University of St Andrews | FOUNDED 1413

Sustainability Report

2024 – 2025

Sustainability Report

2024–2025

Image from Iain Campbell's We Drift Like Worried Fire *collection which was launched at Energy-in-Motion in June.*

Principal's Introduction

I am very pleased to introduce the University of St Andrews 2024–2025 Annual Sustainability Report. 2024 was officially reported to be the hottest year on record; the twin emergencies of climate change and biodiversity loss demand a profound re-evaluation of how we live, learn, and shape our societies.

At the University of St Andrews, we embrace this responsibility with both ambition and humility, and this report is a testament to what we can offer when vision, creativity, and collective endeavour converge. It reflects the embedding of the United Nations Sustainable Development Goals across research, teaching, operations, and community engagement, and strengthened governance.

Of the many projects undertaken during the past year, a key highlight is our historic 100-year partnership with Corrour in the Highlands, which exemplifies the power of long-term collaboration for nature-based climate mitigation, research, and teaching. Together, we are creating a living laboratory that advances the shared missions of both institutions.

Initiatives at the Eden Campus – including the Power-to-X facility producing green hydrogen, the Innovation Yard supporting low-carbon entrepreneurship, and Eden Mill distillery demonstrating circular resource use – showcase how sustainability can be both forward-thinking and practical.

Equally, St Andrews Botanic Gardens serve as a living laboratory, blending research, conservation, and education to illuminate the interdependence of ecosystems, climate, and resilience. This ethos extends beyond the local area through the St Andrews Nature Networks project where our Transition group has coordinated the restoration of parts of the Fife coastline, reconnecting habitats and communities in ways that are tangible, enduring, and deeply inspiring.

Among many examples of our commitment to embedding sustainability in curricula, contributions by Dr James Rae to the *National Climate Education Action Plan Curriculum Mapping Report*, and publication of *Practices of Education for Sustainable Development: A Critical Guide for Higher Education* by Dr Rehema White demonstrate the impact our research is making beyond St Andrews.

Students themselves are central to our collective effort. Initiatives such as the Sustainability Summit, Climate Cafés, and Green Week are some of the many ways students are applying their learning to address critical issues. And the St Andrews Prize for the Environment – most recently awarded to the Kham River Restoration Project in India – illustrates how local engagement, global awareness, and interdisciplinary curiosity come together to drive meaningful action.

This report reflects not only the challenges we all face, but also the remarkable opportunities that arise when knowledge, creativity, and commitment come together to address them. It is a record of achievement, a call to further action, and a reminder that the University of St Andrews seeks to lead with both courage and conscience – shaping a sustainable, resilient, and just future for generations to come.

Professor Dame Sally Mapstone FRSE
Principal and Vice-Chancellor of the
University of St Andrews

Reporting and Accountability

Strategic Governance

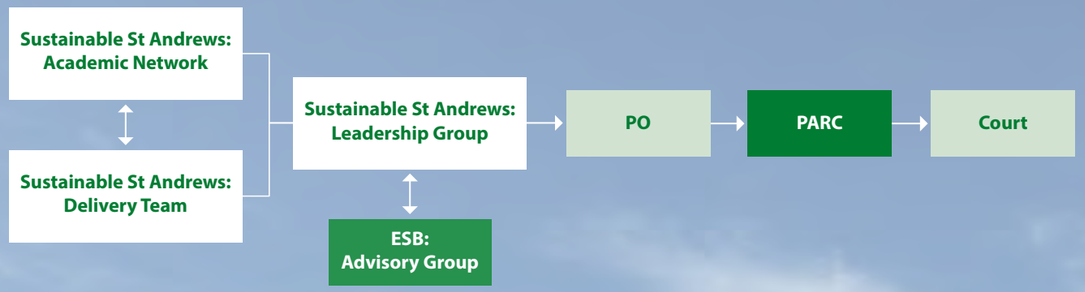
During the 2024–25 academic year, the governance structure for the sustainability strategic theme was restructured with the introduction of a Director of Sustainability Transformation to oversee the operationalisation of the University's Sustainability Strategy.

The strategic direction of the sustainable governance theme is advised by the Environmental Sustainability Board (ESB) and is embedded across all areas of the institution.

Led by Master of the United College, Professor Ineke De Moortel, the Senior Sustainable Leadership group meets six times a year to identify priority actions and strategies for progression across all key areas of the University.

The Master also oversees the Academic Sustainability Network, co-chaired by Assistant Vice-Principal Dean of Arts and Divinity, Professor Catherine O'Leary and Assistant Vice-Principal Dean of Science, Professor Gareth Miles. This network brings together sustainability representatives from each academic school for quarterly meetings to explore and progress school specific academic initiatives.

In parallel, the Sustainable Delivery Group, chaired by the Director of Sustainability Transformation Karen Laing, also meets monthly to drive forward operational priorities. Members of this group include representatives from planning, estates, procurement, business transformation, the biodiversity working group, communications and the student community.



Under this leadership, our strategic response focuses on:

Research

Advancing knowledge and translating findings into policy and practice

Education

Equipping students with the skills and understanding to address global sustainability challenges

Students and Community Engagement

Fostering awareness, action, and collaboration within the University and beyond

Estate, Energy, and Environment

Integrating sustainable practices across the campus and using it as a living laboratory

Operational Adaptation

Embedding sustainability into procurement, travel, digital systems, and institutional processes

Together, these priorities provide a structured framework for action, accountability, and continuous improvement, ensuring that the University not only mitigates environmental impacts, but also actively contributes to a sustainability positive future. All actions are reported internally to the Planning And Resources Committee (PARC) who oversee all University work.

In addition to internal reporting, we submit data to the Public Bodies Climate Change Duties (PBCCD) report, cataloguing our corporate emissions, projects, renewables, emission targets, climate risk assessment and adaptation action.

Carbon reporting

During the development of the Public Bodies Climate Change Duty report, various teams across the University – including Estates, Procurement, and Planning – were consulted to provide comments and data. Each year, the Scottish Government requires all public sector organisations to complete this report, ensuring transparency and accountability in relation to carbon emissions and climate action, to oversee the operationalisation of the University's Sustainability Strategy.

The University's total carbon emissions for the 2024/25 reporting year amount to 82,946.5 tonnes, representing a reduction from 84,968.98 tonnes in 2023/24. This decrease of just over 2,000 tonnes reflects continued progress in reducing our overall carbon footprint, even as our operations evolve and the demands on our estate change.

Scope 1 emissions, which cover direct emissions from activities owned or controlled by the University – such as heating, University-owned vehicles, and refrigerant gases – have risen this year. The increase is primarily the result of greater gas consumption during periods when the biomass system was offline, requiring increased reliance on more carbon-intensive heating methods.

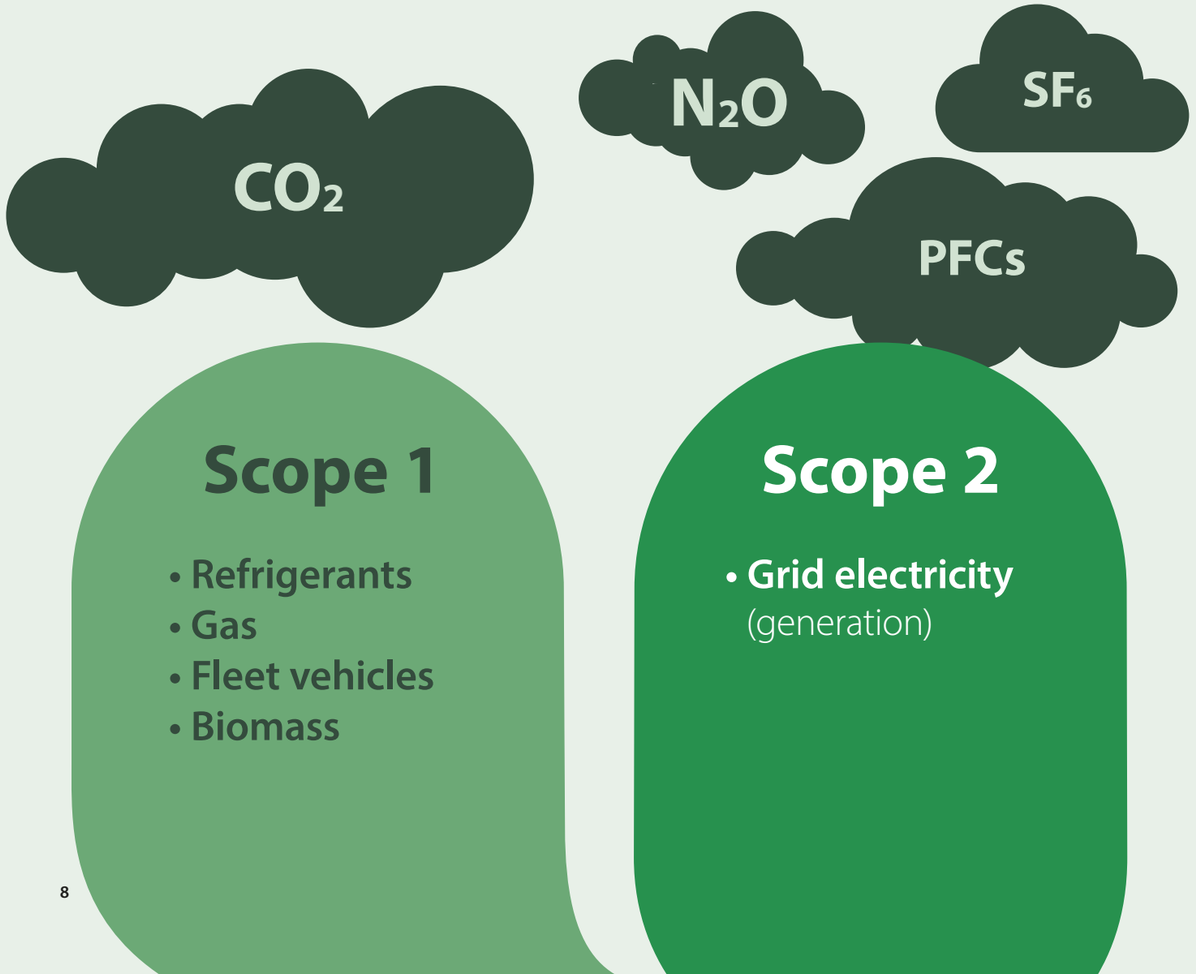
Scope 2 emissions, associated with purchased electricity, have decreased. This is due in part to reduced electricity use in halls of residence. Although non-residential electricity use increased, the overall carbon impact was mitigated by a lower national carbon conversion factor for electricity, contributing to an overall reduction in Scope 2 emissions.

