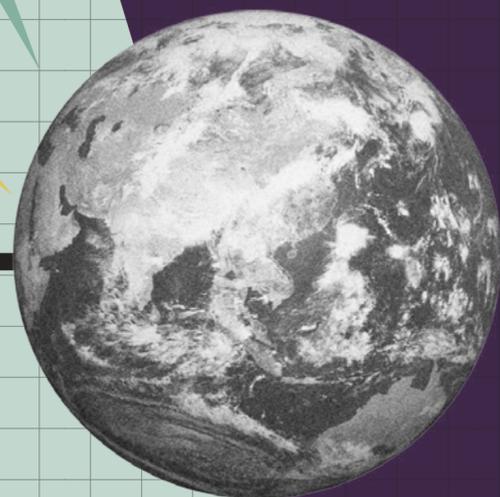


**University of Cambridge**

# **Environmental Sustainability Report 2019/20**



# Welcome to this year's Environmental Sustainability Report

Introduction	02
Foreword from the Vice Chancellor	03
Materiality	03
Stakeholder engagement	03
The impact of COVID-19	04
Divestment decision	04
Progress table	05
Carbon and energy	07
Recycling and waste	10
Biodiversity	12
Sustainable food	14
Water	16
Sustainable procurement	17
Travel and transport	19
Sustainable construction and refurbishment	21
Partnership and engagement	23
Teaching and research	26
Statement from Head of Sustainability	29
Rise to the Cambridge Green Challenge	29
The accuracy of our data	30
Sustainability as a core value	30
Governance	30
Key Performance Indicators	31



This report covers the period 1 August 2019 to 31 July 2020 – and it has been an eventful year for many reasons. In the months to March 2020, we were making great progress in many areas of environmental sustainability, with plans coming together to do even more. However, with the onset of COVID-19, everything understandably changed. Staff and students left to work and study from home, plans stalled, initiatives paused. But we soon adjusted to a new normal and remote working, virtual events and online activities became the order of the day.

In this report we look at what has happened, the opportunities and challenges presented, and the successes we have achieved – as well as the areas where we need to do more. There’s also a whole host of projects that happened before March 2020, which generated great results.

Throughout this report, we also identify where we are contributing to the United Nation’s Sustainable Development Goals. The 17 interconnected goals are a universal agenda for ‘people, planet and prosperity’ and are helping to shape our next sustainability strategy.

The Key Performance Indicators (KPIs) included in this report (page 31) and the data used to measure progress against our targets (page 5 and 6) have been independently assured by

PricewaterhouseCoopers LLP (PwC). Data subject to independent limited assurance is highlighted via the symbol  $\diamond$  in the KPI table and a link to the assurance opinion can be found on page 30. Some of the data provided in this report have not been included in the assurance process this year – these exceptions are flagged in the relevant sections of the report.

Just after this reporting period, the University of Cambridge took the momentous decision to divest from all fossil fuels. We’ve included a summary in this report and you can read more about it on page 4. It’s also been the first full year of activity for Cambridge Zero, our flagship climate change initiative, with updates on its achievements and activities within this report.

The scope of this report does not cover the 31 Colleges, which are independent and autonomous institutions, or our associated businesses although we work in partnership with them on a number of matters and do highlight a small number of examples in this report.

# Foreword



In a year during which our work has been largely shaped by COVID-19, I want to start by thanking our staff and students who have been contributing to sustainability in a myriad of ways and in challenging circumstances. It is incredibly promising to see the progress we have made on our commitment to environmental sustainability. The ability of everyone involved to rally and find new and creative ways to carry on with their work has been a source of real pride for the University. Cambridge Zero, our bold response to climate change, has had a tremendously productive year, helping to place the University of Cambridge at the heart of national and international efforts to advance climate change solutions.

In 2020, we also took the significant decision to divest from all direct and indirect investments in fossil fuels by 2030, ten years sooner than the UK Government’s target. This builds on our Science Based Target and positions the University of Cambridge as a national and global leader in tackling the climate emergency.

Our approach to sustainability is being constantly strengthened by our actions and commitments. There is uncertainty in our sector, and for our University, from external factors such as COVID-19 and Brexit, but environmental sustainability remains a firm commitment and we will continue our work to achieve it. This report provides an overview of our progress and successes this year. I look forward to the next bold steps towards our sustainable future.

**Professor Stephen J Toope, Vice-Chancellor**

## Materiality

Material environmental sustainability issues are those that are of most importance and significance to the University and to our stakeholders. When we developed our **Environmental Sustainability Vision, Policy and Strategy** back in 2014, materiality was a key consideration. We engaged with our staff and students – our largest stakeholder group – to discover what was important to them and considered the risks and opportunities of these. From this work, we identified nine environmental sustainability impact areas as material. These nine areas form the focus of our **Environmental Sustainability Vision, Policy and Strategy**, and we report our progress against each of these on an annual basis. When we develop our next Sustainability Strategy we will reassess materiality to ensure our priorities reflect any changes – both at the University and externally – and remain relevant and fit for the future.

## Stakeholder engagement

Environmental sustainability does not just fall to one department at the University of Cambridge. Although the Sustainability Team leads on much of this work, there are initiatives, projects, research and commitments right across our Departments, Facilities and Institutes.

In compiling this report we engaged across the University to get a full picture of sustainability at Cambridge. We hope we’ve provided good representation of this in the following pages, but if you are working on a sustainability project that hasn’t been covered, please get in touch so that we can highlight your achievements in our future reporting.

**The impact of COVID-19**

This year’s report is, understandably, shaped by a global pandemic and the impact it has had on our University, staff and students. With a University – and national – lockdown, data in areas such as carbon, waste and travel has been impacted and will prevent a smooth trend from last year to next. This is something we could not have predicted, but we can still present transparent data with an explanation for the reasons behind it.

Although the impact of COVID-19 will have its influence for years to come, it doesn’t all have to be negative. A new way of working forced everyone to think differently and come up with solutions in new ways. We moved many events and projects online, but attendance – albeit virtual – remained high. From Dr Bike workshops to our **Engage for Change** programme, we continued to deliver

educational and inspirational sessions for staff and students. Our new ways of working have also brought some environmental benefits, most notably a decline in travel to and for work, and associated carbon emissions and air pollution. As we work towards our ‘new normal’, we will be considering how we can sustain some of the benefits over the longer term.

The Cambridge Zero Policy Forum has also taken the opportunity to examine how we can build back greener with a new report: **A Blueprint for a Green Future**. As we deal with a pandemic, we also need to consider how we prioritise economic and societal recovery. The UK can emerge stronger and more resilient, but we must also respond to the threats posed by growing social inequality, the destruction of nature, and climate change.



**Endowment Fund announces alignment with wider University net zero goal**

In October 2020 – just after the reporting period covered by this report – the University of Cambridge made the significant decision to **divest from all meaningful direct and indirect investments in fossil fuels by 2030**. This is a key part of its ambition to cut its greenhouse gas emissions to zero by 2038, more than a decade before the date set by the UK Government. This move positions the University’s Endowment Fund as a national and global leader in sustainable finance.

Although falling outside the time of this report it is such an important and far-reaching decision for sustainability that we are including an overview of the decision and its consequences.

The divestment decision does not apply to the 31 Colleges, which are independent and autonomous institutions from the University of Cambridge and each other.

**The £3.5 billion Cambridge University Endowment Fund announced significant new sustainable investment ambitions including:**

- withdrawing investments with conventional energy-focused public equity managers by December 2020;
- building up significant investments in renewable energy by 2025;
- divesting from all meaningful exposure in fossil fuels by 2030; and
- aiming for net zero greenhouse gas emissions across its entire investment portfolio by 2038, in line with the broader targets of the University.

Achieving net zero will require collaboration. Working together, the Investment Office, Cambridge Zero and the **Cambridge Institute for Sustainability Leadership (CISL)**, and others will be able to provide external fund managers with access to high-quality research and advice on sustainable finance.



**zero**

£

**“The University is responding comprehensively to a pressing environmental and moral need for action with an historic announcement that demonstrates our determination to seek solutions to the climate crisis. We will approach with renewed confidence our collaborations with government, industry and research partners around the world as together we work for a zero-carbon future.”**

Professor Stephen J Toope, Vice-Chancellor

# Progress to date



**We have achieved our target**



**We are making good progress**



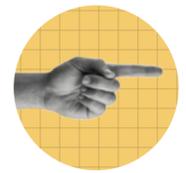
**We can do better and have a plan**

Impact area	Target	Position 19/20	Current Progress 19/20
<b>Energy and Carbon</b>	To reduce total scope 1 and 2 carbon emissions to absolute zero by 2048, with an aspiration to achieve this by 2038		Our total scope 1 and 2 emissions (tCO <sub>2</sub> e) fell again this year, by another 7%. We remain on track to achieve our Science Based Target.
<b>Water</b>	To reduce water consumption by 20% by 2020/21 against a 2005/06 baseline		Our water consumption fell this year, to more or less the same level as during our target baseline year. The pandemic lockdown was a key factor in reducing our consumption this year and we still have a lot of work to do bring our water use down in line with our target.
<b>Biodiversity and ecosystems</b>	In the expert opinion of the Ecological Advisory Panel, that no construction, refurbishment or maintenance work on the estate has a net negative impact on biodiversity and that, where possible, the impact is net positive		The University's first <b>Biodiversity Action Plan</b> was agreed by University Council; and the Ecological Advisory Panel approved the <b>Cambridge Biodiversity Metric</b> .
<b>Waste</b>	To send zero non-hazardous waste to landfill by 2020/21		For the fourth consecutive year, disposal to landfill has dropped, with the latest total of 72 tonnes being the lowest on record for the University, making up just 1.2% of the University's total waste disposals. The majority of waste sent to landfill is from construction projects; most of our operational waste is now diverted from landfill.
<b>Waste</b>	To achieve continuous year-on-year reductions in waste arising per FTE staff and student		Waste per FTE increased slightly to 0.2 tonnes this year compared to 0.15 last year, it is below average compared to the long term trend. While construction waste outputs increased, operational waste decreased to their lowest for the last 5 years, largely due to big reductions in waste outputs under lockdown.
<b>Waste</b>	To recycle at least 95% of total waste produced at the University by 2016/17		Recycling rates were 73%. That's a big increase on last year's rate of 54% but, as we've seen over previous years, this figure has been strongly influenced by the amount of construction waste the University generated, with treatment of 'operational' waste (from existing University buildings) seeing a fairly small increase in recycling rates from 31% to 33%.

# Progress to date



**We have achieved our target**



**We are making good progress**



**We can do better and have a plan**

Impact area	Target	Position 19/20	Current Progress 19/20
<b>Sustainable procurement</b>	That central University procurement frameworks are more attractive financially, more environmentally friendly and faster than other routes and, therefore, more institutions use them		Following the <b>Strategic Procurement Review</b> we have committed to obtaining the international standard in sustainable procurement, ISO20400.
<b>Sustainable procurement</b>	To achieve at least level 4 'Enhance' across all themes of the Sustainable Procurement Flexible Framework by December 2015		We are no longer reporting against the Flexible Framework as we have changed our approach to work towards gaining the international standard in sustainable procurement, ISO20400.
<b>Sustainable procurement</b>	For institutions to consider sustainability criteria within their procurement activity		The Strategic Procurement and Purchasing Project will put sustainability at the heart of all procurement activity.
<b>Sustainable construction and refurbishment</b>	To establish and implement a standard for sustainable construction at the University of Cambridge that is context specific and is considered a leading approach in comparison to our peers		Version 3.1 of the Design & Standards Brief has been used to shape design proposals developed during the year. Feedback on completed projects such as the new Civil Engineering Building indicates clear improvements in environmental performance and will inform Version 4, due to be implemented in 2020-21.
<b>Travel and transport</b>	At least 75% of staff to be regularly commuting to work by sustainable modes of travel by 2024		The staff travel survey conducted in October 2019 showed that 69% of staff travel to work via sustainable modes. There is still progress to be made in implementing the <b>Transport Strategy</b> . Aims and Commitments to reach the target of 75% include progressing the staff car parking policy, whilst improving the 'offer' around more sustainable modes and promoting these choices widely.
<b>Travel and transport</b>	To reduce per capita carbon emissions from business flights by 25% against 2014/15 levels by 2024/25		This year, per capita emissions were 27% lower than in 2014/15, but this is due to the impact of the COVID-19 pandemic rather than our progress in reducing emissions.

# Carbon and energy



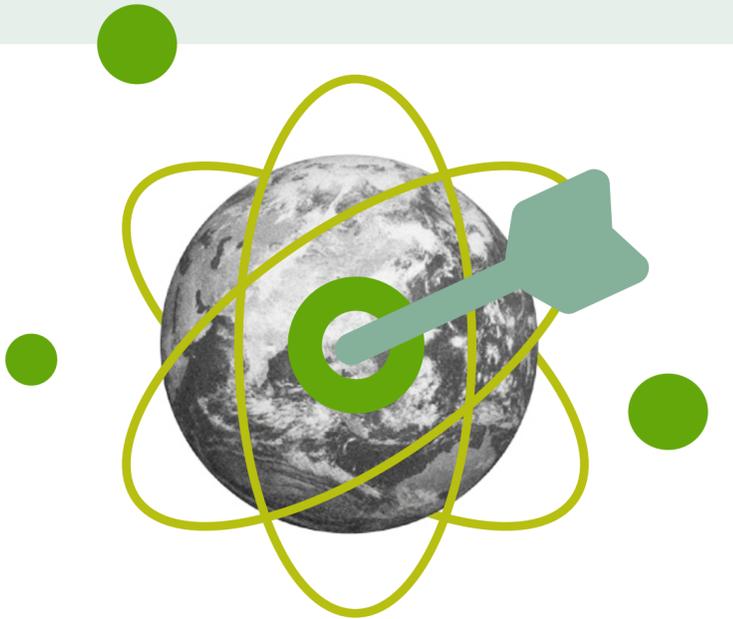
## Understanding our energy use

In March, due to the global outbreak of COVID-19, the University closed all ‘non-essential’ buildings and instigated a work from home scheme for most employees. Our analysis across the estate during lockdown showed that, overall, our electricity use dropped by around 30%. However, it also showed that energy consumption in many research-focussed buildings remained more or less the same, as their consumption is mainly driven by the equipment and systems needed to support research, even when the buildings are not occupied. Consumption in our administrative buildings dropped significantly – in some cases by up to 60% – as occupancy rates fell sharply.

