

FOR THE YEAR 2023



DARWIN COLLEGE
CAMBRIDGE

SUSTAINABILITY PROGRESS REPORT



Background

The inaugural Darwin College Sustainability Report provides a comprehensive overview of Darwin's sustainability efforts and achievements over the past year (September 2022 to September 2023). It aims to provide information on progress achieved, encourage participation in ongoing projects, identify opportunities for improvement, and help foster a culture of environmental responsibility within and beyond the College community.

This report positions the College within the broader sustainability landscape of the University of Cambridge, serving as a supplementary document to recent publications by the University. As a legally autonomous organisation, Darwin's initiatives are not wholly captured in the University's publications, but solutions and challenges will inevitably overlap. This report documents the specific steps Darwin has taken to advance sustainability within its own operations while contributing to the University's overall environmental objectives.

The **Strategic Plan for Darwin College 2022-32**, published in late 2022 , sets out five priorities for the future, including the intention to “Act on and promote solutions to global challenges including sustainability”. This report focuses on this key priority – broken down into nine strategic goals – and details how the specific events and activities in the past year have contributed to them. These goals, and Darwin’s progress to date, are summarised in the following table:

Strategic goals to act on and promote solutions to global challenges including sustainability
To be at least carbon zero by 2032
To foster behaviours and actions that reduce individual and collective environmental impacts
To ensure all energy sources used in the College are supplied from renewable sources
To create and promote sustainability best practice guides for use by the whole College community
To establish a rolling programme of College activities to contribute to selected global challenges, especially those identified by the Global South
To establish a College Sustainability Fund to support collaborations that address sustainability
To foster collaborations with other University, College and local initiatives addressing global challenges
To collaborate with our highly qualified and globally distributed alumni network to share knowledge and inform key decision makers
To promote Darwin internationally as a destination of choice for students and Fellows committed to addressing global challenges

Executive summary and outlook



Highlights of the year have included award-winning student and staff initiatives; a day celebrating Darwin families, with a focus on biodiversity; and the appointment of the College's first full-time gardener.

Since the publication of the College's ten-year strategic plan, Darwin has made significant progress as a promoter and educator of sustainable practices. A monthly feature, *Seasonally Darwinian*, and updated waste guidelines for students living in halls have served to support this aspect of collegiate identity.

Members of the College have received international awards in the field of sustainability over the past year, and many continue to be global leaders in tackling the challenges of climate change.

The College aims to improve its domestic practices in:

- monitoring and evaluating biodiversity,
- promoting low-carbon travel,
- and embedding sustainable procurement policies.

In the coming years, the College could better harness the talents of its international alumni to help it achieve its strategic goals.

Overall, in the year since the publication of the Strategic Plan, Darwin is meeting or making progress towards five of its seven goals to promote solutions to global challenges including sustainability. The College continues to make progress towards being carbon zero by 2032.

The People

Darwin fosters an intellectually rigorous environment which supports up to 800 postgraduate students, 50 postdoctoral research associates and 70 Official Fellows. Sustainability is a global challenge which spans all disciplines. The current Master of the College, **Professor Mike Rands**, is a conservation biologist, former Chief Executive for BirdLife International and Founding Director of the Cambridge Conservation Initiative. Darwin's Fellowship also includes leaders in biodiversity conservation, climate science, engineering and public health.



Professor Mike Rands



Professor Emily Shuckburgh OBE



Professor Dame Jane Francis



Professor Carol Brayne CBE



Professor Chris Sandbrook



Dr Jennifer Schooling OBE

Cambridge Zero Darwin College David MacKay Research Associates

The College has a close working relationship with Cambridge Zero, the University of Cambridge's response to the climate crisis, whose Director **Professor Emily Shuckburgh OBE** is a Darwin Fellow. In 2021, Cambridge Zero, The Centre for Science and Policy, and Darwin College created the Cambridge Zero Darwin College David Mackay Research Associates, named in memory of Darwin College Smithson Research Fellow, **Sir David MacKay**, author of *Sustainable Energy: Without the Hot Air* (2008). Up to three postdoctoral researchers are appointed for one year to pursue research related to climate change. Three cohorts have so far been appointed.

This year, **Dr Angie Burnett** (2021-22) was appointed one of the founding Programme Directors at the UK's new Advanced Research and Invention Agency (ARIA), where her focus is future food security. **Dr. James Smith** (2021-22) organised a Planetary Health Series, hosting the final workshop at Darwin.