Scope 3 emissions, which encompass a wide range of indirect activities including purchasing, expenses, business travel, commuting, homeworking, student travel, waste, water, and transmission and distribution losses, also decreased this year. While emissions from purchasing increased slightly, reductions in expenses, departmental business travel, and student travel helped to bring total Scope 3 emissions down.

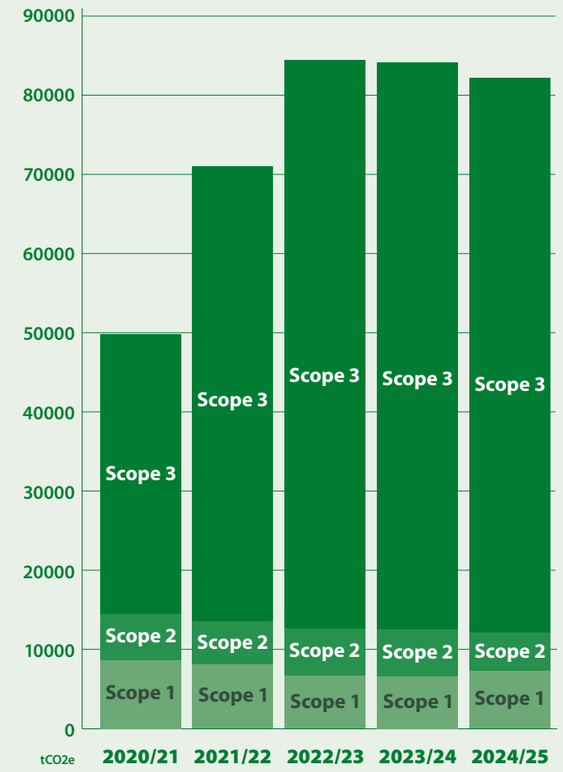
Flight-related emissions remain a notable component of the University's carbon footprint. In 2024/25, 341 tonnes of CO_2e were generated from first, business, and premium economy flights, compared with 122.75 tonnes from UK domestic flights. These figures represent a decrease from 2023/24, when higher-class flights accounted for 853 tonnes and domestic flights for 160 tonnes. This reduction was influenced by the travel restrictions introduced last year to reduce expenses. However, as international travel activity resumes, these figures may increase again unless measures are taken to discourage the purchase of higher-emitting ticket classes.

It is important to interpret flight emissions within the broader context of the University's global role. As an institution that attracts scholars, researchers, and students from around the world, international travel is an inherent and often necessary aspect of our academic mission. The educational and research outcomes enabled by this global mobility extend far beyond what emission statistics can capture.

The University plays a vital role in educating future leaders who go on to shape sustainability policy, scientific advancement, and climate solutions across academia, government, and industry. Their contributions help address the twin crises of climate change and biodiversity collapse in ways that are profound yet currently immeasurable. While our reporting offers a transparent reflection of our operational carbon footprint, the long-term positive impact of the University's teaching, research, and international engagement is significant.



Measured Carbon Performance at St Andrews



Research

Our research strategy continues to emphasise three priorities: advancing world-leading research on sustainability across disciplines, fostering sustainable research cultures that minimise environmental impact, and ensuring that research translates into practical, scalable solutions with real-world impact.

Delivering on these ambitions requires not only intellectual innovation, but also leadership in how research itself is conducted. Laboratories are among the most resource-intensive parts of a university, and embedding sustainability in their operation is vital to reducing emissions, improving efficiency, and demonstrating best practice.

To support this, we are adopting the Laboratory Efficiency Assessment Framework (LEAF) – an internationally recognised standard for sustainable laboratories that helps reduce energy use, cut waste, and promote sustainable practices across our research environments.

Sustainable Laboratories and LEAF Accreditation

LEAF is an accreditation system that assesses sustainability standards within laboratories, awarding Bronze, Silver, or Gold certification based on actions to reduce energy, waste, and resource use.

Following a pilot project at the start of 2025, four University laboratories achieved LEAF accreditation, demonstrating leadership in sustainable research. The Kumar Lab (Chemistry), the Czekster Lab (Biology) and laboratories in the School of Medicine achieved Silver, while the Pulver Lab (Psychology and Neuroscience) achieved Gold.

Dr Amit Kumar said: "My lab works on the development of sustainable chemical processes, and I have been hearing about LEAF certification for five years. Certain lab practices can contribute significantly to the reduction of waste, energy, and cost as well as introduce positive research culture and awareness in the group. Completing the LEAF certification allows one to think about these practices and create new strategies that benefit the team, School, University, and planet."

Of particular note was the leadership postgraduate lab members took towards achieving certification. Dr Stefan Pulver encourages labs to go for LEAF accreditation, and to empower their students. He said: "I would advise everyone to engage with the process and do what they can. I would also advise everyone to involve their students and early career researchers in the process, as they can be wonderful leaders."

The process, supported by Sarah Cook in Business Transformation, was viewed as both a practical and cultural step toward reducing carbon emissions, energy consumption, and waste, while also enhancing awareness of sustainable practices among students and early-career researchers.

LEAF accreditation has now become a requirement for labs funded by the Wellcome Trust and Cancer Research UK, with minimum levels set at Bronze and Silver respectively, and we anticipate more funding bodies will adopt a similar certification requirement, including for dry labs.
(UN SDG 7, SDG 12, SDG 13, SDG 17)

Outside the lab, **The St Andrews Environmental Humanities Network** launched in May 2025, bringing together researchers, students, and practitioners whose work engages with ecocultural issues ranging from the study of ancient landscape management and representations to investigations of contemporary sustainable behaviours and practices. The Network's aim is to foster interdisciplinary research and teaching as well as to serve as platform to engage with the world both within and beyond academia.

Environmental Humanities (EH) is an interdisciplinary field of study that explores the relationships between nature and culture. It combines traditional Arts and Humanities approaches with questions and methodologies from the social and natural sciences to examine the critical intersection of social and environmental issues.

The Network joins a number of centres across the University which address environmental concerns.
(UN SDG 4, SDG 11, SDG 12, SDG 13, SDG 15)

StACCS

St Andrews Centre for **Critical Sustainabilities**

The St Andrews Centre for Critical Sustainabilities (StACCS) delivered a programme of events and collaborations that demonstrate the value of interdisciplinary research and engagement in advancing sustainability. Activities over the past year have connected technology, culture, policy and education.

AI and Sustainability Panel

A high-profile panel, chaired by Dr Louise Reid during Sustainability Week, explored the environmental costs of artificial intelligence, its potential contributions to climate science, and risks of deepening social inequalities. The discussion highlighted the importance of universities in shaping critical debate and policy.
(UN SDG 9, SDG 12, SDG 13, SDG 16)

Arts, Storytelling, and Activism

Photographer and filmmaker Adrian Fisk screened JUSTNORTH, a documentary on climate change in Arctic communities, and launched Until the Last Oak Falls, a photographic record of environmental activism in the 1990s. These events demonstrated the power of arts and storytelling in shaping public understanding of sustainability.
(UN SDG 4, SDG 11, SDG 13)

Rewilding and Uplands

StACCS hosted Pete Cairns of Northwoods Rewilding, a finalist in the St Andrews Prize for the Environment, for discussions on sustainable upland management. Collaboration with Corrour Estate has led to the development of interdisciplinary PhD projects on peatlands and environmental monitoring.
(UN SDG 13, SDG 15, SDG 17)

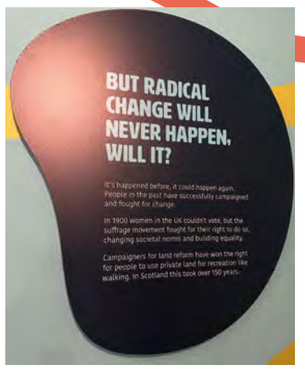
James Hutton Institute Collaboration

A workshop at the Botanic Gardens with colleagues from the James Hutton Institute focused on the science and logistics of long-term ecological monitoring, opening pathways for future collaborative research. **(UN SDG 15, SDG 17)**

Critical Sustainability Research Spring School

Delivered in partnership with the University of Bonn's Centre for Development Research, this programme trained doctoral students and early career researchers in participatory, ethical, and creative methods. Practical sessions at the Botanic Gardens and Eden Campus connected theory with practice. The next school will take place in Bonn in June 2026. **(UN SDG 4, SDG 10, SDG 17)**

REWRITE THE FUTURE



Rewrite the Future Exhibition

StACCS collaborated with the Wardlaw Museum to launch Rewrite the Future (May–September 2025), an exhibition showcasing sustainability research at St Andrews with a focus on social justice, technology, and economic systems. The exhibition was designed with sustainability in mind, using recycled and recyclable materials, and was supported by an inclusive events programme for diverse audiences.
(UN SDG 4, SDG 12, SDG 13)

centre for **energy ethics**

The Centre for Energy Ethics (CEE) tackles one of the most urgent and profound challenges facing humanity today: how to balance our energy demands with concerns for anthropogenic climate change.