During this year, we also opened two new biomedical buildings – Anne McLaren and Jeffrey Cheah Biomedical Centre. The electricity consumption in these is very significant and has partially offset the reduction in our total electricity consumption that we have seen due to lockdown. In a normal year, these buildings would have significantly increased our overall energy use as they became operational.

## Developing our Science Based Targets

Last year, we adopted a **Science Based Target (SBT)** for the University’s academic estate. Our goal for this year was to develop SBTs for the North West Cambridge Development, Cambridge University Press and Cambridge Assessment. These were all completed and are now being reviewed and approved. We also developed a tool for the 31 Cambridge Colleges to develop their own SBTs. All Colleges have been trained on using this tool and are in the process of setting their targets.



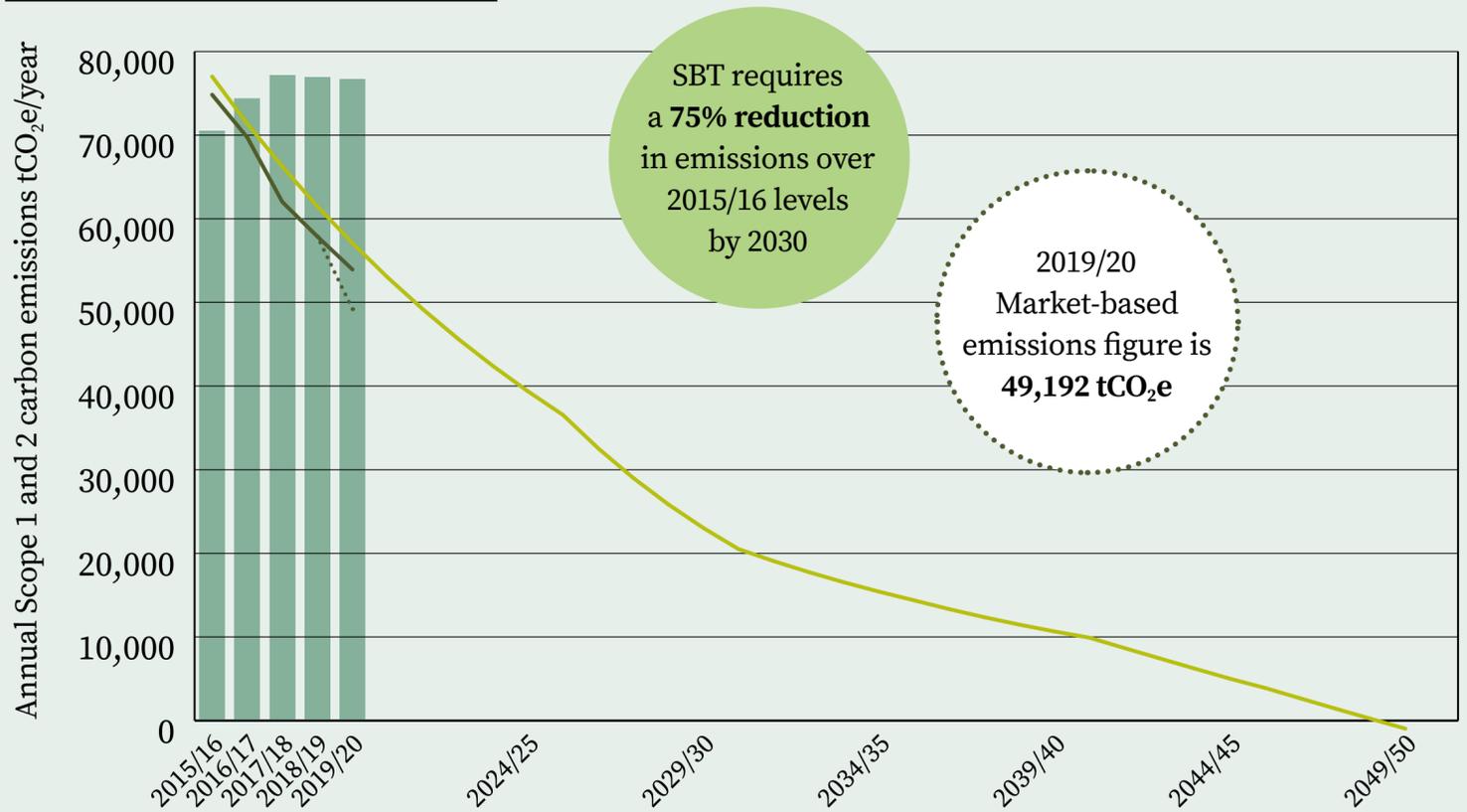
**Renewable energy**

This year, we generated only 0.29% of the electricity we consumed from on-site renewables<sup>1</sup>. We need to significantly increase this percentage, and we are continuing with feasibility and planning work to develop a solar farm of up to 22MW on University-owned land. This would provide up to 19% of the University's electricity demand (based on 2019 consumption levels).

Following the implementation of our first Power Purchase Agreement (PPA) in late-2019, around 15% of our 2019/20 electricity demand was met through purchased renewable energy. For this PPA, our energy is coming from UK wind farms and, as the PPA meets the Greenhouse Gas Protocol's

8 quality criteria for reporting Market-based emissions, it results in a genuine carbon reduction in 2019/20 (reflected in our Market-based emissions figure for 2019/20 – see the diagram below). However, for reasons that are explained in our **Methodology Statement**, we have not been able to seek assurance of our Market-based emissions figure this year. Therefore the emissions figure used to track progress against our SBT this year has been calculated without taking the impact of the PPA into account. This is known as the Location-based emissions figure. Our Location-based emissions figure for 2019/20 has been independently assured as part of the total scope 1 and 2 figures presented in the KPI table on **page 31**.

**Total scope 1 & 2 and carbon emissions (tCO<sub>2</sub>e)/year against our Science Based Target**



**Removal of the Display Energy Certificate KPI**

In compiling this report, we have decided to no longer calculate the KPI we have included in previous reports, on the number of University buildings with a Display Energy Certificate (DEC) rating of 'D' and above. This is because we believe the methodology that is used to calculate DEC ratings (a national methodology prescribed by Government) is not applicable to many University buildings. It does not take account of the impact on a building's energy use of plug-in research equipment, which – as our analysis cited above has shown – is a key driver for energy use in many of our buildings. We will develop a more appropriate measure of the energy performance of our buildings over the coming years.

**Reducing gas across our estate**

A continuing commitment is to reduce the use of gas across our estate. This year, we commissioned a high-level feasibility study into the options available to significantly reduce our use of gas. In July 2020, the University Council approved a four-pronged approach to degasification of the estate.

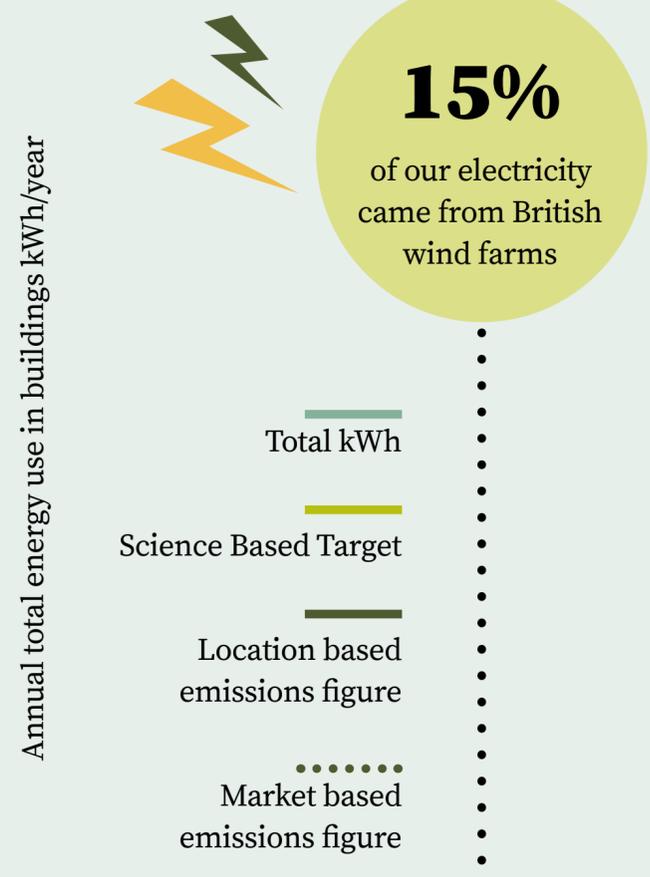
**Prong 1:** prioritising specific buildings and sites for investment in degasification. The study identified certain sites as priorities – namely Sidgwick, West Cambridge and New Museums site. The study also identified some specific buildings for prioritisation. This prioritisation exercise is an ongoing and interactive process.

**Prong 2:** robust planning for degasification. We have already commissioned consultancy support to develop low carbon heating options for the New Museums Site, and will undertake detailed feasibility and design work at the Sidgwick Site.

**Prong 3:** pathfinder projects. The idea here is that we carry out degasification of a relatively small number of buildings over the next couple of years to further our understanding of opportunities and risks and cost implications, and use this learning to refine our approach if needed.

**Prong 4:** this prong is being led by Cambridge Zero and focuses on developing proposals for securing external funding that will allow us to carry out some exemplar, site-wide refurbishment projects on a no gas basis.

These steps are in addition to our commitment to deliver our capital projects on a 'no gas' basis.



1. The figure on percentage of energy that has come from on-site renewables or low carbon sources has not been assured this year, so we have not included it as a KPI in this report. We will take steps to ensure this figure can be assured and reported as a KPI in future.

### Scope 3 emissions

The Greenhouse Gas Protocol identifies 15 different categories of scope 3 emission sources, but we currently only report emissions from four – supply chain, waste, staff commuting and business travel. Even within these categories, we are aware of limitations to our methodologies and data.

**We are undertaking a series of initiatives that will improve the data we hold on our scope 3 emissions, including:**

A full screening assessment of all 15 categories of scope 3 emissions across the University by the end of the 2020/21 academic year. This will identify the most significant emission sources and provide us with a priority list for improving our data.

An ambitious programme of work to further develop and enhance financial processes and tools. Various elements of this will support improvements in our carbon data, such as a new expenses system that will provide better data relating to business travel and our supply chain emissions.

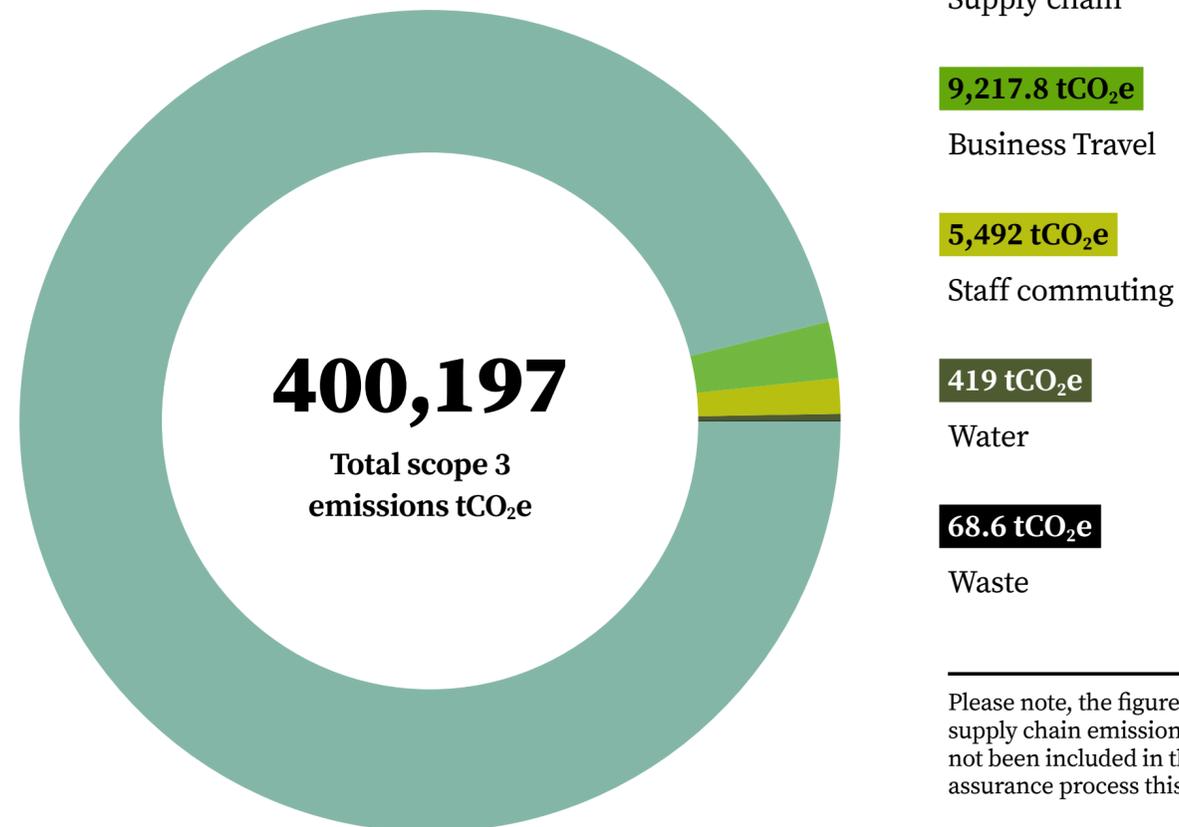
Proposals on how the carbon intensity of the University’s investment fund should be measured. This will be led by the University’s Investment Office.