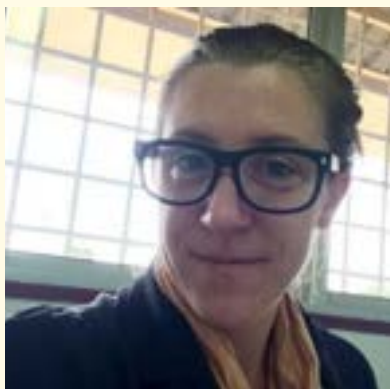
In the autumn of 2022, the second cohort of David Mackay Research Associates each organised events for the Cambridge Zero Climate Change Festival, exploring ocean-based carbon dioxide removal, climate litigation, and passive cooling strategies in the UK's built environment.

This summer, three new academics were appointed:

Tamzin Byrne, whose research focuses on putting nature at the heart of the carbon market with a scalable, automated system to accurately verify and compare credits from natural landscapes.

Dr. Catherine Waite, whose research focuses on land-use scenario modelling to identify management regimes and interventions to meet human and biodiversity needs.

Dr. Jinying Xu, who aims to develop a standardised model for the digitalisation and automation of carbon data measurement and reporting to collect trustworthy data that facilitates informed carbon management decision-making in highway assets.



Research talks

This year, Darwin Fellow and Director of the Centre for Smart Infrastructure and Construction (CSIC) **Dr Jennifer Schooling** delivered a well-attended Erasmus Seminar, entitled *Smart infrastructure – how data is helping us deliver infrastructure services fit for the 21st century*.

Five of the lunchtime seminar talks delivered by members of the College covered topics related to the UN Sustainable Development Goals

A Living Lab

Darwin is a dynamic, research-intensive community, with a large population of PhD students, post-docs and Fellows, as well as an engaged staff who keep abreast of newest and best practices.

Bumble Bee Conservation



Zoology PhD **Sofia Dartnell**, is conducting a project to understand the density of bumble bee colonies within different floral landscapes, including Darwin.

Darwin Kitchens



Catering Manager **Ivan Higney**, has collaborated with academics to conduct experiments within the Darwin kitchens for several years. This year, he has overseen investigations into mussels as an alternative source of protein and the impact of carbon footprint labels and subsidies on food choices.

Growing our community

Darwin is proud of its diverse community, and aims to continue to attract College members from all backgrounds and disciplines. This year, the College welcomed 12 new members (staff, Research Associates, Fellows, Senior Members and Honorary Fellows) whose work directly contributes to sustainability. These include:

Derrienne Bell, the College's first full-time Gardener, who has begun shaping and maintaining the unique character of the Darwin gardens, bringing sunshine through her welcoming conversations with students, floral arrangements for special events and monthly garden updates.

In recognition of the importance of sustainability to the College, the new role of Sustainability Engagement Coordinator was formed.

Darwin is proud of its diverse community, and aims to continue to attract a wide range of College members. This year, the college welcomed 12 new members (staff, Research Associates, Fellows, Senior Members and Honorary Fellows) whose work directly contributes to sustainability. Highlights from the growing community include:

- **Derrienne Bell**, who was appointed as the College's first full-time Gardener.
- PhD student **Megan Groom**, who was appointed to the new role of Sustainability Engagement Coordinator.
- Renowned meteorologist and climate scientist **Professor Dame Julia Slingo**, who was welcomed as an Honorary Fellow.



Derrienne Bell



Megan Groom



Professor Dame Julia Slingo

Awards



Green Impact is the University's environmental accreditation scheme. This year, Darwin received the following Gold Awards:

- Sustainability Hero - **Ivan Higney**, Catering Manager
- Community Action - **Project Second Life**
- Student Leadership, National (SOS-UK) - **Megan Groom**, 2021-22 Environmental & Ethical Affairs Officer

From grassroots actions to global leadership, Darwin aims to enable, educate and celebrate outstanding people and ideas. This year the achievements and efforts of College members in seeking sustainable solutions for sustainability have been widely recognised. The College is also proud to once again be a nominator for the Earthshot Prize.

PhD student, **Meg Groom**, was one of the Vice-Chancellor's Social Impact Award winners, in recognition of her efforts to support sustainable initiatives across the College.

In 2023, Darwin College's **May Ball** achieved its highest ever Sustain-a-Ball accreditation, with the top Platinum award across the University. This year's efforts were led by Co-Presidents, **Joe Cowan** and **Toby Brann**, and Green Officer, **Sophie McSherry**.