Bringing together diverse areas of expertise, including researchers, industry, and communities, CEE embraces the responsibility of scholars to address and collectively answer big societal questions about how to create a better energy future for all.

As part of this work, the Centre hosts Energy Cafés – informal, interdisciplinary spaces for members of the University to share ideas, foster collaboration, and inspire new research questions in energy. Open to all disciplines and departments, the Café reflects CEE's commitment to collaboration, interdisciplinarity, and building a vibrant research culture.

They also host the Policy Engagement Practice seminar series (PEPtalks) to help researchers connect their work with real-world policymaking. The series gives academics practical insights into how evidence shapes policy and how scientists can engage with decision-makers on urgent energy issues.

In PEPtalk Ten (February 2025), three energy scientists – Dr Cristian Calvillo, senior research fellow at the Centre for Energy Policy at the University of Strathclyde, Dr Ronan Bolton, professor of Sustainable Energy at the University of Edinburgh and former co-director of the UK Energy Research Centre, and Dr Jessica Hogan social science researcher at Regen – discussed how to ensure research on net zero reaches policymakers and informs better practices.

Through these conversations, PEPtalks show how collaboration between researchers and policymakers can drive just and sustainable energy futures, and help support the many policy submissions made to the Scottish and UK governments.

Over the last year, submissions have included responses to policy and proposals on community involvement and benefit-sharing in low-carbon energy transitions, policy and regulatory frameworks to enable community energy projects at scale, and the importance of addressing equity, affordability, and social acceptance in the shift to net zero.

These are led by CEE Senior Policy Fellow, Dr Cornelia Helmcke, forming a key pillar of the Centre's objectives.

In June, the CEE held its annual conference, Energy in Motion: Climate emotion, energy futures and the Arts, at V&A Dundee and Dundee Contemporary Arts. The event brought together students, artists, writers, scholars, and the public for interdisciplinary collaboration through papers, workshops, films, exhibits, and performances.

Highlights included plenaries on speculative ecologies and image-making, ecological change and mental distress in the Himalayas, and dialogues on fire, ecology, and burnout. The conference also featured the launch of CEE artist-in-residence Peter Iain Campbell's book *We Drift Like Worried Fire.* **(UN SDG 4, SDG 7, SDG 9, SDG 11, SDG 13, SDG 16, SDG 17)**

The CEE welcomed two artists – Peter Iain Campbell and Joan Sullivan – as part of the Artist in Residence scheme. The purpose of this Residency is to produce new work to engage with and in response to the Centre's research. By making interdisciplinary connections between art and energy research, the artwork can inspire and challenge both scholars and visitors.

The University is a member of Scotland Beyond Net Zero (SBNZ), a coalition of Scottish universities that aims to drive research collaboration across disciplines, empower communities, and guide policymaking to help Scotland achieve its ambitious net zero targets. SBNZ focuses on research aligned with the core themes of food, finance, built environment, natural systems, energy and transport.

This year, Dr Maria Chiara Iannino, Finance lecturer at the University of St Andrews Business School, was appointed academic co-lead for the finance theme.

SBNZ Seed Fund for Research

The University also contributes to the SBNZ seed fund, which was established to foster collaborations and partnerships to maximise the impact of research and help drive towards net zero in Scotland, and the first round of funding awarded grants to three projects from St Andrews.

The UK Co-Benefits Atlas: Open, Interactive, and Visual Presentation of Co-Benefits Analysis for Achieving Net Zero – led by Dr Sean Field (St Andrews) and Dr Benjamin Bach (University of Edinburgh) **(UN SDG 3, 7, 11, 13, 16)**

- **Goal**: Make social co-benefits of climate action (health, energy savings, clean air) accessible and usable for policymakers and stakeholders.
- **Approach**: Collaboration between the Edinburgh Climate Change Institute, Universities of Edinburgh and St Andrews, and external data sources to create an interactive atlas.
- **Impact**:
  - Shared with 150+ local authorities; influencing Scottish Government policy.
  - Recognised as best practice for social impact valuation.
  - Advanced researchers' careers, including PhD projects and academic positions.
- **Next Steps**: Further funding applications, conferences, and journal publications.

Beyond Net Zero: A Framework for Natural Capital Markets in the Marine Environment – led by Professor David Paterson (St Andrews) and Dr Katherine Simpson (University of Glasgow) **(UN SDG 14, 15, 17)**

- **Goal**: Develop a framework for private investment in marine resources while protecting ecosystems and ensuring social benefits.
- **Approach**: Collaboration between the Universities of Glasgow and St Andrews, MASTS, and NatureScot to explore marine natural capital markets.
- **Impact**:
  - Supported Scottish Government's PINC programme with marine investment principles.
  - Highlighted the need for marine-specific metrics and benefit-sharing models.
  - Fostered interdisciplinary networks linking science, law, ethics, and social insights.
- **Next Steps**: Policy briefs, stakeholder engagement, PhD projects, and continued collaboration to integrate principles into governance.

Clean Energy from Non-Recyclable Plastic Waste – led by Dr Oxana Magdysyuk (St Andrews) and Dr Yeshui Zhang (University of Aberdeen) **(UN SDG 7, 12, 13)**

- **Goal**: Convert non-recyclable plastics into hydrogen to address waste and increase clean energy sources.
- **Approach**: Collaboration between the Universities of Aberdeen and St Andrews and Green H2 Energy, combining specialist equipment and chemical catalyst analysis.
- **Impact**:
  - Generated new insights into catalytic hydrogen production.
  - Developed scalable, cost-effective upcycling with commercial potential.
  - Trained two PhD students in high-value experimental techniques.
- **Next Steps**: Publications submitted; applying for further funding and stakeholder workshops planned.

The School of Earth and Environmental Sciences hosted a multidisciplinary conference in May, titled *Mining Battery Metals: What, How, Where, Sustainable*?

The afternoon event at the Bute Building brought together experts to explore the challenges and opportunities surrounding the mining of critical battery metals. With rising demand for electric vehicles (EVs) and renewable energy storage, metals such as lithium, cobalt, nickel, and copper are increasingly in demand, and much of the future supply will need to come from mining. While extraction offers opportunities for revenue, skills, and investment, it also raises environmental concerns, including deforestation, water contamination, and habitat destruction.

Conference organiser Dr Nick Gardiner noted that enabling decarbonisation would require significant increases in metals mining in the short to medium term, though supply chains for battery metals remain complex and vulnerable to geopolitical instability, particularly in regions such as central Africa.

The conference examined these issues through both geopolitical and geoscientific perspectives, drawing contributions from academia, industry, and other stakeholders. Speakers included Dr Emilka Skrzypek (Social Anthropology) and Dr Robert Armstrong (School of Chemistry) from St Andrews, alongside external experts Megan Leahy Wright, Head of Responsible Sourcing Advisory at RCS Global, and Fraser Gardiner, CEO of Aberdeen Minerals.

(UN SDG 7, SDG 9, SDG 12, SDG 13, SDG 17)

In June, the School of Art History hosted the hybrid international conference *Transnational Island Museologies*, in partnership with the International Committee for Museology (ICOFOM). The event also featured the 47th ICOFOM Annual Assembly.

The conference formed part of the five-year research project *Shared Island Stories Between Scotland and the Caribbean: Past, Present, Future*, which had been selected by the European Research Council (ERC) and funded by UK Research and Innovation (UKRI).

Shared Island Stories is coordinated by Professor Karen Brown of the School of Art History and delivered by a core team of Research Fellows, PhD students, part-time investigators, and partner organisations based in Scotland and the Caribbean.

Key collaborators include the Harris Community Trust and the Barbados Museum and Historical Society, who partnered in an innovative Transatlantic Youth Exchange. The project also benefited from the guidance of a strategic Advisory Board of experts from both regions.

Together, the team explores the shared challenges facing islands – from coastal erosion and climate change to depopulation and unsustainable tourism – while addressing questions of heritage, Empire, and climate justice.

The June conference drew on these themes to consider how community museums and heritage organisations could work with NGOs, policymakers, and local businesses to advance sustainability and climate action. Keynote speakers included Hilda Flavia Nakabuye, Founder of Fridays for Future Uganda, and Professor Conal McCarthy, Victoria University Wellington, New Zealand.