In February 2020, we established a **Carbon Offsetting** Working Group (COWG) to develop a range of different offsetting measures for scope 3 emissions. The University’s long-term strategy is to achieve absolute zero for scope 1 and 2 emissions, but for scope 3 – those emissions for which we are not directly responsible – the aim is to become carbon neutral.

Although there are ‘off-the-shelf’ offsetting schemes on the market, the aim of the new COWG is to develop a scheme that is highly robust and transparent enough for the University to use. The group’s membership draws expertise from both internal and external stakeholders and its recommendations will involve a portfolio of offsetting measures, primarily to offset business flights but to be extended to cover other scope 3 sources in the future.

**Find out more here.**

### Total scope 3 and emissions (tCO<sub>2</sub>e)/year



Please note, the figure on our supply chain emissions has not been included in the data assurance process this year

### Progress



#### Target

To reduce total scope 1 and 2 carbon emissions to absolute zero by 2048, with an aspiration to achieve this by 2038.



#### Progress

Another 7% fall in our total scope 1 and 2 emissions this year, compared to last year, and we remain on track to achieve our Science Based Target.

### Looking ahead



Implement four-pronged approach to degasification, refining as we learn lessons.

Enter into further PPAs to increase proportion of our electricity that comes from renewable and sustainable sources.

Adopt SBTs for the wider University estate.

Work with and support Colleges to develop their own SBTs.

Work with Cambridge Zero to determine the environmental impacts of increased homeworking and its net impact on energy use.



# Recycling and waste



## Managing waste

Since publishing our **Waste Strategy** last year, we have been busy providing information and guidance to support the University's Departments, Facilities and Institutes to minimise and manage their waste. The Sustainability Team developed a **waste and recycling dashboard** that allows staff to see how much waste their Department is creating, trends in waste generation and recycling rates over time. The idea behind the portal is that if we understand how and where waste is created, we are better placed to address it effectively.

### A plan to eliminate plastic packaging



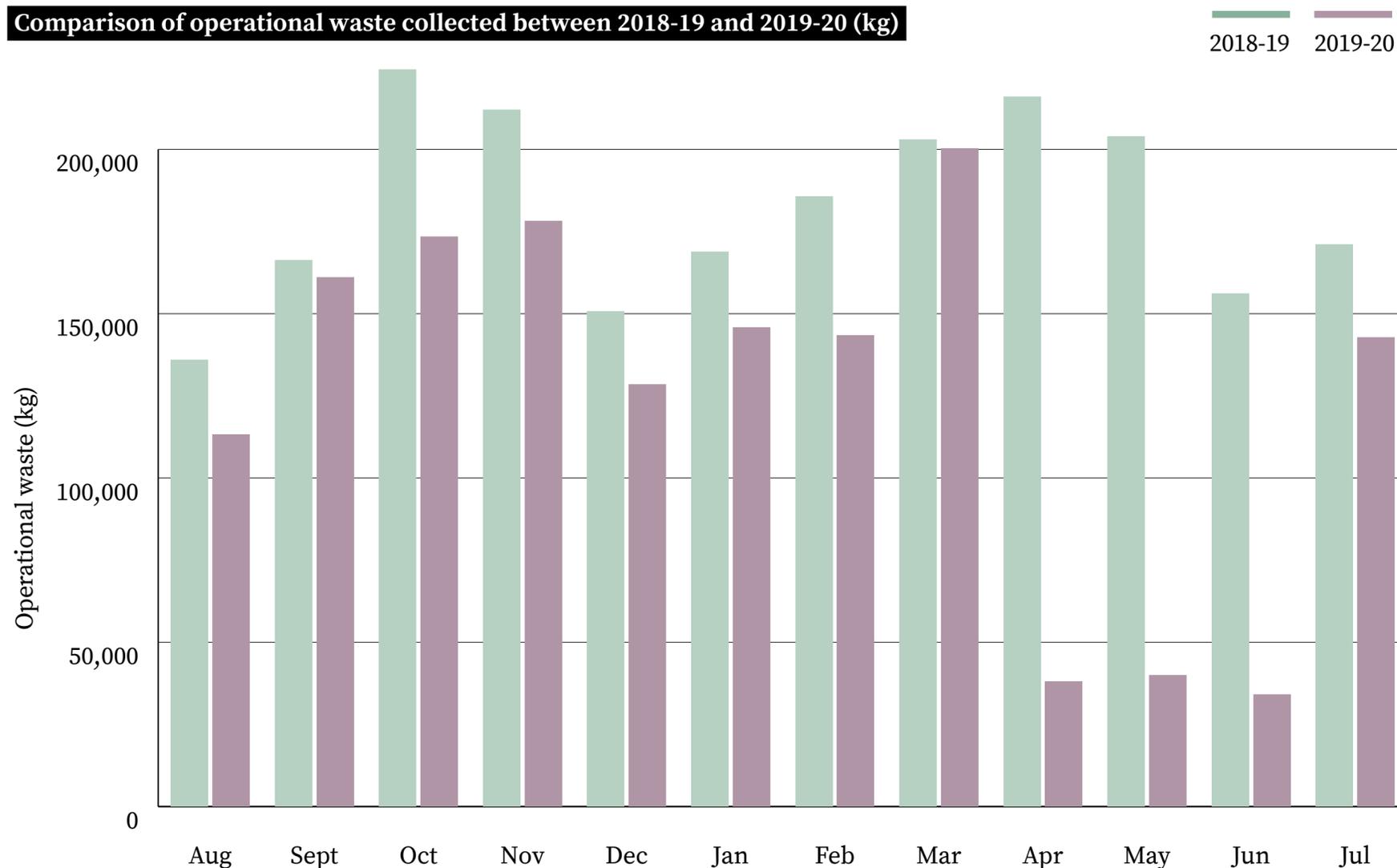
The Cambridge Institute for Sustainability Leadership (CISL) is working with **companies and stakeholders in the natural source water and soft drinks value chain** to take forward recommendations from the 2018 report: Towards sustainable packaging: A plan to eliminate plastic packaging waste from UK bottled water and soft drinks. CISL and the group are working across the value chain, government and civil society, taking a systemic approach to rethink existing business models and implement workable solutions with the greatest potential impact.

**A simple guide for waste**

After the publication of the **Waste Strategy**, we developed some simple **waste guidance** to help everyone at the University deal with waste and recycling. Drawing on best practice from across the University, this guidance is in three sections covering how to reduce waste in the first place, ways of reusing resources where possible, and how we can all do our bit to boost recycling rates.

In April, May and June there was an 81% reduction in operational waste collected due to lockdown when compared to the same months last year. Some of this will have been displaced to people's homes, which we cannot measure. Waste will inevitably rise again, but we are promoting ways of reducing waste after lockdown, such as going paperless, using refillable sanitiser dispensers and cleaning sprays and refreshing signs and location of recycling bins.

**Comparison of operational waste collected between 2018-19 and 2019-20 (kg)**



**Progress**



**Target**

Zero non-hazardous waste to landfill by 2020/21.



**Progress**

Waste to landfill dropped for the fourth year, making up just 1.2% of the University's total waste disposals.

**Target**

Continuous year-on-year waste reductions per FTE staff and student.



**Progress**

Waste per FTE increased slightly to 0.2 tonnes.

**Target**

To recycle at least 95% of total waste produced at the University by 2016/17.



**Progress**

Recycling rates increased significantly to 73%.

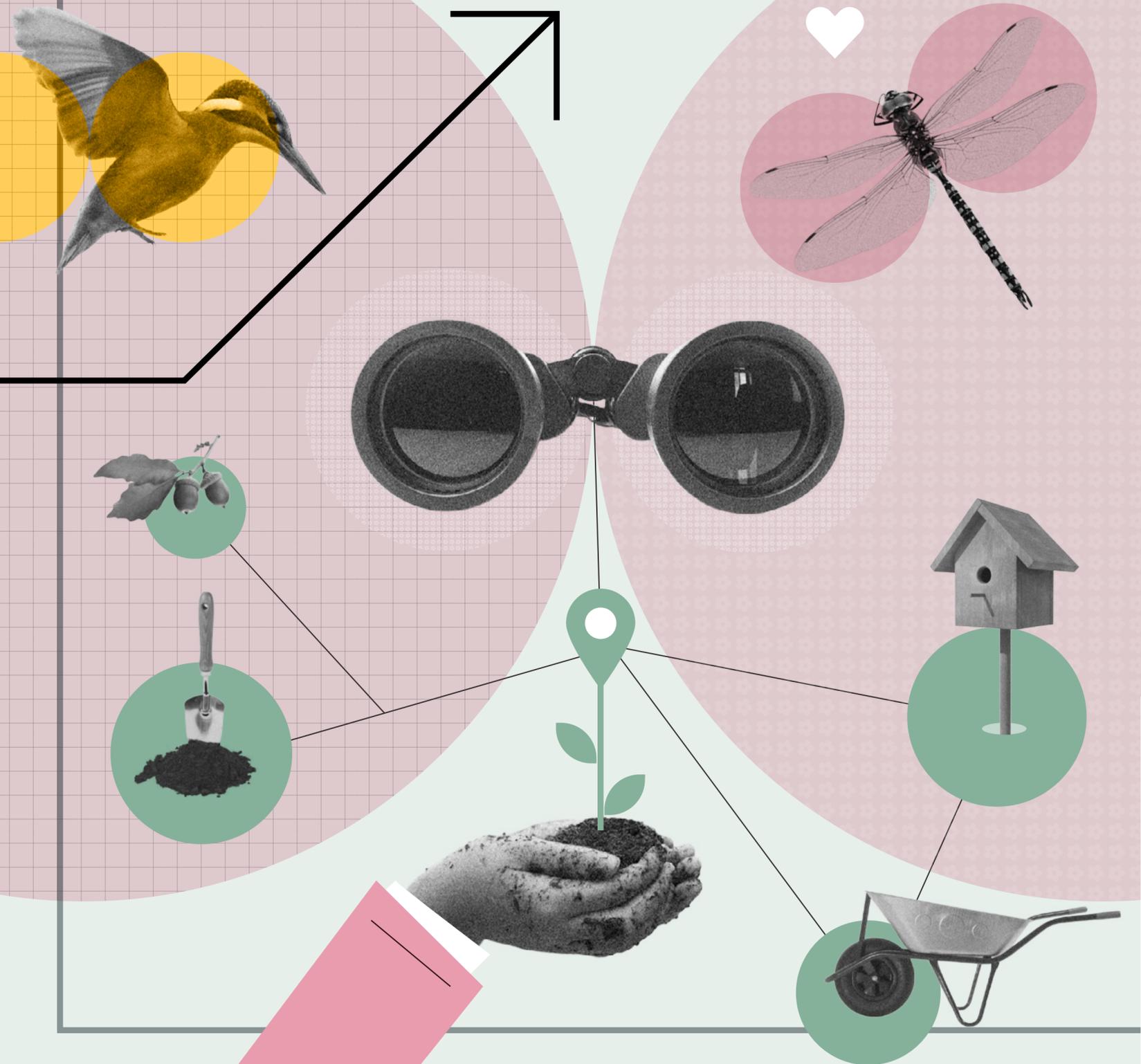
**Looking ahead**



- Run a campaign focusing on reductions in single-use items.
- Retender of the University's main waste contractor pushed back to 2020/21. This will be a key factor influencing the University's waste performance.
- Work with staff in laboratories, lab suppliers and procurement services to explore the issue of lab related disposables, the top contributor to the University's operational waste.



# Biodiversity



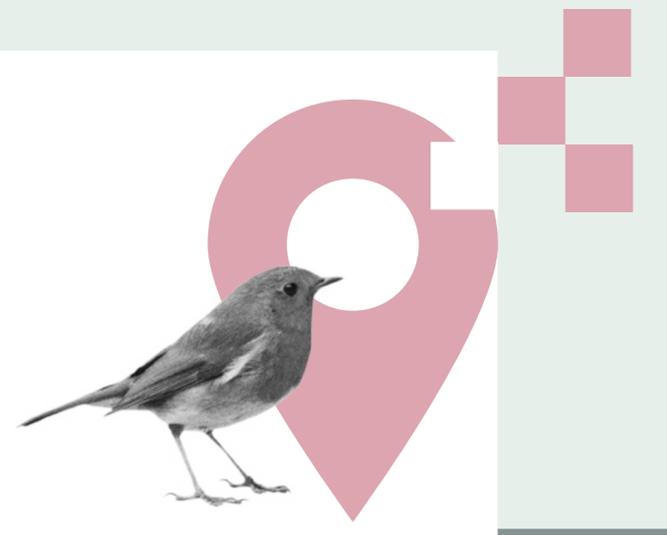
## Biodiversity Action Plan

The University of Cambridge is playing an active role in halting the local, national and international decline in biodiversity and in 2020 University Council approved our **Biodiversity Action Plan (BAP)** – the 10-year vision to deliver significant and measurable improvement across our estate.

We carried out extensive engagement with internal and stakeholders to develop the BAP, including the University Library and Botanic Garden, Cambridge Biomedical Campus and Cambridge City Council. Based on seven principles across six action areas, including woodland, wetland, built environment and farmland, our vision is to: “Deliver a significant and measurable improvement in the biodiversity of the University of Cambridge estate, and the Greater Cambridge Area more generally, in a manner that educates and inspires an appreciation of the natural environment, and that encourages interventions, research and innovation to enhance and protect biodiversity for future generations.”

## Identifying biodiversity across the estate

Biodiversity data from our **Biodiversity Baseline Summary Report** was added to the digital Estate Map this year. This means that all biodiversity data is now visualised in one interactive resource, including site boundaries, city wildlife sightings, local nature reserves and water features. Having this data on hand makes for more informed decisions in relation to estate management and achieving sustainability goals.



Plans and projects

To deliver on our Biodiversity Action Plan, the University has been organising a whole range of activities, including a network of Biodiversiteams. We have created the Wilder Cambridge project to get more staff and students involved in biodiversity. One outcome of this is an engagement pack full of nature walks, identification guides and project ideas from how to make a nest box, log pile or mini meadow to organising nature talks or starting up a community garden.