Looking beyond Cambridge



Darwin alumnus **Lhendup Tharchen** (MPhil Conservation Leadership, 2016-17) has been recognised by the Explorers Club as one of 50 "extraordinary individuals changing the world".

Darwin alumna **Dr. Trang Nguyen** (MPhil Conservation Leadership, 2013-14) was selected as the overall winner of the Science and Sustainability British Council Study UK Alumni Awards in Vietnam, and a finalist in the Global Awards.

Dame Professor Jane Francis, Darwin Fellow and Director of the British Antarctic Survey, was given the Award for Planetary Health from the Prince Albert II of Monaco Foundation. The award was created to show support to exceptional people who are committed to saving our planet in each of three priority areas: limiting the effects of climate change, preserving biodiversity, and managing water resources.



The Estate



The College is based in a cluster of former family houses with beautiful informal gardens, at the heart of the University and city. The River Cam flows through the grounds, providing around 350m of river frontage at the heart of the estate. The 14 buildings on the main College site are located in a tight triangle, with busy roads on two sides and the river as the border on the third side. These buildings provide accommodation for around 120 postgraduate students as well as housing administrative offices, the Library, Dining Hall and kitchens, student bar and common rooms.

The College's estate also encompasses off-site accommodation, including Causewayside, Malting House, 10 Barton Road and Frank Young House. These properties range from terraced housing to entire detached hostels, offering a variety of options for the diverse needs of our students .

Energy sources and demand reduction

The College is committed to reaching carbon zero by 2032. A key factor in achieving this is to ensure that all energy is sourced renewably. The College is already supplied with renewable electricity through the College consortium for electricity. This Renewable Energy of Origins (REGOs) contract is valid until 2027 for the main site, guaranteeing 100% UK-generated electricity.

In 2023, the College conducted an energy management trial with Ecosync, installing smart thermostatic radiator valves (TRV)s in student houses, Newnham Terrace 3 and 10, for dynamic energy management and temperature control on a room-by-room basis. The trial aims to compare energy usage with and without the smart radiator valves, to see if energy consumption can be reduced without compromising on student comfort. This will be evaluated in early 2024.

In the summer of 2023, all radiators in the main building were fitted with TRVs, and nearly all lightbulbs have now been replaced with low-energy alternatives.

Water source heat pump

In 2021, Darwin College commissioned an estate-wide review of the buildings and their heating systems. A working group of College members was subsequently tasked with developing an ambitious but achievable plan to decarbonise the entire built estate over the next decade. It examined the scope for fabric improvements to reduce energy demand and the various options for renewable heat: air source heat pumps, ground source heat pumps, direct electric heating powered by on-site PV generation, and a closed heat network fed from a water source heat pump using the river Cam as a heat source.

In 2022, in a collaboration with six other riverside Colleges, Mott MacDonald were commissioned to monitor water flow, depth and temperature at four locations on the river and to produce a detailed hydrology study. The report, delivered in 2023, confirms the considerable potential of the river to supply heat for space and hot water heating for the adjacent Colleges.

Grants to decarbonise

Darwin has been awarded two grants by Salix under Phase 3b of the Public Sector Decarbonisation Scheme and Phase 4 Low Carbon Skills Fund. These awards allow the College to embark on significant and innovative projects to decarbonise its estate.

The first award, under the Salix Public Sector Decarbonisation Scheme for £141,000, is currently contributing to the cost of refurbishing Frank Young House, an offsite hostel with 30 rooms. Existing gas-fired boilers are being replaced with air source heat pumps, and double glazing, and will be open to students from 1st January 2024.

Darwin is now working up a decarbonisation plan for its main site. Following a grant award of over £200,000 from the Salix Low Carbon Skills Fund in June 2023, work is underway to design, to a RIBA Stage 3 level, an on-site heat network feeding all 14 buildings on site from water-source heat pumps at the edge of the estate, and to include associated building fabric upgrades. The final report, due in March 2024, will form the basis of a proposal that will work through 2024, with the aim of the works being undertaken in 2025/6.



College Life

Student Initiatives

The College aims to foster individual and collective action for the benefit of the planet, much of which is driven by students. As a postgraduate community, many members arrive at Darwin with outstanding ideas and leadership from their own cultures, subjects and careers. This year, students have tackled issues related to food waste, energy and biodiversity, often with significant success.