The *Shared Island Stories* Transnational Youth Exchange between the island communities of Barbados and the Outer Hebrides in Scotland has been shortlisted for the International Council of Museums (ICOM) Award for Sustainable Development Practice in Museums: Reshaping Sustainable Development Practice in Museums (2025).

The Shared Island Stories research project was selected by the E*uropean Research Council (ERC) and funded by UK Research and Innovation (UKRI) with reference: EP/X023036/1*. It is coordinated by the School of Art History at the University of St Andrews.

(UN SDG 4, SDG 11, SDG 13, SDG 14, SDG 16, SDG 17)

School of Chemistry: *International Conference on Sustainable Chemistry for Net Zero (ICSCNZ-25)*

The inaugural International Conference on Sustainable Chemistry for Net Zero (ICSC-NZ) was held at the University from 10–13 June 2025. Created to provide a balanced alternative to highly specialised or overly broad meetings, the conference focused on the role of sustainable chemistry in achieving net-zero goals and encouraged multidisciplinary collaboration.

The event brought together 192 delegates from six continents and featured plenaries, oral presentations, flash talks, and posters covering green synthesis and catalysis, emerging energy-storage materials, and circular-economy approaches such as CO_2 capture and plastic recycling.

Plenary speakers included leading researchers such as Prof. David Milstein, Prof. Buxing Han, Prof. Dame Clare Grey, Prof. Regina Palkovits, Prof. Walter Leitner, Prof. George Shimizu, Prof. Francesca Kerton, and Prof. Sir Peter Bruce. Industry contributions from BASF, Merck, and Topsoe highlighted challenges in circularity, life-cycle assessment, and electrocatalysis for CO_2 and ammonia conversion. The conference also offered networking opportunities – including a gala dinner, whisky tasting, and ceilidh – and strong engagement from early-career researchers, with multiple prizes awarded.

Skills workshops on patent writing and policy engagement further supported professional development. Participants were encouraged to sign the Stockholm Declaration on Chemistry for the Future (www.stockholm-declaration.org).

The meeting successfully brought together a diverse research community and fostered new collaborations around sustainable-chemistry solutions for net zero. The next ICSC-NZ conference will take place in September 2027 at the Institute of Carboquímica (ICB-CSIC) in Zaragoza, Spain.

(UN SDG 4, SDG 5, SDG 7, SDG 9, SDG 12, SDG 13, SDG 17)

University of St Andrews Business School: *Centre for Social and Environmental Accounting Research*

The Centre for Social and Environmental Accounting Research (CSEAR) is an international membership-based network that aims to mobilise accounting scholarship to enable a more sustainable society and hosts the annual International Congress on Social and Environmental Accounting Research.

Headquartered at the University of St Andrews, and managed by directors Professor John Ferguson and Dr Shona Russell, CSEAR remains a global hub for scholars, educators, and practitioners seeking to transform how organisations measure and manage their social and environmental impact.

Dr Russell is co-lead, along with Professor Michelle Rodriguez (Université Laval) and Dr Caroline Linhares (Sheffield Hallam), of CSEAR's Education Community of Practice (ECoP) which showcases innovative approaches to social and environmental accounting education, sharing insights on pedagogy and fostering collaboration and dialogue among participants

ECoP workshops throughout 2024 and 2025 explored creative approaches to teaching, from immersive, game-based learning to reimagined curricula designed for the Anthropocene. These events fostered international collaboration, including partnerships with the Francophone Accounting Association and colleagues from Brazil, Canada, and the UK, broadening the reach of sustainability-focused pedagogy.

In August, ECoP hosted its first hybrid event as part of the 34th International Congress on Social and Environmental Accounting Research at St Andrews. Centred on the theme "What does it mean to teach accounting in the Anthropocene?", the session featured provocations from leading educators including Rehema White (St Andrews), Sheila Killian (University of Limerick), and Ann-Christine Frandsen and Nicholas Bailey (Birmingham), sparking rich interdisciplinary discussion on the challenges and opportunities for accounting education in a rapidly changing world.

In November, ECoP coordinators and Social and Environmental Accountability Journal editor Ian Thomson contributed to the Association Francophone de Comptabilité workshop in Rennes, France. Under the theme "Environmental Transition: Challenges for Accounting Education," the session focused on enriching sustainability accounting pedagogy through the development of case-based learning materials, supporting bilingual engagement and international collaboration.

Beyond teaching innovation, Professor John Ferguson and CSEAR members advanced research into sustainability governance, human rights, and ethical supply chains. Joint initiatives with Charles University and the Global Business School Network for Business and Human Rights explored how accounting and finance can better reflect social justice and environmental stewardship. **(UN SDG 4, SDG 8, SDG 10, SDG 13, SDG 16, SDG 17)**

Education

The University is committed not only to embedding sustainability within our own teaching and research, but also to contributing to the wider transformation of education in the UK and internationally. By integrating sustainability across the curriculum and leading sector-wide initiatives, we are helping to shape a future in which sustainability is a core principle of higher education.

Through partnerships, collaborative projects, and knowledge sharing, St Andrews contributes to the growing network of universities working together to build a more sustainable future. Our students and staff participate in global dialogues, exchange best practices, and advance innovative approaches to sustainability in education that extend well beyond our own institution.

In doing so, the University is strengthening its role as a leader in sustainability education, preparing graduates to meet global challenges and ensuring that higher education plays its part in building a just and resilient world.

Our teaching methods are also evolving to reflect this commitment. Flexible and digitally supported learning opportunities are expanding, reducing the environmental footprint of teaching and fieldwork while making education more inclusive and accessible. By rethinking how and where learning takes place, we are lowering our carbon impact and preparing students to thrive in a future shaped by sustainability.

Digital St Andrews has continued to expand its reach and impact, embedding accessibility and innovation across the University's online education and digital initiatives. The Agile Creative Team (ACT) successfully transitioned into the University's University's new Communications, Marketing and Public Affairs unit, fostering closer integration between digital development and communications, and ensuring digital accessibility is embedded in outreach and programme design. **(UN SDG 9, SDG 17)**

Online postgraduate programmes, including MSc Sustainable Aquaculture, MLitt Museums, Heritage and Society, and the PgCert in Sacred Music, have grown significantly, reflecting the University's commitment to providing flexible, accessible learning opportunities. Staff are now able to access select DEIS Postgraduate Certificate programmes and standalone modules at no cost, supporting professional development and enhancing digital skills across the University community. **(UN SDG 4, SDG 8, SDG 10)**

The University has also expanded its portfolio of short courses and micro-credentials, including collaborations with cultural institutions such as V&A Dundee. These initiatives showcase innovative approaches to online education, making learning widely accessible and fostering new pathways for students and staff alike. Pilot micro-credentials, including the Certificate in Terrorism and International Security, have demonstrated the potential of fully online programmes to offer rigorous, flexible, and inclusive learning opportunities. **(UN SDG 4, SDG 9)**

Digital St Andrews has placed particular emphasis on AI and digital skills development, working to broaden access to AI-related programmes and micro-credentials. Collaborations between the Careers Centre and digital teams are creating modules that certify technical skills alongside critical thinking, communication, and leadership competencies, preparing students and staff to thrive in a rapidly changing digital economy. **(UN SDG 4, SDG 8, SDG 9)**

The University has also maintained strong national and international engagement, with the Vice-Principal for Digital Education participating in events on sustainable digital transformation, AI governance, and higher education digital strategy. Collaborative workshops and industry roundtables with Scottish Government and partners have informed the co-design of digital skills programmes and micro-credentials, ensuring that these initiatives reflect both academic rigour and real-world applicability. **(UN SDG 4, SDG 9, SDG 17)**

Embedding Climate Education in the Curriculum

In July 2024, Dr James Rae contributed to the launch of the National Climate Education Action Plan Curriculum Mapping Report, unveiled at the Royal Meteorological Society Annual Weather and Climate Conference. The report was described by Dr Rae as "essential reading" for policymakers and education leaders, offering clear pathways to integrate climate and sustainability education across the curriculum.

The report highlights how climate change and net zero solutions can be embedded within existing teaching frameworks, while laying the groundwork for broader curriculum reform. Mapping exercises within the report demonstrate practical ways to introduce sustainability across subjects and stages of learning, ensuring education is both rich and inclusive.

Speaking in his role on the Education and Outreach Board of the Royal Meteorological Society, Dr Rae emphasised the urgency: "It's absolutely critical that young people across the UK understand what's happening to our climate and the net zero solutions that are needed to respond."

The report also amplifies the voices of young people, such as school-leaver Lisa Hoerning, who called for climate and sustainability to be embedded as a cross-cutting theme throughout all subjects. This reinforces the growing demand from students themselves for education that reflects the realities of the climate crisis and the opportunities of the green economy.

Supported by a coalition of more than 60 organisations, the Action Plan provides the tools and rationale to ensure climate education becomes an integral part of learning across the UK. **(UN SDG 4, SDG 13, SDG 17)**

Sustainability in the Curriculum

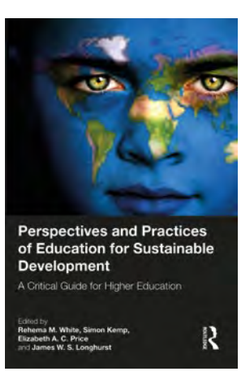
The University embeds sustainability across its curriculum ensuring that all students graduate with a strong sense of environmental responsibility. As part of this commitment, all undergraduate and postgraduate students complete the compulsory, student-designed Moodle course Training in Environmental and Sustainable Action.