In 2020, teams were all set to deliver some great biodiversity projects, but these were understandably put on hold. However, we didn't want to shelve all the plans and people were still keen to do some kind of activity, so we organised a photography competition to coincide with April's 'Spotlight on Biodiversity' month. We had hundreds of entries as people got out and about in their local areas to take pictures of landscapes, gardens, trees and a whole array of animals.

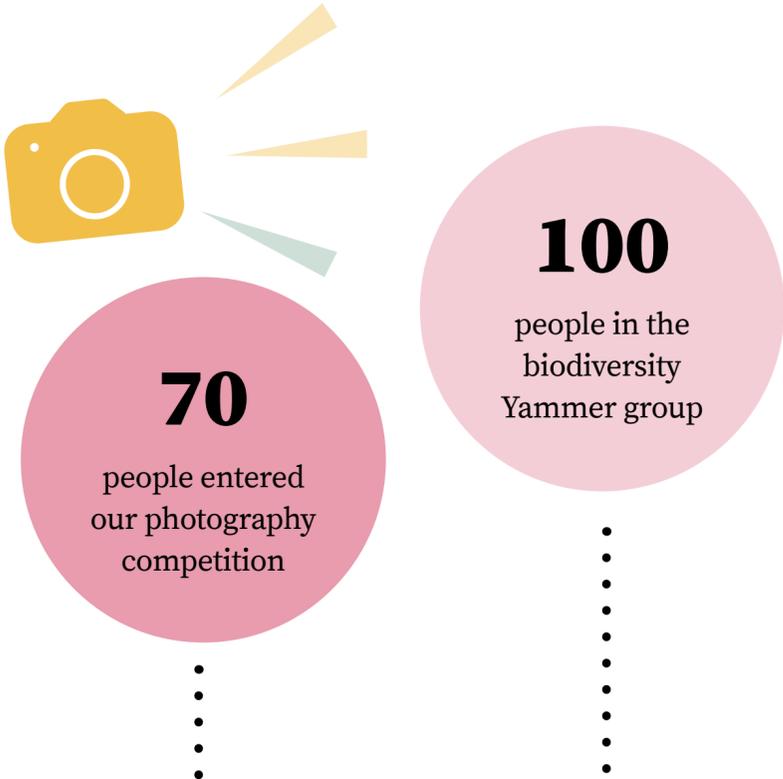
Biodiversity in action

With 15% of England's wildlife threatened with extinction, every biodiversity project can make a real difference. This year, a number of microgrants have been awarded for small-scale biodiversity projects. Over at Laundry Farm, staff have dug a pond and created wildflower areas to encourage local wildlife. At the Mira Building, raised beds and bug hotels are drawing in pollinators. And at Cambridge Archaeological Unit (CAU) a raised bed has kept staff in flowers, fruit and vegetables throughout the year.

"Each opportunity has given our staff time away from their normal jobs, and an opportunity to share cake and each other's company, so besides the 'increasing biodiversity on site' element, it has proved very rewarding on a personal level." Samantha Smith, Green Team member at the Cambridge Archaeological Unit (CAU).

Removal of the biodiversity KPI

In compiling this report, we have removed the following KPI from the KPI table - Percentage of new buildings and major refurbishments confirmed by the Ecological Advisory Panel as having no net negative impact on biodiversity (%). As stated in the sustainable construction and refurbishment section of this report, this year saw two key projects complete their environmental sustainability assessments: the Crop Science Centre and Student Services Centre. Neither of them quite achieved the 105% score needed for 'net gain', but all complied with the KPI for no negative impact. This however, was not confirmed by the Ecological Advisory Panel (EAP) and can therefore not be assured by PricewaterhouseCoopers as part of their assurance exercise. Additionally, during 2020/21 the EAP will be working on developing a new set of biodiversity KPIs which will replace this KPI and will be used to monitor progress in future years.



Progress



Target

In the expert opinion of the Ecological Advisory Panel, that no construction, refurbishment or maintenance work on the estate has a net negative impact on biodiversity and that, where possible, the impact is net positive.



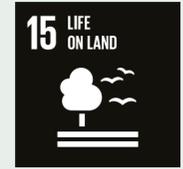
Progress

Biodiversity Action Plan agreed by University Council. Ecological Advisory Panel approved the Cambridge Biodiversity Metric.

Looking ahead



- Explore opportunities and complete forward planning for biodiversity project work across the estate.
- Investigate ways of carrying out both face-to-face and virtual engagement activities.
- Improve our communications materials to explain changes in management for biodiversity across the estate.



# Sustainable food



## Putting sustainability on the menu



At a dinner for 43 College fellows in November 2019, Michelin star chef Andreas Antona curated a four-course menu of entirely seasonal vegan dishes. The dinner followed speeches by Dame Polly Courtice, Professor Andrew Balmford and Dr Chris Sandbrook, who covered a range of topics, from carbon emissions and ruminant meat, to plastics and the effects of climate change. The event was designed to demonstrate practically what is possible for all parts of University and College catering operations. It also demonstrated what has already been achieved by the University and what more could be done if all the Colleges were to adopt more sustainable menus.

## Cambridge Science Festival

This year, **Cambridge Science Festival** looked at the future of food and the environmental challenges we'll face in the future. Nick White, Head of University Catering Service joined Emma Garnett from the Department of Zoology and Amy Munro-Faure from the Sustainability Team to discuss the University's Sustainable Food Policy and how removing beef and lamb from the menu and promoting plant-based food options has dramatically reduced food-related carbon emissions.



**Zero single-use plastic**

We installed water fountains at all our cafés this year, encouraging people to bring their own water bottles to refill. We introduced more china cups and crockery into our cafes to reduce disposable items, and we no longer sell any single use plastic bottles. We still use compostable Vegware cups for hot drinks, but there’s a 25p charge to encourage customers to bring their own reusable mugs. COVID-19 has had an impact on this, but we haven’t resorted back to plastic, instead using compostable Vegware wherever we can.



**Sustainable street food**

We’ve developed a great partnership with FoodPark, who run a street market at our West Cambridge site. All street food traders agreed to stop selling ruminant meat and have created special menus for us. There are also two entirely vegetarian traders.

**Cool Food Pledge**

The University of Cambridge has signed the Cool Food Pledge, committing to serve more climate-friendly food across the estate. The Pledge is a growing network on workplaces, cities, hotels, hospitals and restaurants who have come together to reduce food-related emissions by 25% by 2030.

**Awards**

**Finalist 2020**

Institute of Workplace Facilities Management – Impact Award.

**Winner 2020**

Public Sector Catering Awards – Sustainable Award.



**Looking ahead**



- ..... Increase the amount of plant-based self-service dishes.
- ..... Include plant-rich dishes in main body of menu, not in separate ‘vegetarian’ section.
- ..... Introduce plant-rich alternatives and improving the appearance of plant-based dishes.
- ..... Continue to monitor the sustainability performance of our catering operation.
- ..... Provide chefs and food preparation staff with information on the environmental impact of food and give front-of-house staff talking points to promote plant-rich dishes.



# Water



## Changing priorities

With the expansion of our estate, the long-term trend we are seeing with regards to our water use is an increase. Whilst consumption did fall in 2019/20 compared to the previous year, by around 10%, this was driven by the pandemic lockdown rather than our own direct efforts and achievements. Developing a water management plan was initially a priority for this year, but our priorities have had to be realigned in the wake of the pandemic. However, we have put initiatives in place to mitigate the growth in water consumption that comes with any new building.

## Designing to reduce consumption

New University buildings are designed to achieve a 40% reduction on a notional typical consumption baseline using the BREEAM methodology. This involves use of low flow taps and showers, leak detection, automatic shut off to prevent water loss via faulty cisterns, and 6/4 litre dual flush WCs. We also require any planting to be drought tolerant so it doesn't need irrigating beyond the initial period of establishment. Our design standards for refurbishment requires the same standard to be applied, which will result in a reduction in overall consumption in coming years.

## Progress

**Target**  
To reduce water consumption by 20% by 2020/21 against a 2005/06 baseline.

**Progress**  
Water consumption fell to the level of our baseline year. Still a lot of work to do bring our water use down.

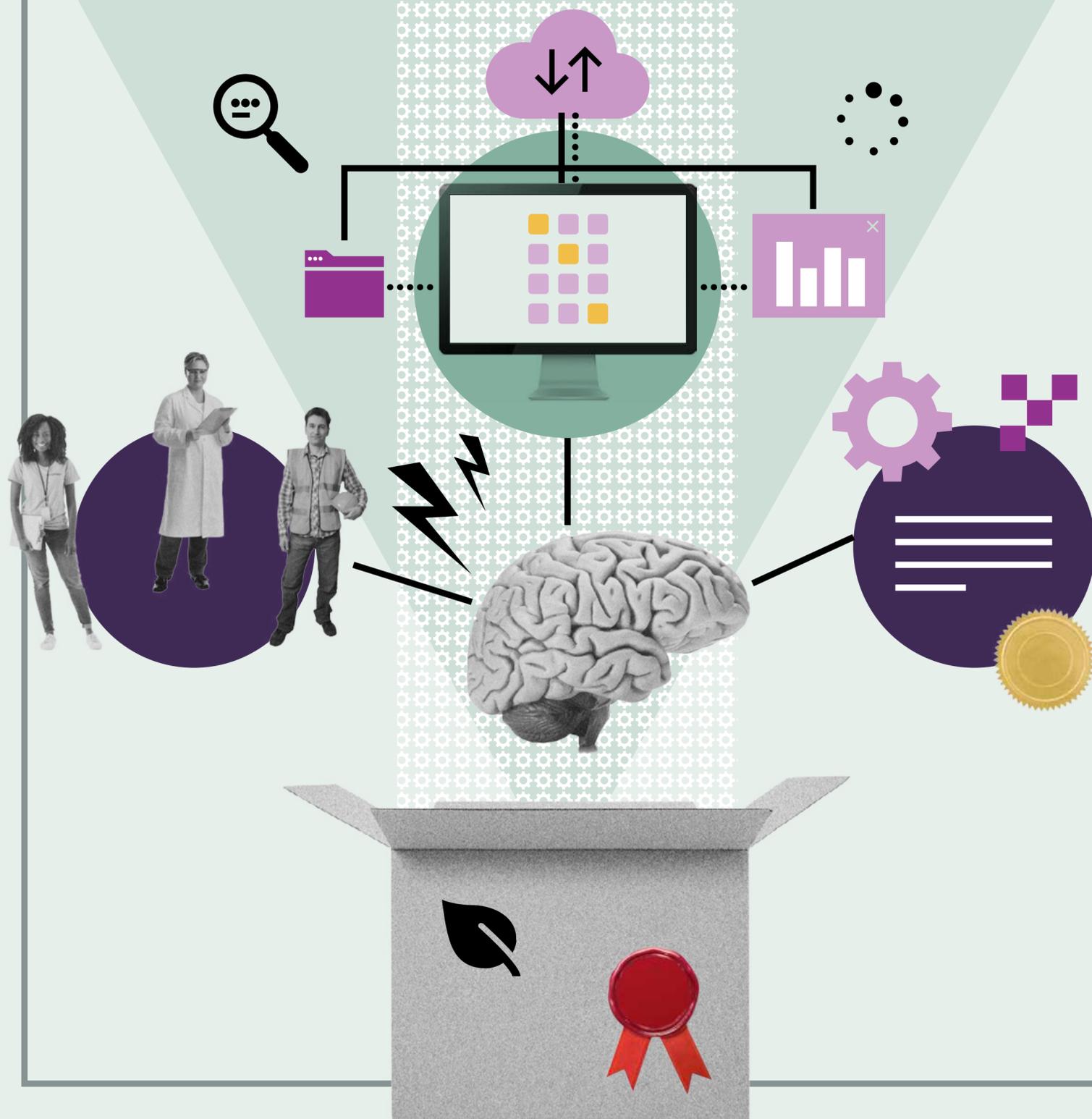


## Looking ahead

Develop a Water Management Plan.  
.....



# Sustainable procurement



## Strategic Procurement Review

In November 2019, we completed our **Strategic Procurement Review (SPR)** on how the University could procure goods, works and services in a more efficient and user-friendly manner that is both sustainably responsible and commercially viable. Part of the Finance Transformation Programme, the review means we can better understand where our emissions arise and where the opportunities to improve our performance exist.

As part of the SPR, we benchmarked our performance against peers, both in our sector and externally. This found we were underperforming, but opportunity existed to achieve a 'mature' status over the next five years. The review presented recommendations in three key pillars – People and organisation; Technology and systems; and Process and policy. These recommendations have been honed into six workstreams. Delivering on these six workstreams, alongside pilot department activities, is known as Strategic Procurement and Purchasing Project (SPP).

## Strategic Procurement and Purchasing Project

The Strategic Procurement & Purchasing Project (SPP) is an ambitious but achievable programme to help the University better buy its goods, works and services. In doing so, we will improve economic, societal and environmental outcomes through changed behaviour and action, all informed through feedback and benchmarking activities.

The SPP is the largest investment in procurement the University has ever made. Its outcomes are intended to be far reaching across the whole University and include ensuring the University gets good value procurement deals; simplifying procurement policies and processes; creating nimble solutions to avoid delays; delivering meaningful changes in culture and behaviour; rationalising our supplier base; and improving skills and supplier management capabilities.

It's not a 'one size fits all' approach focussed only on lowest cost – it recognises the differing needs of academics, researchers, teaching and professional staff. Instead, the SPP seeks to deliver the simplest way to ensure better value and impact for the money we spend. It also includes opportunities for the Press and Cambridge Assessment through Cambridge Advantage, the Colleges of Cambridge and other associated bodies to benefit.

**Digital documents**

As we all made the move to working from home on a more regular basis, it was a chance to move away from printing contracts and documents towards a digital solution. We've switched to DocuSign to digitally sign any documents in a quick and secure way. There are real sustainability benefits of using the platform by reducing the waste, carbon and water associated with printing.