Plant-based May ball

This year, the student-run Darwin May Ball was 100% plant-based - a first in Cambridge.

May Ball Green Officer **Sophie McSherry** shared her highlights:

- **Energy Efficiency:** By prioritising energy-efficient lighting and equipment, we successfully reduced electricity consumption throughout the event.
- **Sustainable Transportation:** We embraced sustainable transportation options, encouraging attendees to choose cycling, walking or public transport.
- **Waste Management:** Accurate estimation and close collaboration with caterers meant only 1% of food was left over. This was donated to the Darwin College community. Additionally, conveniently placed recycling stations facilitated proper waste segregation, empowering guests to actively participate in the ball's sustainability efforts.
- **Locally Sourced and Sustainable Food:** We prioritised locally sourced, seasonal, and organic food options, supporting local businesses and reducing the carbon footprint associated with long-distance transportation.

The Darwin May Ball was accredited as the most sustainable University of Cambridge May Ball of 2023.

The EyeSense project, founded by **Dr. Anna-Marie Kypraiou** and **Tashiv Ramsander** of Churchill College, collaborated with Sophie to monitor energy consumption by measuring the temperature, humidity, and carbon

emissions at key locations throughout the night.

“This allowed us to not only have a better picture of how green and sustainable the May Ball was, but it also provides a blueprint for future events and developments at Darwin College, providing real-time data on energy efficiency and consumption.” **Sophie McSherry, May Ball Green Officer**

Engage for Change

Engage for Change is an initiative run by Cambridge Hub, to support students to enhance their skills, confidence and awareness of environmental sustainability and changemaking. This year, three Darwin students took part.

Paula Weidemüller PhD in Bioinformatics	Sophie McSherry MPhil in Holocene Climates
<p><i>“DarWild is a student-led initiative that is concerned with enjoying and understanding Darwin’s biodiversity better. We put up wild cameras that capture footage 24/7 whenever they detect movement in front of the lens. We enjoyed several duck couples swimming past, herons finding their next meal and most importantly the occasional nod to the camera from our resident otter, Pebbles. However, the cameras capture more footage than we are able to analyse by hand. So currently we are building an automated infrastructure using neural networks (machine learning) to automatically classify the detected animals and make the data regularly accessible to the Darwin community and general public via a dedicated website. Only through understanding and appreciating the incredible biodiversity in our college can we effectively conserve, protect, and nurture it.”</i></p>	<p><i>“For my Engage for Change project I wrote a report which analysed and evaluated the Cambridge Colleges Environmental Sustainability Report (2023), providing recommendations and reasonings for the highlighted areas that the report focuses on. The report provides a positive reflection of the current and future initiatives and strategies by the Colleges in environmental sustainability, however, on only a couple of occasions are all 31 colleges participatory in the same initiatives and strategies. The report concludes with the following recommendation, to create an individual Environmental Sustainability Action Plan in alignment with the Cambridge Colleges Environmental Sustainability Report for each College which is tailored and suited to the current progression and strategies/mechanism in place at that College.”</i></p>

Project Second Life

Project Second Life (PSL) is an award winning, student-led, reuse scheme, collecting belongings of departing Darwinians and offering them to new members.

In its third full cycle, PSL extended to bike resale and a linen and bedding welcome desk. Fourteen bikes from the annual bike cull were professionally repaired and offered to students on a pay-what-you-feel basis. This year, new students were greeted with a choice of good quality duvets, towels, pillows and linens upon arrival.

PSL is driven by students, with the support of College staff. **Nineteen student volunteers** promoted, collected, sorted, packed, weighed and displayed all **850kg** of donated goods. Their efforts culminated in raising **£1,100** and recirculating 430kg within the Darwin community, including **14** repaired bikes. Leftover items, which are in good condition, have been donated to local charities It Takes A City and Emmaus.

Events

Events enable the College to engage its community, promote best practice and initiate collaboration. Some, such as Green Week, have been an annual feature of the College calendar for some time. Others, like Families Day, are new and draw on fresh perspectives and volunteers to help organise them.

Families Day



The first ever Darwin Sustainability Families Day was organised in June 2023, by DCSA Families Officer, **Chen Ye**, and Sustainability Engagement Coordinator, **Meg Groom**.

All Darwin members were invited to bring their families to enjoy the gardens and learn about its biodiversity, through events organised by staff, students and Fellows. The day was completed with a Hogwarts themed Family friendly formal.