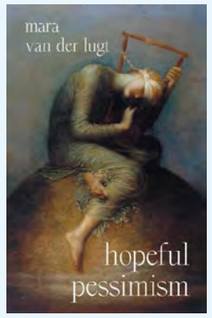
The Sustainability in the Curriculum (SitC) Committee drives this work through five key goals: engaging students with sustainability, providing staff training, sharing good practice, building external reputation, and celebrating achievements. The committee includes deans, academics, professional services staff, and student leaders, meeting every two months to advance actions.

A sustainability curriculum map highlights how each academic discipline contributes to understanding and addressing environmental challenges. This tool helps students select modules, demonstrates how research informs sustainability even in less obvious subjects, and enables the University to monitor sustainability teaching as part of its broader Environmental Sustainability Strategy.

Chair of the SitC Committee, Dr Rehema White, Senior Lecturer in the School of Geography and Sustainable Development, authored *Perspectives and Practices of Education for Sustainable Development: A Critical Guide for Higher Education*.

The book emphasises the role of Education for Sustainable Development (ESD) in higher education, promoting a whole-institution approach supported by innovative curricula, transdisciplinary learning, and pioneering knowledge production. Through case studies, the guide illustrates how ESD fosters critical reflection, equips graduates with sustainability competencies, and strengthens universities' capacity to nurture future-thinking leaders. **(UN SDG 4, SDG 12, SDG 13, SDG 17)**





Dr Mara van der Lugt, Lecturer in Philosophy, explores the limits of optimism in the age of climate change in her erudite and compelling book Hopeful Pessimism. She argues that in a world facing ecological collapse, what is required is not blind hope, but a form of pessimism that preserves courage, motivates action, and embraces our moral responsibility to strive for change –even without guarantees.

Golden Dandelion Awards

Dr Emilka Skrzypek, Deputy Director of the Centre for Energy Ethics (CEE) and Programme Director of the MSc in Energy Policy and Finance, was awarded the Golden Dandelion Award for two MSc modules: *Energy Inequalities and Climate Responsibilities and Energy and Climate Change Policy*.

"These modules are emblematic of our MSc programme. They combine academic learning and critical reflection with development of practical skills and professional attributes needed to help shape better, more sustainable energy futures," Dr Skrzypek explained.

The Golden Dandelion Awards, now in their sixth year, celebrate excellence in Education for Sustainable Development (ESD), highlighting St Andrews' commitment to equipping graduates with the knowledge and skills to tackle complex energy and climate challenges while promoting social equity.

Dr Skrzypek also serves as Capacity Building lead for the Scottish Research Alliance for Energy, Homes and Livelihood, reinforcing the University's role in connecting research, education, and societal impact. **(UN SDG 4, SDG 7, SDG 10, SDG 13, SDG 17)**

Biodiversity Vertically Integrated Project (BioLitVIP)

The Biodiversity Vertically Integrated Project (VIP) places student and community engagement at the heart of the University's biodiversity work. By combining research, practical conservation, and outreach, the VIP ensures that biodiversity is not only monitored but also valued as a living part of University life.

Student involvement in monitoring has grown significantly in recent years. In 2023–24, 14 students and 8 summer interns were directly involved in biodiversity surveys and GIS mapping. By 2024–25, participation has almost doubled, with 25 students and 12 interns taking part. These students are not only recording species but also developing and maintaining the University's biodiversity database, which will guide sustainable decision-making for years to come.

The VIP has also created new opportunities for the wider community to engage with nature. In April 2025, students launched the University's first Biodiversity Awareness Day, drawing attention to campus biodiversity through activities such as moth trapping, guided bird walks, and a community picnic in the Botanic Garden.

Externally funded biodiversity projects have included extensive engagement programmes. Between August 2023 and July 2024, 335 participants, around 90% of them students, took part in 25 conservation sessions, three training workshops, and four community events, including the popular *Music in the Meadows*. Between August 2024 and July 2025, a further 305 participants joined 23 conservation sessions and three specialist training workshops. These opportunities not only supported habitat creation and maintenance but also equipped students and staff with new skills in ecological monitoring and conservation. **(UN SDG 4, SDG 13, SDG 15, SDG 17)**

School of Music: *Calligraphy, Music, and Sustainability in Flow*

In February 2025, the University of St Andrews Music Centre hosted *Japanese Calligraphy to Music*, a unique cultural and artistic collaboration led by calligrapher Akaaki Iwai, and undergraduate in the School of Mathematics and Russian, with the support of Jane Pettegree and Christopher Bragg.

The event explored the shared principles of flow and expression in Japanese calligraphy (*shodō*) and music. Calligraphy, which blends language and style, has long been a medium of aesthetic reflection in Japan, evolving from its Chinese origins into distinctly Japanese forms such as *Kaisho* (block writing), *Gyosho* (semi-cursive), and *Sosho* (cursive). The performance highlighted the dynamic quality of *Gyosho*, where the movement of the brush reflects rhythm, energy, and speed. This dynamic was paired with traditional and modern Japanese music, including the classical genre gagaku and 20th-century reinterpretations. Pieces included *Etenraku* (traditional), *Ranryo Oh* (traditional), *Etenraku Hensokyoku* (Michiko Miyagi, 1928), *Japanese Rhapsody* (Akira Ifukube, 1935), and *Japanese Suite for Orchestra* (Akira Ifukube, 1991).

To deepen reflection on the interconnections between culture and nature, each calligraphic work expressed environmental or philosophical concepts such as:

- 木漏れ日 (Komorebi) – sunlight through trees
- 生物多様性 (Seibutsu tayōsei) – biodiversity
- 明鏡止水 (Meikyō shisui) – peaceful mind
- 温故知新 (Onko chishin) – learning from the past to shape the future

Visitors were encouraged to come and go freely, creating an atmosphere of meditative flow. Finished calligraphy pieces could be taken home in exchange for small donations, which supported the student-led BIRCH project, connecting art with environmental research on peatlands, sound, and flow. **(UN SDG 4, SDG 11, SDG 15)**

By linking music, calligraphy, and ecological awareness, the event demonstrated how cultural practice can foster reflection on humanity's relationship with the natural world.

School of English: Integrating Sustainability, Climate, and the Arts

During 2024–2025, the School of English actively embedded sustainability and environmental awareness across teaching, research, and public engagement, demonstrating the interdisciplinary role of the humanities in addressing global challenges.

Peter Mackay (Pàdraig MacAoidh) was appointed Scotland's Makar, the national poet, in December 2024. As Makar, he promotes poetry nationally and internationally and produces work relating to significant events. A native Gaelic speaker from the Isle of Lewis and a lecturer at the University of St Andrews, Mackay's creative practice connects linguistic heritage with cultural and environmental awareness.

His contributions include delivering a lecture on Gaelic literature and Rewilding to the Scottish Rewilding Alliance in June, a commission to write two new poems for an orchard being planted at University of Stirling earlier this year, and he has been invited to write a poem to headline the Scottish Government's draft National Island Plan.

In parallel, Tom Jones delivered a talk at the Oxford Eighteenth-Century Literature and Culture Seminar on Phillis Wheatley's *Meditations in the Seasons*, highlighting how literature engages with climate, solar energy, and the ethics of resource distribution.

Sam Haddow contributed through his monograph, *We All Die at the End: Storytelling in the Climate Apocalypse* (MUP, 2025), and presentations including Romeo and Juliet in the Anthropocene, linking literary analysis with environmental crises.

These activities illustrate how the School of English equips students to engage critically with environmental and climate issues through creative, historical, and analytical approaches.
(UN SDG 4, SDG 13, SDG 15)