**Online learning**

The Cambridge Institute for Sustainability Leadership (CISL) launched a new online short course on **Sustainable Supply Chain Management**. The eight-week course has already equipped 400 business professionals with the tools to build more resilient and efficient supply chains in a rapidly evolving global context.

**Progress** 

**Target**  
That central University procurement frameworks are more attractive financially, more environmentally friendly and faster than other routes and, therefore, more institutions use them. 

**Progress**  
Following the **Strategic Procurement Review** we have committed to obtaining the international standard in sustainable procurement, ISO20400.

**Target**  
For institutions to consider sustainability criteria within their procurement activity. 

**Progress**  
The Strategic Procurement and Purchasing Project will put sustainability at the heart of all procurement activity.

**Looking ahead** 

- Develop new Procurement Strategy. ....
- Implement Strategic Procurement and Purchasing Project. ....
- Encouraging the roll-out of DocuSign across the University. ....
- Appoint a Sustainable Procurement Manager to integrate sustainability into the purchase of all goods, work and services. This sends a clear signal that sustainability isn't just another consideration, it's at the very heart of everything we do. ....
- Begin implementation of ISO20400. ....



# Travel and transport



## Transport Strategy

Our **Transport Strategy 2019-2024** was formally adopted in September 2019 and everything we do now refers back to the aims and commitments it sets out. It's a key document for the team, outlining priorities, timescales and measures we can take to help everyone travel more sustainably.

### Universal Bus

Passenger numbers on the Universal Bus continued to increase between August and March. The beginning of the COVID-19 pandemic and the subsequent lockdown in March resulted in huge changes for the service. The University and bus operator Whippet made the decision to support key workers by continuing to run the service at the same frequency and extended its route at weekends out to Addenbrooke's Hospital. In March and April, NHS keyworkers and essential University staff could travel for free, making sure they could still get to work if they needed to. This year, we also carried out extensive consultation and engagement on the bus service, its routes, frequency and vehicle type. Meetings, workshops and online surveys led to thousands of responses, which helped us to shape a new tender for the bus service.

### Making the move online

Our Dr Bike sessions continued their success this year, with increasing numbers of staff attending more sessions at more sites. Unfortunately, when the lockdown was announced in March all the sessions came to a halt. However, when lockdown was eased, we ran Dr Bike sessions with new procedures in place in locations that had the most staff on site to support them to cycle to work. We also moved the cycle maintenance workshops online, with the first being trialled in July 2020. This meant staff could still learn about cycle maintenance and have their questions answered, but from home during their lunch hour rather than in person. Early reports show the flexibility of these online sessions is working well, so there are plans to keep them in place even when staff return to the workplace.

### Cycle parking

New and improved cycle parking designs have been planned for the main Sidgwick site, the Clinical School at CBC as well as Downing Site and we expect the majority of it to be installed before the end of the academic year 20/21. These projects should deliver in the region of 350 additional cycle parking spaces and will include spaces suitable for cargo and adapted bikes.

### Keeping count

Three new automatic counters were installed at our West Cambridge site to track the number of cyclists and pedestrians on site. This data will help us to better understand how people move around our estate.

**Annual Travel Survey**

In October, 2,581 staff and 225 students completed the annual travel survey, providing us with important data for monitoring the progress towards the aims and commitments in the **Transport Strategy**. The University's target is for 75% of staff to commute sustainably. The survey results reveal that the figure is currently close to the target at 69%. The survey found that 36% of staff cycle and 31% drive to work.

**Car parking policy**

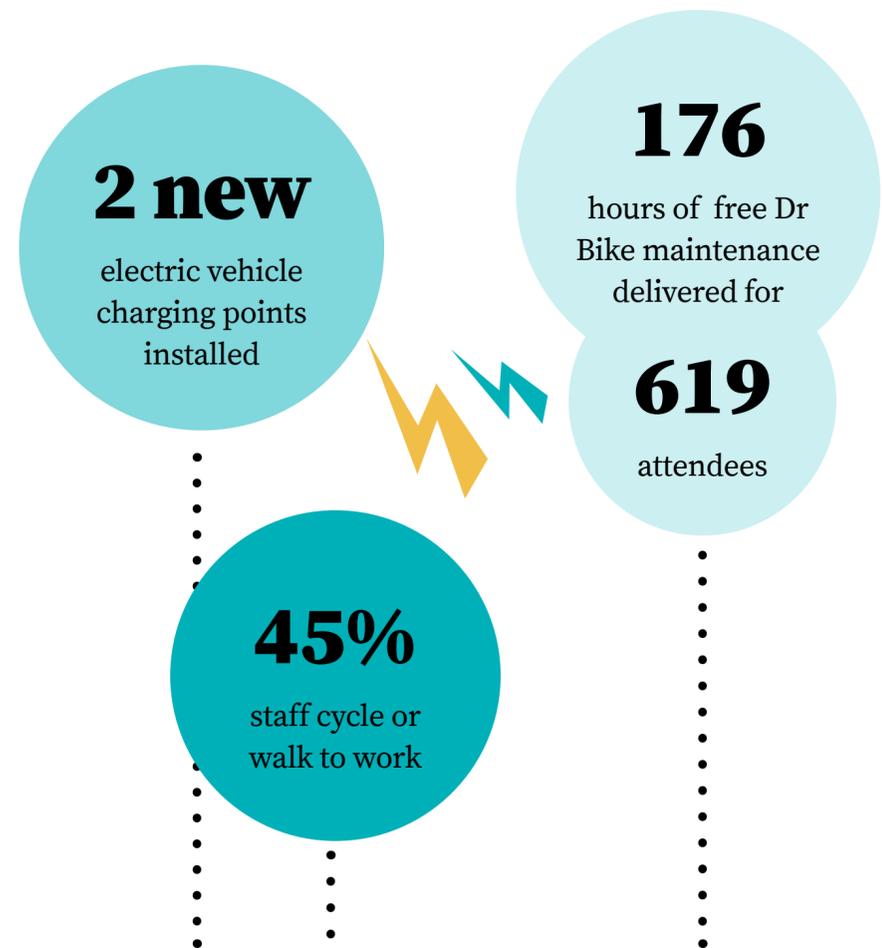
There's a commitment in the **Transport Strategy** to review the University's current car parking policy. A staff survey, completed by 2,325 staff asked about the level of satisfaction with how car parking is managed, with just under a quarter satisfied and just under a fifth dissatisfied. Seven focus groups with staff followed the survey, and work is now underway to develop a better – and fairer – car parking policy.

**Business travel**

In early 2020, we held a workshop with staff and students on the subject of flights to kick-start a conversation around what kind of measures we could introduce to reduce air travel. We took the findings to the Research Policy Committee, who suggested that clearer guidance in relation to climate-conscious travel is needed. Unfortunately, following lockdown, further consultation with staff and students on this issue has been delayed. We are now planning to work with Cambridge Zero to carry out further consultation and assess whether attitudes towards flying have changed as a result of the pandemic and the implications this has had for our ways of working.

**Institute of Continuing Education**

The Institute of Continuing Education (ICE) launched a carbon reduction initiative to offset 1,500 tonnes of carbon emissions on behalf of its staff and global student community. This equates to around half of the carbon emitted by students travelling to study in Cambridge on ICE-taught courses (including the International Summer Programmes) and ICE employees attending events and meetings overseas. Working with Carbon Footprint Ltd to offset these emissions, ICE will support projects in the UK, India and the Amazon rainforest including planting trees, reducing deforestation, and installing renewable energy sources. ICE is also looking to work with other organisations such as Cambridge Zero in the future to further reduce its carbon footprint.



**Progress** 

**Target**  
At least 75% of staff to regularly commute by sustainable modes by 2024. 

**Progress**  
69% of staff travel to work via a sustainable mode but there is still progress to be made in implementing the **Transport Strategy**.

**Target**  
To reduce per capita carbon emissions from business flights by 25% against 2014/15 levels by 2024/25. 

**Progress**  
Per capita emissions were 27% lower than in 2014/15, but this is due to the impact of COVID-19 rather than progress in reducing emissions.

**Looking ahead** 

Buy and install more Smart Panels for new locations across the University.

Roll out of 10-20 cycle maintenance stations across the University estate.

350 new cycle parking spaces planned for Sidgwick, Clinical School and Downing sites.

Roll out automatic counters to other sites and share data with the local council to help with future transport planning.

Identify more locations for new electric vehicle charging points.

Consider further improvements to the Universal bus service, such as discounts on scheduled services across the area for staff and students.

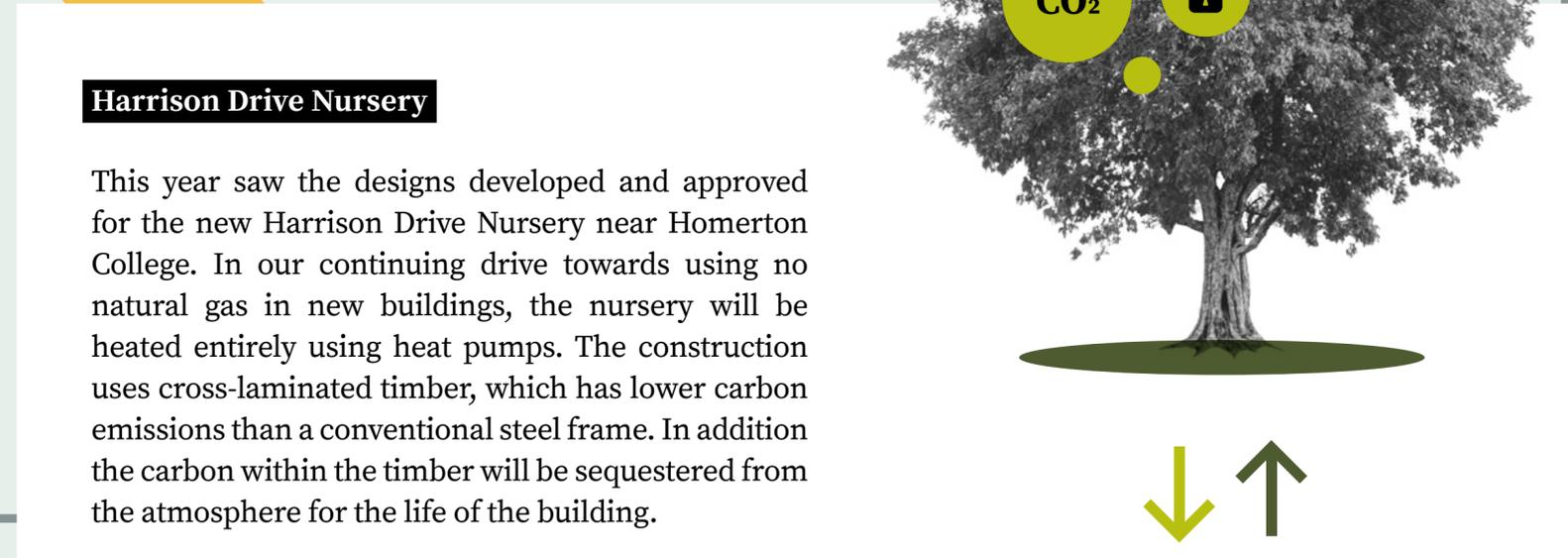
Resume consultation with staff to develop a policy or guidance in relation to air travel

Continue work on bespoke bus monitoring tool to enable better monitoring of the quality and value for money of the service.

# Sustainable construction and refurbishment

## BREEAM ratings

This year saw two key projects complete their environmental sustainability assessments. The recently occupied **Crop Science Centre** was certified BREEAM Excellent, and the **Student Services Centre** reported on compliance with a bespoke Sustainable Assessment Matrix agreed with the Local Planning Authority. Whilst this alternative approach to BREEAM cannot be demonstrated as 'equivalent' it was a comprehensive assessment overseen by a professional sustainability consultant who has reported compliance with 41 of the 43 construction criteria assessed.