100 day tickets were sold, and 60 families dined together.

“Thanks to all who hosted us including the nice folk in the gardening, bird-watching, face-painting, future-forecasting, punting, kayaking, candle-making and the nice sustainable food too.”

Darwin Member

“It was a joy to see such a diversity of participants and all those little feet streaking around Darwin, taking in the gardens”,

Volunteer

“A very well-organised and well thought-through event filled with fun and diverse educational activities... reminding us to appreciate the beauty and complexity of the natural world”,

Parent

Special thanks to all the volunteers who ran events on this day: Jana Sebestikova, Derrienne Bell, Torsten Krude, Amelia Urry, Jonny Itcovitz, Sarah Sharp, Ivan Higney, Alexander Augustus, Beau Roberts, and those who supported them.

Green Week



Green Week 2023 kicked off on Saturday 20th May with a picnic in the Botanic Gardens with the APES (Animal, Plant and Environment Society).

In the evening the Music Society raised money for Cambridge Community Kitchen in an open mic night showcasing the wonderful range of Darwin’s musical and artistic acts.

Monday saw a celebration of Darwin’s student-run gardens with, with a very well-received selection of homemade pestos and dips, vegan wines and Darwin-grown produce

The highlight of the week was the waste tour on Tuesday, where a group of Darwin and Wolfson students, staff and



Darwin Kitchens trips



Fellows travelled to the Thalia Recycling plant in Waterbeach to see first-hand what happens to our recycling.

The College hosted Green Formals on both Wednesday and Friday, while Thursday's lunch in the Dining Hall offered vegan options from plant-based food vendor EatCurious.

The week was brought to a close on Friday with a pop-up vegan wine tasting in the Richard King room.

Joshua Bickler

The Catering team ran several trips over the summer, on which staff, students and Catering Managers from other colleges toured and sampled:

Chet Valley Vineyard - suppliers and sponsors of the 2023 plant-based May Ball.

Eat Curious - producers of plant-based meat alternatives and vertical growing in a closed-loop system with solar farm, water reuse and XYZ robots.

Other highlight events include saying farewell to College gardeners of 30 years, Rod Ailes and Ros Keep and a panel event followed by plant-based BBQ organised by Plant Based University (PBU) Cambridge and Cambridge Zero.

Food

Darwin is proud of its reputation for high quality catering and recognises its responsibility to provide healthy and sustainable food to its members. **Catering Manager Ivan Higney** and his team continue to show sustainability leadership within the College, and the wider University. For several years, Darwin has been proud to share its Sustainable & Ethical Catering Statement.



Promoting low carbon diets

As of Michaelmas 2023, the default option at Formal Hall is vegetarian. Meat and fish are available by opting in. During daily food service, there is always a vegan and vegetarian option, which is placed first in the servery and subsidised more generously than the meat option. Catering at events is also vegetarian by default.

Community fridge

Set up in 2021 in collaboration with the DCSA, the Darwin Community Fridge allows the catering team to share servings of food left over at the end of the day. The food is freely available to any Darwin members, and minimises the kitchen's food waste. From this year, regular updates of what's available in the fridge are now posted on the X account [@Darwinnowaste](#).

Student allotment

The student-run allotment on the main Darwin site has been revived and rejuvenated since the Covid-19 pandemic. PhD student **Jana Sebestikova** led the student Gardening Society in 2022-23, with the support of College Gardener, **Derrienne Bell**, and Fellow **Dr Edwin Rose**. The allotment provides fresh produce, is accessible to all members, and teaches students about what it is possible to grow in the UK climate.

Biodiversity

Darwin's main site backs on to the river, and its informal gardens offer plenty of sheltered habitats. There are also several walled gardens attached to the off-site accommodation. In previous years, bat audio detectors and camera traps have been installed in the gardens by students to reveal more about the garden's biodiversity.

This year, following expert consultation and participation in the College's Biodiversity Baseline Report, we have installed six swift boxes and one wagtail box.

In September, Darwin Gardener **Derrienne Bell** spent a day at Knepp Castle walled garden, to find about more about the possibilities for encouraging biodiversity across the site.



Travel

In February 2023, Darwin launched a sustainable travel grant for students. The grant funds the difference between a short-haul flight for academic purposes and a more sustainable travel option. Working with Cambridge Zero Darwin College David Mackay Research Associate, **Tamzin Bryne**, the College has ambitions to develop and expand this policy to promote and enable best practices for its members.