Sustainable careers alumni panel

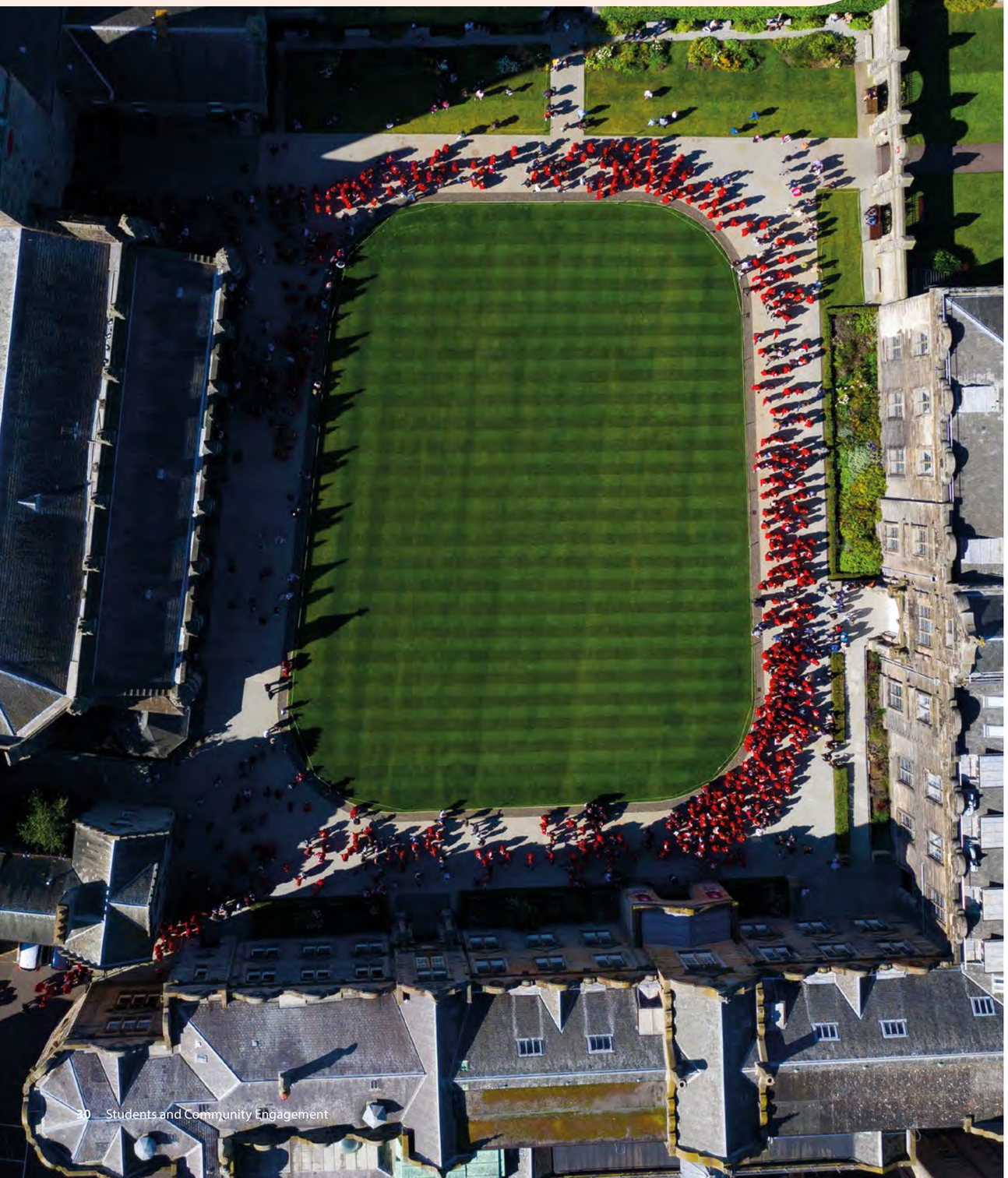
In April 2025, the University hosted a virtual panel showcasing alumni careers in sustainability, highlighting how following personal values can lead to impactful and fulfilling work. The panel featured Salvatore Coppolla-Finegan (MA Hons 2008), Charlie Davis (MA Hons 2017), Rachael Everard (MA Hons 2012), and Arabella Willing (BSc 2009), whose diverse paths ranged from corporate sustainability leadership and marine conservation to policy research and regenerative land management.

Rachael Everard, Director of Sustainability at the Rail Safety and Standards Board, demonstrated how sustainability roles can transform corporate practices, emphasizing climate strategy and industry-wide environmental goals. Arabella Willing highlighted international citizen science and conservation outreach, building community engagement and education in marine ecosystems. Salvatore Coppolla-Finegan illustrated the value of interdisciplinary education in informing sustainability policy and co-founding EcoCitizen, a data-driven environmental non-profit. Charlie Davis shared her experience in regenerative land management and peatland restoration, emphasizing practical, community-based approaches to climate resilience.

Across all stories, the panel underscored the importance of taking risks, pursuing passions, and connecting with like-minded communities. It demonstrated the wide spectrum of sustainability careers available and reinforced the University's commitment to equipping students with the skills, networks, and experiences to create meaningful environmental and social impact.
(UN SDG 4, SDG 8, SDG 12, SDG 13, SDG 14, SDG 15, SDG 16, SDG 17)

Students and Community Engagement

Engagement with sustainability is deeply embedded in student life at St Andrews and extends into our local and global communities. We are working to increase awareness among students of their personal and collective environmental impact, encouraging behaviour that reduces carbon footprints and promotes more sustainable choices.



Student Leadership in Sustainability

The Environment Subcommittee dedicated itself throughout the year to bringing sustainability to the forefront of university life. This work began with the first St Andrews Sustainability Summit, held in Upper and Lower College Hall at the end of Freshers' Week. The Summit offered students and staff the chance to learn about sustainability initiatives across the University, meet key individuals driving this work, and explore opportunities to get involved. Attendees engaged with stalls throughout the afternoon and heard short introductions from sustainability leaders, including senior leadership, staff, and student representatives.

Building on this momentum, the Subcommittee hosted a wide range of initiatives throughout the year. Highlights included the **One Shared World** interfaith panel on the environment, led by the Community Projects Rep, which created space for cross-faith dialogue on ecological responsibility. The Subcommittee also established a regular series of **Climate Cafés**, encouraging interdisciplinary conversations about the climate crisis and collective solutions.

Engagement extended to both students and the wider town community through annual Green Week activities, which featured a **Green Careers Fayre**, a **Sustainable Skills Workshop**, and ***Unnatural Disasters***, a powerful student-led exhibition on cultures at risk of erasure in the environmental crisis. Beyond these events, the Subcommittee partnered with biodiversity and nature groups, offering bird walks with the Bird Society and supporting monthly river cleans with **Kinnessburn Clean Ups**, strengthening connections between people and local ecosystems.

In addition to representing the student body on the biodiversity and sustainability week working groups, student members are embedded into the governance structure with members sitting on the Senior Leadership Group, Delivery Transformation Group, and the Academic network.

(UN SDG 4, SDG 11, SDG 12, SDG 13, SDG 15, SDG 17)

School Sustainability Rep Leads Energy-Saving Success

School of Modern Languages sustainability representative Anette Lee won the University's energy-saving competition with her creative lion-themed campaign. Using a "roar of responsibility" to encourage simple actions like switching off lights, Anette's engaging approach inspired classmates to cut energy waste and was praised by the Environment Team for its creativity and impact.

(UN SDG 7, SDG 12, SDG 13)

SUSTAINABILITY WEEK

Sustainability Week 2024

The University hosted its inaugural Sustainability Week from 28 October – 1 November 2024, showcasing the University's commitment to embedding sustainability across teaching, research, operations, and community engagement. The week was designed to increase visibility of, and engagement with, the St Andrews Prize for the Environment, placing it at the heart of a programme that highlighted innovation, dialogue, and action on global and local sustainability challenges.

Over the course of the week, more than 40 events were held across the University and wider community, involving staff, students, schools, and external partners. Activities ranged from academic seminars and interfaith panels to field visits, conservation workshops, and sustainable catering initiatives. Plant-based lunches in halls proved particularly successful, engaging students in everyday choices that reduce environmental impact.

The week built on close collaboration between professional services, academic schools, and student groups. A dedicated working group, representing Estates, Sustainability, the Students' Association, Transition, and multiple Schools, coordinated the programme with strong engagement and communications support.
(UN SDG 4, SDG 11, SDG 13)

Anchoring the Week: The St Andrews Prize for the Environment

At the heart of Sustainability Week was the St Andrews Prize for the Environment, a globally recognised award that celebrates innovative solutions to pressing environmental challenges.

The 2024 Prize was awarded to the Kham River Restoration Mission, led by EcoSattva, an eco-consultancy based in Maharashtra, India. The project has transformed the once-degraded Kham River through clean-up operations, biodiversity restoration, and community education, reducing flood risk while providing socio-economic benefits to local women employed in waste management initiatives.

Two additional finalists were recognised:

- **Washbox Global** (Australia), developing closed-loop water systems to eliminate construction pollution.
- **The Northwoods Rewilding Project** (Scotland), creating a nationwide chain of landholdings dedicated to ecological recovery.

Now in its 26th year, the Prize has distributed over US$2.5 million to global projects that combine imagination with impact, supporting communities and ecosystems while addressing the climate crisis.
(UN SDG 4, SDG 5, SDG 6, SDG 9, SDG 11, SDG 13, SDG 15, SDG 17)

University Community Fund

The Community Fund has supported a diverse range of grassroots sustainability projects across Fife, demonstrating the impact of community-led action on reducing waste, saving energy, and strengthening local connections.

