the buses and cycling.

Uno Bus

The Uno bus service which connects the University to Bedford and Milton Keynes is subsidised by the university for staff and students to use. It is a public bus service and so the local community also benefit from a much more frequent and comprehensive service than anywhere else in rural Bedfordshire. Uno set up a stand for welcome week to promote the bus service and provide the students with travel and ticketing information. Several meetings were held with student representatives throughout the year to answer queries and plan improvements to the service. Engagement with students has been ongoing through social media.

Cycling support and development

The cycle paths to the north and south of campus continue to provide a safer cycling and walking option for staff and students living in Cranfield village. The connectivity with National Cycle Route 51 also provides an option for those prepared to cycle from further afield. Since 2020, Cranfield University began working with the social enterprise Cycle Saviours, who operate a bicycle repair and refurbishment scheme within the umbrella of the Milton Keynes Christian Foundation. They run maintenance ‘pop-up workshops’ at Cranfield University. Cycle Saviours sell reconditioned bicycles, and repair used bicycles for sale. In October 2024, Cycle Saviours held bicycle sales at Stafford Cripps which sold out. A total of 22 reconditioned bicycles were sold to new students. All students that attended were advised on road safety for cycling and walking, particularly at night. Each student that attended was given a high visibility reflective vest and a leaflet about cycling at the university. All bicycles are registered university’s registration scheme. There have been 6 repair sessions from September 2024 – July 2025. More than 150 bicycles were repaired. The team consists of two qualified mechanics and two apprentices.

EV car salary sacrifices scheme and cycle to work scheme

An EV salary sacrifice scheme and a cycle to work scheme have continued to be available to all staff and are available to staff via the Vivup employee benefits portal. This offers the opportunity to purchase a new electric car or bicycle at a discounted price.

EV car charging points

There are currently two rapid 50kW charging points provided by BP Pulse on campus. Funding is still being sought to install 40 slower 7kW and 22 kW charging points across the Cranfield campus over the next couple of years. These would mainly provide charging for staff and students, but the 22 kW would also be suitable for visitors.

Road traffic calming measures

In 2024, Central Bedfordshire council commenced the building of road traffic calming measures along college road. This includes the installation of speed humps and new pedestrian crossings. This will make the journey to campus safer for cyclists and pedestrians. The road works were completed in winter 2024.

Table of SDG KPIs relating to Sustainable Transport

The SDG indicators below are taken for the Times Higher Education (THE) Awards criteria. The measures are what the university is doing to meet that indicator.

THE	Indicator	Measures	Comments
11.4.1	Sustainable commuting target	Travel plan and surveys; Target reduce single occupancy car commuting to 50% by 2030	Assuming working from home counts as avoided journeys then this target is already met
11.4.2	Sustainable commuting promotion	Support for local bus service, cycling repair workshops, membership of liftshare	The University has a budget which helps to subsidise bus travel and support cycling and car share
11.4.3	Allow remote working	University allows up to three days/week working from home	This has had a big impact on the daily commuting figures
11.4.6	Pedestrian priority on campus	Zebra crossings at all key crossing points	Traffic calming measures have been introduced.

Above: Table of SDG (Sustainable Development Goals) KPIs relating to Sustainable Transport

Green Spaces and Biodiversity

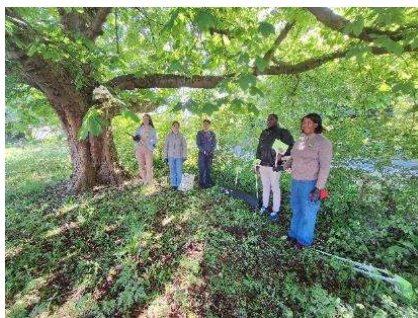
Net environmental gain including biodiversity to be increased **by 20%** to maximise potential on site



The Cranfield campus is a wildlife rich setting, providing opportunities for students, staff and visitors, to enjoy the benefits of experiencing biodiversity. As a landowner and a centre of learning the University has a responsibility to conserve protected species and 'practise what we teach'. A baseline habitat condition assessment of both Cranfield campus and University owned land at Silsoe was completed in June 2025. This will form the basis of the Biodiversity Net Gain strategy and updated action plan. Areas have already been targeted for biodiversity actions such as the Chicheley brook, woodland and several grassland areas. The total biodiversity action areas cover over 9 ha or 10% of the Cranfield Campus .