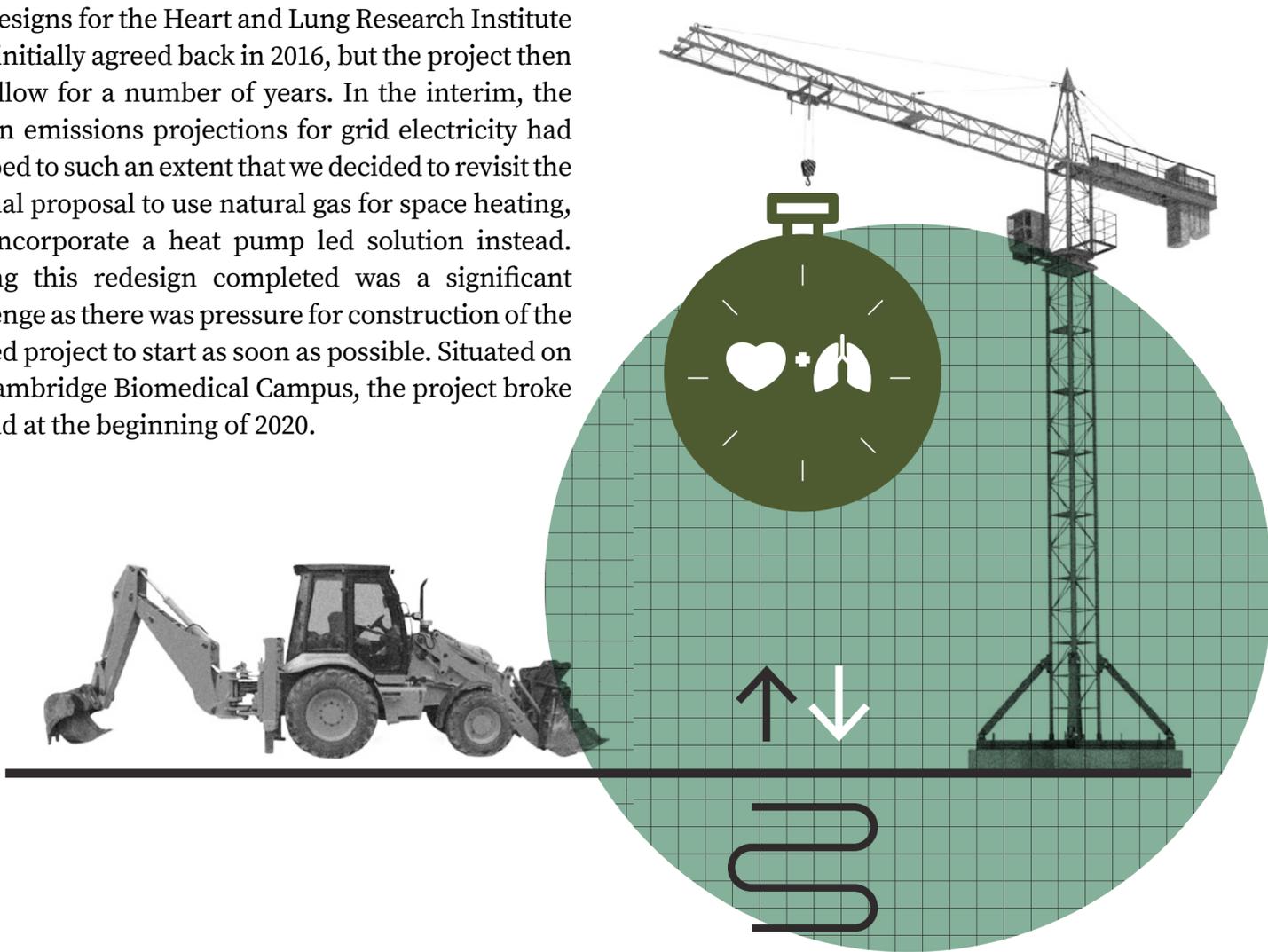
### Harrison Drive Nursery

This year saw the designs developed and approved for the new Harrison Drive Nursery near Homerton College. In our continuing drive towards using no natural gas in new buildings, the nursery will be heated entirely using heat pumps. The construction uses cross-laminated timber, which has lower carbon emissions than a conventional steel frame. In addition the carbon within the timber will be sequestered from the atmosphere for the life of the building.

\* Image above right courtesy of Bennetts Associates

### Heart and Lung Research Institute

The designs for the Heart and Lung Research Institute were initially agreed back in 2016, but the project then lay fallow for a number of years. In the interim, the carbon emissions projections for grid electricity had dropped to such an extent that we decided to revisit the original proposal to use natural gas for space heating, and incorporate a heat pump led solution instead. Getting this redesign completed was a significant challenge as there was pressure for construction of the revived project to start as soon as possible. Situated on the Cambridge Biomedical Campus, the project broke ground at the beginning of 2020.



### Centre for Material Culture

Refurbishment can involve making compromises, but it is often the best way to minimise environmental impact. This turned out to be the case at a disused nuclear bunker in south Cambridge. The Grade II Listed structure was built to be a centre of regional government in the case of nuclear attack – but (thankfully) it never fulfilled this original purpose. However, the bunker’s solid concrete

construction makes it the perfect place to store the delicate and precious objects that are in the care of the University’s museums.

The thermal mass of the concrete, combined with new insulation and supremely airtight construction will provide great temperature stability and protection from fluctuations in humidity – significantly reducing dependence on energy consuming mechanical systems.

### Progress



#### Target

To establish and implement a standard for sustainable construction at the University that is context specific and considered a leading approach in comparison to our peers.



#### Progress

Version 3.1 of the Design & Standards Brief has been used to shape design proposals developed during the year. Version 4 is due to be implemented in 2020-21.

### Looking ahead

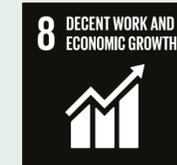


Continue to avoid use of gas in new buildings and plan for removal of gas fired systems from existing buildings.

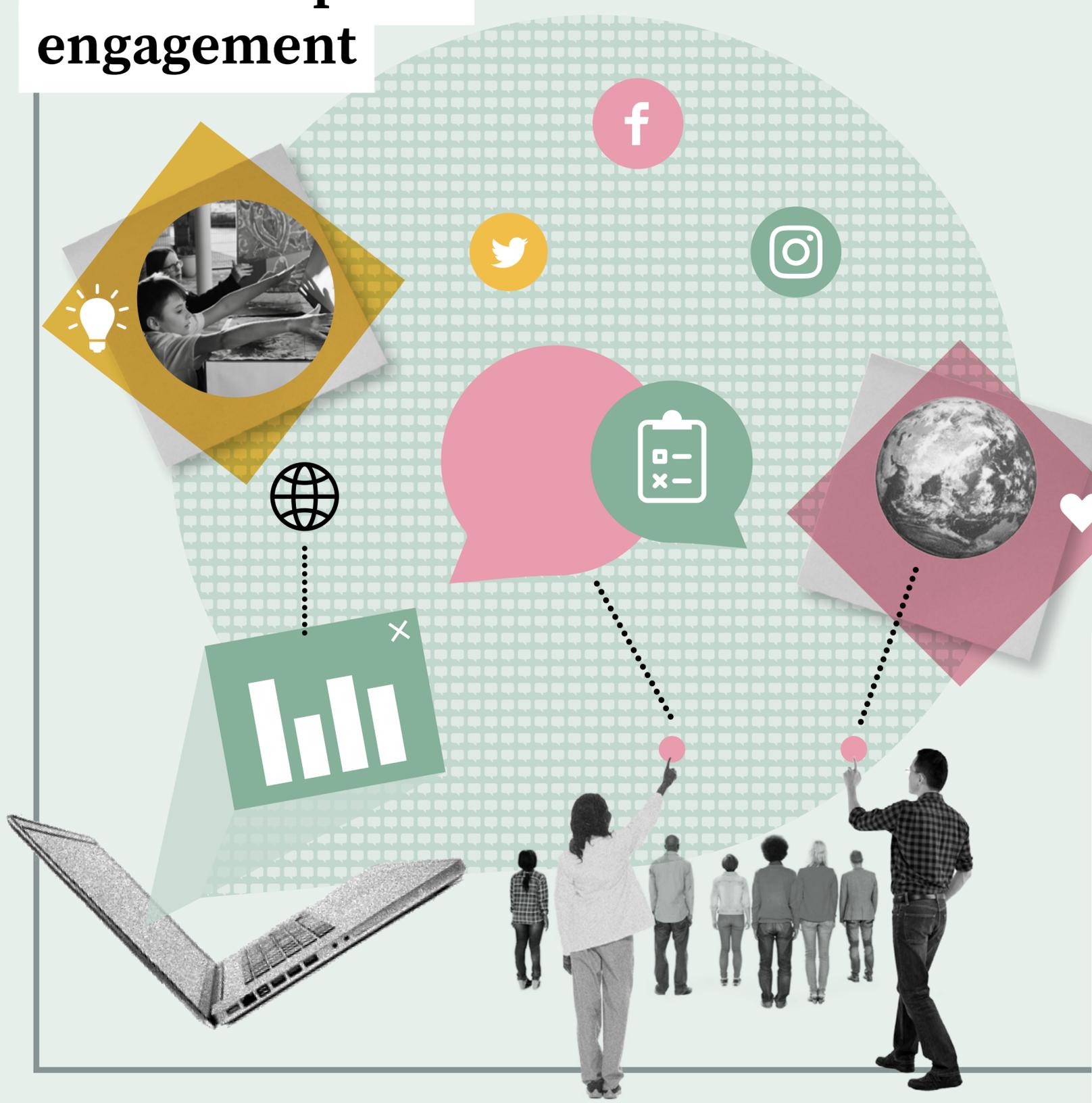
Embed long-term carbon impact into University’s decision-making process using a consistent methodology to estimate both embodied and operational carbon.

Investigate the potential of heat networks to help decarbonise existing buildings.

Implement Version 4 of the Design & Standards Brief in 2020-21.

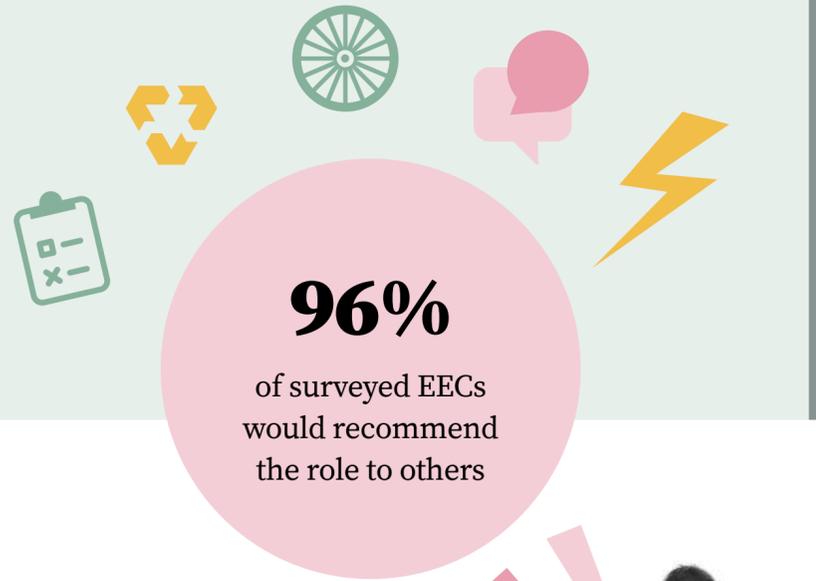


# Partnership and engagement



## Communications and Engagement Strategy

A new three-year **Communications and Engagement Strategy** has been developed to further the University’s environmental vision and involve staff and students in the process. The Strategy’s key objectives around awareness, behaviour and engagement, were developed following interviews and workshops with students and staff, as well as reviews of the Sustainability Team’s website, social media channels and newsletters.



### Focus on EECs

The University’s **Environment and Energy Coordinators (EECs)** have been busy leading sustainable change this year, establishing new **Green Impact** teams and environmental committees, implementing policies and practices, securing funding for environmental action and leading on engagement, waste, sustainable travel, energy issues, and more. To better understand and support the EEC network, we carried out an audit of active EECs for the first time. Responses to the audit enabled us to highlight EEC achievements during the year, as well as spot gaps in our support and identify areas for improvement. Although the overall number in the network looks to have dropped compared to the 2018/19 year, we are now confident that the EECs on record are engaged, active, and making a real difference.



## Green Impact

The eighth year of **Green Impact** at the University was a momentous one. Staff and students completed more sustainability actions than ever before in a **Green Impact** year and a record number of student auditors received accredited training. Forty-six awards were presented and we welcomed record participation from award-winning College teams. The success of **Green Impact** builds year-on-year and in 2019/20 teams achieved the University's greatest-ever proportion of Gold, Platinum and Excellence awards – these levels making up 54% of the total number of awards.

**“Sustainability is often associated with extreme protests and radical action, however, this is just one aspect and the auditing experience highlighted to me how small changes in our lifestyle can have a big impact. It was great to see the enthusiasm that University departments have for making sustainable choices and it reflected a side of the University that is often not seen.”**

Marcel Hedman, Churchill College



**48**  
student auditors

**“Green Impact has become a great source of inspiration. Members from all walks of life at IfM, from students, postdocs, admin staff, catering and building managers, and the Head of Division have all pitched in – this has been the best part of Green Impact!”**

Curie Park, Centre for Industrial Sustainability, IfM

**2,400**  
sustainability actions

**14**  
College awards



**“Following my experience as an auditor, I was able to encourage my College to set up its own Green Impact team and we’ve already started to see some progress! I enjoyed it so much that I signed up again this year and, whilst the remote aspect meant that I didn’t get to tour any biodiversity projects, it was still incredible to see what sorts of things people across the University have been doing for sustainability.”**

Amy Bottomley, St John’s College

## Sprucing up Silver Street

The Department of Land Economy overhauled the garden areas in Silver Street to establish a wild garden area near the bike sheds and create a new walled courtyard garden behind House 21. Led by the **Green Impact** team, staff and students took part in regular gardening sessions including pruning shrubs, planting bulbs and herbs, and a houseplant surgery. The project has enhanced biodiversity on site and created attractive spaces for both outdoor meetings and relaxation.

## Tackling single-use plastics at Churchill College

This year, the **Green Impact** team at Churchill College worked on reducing single-use plastics, with a particular focus on catering and conferencing where bottles, wrappers, yoghurt pots, coffee cups, takeaway containers, toiletries and bin liners were a real cause for concern. Before COVID-19, the College was on track to save a massive two tonnes of plastic.

The catering team at the College really took on the challenge, and with great success. A charge on single-use coffee cups resulted in a 90% drop in use – while sales of coffee remained high – and a complete ban on single-use plastic bottles resulted in an estimated reduction of one tonne of plastic. The conference team also started looking into alternatives to some of the single-use plastics used, such as biodegradable toiletry bottles.

The **Green Impact** team engaged students and the wider Churchill community with litter-picks and turned any unrecyclable plastic into ecobricks, which can be used to build raised beds and more. The project has been a real success to date and is set to resume reducing single-use plastic as soon as it can.

**Spotlight on...**

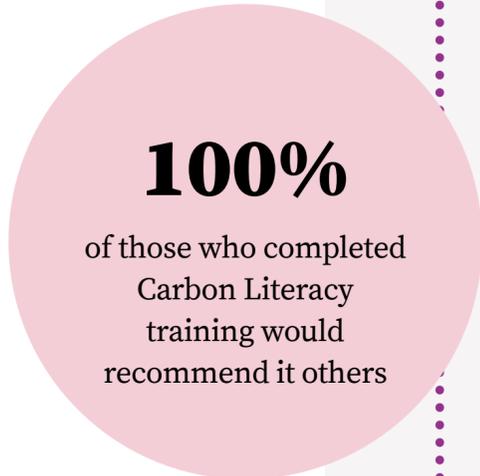
We delivered three ‘Spotlight on’ campaigns during 2019/20 – Reduce and Reuse, Carbon, and Biodiversity. During the **Spotlight on Carbon** month EECs and **Green Impact** teams took part in bespoke Carbon Literacy training. Carbon Literacy is all about being aware of the impact everyday activities have on the climate, and knowing what you can do to reduce emissions, both as an individual and an institution. Before the course 50% of participants rated their awareness of actions to mitigate climate change as poor–average, after the course 100% of participants rated their awareness as good–excellent. Everyone who took part saw it as incredibly worthwhile and would recommend it to others.