The Larick Repair Shop (awarded £1000) successfully ran monthly repair sessions and upcycling workshops, enabling residents to restore household items and clothing. Volunteers and participants extended the life of goods, reduced landfill waste, and saved money while fostering social connections and improving wellbeing. The workshops also supported skills development, confidence-building, and volunteer engagement, creating a resilient, collaborative community network.
(UN SDG 3, SDG 11, SDG 12)

The Cupar School Uniform Exchange (awarded £938.95) provided free, high-quality school uniforms to hundreds of local families, helping alleviate child poverty and financial strain. The project recycled over a tonne of clothing, diverted waste from landfill, and offered University researchers valuable data on sustainability practices and community engagement. Families, including those connected to University staff, benefited from easy access to clothing, while volunteers gained experience in community support and logistics.
(UN SDG 1, SDG 4, SDG 12)

Reclaim Runway (awarded £500) promoted sustainable fashion through inclusive runway shows, sewing classes, and school collaborations. All designs were made from reused materials, reducing textile waste and promoting creativity. The project successfully engaged students, local designers, and musicians, fostering town-gown collaboration while demonstrating that sustainable fashion can be accessible, family-friendly, and community-centred.
(UN SDG 11, SDG 12, SDG 17)

Craigrothie Village Hall project, The Net Zero – Window Upgrade Draught Proofing (awarded £500), improved energy efficiency in a community hall by resealing windows and doors. This simple but effective intervention reduced heat loss, cut energy costs, and extended the hall's life by 10–15 years. Local groups, older residents, and school pupils benefited from a warmer, more sustainable space for activities.
(UN SDG 7, SDG 11, SDG 13)

Powering Our Future: Community Renewable Energy Workshops (awarded £1500), delivered by Bright Green Hydrogen, ran 16 hands-on STEM workshops in schools and a community fun day in Methil. Participants built solar cars, wind turbines, and hydrogen fuel cells, gaining practical knowledge of renewable energy while families of all ages explored sustainability concepts. The project fostered intergenerational learning, strengthened community engagement, and inspired young people toward STEM and environmental careers.
(UN SDG 4, SDG 7, SDG 13)

Sustainable Spaces: Transforming Community Buildings (awarded £2000), run by Greener Kirkcaldy with HeatHack, delivered three workshops supporting up to 36 community organisations. Participants learned practical ways to reduce energy use, plan for retrofits, and cut heating costs. Many community buildings housing vital services – such as food provision and dementia care – improved energy efficiency, reduced emissions, and enhanced comfort for users, while staff and volunteers gained valuable carbon literacy skills.
(UN SDG 7, SDG 11, SDG 13)

These projects collectively illustrate the University's commitment to sustainability, inclusion, and practical support for communities. Across Fife, residents, volunteers, and local organisations have benefited from tangible environmental, social, and economic outcomes, helping create a greener and more resilient region.

Estate, Energy, and Environment

The University estate is being transformed into a living laboratory for sustainability, where innovative solutions are tested and implemented at scale. At the heart of this transformation is the Eden Campus, which is developing as a net-zero operational hub and a model for how universities can integrate research, teaching, and practice to accelerate climate action.

Nature-based solutions are central to this vision. Projects such as the St Andrews Forest are creating long-term carbon sinks while enhancing biodiversity, supporting climate resilience, and connecting the University to local and global efforts to restore ecosystems. These initiatives demonstrate how the estate itself can contribute to carbon sequestration, waste reduction, and ecological enrichment, while also offering opportunities for student engagement and research.

By integrating nature-based solutions with cutting-edge building design and operational excellence, the University is demonstrating how a diverse estate can act as both a platform for sustainability research and a practical driver of progress towards a net-zero future.

Nature-Based Solutions: Corrour Partnership

Established in August 2024, the historic 100-year partnership between Corrour in the Highlands and the University brings together academic research and and-based climate action.

It has two core components:

1. The provision of verified carbon credits from Corrour's woodland and peatland restoration projects to support the University's sustainability and net-zero strategy.
2. A research collaboration enabling St Andrews academics and students to conduct applied environmental research at Corrour, informing both scientific understanding and practical conservation management.

In its first year, the partnership has established governance through a joint Board, formalised approval processes, and developed a multidisciplinary portfolio of projects. Corrour has also transferred 100,000 tCO2e for the University to use to offset its unavoidable emissions in delivering its world leading research and teaching.

Carbon Projects

The partnership supports verified woodland and peatland restoration projects under the UK Woodland and Peatland Carbon Codes, contributing to long-term carbon sequestration and ecosystem recovery.

- **Treig Woodland**: Completed its 5-year verification, confirming regeneration beyond projections.
- **Peatland Phase 1.1**: Fully validated and preparing for its next verification cycle (completed).
- **Peatland Phases 1.2 (Amair) and 1.3 (Loch na Lap)**: Validation nearing completion, showing consistent post-restoration carbon gains.

Research Collaboration

The Corrour–St Andrews research partnership fosters innovative, interdisciplinary research on ecosystem restoration, monitoring, and sustainability. Proposals are submitted to and reviewed by a board, chaired by Charlie Davis from Corrour with representatives from both organisations. Several projects have been approved since the partnership's inception, with the following research currently in progress:

Bundling Benefits from Peatland Restoration – Dr Lydia Cole, Dr Iain Matthews, Prof Bert Scholtens, Dr Richard Streeter: exploring how carbon and biodiversity credits can be integrated within UK nature recovery markets.

Surveillance of the Environment: Monitoring Ecological Restoration and Biodiversity in the Scottish Uplands Using Uncrewed Aerial Vehicles (UAVs) – Dr Ian Lawson, Dr Richard Streeter, Prof Kirstie Ball: developing low-cost drone and remote-sensing technologies for ecological monitoring, alongside analysis of their ethical and social implications.

Montane Mosaics in Scotland: Understanding the Past to Inform the Future – Dr Althea Davies, Dr Katy Roucoux: investigating long-term montane woodland and peatland dynamics to guide restoration and climate resilience strategies.

Automated Bird Counting – Professor Simon Dobson, Dr Alison Johnston: testing AI-based acoustic monitoring tools to automate bird surveys and reduce field costs.

Assessing Future Biodiversity Outcomes of Restoring Climate-Sensitive Habitats: A Case Study of Vascular Plants, Bryophytes and Lichens in Scottish Mountain Woodlands – Dr Ian Lawson, Dr Althea Davies, Innes Manders (PhD): studying how mountain woodland restoration influences vascular plant, bryophyte, and lichen diversity under climate change.

Peatlands Internship – Dr Katy Roucoux, Joseph O'Sullivan: literature review and pilot fieldwork supporting the development of future research projects at Corrour.

Looking ahead, plans are underway to construct a purpose-built Research Centre at Corrour, providing residential accommodation and laboratory space for University groups and external collaborators. This will create a dedicated base for fieldwork, teaching, and interdisciplinary research on restoration, biodiversity, and climate solutions. **(UN SDG 4, SDG 9, SDG 13, SDG 15, SDG 17)**

Living Lab: Eden Campus

Eden Campus at the University of St Andrews is the physical ecosystem designed to drive transformative innovation, translate cutting-edge research into real-world applications, and facilitate effective knowledge transfer.

Working in partnership with the University, St Andrews Innovation and industry, the campus offers the space to scale technology, grow business and transform the once historic local landmark.

Recognising its potential as a centre for innovation and sustainability, the University acquired the site in 2010 and have invested considerably into renewable energy technologies and partnerships in support of the ambitious goal to reach net zero by 2035.

Power-To-X: Driving Carbon Reductions and Innovation

A key upcoming milestone is to look into the design and installation of carbon capture equipment. Designed to produce green hydrogen using renewable energy from the Eden Campus solar farm, the facility directly contributes to regional carbon reduction targets and supports Scotland's net-zero ambitions.

A purpose-built research and development laboratory will anchor the site, enabling collaboration with technology developers in hydrogen and clean energy. The facility's infrastructure – including an electrolyser, hydrogen storage, and refuelling station – will support end-to-end hydrogen production and distribution.

A key upcoming milestone is securing funding for integrated carbon capture systems. These systems will capture live industrial CO_2 emissions from Eden Mill's Distillery and the on-site biomass energy centre, creating a unique demonstration of circular carbon management. Completion is expected in early 2026, with the project already delivering measurable progress toward a low-carbon economy.

(UN SDG 7, SDG 9, SDG 13, SDG 17)

Innovation Yard: A Platform for Inclusive Growth

The Innovation Yard, supported by Scottish Enterprise, is transforming a former chipping yard into a vibrant space for sustainable business development. Scheduled to open to tenants in Autumn 2025, the site will host modular pop-up units tailored for incubators, start-ups, and innovators.

Focused on the low-carbon economy, the Innovation Yard promotes inclusive growth by offering accessible infrastructure to early-stage companies, including those from underrepresented groups. By enabling flexible, affordable access to workspace and fostering collaboration, the Yard is helping democratise innovation and support the next generation of green entrepreneurs.

This initiative exemplifies the Eden Campus commitment to inclusive economic development and community regeneration.

(UN SDG 8, SDG 9, SDG 10, SDG 11)

D'Arcy Thompson Stretch Dome Simulator: sustainaVERSE™ for Local and Global Action

The D'Arcy Thompson Simulator Centre has advanced its *sustainaVERSE*™ platform, now available in alpha release via the Microsoft Store. Built on Unreal Engine, the system enables immersive, GIS-aware visualisation of energy and environmental scenarios, supporting evidence-based decision-making for local and regional sustainability planning.

Developed through the Tay Cities Regional Deal with support from St Andrews Innovation, Deep Tek Ltd, and partners including NHS Fife, Fife Council, and the River Eden Sustainability Partnership, the project has grown into a multidisciplinary team of eight, spanning software development, data engineering, and sustainability expertise.

Internationally, *sustainaVERSE Africa* workshops in Madagascar and Mauritius, supported by NiS Africa, are shaping five early-stage projects in photovoltaic and agri-voltaic energy, blue economy initiatives, and ecological restoration – demonstrating the platform's potential for global application.