Hedgehog Friendly Campus

During June 2025 Cranfield University has been awarded the prestigious Platinum level accreditation from the British Hedgehog Preservation Society, recognising its ongoing commitment to protecting hedgehogs and enhancing biodiversity across its campus. This was following the successful submission of the project case study. During the winter months, staff, student and local community volunteers helped enhance natural shelter and habitats by creating leaf piles, planting hedgerows, dead hedging in woodland areas, and by removing litter from key wildlife zones. These simple, low-intervention steps make a significant difference for hedgehogs and other small mammals. Students were also engaged with hedgehog focused workshops and talks. Student volunteers carried out hedgehog footprint surveys on campus. These surveys provide useful data on the presence of hedgehogs.



Above: photo of students supporting the hedgehog survey during May 2025, Hedgehog Friendly Campus Platinum award, staff and student volunteers taking part in dead hedge building during February 2025.

College Wood

The University in partnership with Forest of Marston Vale and funding from the Trees for Climate program is establishing a new woodland on the farm in Silsoe. The new woodland is possibly the largest planting in Bedfordshire in recent times. Over 60,000 trees were planted this year and a similar number will be planted next year. The woodland will cover over 90 ha but within it will have glades and openings providing 33 ha of open space. Three types of planting groups will be accommodated within the woodland as part of a research project which will look at carbon capture, timber quality whilst introducing European stock along with native trees for comparison. The planting will make a significant contribution to the Net Zero Carbon target for the University.



Above left to right: Gareth Ellis and John Street planting the first trees on University land in Silsoe.

Bee hives

The Grounds contractor Nurture Landscapes continue to maintain bee hives on site. During Green Week November 2024, a popular honey harvesting event was carried out. In December 2024, the Energy & Environment team sold remaining honey, at the universities Christmas fair, and raised over £600 for Charity. Early in 2025 Cranfield University hives lost 75% of our bee population. This is following a national trend for stock loss, due to unusually low temperatures in March and April. In June the beekeeper retired. There are now 4 healthy, busy hives.



Above (left to right): photo of bee hive used during the honey harvesting demonstration, Nurture removing wax from a hive frame.

Hedgerow and tree planting January-April 2025

Earlier this year, Cranfield worked with the Forest of Marston Vale to plant new hedgerows across campus. The hedge planting event started in February, and ran until April 2025. In total, over 680 metres of hedgerow were added, with help from more than 100 volunteers. The hedgerows were planted along the MUEAVI road (near DARTeC) and in a field south of the airfield. Further planting and maintenance are planned for November 2025.



Above: Photos of volunteers planting hedgerows with Forest of Marston Vale during February 2025

Table of SDG KPIs relating to green spaces and biodiversity

The SDG indicators below are taken for the Times Higher Education (THE) Awards criteria. The measures are what the university is doing to meet that indicator.

THE	Indicator	Measures	Comments
14.4.1	Water discharge guidelines & standards	The water treatment works has a discharge consent	Pollution monitoring of the main watercourse through campus is being developed
14.4.2	Minimisation of plastic plan	Single use plastics promotion	Waste Code of Practice
14.5.1	Minimising alteration of aquatic ecosystems	The main watercourse through campus is managed to enhance biodiversity as part of grounds maintenance	
14.5.2	Monitoring the health of aquatic ecosystems	Pollution monitoring of the main watercourse through campus	This continues to be developed
15.2.1	Events about sustainable use of land	Regular wildlife walks around campus	
15.2.2	Sustainably farmed food on campus	Sustainable Food and Beverage Policy. Vegetable and fruit production in sustainability garden	Garden only for demonstration and community engagement
15.2.3	Maintain and extend current ecosystems biodiversity	Target for 20% net environmental gain including biodiversity for new developments; Biodiversity Action Plan	Biodiversity Action Plan is being updated as part of a BNG strategy
15.3.1	Sustainable use, conservation, and restoration of land policy	This is covered in the Biodiversity Action Plan	Biodiversity Action Plan is being updated
15.3.2	Monitoring endangered species	This is covered in the Biodiversity Action Plan	Biodiversity Action Plan is being updated
15.3.3	Local biodiversity included in planning and development	Target for 20% net environmental gain including biodiversity for new developments	Baseline habitat condition assessment underway
15.3.4	Alien species impact reduction policy	This needs to be included in the Biodiversity Action Plan	Biodiversity Action Plan needs updating
15.4.1	Water discharge guidelines and standards	The water treatment works has a discharge consent	Pollution monitoring of watercourse being developed
15.4.2	Minimisation of plastic policy	Single use plastics promotion	Waste code of practice
15.4.3	Hazardous waste disposal policy	Procedures in place handling and disposal of hazardous waste	Hazardous waste procedure

Above: Table of SDG (Sustainable Development Goals) KPIs relating to green spaces and biodiversity

Climate Adaptation



The Environmental Target for Climate Adaptation has now been delivered. The strategy is due for a review and an update with a detailed plan to follow. The plan should detail actions to take going forward for flood risk mitigation, overheating of buildings and other climate related risks. The plan will be produced in 2026.