**Working with schools**

Working with the University of Cambridge Primary School, Cambridge Zero has been developing teaching resources, including lesson plans that can be used to teach sustainability and climate change. There are also #LockdownScience video resources for school children – one about the properties of ice and impact of climate change, the other on air pollution, its causes, impact and measurement.

**Public engagement**

A key aim of Cambridge Zero is to engage and empower the public to take action on climate change. Open discussion and learning play a huge part in this, and Cambridge Zero has taken part in several events including the Festival of Ideas. Dr Emily Shuckburgh has given a number of high-profile lectures including the WWF Annual Science Lecture 2019 and the Turing Lecture for Earth Day 2020. There’s also a regular e-newsletter, dynamic social media, a local radio show – Cambridge Zero Radio Talks – and **Cambridge Zero YouTube channel**.



**Global supply chains and biodiversity**

In the past year, the Cambridge Institute for Sustainability Leadership (CISL) has developed a pioneering and practical approach to **measuring the impacts of global supply chains on biodiversity**. Working with global luxury fashion company Kering (owner of brands such as Gucci and Yves Saint Laurent), CISL published an eight-step guide to developing a **corporate biodiversity strategy**, alongside a **case study with Anglian Water**, which provided a blueprint for how the water sector can deliver on a ‘net gain’ target for biodiversity.

**Working with industry leaders**

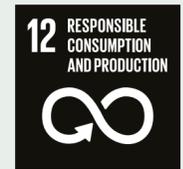
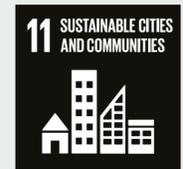
CISL hosts industry leadership groups and collaborative initiatives that generate actionable thinking, tools and leading positions for companies leading the transition to a sustainable economy.

In September 2019 CISL launched **CLG Europe**, a new cross-sectoral group of businesses aiming to galvanise rapid implementation of the Paris Agreement on Climate Change and EU agreement for a 2050 net zero target. In the UK, the CLG worked together with other business groups to organise a **public letter from UK business CEOs to the Prime Minister**, signed by more than 200 businesses, asking the government to deliver a clean, green recovery. The CLG is also coordinating a series of meetings and interventions to encourage the UK to set its own strong 2030 target and to advance policies to deliver faster action in the UK ahead of the COP26 meeting.

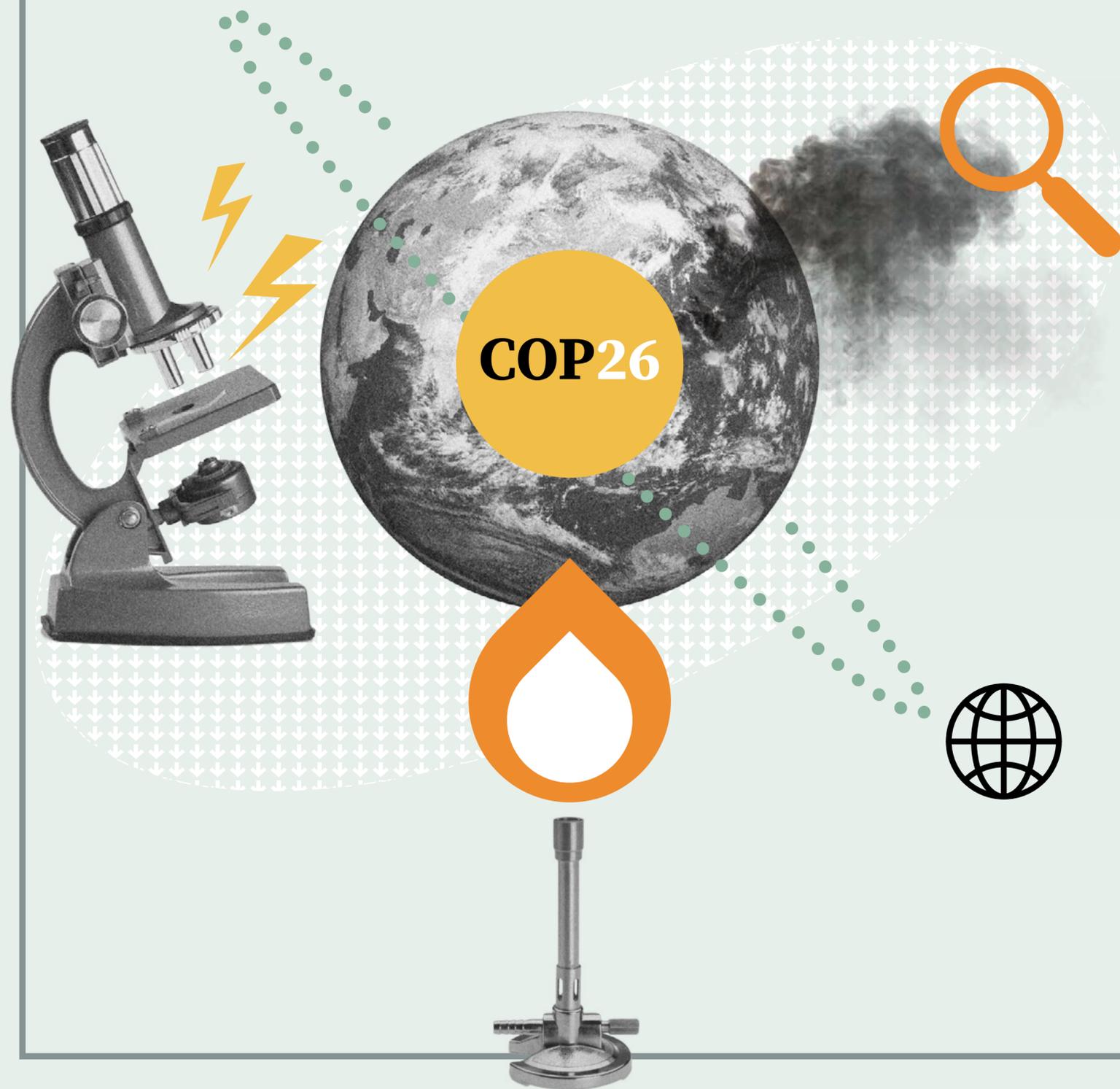


**Looking ahead** 

Use findings from EEC survey to improve the role, build the community and continue to support the University’s Environmental Sustainability Strategy.  
.....  
Implement the new **Communications and Engagement Strategy**.  
.....  
Continue to grow and support the **Green Impact** community.  
.....



# Teaching and research



## Cambridge Zero



Formally launched in November 2019, Cambridge Zero is the University of Cambridge's ambitious climate change initiative aimed at transitioning to a zero carbon world. As an umbrella organisation for research, it is focussed on building links between researchers and enabling them to conduct research that will answer the world's challenges on climate change. Since its launch, Cambridge Zero has been rapidly establishing itself, making connections and enhancing research and education opportunities. There are four pillars of activity: research, engagement, education and decarbonisation. Under each a whole range of activities have been carried out. Through this report, we look at just a few of those, but all are reported in **Cambridge Zero's First Six Months progress report**.

Nationally, Cambridge Zero co-founded the UK Universities COP26 Network. With 36 members, the network is the principal way in which UK universities are working with the UK Government to plan for the UN's COP26 climate conference. Due to be held in Glasgow in November 2021, Cambridge Zero has been providing evidence, advice and access to academic expertise to the UK Government team.

Internationally, we led the University's involvement with the **Global Alliance of Universities on Climate** (GAUC), an international partnership of 13 universities. Its mission is to advance climate change solutions through research, education and outreach and partnership with industry, non-profit and government organisations.

**Cambridge Zero Policy Forum**

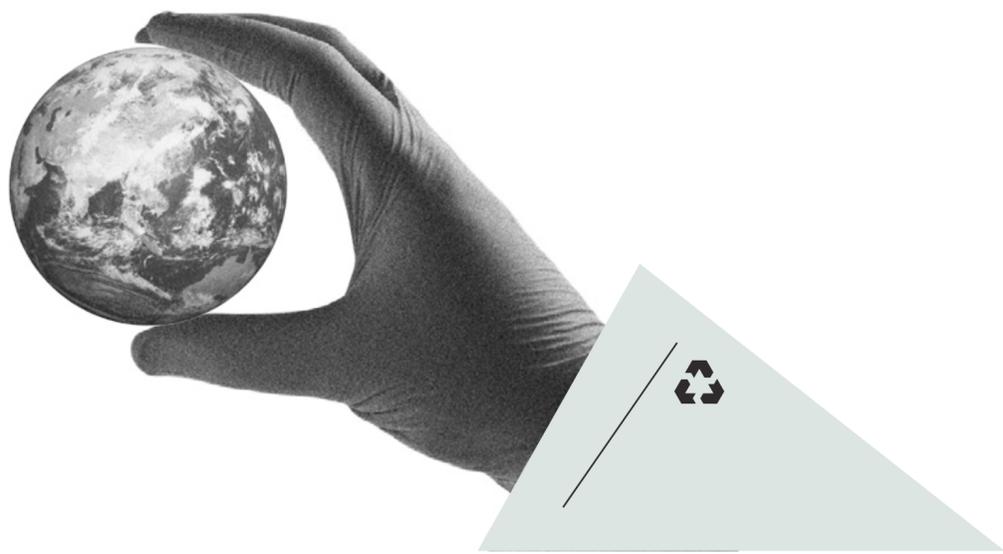
Cambridge Zero, together with the Centre for Science and Policy (CSaP), founded the Cambridge Zero Policy Forum. It brings together over 80 senior academics from across the University to address climate change through a multidisciplinary lens. This year, the Forum has held several workshops and discussions on a range of topics including green recovery from the pandemic, agricultural soil plans, systems thinking and net zero, and climate change and defence.

**Centre for Climate Repair**

This year, the University launched a new research centre – the **Centre for Climate Repair**. Its remit is to look specifically at radical technological solutions to fix climate change. Working with Cambridge Zero, the Centre brings together research from many disciplines as it develops solutions to the climate crisis.

**Engage for Change**

The **Engage for Change** programme is our six-week skills-building, change-making programme for students and postdocs. Developed by the Cambridge Hub and supported by the University’s Sustainability Team, its aim is to promote social and environmental leadership. Over the six weeks, participants design and develop their own environmental project. As COVID-19 hit, we launched an online version of the programme, which has been really successful. One of the standout projects was around educating more people about climate change. Will Moody started a student-led Carbon Literacy programme and gained funding from Cambridge Zero to train Cambridge students, who can then go on and educate others. Another project focussed on a glove recycling scheme in University labs. Its launch was postponed by COVID-19, but looks set to prevent thousands of gloves ending up in waste and landfill.



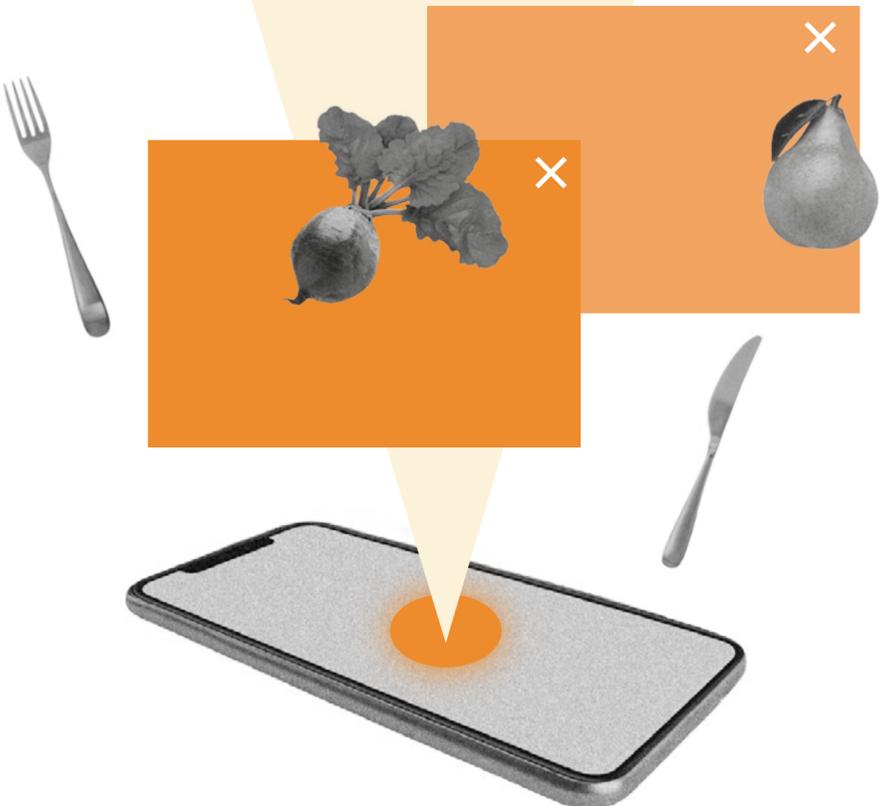
**“The shocks to the system that we are currently experiencing serve as an urgent reminder of the necessity to change and transform the way we live and behave over the critical next decade. The scientific and moral imperative is clear – we must decarbonise our economies, reverse the catastrophic destruction of biodiversity and ecosystems, and build more resilient and inclusive societies.**

**The University of Cambridge is uniquely positioned to contribute to this transition, through the global reach and influence of its teaching and research and through its influential engagement with industry and policy makers around the world. Leading by example must be part of this equation, and the University has established an operational strategy and set ambitious targets, which together with a new investment policy, will serve to make a real contribution to the change that is required.”**

Dame Polly Courtice, DBE, LVO, Founder Director of CISL

### Carbon Challenge

This year, we further developed the annual **Carbon Challenge Competition**. The competition brought together ten teams of staff and students from across traditional disciplinary boundaries who worked with mentors from Cambridge Enterprise, Anglia Ruskin University and Games Eden to come up with new ideas around ‘Gamifying Decarbonisation’. Gaining experience of project management, teamwork and product development, it was a great challenge and this year saw a record number of entries. The winning team developed an idea for an app called ‘FoodIE’ that makes sustainable food choices more fun through recipe swaps, 30-day challenges and quizzes. Second prize went to ‘CityJam’, a city building game where the aim is to build an environmentally sustainable city where everyone thrives.