Procurement

What we buy, how frequently and where from will impact the College's progress to carbon zero. The Catering Department has a Sustainable and Ethical Statement, which informs its purchasing decisions. This year:

- New electric gardening equipment has been purchased, to equip the new Gardener.
- New soaps have been trialled by Housekeeping, delivered in sachets to reduce the emissions involved in transportation.
- Housekeeping and Maintenance have collaborated to install new highly efficient shower heads, using a colour-coded filter system to ensure regular maintenance. This new product and practice aims to reduce residential water usage in College.

Waste

The College has a responsibility for the waste it produces, but also for the behaviour of its members. We aim to promote best practices, such as waste reduction and responsible waste disposal. The College Catering Department has been a leader within the College, having segregated food, recyclable and non-recyclable waste for several years, well as taking the decision to remove single-use takeaway cups and containers and promote the use of reusable ones. This year, efforts were concentrated on behaviours within College accommodation, which members can continue to practise as they move beyond Cambridge.

Student accommodation

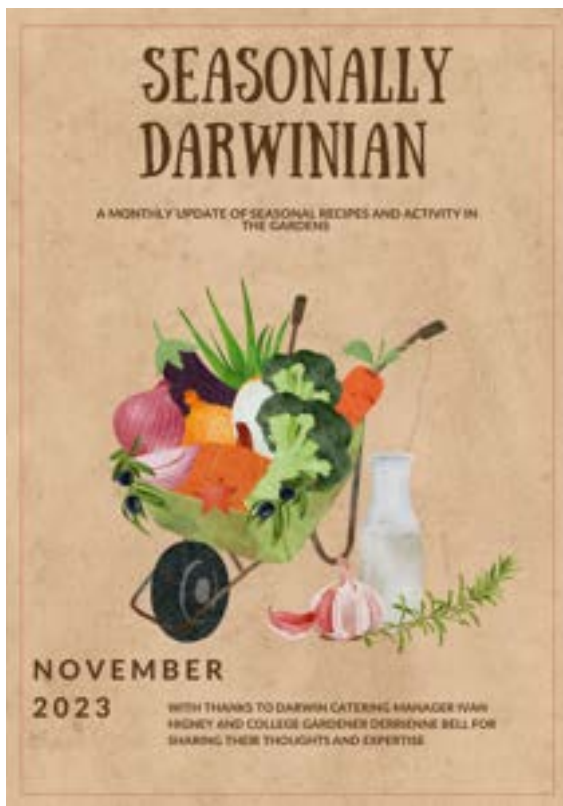
Around 300 members live in Darwin accommodation, sharing 49 kitchens. Head of Housekeeping **Gill Cooper** has worked with Sustainability Engagement Coordinator **Meg Groom** this year to improve waste signage and storage and encourage best practice. The actions taken this year include:

- New recycling bins and signage
- New in-room collapsible recycling bags
- New signage for food waste caddies
- New guidelines provided at the Welcome Desk

Communications

Communicating with the College membership is a crucial aspect of maintaining strong relationships, inviting participation and keeping the community informed. The College continues to celebrate the achievements of its membership through news pieces, social media, and its alumni magazine, *The Darwinian*. In the past year, there have been seven news articles on the Darwin website with a clear sustainability focus.

Seasonally Darwinian



This May, a new monthly feature called *Seasonally Darwinian* was launched. Curated by Communications Manager **Laura Kenworthy** it features regular updates from College gardener **Derrienne Bell**, and seasonal recipes from Catering Manager **Ivan Higney**. The feature informs members of the seasonal changes happening in College, from plants to menus, while promoting best practices for members to carry out in their own gardens and cooking.

Findings

Having outlined the achievements and efforts of Darwin's approach to sustainability this year, the following section summarises its strengths and weaknesses.

Darwin's community is made up of motivated individuals capable of great achievements through collective and individual action. This is reflected in the number of awards it has received this year at a local and global level. Within the College environment, its student-led initiatives stand out, in particular its plant-based May Ball and Project Second Life. The Community Fridge is a prominent staff-led initiative which students benefit from. Student-led projects also require staff support, demonstrating a culture of cross-College collaboration

and commitment.

The College has begun to develop a portfolio of resources and events which promote sustainable practices. Its monthly feature, *Seasonally Darwinian*, encourages seasonal cooking and biodiversity-conscious gardening. The recent update to waste guidance for students in halls, with complimentary bedroom recycling bags, sets the code of practice expected of Darwin residents. The introduction of opt-out vegetarian formal dinners also promotes a lower-carbon diet. Overall, the College is showing leadership when it comes to reducing the environmental impact of day-to-day actions.