Pollution Monitoring and Control



Cranfield Urban Observatory, with its campus-wide sensor network, is a key component of the Living Laboratory and facilitates research projects, securing links between the expertise, facilities and overall capabilities of our unique campus. As part of this, air, water, and soil sensors have been deployed across the Cranfield campus with the capability of monitoring a wide range of potential pollutants. The urban observatory network is due for a review and a plan of action going forward.

Community Involvement

2024-2025 was a good year for staff, student and local community engagement. Last year's Green Team were awarded with an end of year celebration event where 32 students were given a certificate before departing from campus. This tradition was carried over from the 2023-2024 Green Team. The first 'Nature explorers' club was hosted in the Sustainability Garden and in the Miyawaki forest which engaged families and their children living on campus in learning/nature themed activities. As the new students arrived, they were engaged with a Green Team introduction meeting, followed by a Green Week which took place November 2024 and included a Honey Harvest demonstration, a talk on 'The Biodiversity crises', an update on 'Our Carbon Journey', a litter picking event, an exhibit from Central Bedfordshire Council Sustainability Team, and a wildlife conservation event at Emberton Park. The student Green Team self-led an energy, waste and recycling check-up for some halls of residence blocks and suggested improvements. This was followed by self-led campus building surveys in the new year, with eight buildings checked for improvements to waste and energy efficiency.

The University worked in partnership with Forest of Marston Vale to set up tree and hedge planting events which took place at the Silsoe site and on campus. The Silsoe event took place in February 2025 and engaged the wider Forest of Marston Vale network including public and local community volunteers as well as University staff and students. Due to the scale of this planting site, an additional planting event is likely to take place during 2026. Forest of Marston Vale returned to campus to plant hedgerows on campus which engaged staff, students, Tech Park Tenants and volunteers from Cranfield Village and the Forest of Marston Vale network. The hedge planting is due to continue November 2025.

As well as Forest of Marston Vale, we also worked with Central Bedfordshire Council to host a 'Road Safety' exhibit during October 2025, and an exhibit from the 'Sustainability' team during Green Week 2024. Nurture also organised a popular wreath making session using all-natural ingredients in time for the Christmas season. We worked again in collaboration with Hedgehog Friendly Campus with an aim to achieve Platinum status- which was a step-up from our Gold accreditation. The activities around this were community centred which including webinars and a workshop for staff and students, and practical volunteering including litter picking, dead hedge building in the woodland, and a repeat of the footprint tunnel surveys which took place in May 2025 and again in June 2025.

More Energy and Water Champions were engaged with via the new staff Hub, social media and a dedicated MS Teams channel. A new compulsory Environmental Awareness CUTE training

module was also created and released to all staff. Awareness on energy and water saving was spread via social media and internal messaging. Ongoing Sustainability Garden Volunteering and Wildlife Walks also took place engaging the local community living on campus as well as staff and students. We also took part in a Miyawaki (Tiny Forest) citizen science event, which marked the two-year anniversary of the Tiny Forest being planted.

The student Green Team organised regular meetings and get togethers to discuss ways to improve sustainability on campus. They produced awareness raising materials such as posters, and participated in a video for raising awareness of the importance of recycling titled the 'The three R's project' for reduce, reuse and recycle. They also led the Cranfield Nature Photography contest in collaboration with the Photography Society- the submitted photos were shared on Instagram.



Above: Tiny Forest surveys marking the two-year anniversary; Emberton Park conservation event group photo.

Total event engagement: 1009 staff, students and local community

Top events:

- Central Bedfordshire Council's Road safety Awareness exhibit October 2024
- Wreath Making workshop December 2024
- Honey Harvesting November 2024
- On campus hedge planting February – April 2025
- Sustainability Garden Volunteering events
- Green Team introduction meeting and end of year social
- Energy and Water Champions introduction meeting November 2024
- Student Nature photography contest June 2025
- Hedgehog Friendly Campus workshop and webinars
- Emberton Park Conservation events

Communications

There have been regular communications through social media and internally on the staff Hub and MyCranfield student app.