### Cambridge Institute for Sustainability Leadership



The **Cambridge Institute for Sustainability Leadership (CISL)** develops the capacity of leaders within major organisations to accelerate change towards a sustainable economy. CISL’s industry experts and academics help businesses and whole sectors to strategically engage with changing economic and social contexts, to create more value for business, society and the environment.

In 2019-20, CISL educated over 3,300 executives internationally, through executive education programmes and graduate study courses. Its growing portfolio of Elearning courses has meant much broader international participation while continuing to provide first-class education in a COVID-19 world.

### Assessing financial risk

Cambridge Zero brought together climate and computer scientists with researchers from the Judge Business School and the Cambridge Institute for Sustainability Leadership (CISL) to develop a world-first prototype Cambridge Climate Change Business Risk Index. This index will help businesses to better understand and quantify their exposure to future climate risks. Cambridge Zero is also a co-investigator on SERI (Standard for Environment Risk and Insurance) to develop ‘climate ready’ financial products before COP26.

### Supporting internships

Cambridge Zero launched four undergraduate and recent graduate paid internships in summer 2020. These cover the carbon footprinting of virtual versus physical activities; helping to develop Cambridge Zero’s research programme; developing virtual, large-scale environmental events; and improving environmental inductions for new students.

### Looking ahead

- Continue to expand Engage for Change programme.
- Launch four paid internships for postgraduates.
- New position in Cambridge Zero to focus on curriculum and education.



# Progress in challenging times

In what can only be described as a challenging year, I am incredibly pleased with the progress that has been made in sustainability. I want to say thanks to everyone involved for their ongoing commitment and enthusiasm throughout the year.

The work on Science Based Targets has facilitated an increased commitment to sustainability across the Collegiate University, building strong collaborations that will enhance our achievements in the future.

For many of us COVID-19 has resulted in an abrupt change in how we work, which has also been a chance to re-evaluate how we can do things differently and for the better. Progressing sustainability often requires changes in our behaviour and COVID-19 has certainly shown how quickly we can adapt and change. It's important to recognise the challenges and opportunities it has presented. One such opportunity is the ability to look at how we can continue to reduce emissions from business travel. University-wide we also have the opportunity to look at how we use our space more efficiently and sustainably.

Of course, there is much more we need to do in the future, and this starts with developing a revised Sustainability Strategy.

I am hugely encouraged by the University's commitment to sustainability and the key role the University can play in tackling global challenges. It goes far beyond the work of the Sustainability Team to a whole host of innovative initiatives and ground-breaking research. This year has seen some great progress in the face of unprecedented global events – I look forward to seeing what the next year brings.

**Joanna Chamberlain, Head of Sustainability, University of Cambridge**



# Rise to the Cambridge Green Challenge

**The Cambridge Green Challenge is our way of building a more sustainable University, and you can get involved in lots of different ways:**



- Become an ambassador for environmental issues as an **Environment and Energy Coordinator**.
- Join a **Green Impact** team and make real environmental change in your department.
- Test out your research on the University estate through a **Living Lab** project.
- Download posters, stickers and all the resources you need to **spread the sustainable message**.
- Gamify your sustainable solutions and enter **The Carbon Challenge**.
- Keep up to date with the latest sustainable news and events with our **Greenlines newsletter**.
- Find out what's going on across the University to tackle the climate crisis on the **Sustainable Earth** site.

**The accuracy of our data**

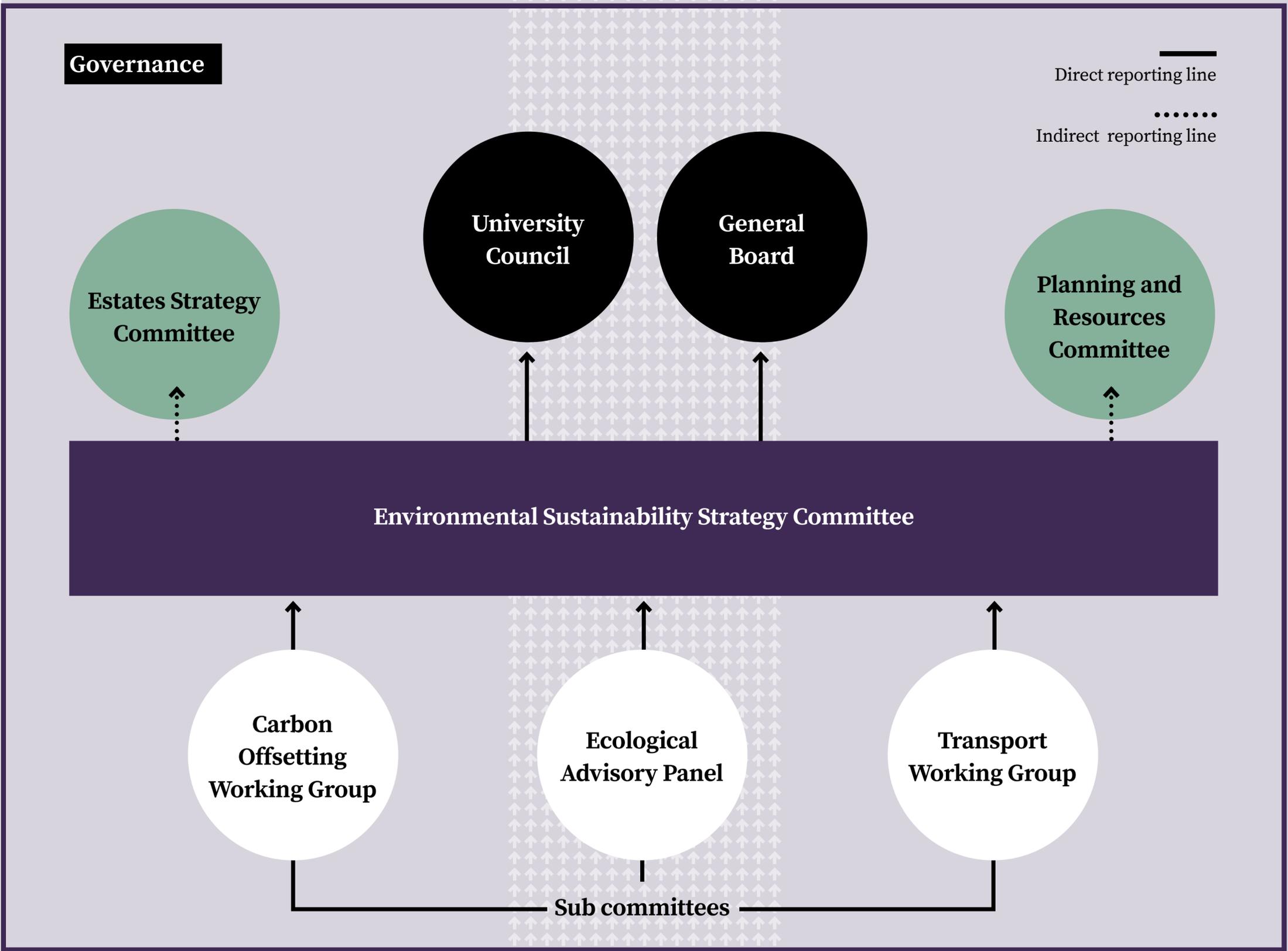
Having accurate data is key to evaluating the projects we implement and is essential to measuring our progress against our targets. This is why we have chosen to seek limited assurance over the 2019/2020 figures in the KPI table in this report (page 31). We want to drive continual improvement in the quality and credibility of our data and the assurance process helps us do this, reviewing the reliability of our data collection and reporting processes, as well as its accuracy. Within our **Methodology Statement**, we provide more transparency around how we compile our figures, being clear about gaps or assumptions made.

We are proud to say that PwC have provided limited assurance over the 2019/2020 figures in the KPI table in this report (page 31). PwCs **assurance opinion** can be found on our website alongside this annual report.

**Sustainability as a core value**

The mission of the University of Cambridge is to contribute to society through the pursuit of education, learning and research at the highest international levels of excellence. Sustainability is key, with a **core value** under the theme of ‘relationship with society’ stating ‘concern for sustainability and the relationship with the environment’.

In our **Risk Management Policy**, we set out the University’s approach to risk management, including guidance on how to assess and manage risk in their everyday roles. Effective risk management is crucial in protecting the reputation and sustainability of the University. It means we can achieve objectives and make well-informed decisions that make sure the University’s activities are sustainable and compliant. This year, environmental sustainability was added to the Risk Register, the list of risks that have a fundamental impact on the University’s ability to deliver its mission.



# Key Performance Indicators

	2019/20 $\diamond$	2018/19	2017/18	2016/17	2015/16	2014/15
Total Scope 1 and 2 carbon emissions (energy and fuel use) (tCO <sub>2</sub> e) *	53,931	57,872	62,014	69,734	74,828	80,882
Carbon emissions from water use (tCO <sub>2</sub> e)	419	456	437	345	357	383
Total Scope 1 and 2 carbon emissions per FTE staff and student (tCO <sub>2</sub> e/FTE) **	1.7	1.9	2.1	2.4	2.6	2.9
Carbon emissions from water use per FTE staff and student (tCO <sub>2</sub> e/FTE)	0.013	0.015	0.015	0.012	0.012	0.014
Total Scope 1 and 2 carbon emissions per total income (tCO <sub>2</sub> e/£1000) **	0.048	0.053	0.062	0.076	0.081	0.096
Carbon emissions from water use per total income (tCO <sub>2</sub> e/£1000)	0.0004	0.0004	0.0004	0.0004	0.0004	0.0005
Total water consumption (m <sup>3</sup> )	426,953	461,578	445,578	352,084	363,983	390,099
Total water consumption per FTE staff and student (m <sup>3</sup> /FTE)	13.7	15.1	14.9	12.1	12.7	14.0
Waste mass generated per FTE staff and student (tonnes/FTE)	0.20	0.15	0.18	0.47	0.28	0.29
Waste sent to landfill (tonnes)	72	257	409	1,402	2,448	2,030
Percentage of waste generated that is recycled or composted (construction and non-construction waste) (%)	73	54	67	82	70	74
Scope 3 emissions (water; commuting; business travel; waste) (tCO <sub>2</sub> e)	15,197	30,461	29,513	28,581	20,903	21,229
The percentage of new buildings that are certified at least BREEAM Excellent or equivalent (%)	50% (1 of 2)	66.6% (2 of 3)	50% (1 of 2)	50% (2 of 4)	50% (1 of 2)	50% (2 of 4)
External awards for sustainable construction/design	No awards	1 award	2 awards	1 award	no records	no records
Percentage modal split for commuting by staff single occupancy car journey (%)	31	31	30	26	25	24

	2019/20 $\diamond$	2018/19	2017/18	2016/17	2015/16	2014/15
Percentage modal split for commuting by staff car share (%)	6	6	6	10	8	8
Percentage modal split for commuting by staff bus (%)	8	9	7	7	7	8
Percentage modal split for commuting by staff train (%)	8	6	6	6	6	6
Percentage modal split for commuting by staff cycle (%)	36	37	39	42	42	42
Percentage modal split for commuting by staff walk (%)	9	8	9	8	10	10
Percentage modal split for commuting by staff motorbike (%)	1	1	1	1	1	1
Percentage modal split for commuting by staff other (%)	1	1	2	1	1	1
Per capita carbon emissions from flights (tCO <sub>2</sub> e/FTE)	0.56	1.00	1.09	1.00	0.74	0.77
Number of awards won by Green Impact teams	46	50	46	45	43	37
Number of members of the Environment and Energy Coordinator Network	81	112	98	100	103	97

\*The reported KPI is our Location-based emissions figure. We also report our Market-based emissions figure, to take account of the renewable electricity we procure via a Power Purchase Agreement, but this figure is not currently reported as a KPI. See the Carbon and Energy section for details.

\*\*Calculated using our Location-based emissions figure.

The figure for 'Scope 3 emissions (water; commuting; business travel; waste)' of 15,197 tCO<sub>2</sub>e excludes supply chain emissions.

For each of the years above, the reporting period covers the 1st August to the 31st July.

$\diamond$  PricewaterhouseCoopers LLP ('PwC') have provided limited assurance over the 2019/20 figures presented in this table. The 2019/20 **assurance opinion** can be found on our website along with our **Methodology Statement** – the basis on which the KPIs are calculated and on which the limited assurance is given. As described in our **Methodology Statement**, the University has adopted what is known as the Operational Control approach, under which the buildings, activities and operations included in our calculations and reporting are those over which the University has direct control or significant influence. Our KPIs therefore do not cover the colleges or the University's subsidiary organisations.

The following KPIs have been removed from the KPI table as they are not assured by PwC or we are not reporting on them anymore: Percentage of energy generated from onsite renewable or low carbon sources (%); Percentage of new buildings and major refurbishments confirmed by the Ecological Advisory Panel as having no net negative impact on biodiversity (%); and the percentage of buildings that have a minimum Display Energy Certificate (DEC) rating of 'D' (%). The reasons for which are explained in the carbon and energy, and biodiversity sections of this report.

## Get involved

Everyone has a role to play in reducing our environmental impact and creating a sustainable University. Collectively all of our actions add up to make a big impact. Find out more and get involved.

 @CUustainabilityteam

 @CambridgeSust

 cambridgesust

[environment.admin.cam.ac.uk](http://environment.admin.cam.ac.uk)