Biodiversity is hugely important to the College as a whole. The community takes pride in its 'wild' garden, and the current Master is a conservation biologist. There have been efforts to educate and engage the Darwin community in the garden's biodiversity, through the nature themed Families Day and the Gardener's monthly updates in *Seasonally Darwinian*. There have been some small scale practical improvements, such as installing bird nest boxes, which were informed by expert advice. More strategic efforts to embed these practices could involve monitoring and evaluation of the biodiversity currently present in the Darwin grounds. This baseline report would then pave the way for a College biodiversity action plan, which would include nature-positive policies to support species present in the garden. Resources and expertise would need to be provided to conduct a baseline survey. The new addition of a full-time gardener presents a novel opportunity for leadership on such a project, and someone to shape the practical implementation of any future action.

This year, sustainable travel initiatives did not feature in the College's efforts, though the inclusion of repaired bikes in the Project Second Life sale does encourage cycling. Whilst it should be noted that travel sponsored or paid for by the College is quite small compared to other Colleges, owing to the absence of sports or music tours, this could be viewed as an opportunity to show leadership, tackling its relatively small emissions to pave the way for other Colleges. Possible interventions could include only allowing reimbursements to be used for low carbon travel within Europe, or for carbon-off-set travel intercontinentally. This may require a review of current and previous funding of travel, followed by updating the guidelines for travel reimbursement.

There is not currently a College-wide policy to ensure minimum sustainable standards for procurement. Although, the catering department has its own sustainable and ethical policy, which includes purchasing fairly traded products and avoiding threatened species of fish. Individuals in other departments have made sustainable purchases, showing cross-department awareness and commitment to sustainability. However, the creation of procurement policies would embed sustainable purchasing across all College departments, and rely less on individual initiative.

In the future, the College could look to focus its efforts on monitoring biodiversity, low-carbon travel incentives and sustainable procurement policies. It could pull on its strong culture of student-staff collaboration, which has been demonstrated through its award winning projects.

Looking at the Strategic Plan

In the first year since the publication of the College's ten-year strategic plan, it can celebrate progress in promoting best practices and behaviours that are necessary for a zero-carbon world. Darwin has shown particular leadership in promoting best practice in the areas of food and waste, resulting in University-wide awards. This promotes the College as a community of excellence for social and environmental grassroots action.

The College membership includes several international leaders in addressing global challenges, and it continues to expand its membership to include new researchers tackling the broad spectrum of challenges presented by anthropogenic climate change. This year, members of the College have received a range of international awards, celebrating their research and contributions to climate science and conservation. The College could build on this success by investigating how it can support its research members and alumni to continue to excel in their international careers.

Looking ahead to the next nine years, Darwin could look to foster stronger connections between its international alumni network and the College's effort to contribute to sustainable solutions. Connections could be built by designing annual events with the Alumni and Development Office, online and in-person to form part of a rolling programme, which has been identified as a strategic goal. These events could reflect topics where the College excels in its own practice, such as food, and those where the College membership have a depth of expertise, such as conservation. There is an opportunity to better engage the College's international alumni community to help it achieve its strategic aims.

The College aims to be zero carbon by 2032. To achieve this, progress is underway to decarbonise the College estate, by retrofitting its existing buildings and investigating sources of on-site renewable energy generation. Work is already underway at Frank Young House to improve insulation, allowing for air-source heat pumps to replace gas boilers. A call to action for the greatest challenges facing the College with respect to decarbonising its built estate could help focus cross-College efforts.

Overall, in the first year since the publication of Darwin College's Strategic Plan 2022-2032, it is meeting or making progress on five of its seven goals identified under its aim to act on and promote solutions to global challenges including sustainability. Many of these successes have drawn on the collective commitment of students and staff, and the research excellence of its members. Engaging with alumni should be a priority in making progress on the remaining goals.