Social media followers	Followers
Instagram	1103
Facebook	487
X	908

Above: Tables showing summary of staff and student engagement on social media

Notes

1. **Dates:** Baseline and target years refers to the financial/academic year August to July (for example, for the Carbon target, the baseline year for carbon reporting is financial year 2005/2006 and the net zero target is to be achieved in academic year 2030/2031).
2. **Scope:** Tenants are included where it is not possible to distinguish between what is and is not a direct impact to the University as opposed to an impact of others operating on site. Examples include waste, car travel, some aspects of energy and water consumption and sewage discharges. As measurements and monitoring on site improve, this may become easier to distinguish. Additionally, the University is providing utility and other services to tenants and is in a position as landlord and service provider to influence their behaviour and assist in the reduction of their environmental impacts, whilst at the same time having an interest in minimising the risks to the University. The converse applies to the University's presence at Shrivenham. Here the University occupies space on a MOD site. For many of the targets it is not possible or appropriate to include this space as there is no operational control by the University (it is managed by MOD) and no data.
3. **Base Year Recalculation Policy:** Cranfield University will ensure that its greenhouse gas reporting is up to date, accurate and consistent with current Government guidance. In particular, when there are structural changes that have a significant effect on the baseline and the reported progress towards targets, the baseline and, if necessary, data for years in between will be recalculated.
Base year recalculation: It is important that progress is measured on a like for like basis. This means that any changes in calculation methodologies are applied to the previous figures as well as current figures.
Structural changes may include: mergers, acquisitions, and divestments; outsourcing and insourcing of relevant activities; changes in calculation methods or improvements in the accuracy of factors, such as emission, factors, or activity data that result in a significant impact on the base year figures; discovery of significant errors, or a number of cumulative errors that is collectively significant. The recalculation will be triggered and reported if the structural changes would result in a change of greater than 2% in the total baseline figure. At the same time any errors in the current year reporting greater than 2% will be amended and relevant reports updated, or notes attached explaining amendments.
4. **Changes to data:** Our carbon footprint is recalculated each year for all years in order to account for errors, changes to the scope and material changes to the conversion factors provided by DEFRA for company reporting purposes. They may not therefore compare directly with previous figures reported in the University Financial Statement. See also our baseline recalculation policy above. Note the figures exclude emissions for tenants on Cranfield Campus, Silsoe Campus, COTEC where these can be separately identified. University subsidiary companies are included. The same principle will apply to data for other targets.
5. **Water consumption and discharges figures:** These are for Cranfield Campus, including tenants. COTEC is included. Shrivenham data is not included. Discharges are taken as the average of the three consent targets.
6. **Waste figures:** These are for Cranfield Campus and include some, if not all, tenant waste. Note the key performance indicator for recycling is waste segregated on site. However, the waste contractor further segregates waste at their depot. This elevates the overall recycling performance, and it is this figure, which is reported in the HESA Estates Management Reporting.
7. **Academic expertise:** Wherever possible, the University is making use of its academic expertise and facilities to enhance its response to environmental improvement. The estate is also offering opportunities for research and teaching. Examples of this include audits carried out by students and the University laboratories to analyse local discharges. The new CHP unit is regularly use as a real life demonstration for teaching.
8. **Name:** The Energy and Environment Committee was previously known as the Board for Energy and Environment (BEE).

Glossary

AIRC Aerospace Integration Research Centre; EEC Energy and Environment Committee; BOD Biochemical Oxygen Demand; BREEAM Building Research Establishment Environment Assessment Method; CHP Combined Heat and Power; COTEC Cranfield Ordnance Test and Evaluation Centre; CRC Carbon Reduction Commitment; DEFRA Department for Environmental Food, and Rural Affairs; EA Environment Agency; EAUC the Environmental Association for Universities and Colleges; GIS Geographical Information System; HESA Higher Education Statistics Agency; IMEC Intelligent Mobility Engineering Centre; LED Light Emitting Diode; MOD Ministry of Defence; OU Open University; PV Photovoltaic; SECR Streamlined Energy & Carbon Reporting, SHE Safety Health and Environment; SHEF Safety Health Environment and Fire; SUDS Sustainable Urban Drainage System.

Energy and Environment Committee

Members in 2024-2025

- Ian Sibbald, Director of Finance
- John Street, Director of Facilities
- Phil Longhurst, Professor and Director of Automotive, Energy & Photonics
- Gareth Ellis, Head of Energy and Environment
- Ginny Ford, Environment Advisor
- Ceri Dawson, Energy Advisor
- Qalafa Fatima, Student Representative
- Geoff Say, Director of Finance and Operations CDS
- Stewart Elsmore, Director of Campus Services
- Rosina Watson, Head of Sustainable Business Group & Associate Professor of Sustainability
- Becky Wishart, Environment Officer

Further information

For further information, please visit our environmental pages on the University Website:
<https://www.cranfield.ac.uk/about/our-sustainable-university>

If you have any questions on any other topics outlined within this report or would like to provide us with any feedback, please contact the Energy and Environment Team at green@cranfield.ac.uk.