Strategic goal	Position	Current progress and suggestions
To be at least carbon zero by 2032	Making progress	<p>Progress is being made to decarbonise the built estate, supported by two successful applications to Salix. Funding has been awarded under Phase 3b of the Public Sector Decarbonisation Scheme and Phase 4 Low Carbon Skills Fund totalling over £350,000.</p> <p>The first of these ontributed to the refurbishment of Frank Young House, improving insulation and replacing all gas-fired boilers with air source heat pumps.</p> <p>2024 will see the continuation of the College’s ambitious plans to design and install an on-site heat network from water-source heat pumps. This innovative project is supported by a second Salix fund for over £200,000.</p> <p>Future projects should include decarbonising our small fleet of College vehicles, and embedding sustainable procurement and travel policies.</p>
To foster behaviours and actions that reduce individual and collective environmental impacts	Achieving	<p>The College catering team continues its leadership in promoting low-carbon meals, informed by academic research, and reducing food waste through its award-winning Community Fridge. This year saw new proactive food initiatives such as a plant-based May Ball and opt-out vegetarian Formals.</p> <p>This year the award-winning student-run Project Second Life expanded its offering to members by including second-hand refurbished bikes and bedding, promoting circular principles to its members.</p> <p>The newly formed student sustainable travel fund enables lower carbon travel within Europe, by reducing the potential financial barrier. Looking forward, this policy could be expanded to other College subsidised travel.</p>
		Electricity supplied to the College is 100% renewable, with the current renewable energy generation of origin

<p>To ensure all energy used in the College is supplied from renewable sources</p>	<p>Making progress</p>	<p>(REGO) contract running until 2027 for the main site.</p> <p>As well as ensuring sources are renewable, energy demand has been reduced by installing thermostatic radiator valves throughout the main building, and replacing nearly all lightbulbs with low-energy bulbs on a rolling basis.</p> <p>Following a viability assessment for river-source heating for an on-site heat network, the College is currently engaged in a design report and aims to fund and carry out the ambitious work by 2025/26.</p> <p>Fundraising will continue to enable upgrades to the College built estate, to ensure all energy sources are renewable by replacing gas-fired boilers and generating our own renewable energy where possible.</p>
<p>To create and promote sustainability best practice guides for use by all the College community</p>	<p>Making progress</p>	<p>The creation and publication of <i>Seasonally Darwinian</i> will result in an annual guide to seasonal practices for the garden and when cooking.</p> <p>The updated guidance for waste management within College accommodation promotes better waste segregation in bedrooms and kitchens.</p> <p>The creation of an overall guide on sustainability best practice for all members remains a goal. This could be shared with other Colleges.</p>
<p>To establish a rolling programme of College activities (research collaborations, education and outreach initiatives, interdisciplinary seminars, practical actions within</p>	<p>Making progress</p>	<p>This year, progress has been made in research and education activities, including:</p> <ul style="list-style-type: none"> ● Planetary Health workshops which were hosted and facilitated by Darwin College. ● The appointment of the third cohort of Cambridge Zero Darwin College David Mackay Research Associates. ● A minimum of one lunchtime research seminar per term with a sustainability theme. <p>Future plans for research include:</p>

<p>College) to contribute to selected global challenges, especially those identified by the Global South</p>		<ul style="list-style-type: none"> ● The creation of Education & Research sub-groups to focus on key challenges to conducting research with impact, addressing global challenges. <p>A further plan, in a collaboration between the Alumni and Development Office and the Education and Research Committee, is the Darwin Grand Challenges Prize. Outlined in the College case for support, this prize will fund interdisciplinary and</p>
<p>To establish a College Sustainability Fund to support collaborations that address sustainability</p>	<p>Making some progress</p>	<p>Collaboration with the Alumni and Development Office will be necessary to achieve this.</p> <p>The need for a Sustainability Fund is included in the Case for Support for the fundraising campaign.</p>
<p>To collaborate with our highly qualified and globally distributed alumni network to share knowledge and inform key decision makers</p>	<p>Attention needed</p>	<p>The Engage for Change project which looked into sustainability networks lays initial groundwork for this. More needs to be done to organise in-person events and define the possible scope of the collaboration.</p>
<p>To foster collaborations with other University, College and local initiatives addressing global challenges</p>	<p>Making progress</p>	<p>Addressing the global challenge of homelessness and poverty: Project Second Life presents an opportunity to form a formal relationship with local charities, such as It Takes A City.</p> <p>As priority themes are identified by the College, related external partners could be sought.</p>
<p>To promote Darwin internationally as a destination of choice for students and fellows committed to addressing global challenges</p>	<p>Making progress</p>	<p>The awards received this year, by students, staff, Fellows and alumni effectively promote Darwin as destination of choice for those wanting to address global challenges.</p>