(UN SDG 7, SDG 9, SDG 11, SDG 13, SDG 15, SDG 17)

Solar expansion

Solar Array: The one-megawatt ground solar photovoltaic (PV) development – backed by a Scottish Funding Council loan and supported by the Vacant & Derelict Land Fund from the Scottish Government and Fife Council – provides electricity to the campus. This move further reduces the University's overall carbon footprint by approximately 5%.

The University is progressing plans to expand its renewable energy portfolio through the installation of rooftop solar panels across campus buildings. Working in partnership with renewable energy specialists Vital Energi, the University has identified potential sites, including major student residences such as David Russell Apartments and Agnes Blackadder Hall.

St Andrews benefits from more than 1,500 hours of sunshine annually, making it one of the sunniest locations in Scotland. The proposed solar installationsare projected to deliver an annual saving of approximately 200 tonnes of carbon, while also strengthening long-term energy security and resilience.

This initiative marks the next stage in the University's strategic plan to achieve net zero by 2035, complementing the award-winning biomass energy centre at Eden Campus, which already supplies green heating to most University buildings, and the existing photovoltaic and battery storage system also based at Eden Campus. Together, these investments demonstrate the University's commitment to reducing fossil fuel dependence and building a sustainable energy infrastructure for the future.
(UN SDG 7, SDG 11, SDG 12, SDG 13)

Rastech: Advancing Sustainable Aquaculture in Scotland

Rastech, a Scottish AgriTech SME, is pioneering controlled-environment aquaculture systems that set new standards for sustainable food production. Its technology integrates renewable and waste energy sources, applies circular approaches to waste valorisation, and explores alternative feeds such as insect protein to reduce reliance on marine resources.

At Eden Campus, Rastech operates a solar-powered demonstration farm producing land-grown king prawns, showcasing how aquaculture can thrive with minimal environmental impact. The protected growing environment excludes diseases and parasites, removing the need for antibiotics or chemicals, while resource efficiency is significantly improved – using up to 12 times less electricity, 10 times less water, and 20 times less heat than conventional systems. Farms are built on brownfield sites, avoiding destructive practices such as mangrove deforestation, and are located close to markets, reducing food miles and the need for freezing or preservatives.

Beyond Scotland, Rastech leads international collaborations, including projects in Kenya that link aquaculture innovation with public health. By training students at the Scottish Oceans Institute, the company is also investing in the next generation of aquaculture scientists and practitioners. **(UN SDG 2, SDG 7, SDG 9, SDG 12, SDG 13, SDG 14, SDG 17)**

St Andrews Nature Networks: Restoring Habitats and Building Resilience

Running from October 2023 to March 2025 and funded by the Scottish Government's Nature Restoration Fund (£231,183.30), the St Andrews Nature Networks project enhanced biodiversity and ecological resilience across 27 sites along 16 km of the Fife coastline. Led by the University in partnership with Fife Council, Forestry & Land Scotland, local farms, estates, and businesses, the initiative delivered tangible improvements to habitats and connectivity.

Key outcomes included restoration of a saline lagoon, creation of two wetland mosaics, establishment of 4.78 ha of native woodland, 2,413 m of hedgerow, and 6,610 m^2 of meadow, alongside bringing 15.6 ha of grassland into meadow management, supported by conservation grazing with Highland cattle.

Community involvement was central to the project, with 38 conservation events engaging over 400 participants and six training sessions for staff, students, and residents. The project embedded biodiversity awareness into University practice and developed new monitoring frameworks to ensure long-term ecological and social impact. **(UN SDG 11, SDG 13, SDG 14, SDG 15, SDG 17)**

Living Lab: Botanic Garden

The St Andrews Botanic Garden plays an important role in partnership with the University as a living laboratory. Piloting new programmes in research, education and conservation, the Garden exemplifies how a place-based approach to innovation can foster community networks from local to international scales while advancing the University's sustainability research and teaching through a cross-school group co-chaired by the Dean of Science and the Botanic Garden's Executive Director.

The Tangled Bank

In 2024 the Botanic Garden launched the Tangled Bank, a long-term programme investigating evolution in novel ecosystems. In this first year, the Botanic Garden carried out scoping studies in projects across Scotland to identify sites for long term research, providing opportunities for undergraduate research and skills development. A workshop hosted in the Botanic Garden in November 2024 brought together Scottish Government policy teams landowners, researchers from the Schools of Biology and Geography and Sustainable Development, and industry bodies working in biodiversity, ecosystem resilience, and climate adaptation, to position the Botanic Garden as a leading centre for environmental research.

(UN SDG 13, SDG 14, SDG 15, SDG 17)

Multi Species Memories programme

The Botanic Garden initiated the Multi Species Memories programme in 2024, featuring three undergraduate internships, three artist residencies, and new collaborations with researchers in the Schools of History, Art History, Modern Languages and International Relations. Notably, light installations by Studio Lemercier engaged over one million people via social media, connecting communities and fostering public awareness of ecological and environmental issues.

(UN SDG 4, SDG 11, SDG 15)

Through these experimental initiatives, the Botanic Garden is developing a strong partnership with the University, offering unique opportunities to support research, education and Estates through industry collaboration, international networks and community programmes.

Biodiversity Action plan

The Biodiversity Action Plan provides the framework for protecting and enhancing biodiversity across the University estate. Its twin aims are to increase the abundance and diversity of native plants, fungi, and animals, while ensuring that biodiversity considerations are woven into the University's culture and decision-making.

Monitoring biodiversity is central to this work. Through annual surveys of species and habitats, led by students and interns, the University has built a detailed picture of ecological change across its estate. This bioblitz-style monitoring has shown encouraging results. In 2023–24, 770 species were recorded across the University estate. By 2024–25, this had risen to 791, bringing the total number of native species identified to 1,343. These findings are drawn from over 103,000 individual mapped records, and provide an increasingly powerful evidence base to inform management decisions and ensure that new developments are biodiversity-positive.

Habitat creation and enhancement have been key achievements over the past few years. Between 2021 and 2024, the University created five hectares of new meadow across seventeen locations, alongside almost a hectare of new woodland at three sites and 2.6 kilometres of hedgerows. These interventions have been supported with smaller but equally valuable features such as copses, deadwood piles, insect hotels, and bird and bat boxes. Collectively, these improvements are increasing the ecological richness of the estate while strengthening connectivity between habitats.
Two major externally funded projects have accelerated this progress. The *Meadows in the Making* project (2021–23) supported large-scale meadow creation, while the *Restoring St Andrews Coastal Habitats Networks* project (2023–25) focused on linking habitats across the University and into the wider landscape. Both projects, funded through the Scottish Government's Nature Restoration Fund, have played a vital role in establishing the University's reputation as a leader in biodiversity action in higher education.
(UN SDG 13, SDG 15, SDG 17)

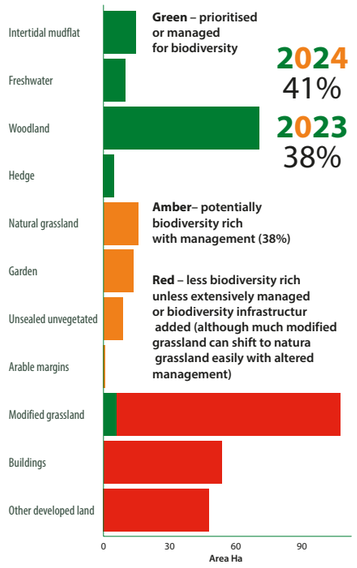


Figure 2: Habitat types recorded on directly managed University land 2024-25 with headline figures of land managed for biodiversity to some degree for 2023 and 2024.

Figure 1: Biodiversity records from the North Haugh from 2023; habitat types plotted are from 2024-25.

Net Zero Public Sector Building Standard

The University is currently trialling the Net Zero Public Sector Building Standard (NZPSBS) on two flagship capital projects, New College and Digital Nexus. This reflects the University's commitment to delivering buildings that support its Environmental Sustainability Strategy, and create world-leading spaces for education. NZPSBS offers a performance-based framework, requiring clear targets and physical measurements to validate outcomes such as energy use, carbon emissions, and indoor environmental quality. The standard also provides flexibility, allowing project teams to tailor sustainability objectives to the specific needs of each development – an approach well suited to the creation of climate-adaptive, inclusive, and future-ready learning environments.

The New College project will redevelop one of the most distinctive and historically significant buildings in central St Andrews. 'New College' will be home to the new St Andrews Business School, comprising the Schools of Economics and Finance, and Management, as well as accommodating the University's world-renowned School of International Relations. Key to the success is an approach that preserves the historical fabric, whilst aligning with low-carbon construction and technologies. In addition to meeting the mandatory NZPSBS criteria, the project is targeting climate adaptation and sustainable travel as optional objectives. This means the design will consider how the buildings respond to future climate conditions and how they connect with active travel routes and low-carbon transport options. Lessons on exploring how performance-based sustainability can be applied to complex, heritage-rich sites have the potential to set a precedent for other buildings in the town.

Interdisciplinary collaboration in both research and education will be transformed by the establishment of a Digital Nexus on the Science and Medicine campus on the North Haugh. Alongside core sustainability outcomes, the project is pursuing biodiversity and climate adaptation as optional objectives. A key feature is its collaboration with St Andrews Botanic Garden and project landscape architects (LUC), exploring how planting schemes and green infrastructure can be integrated into the building and landscape. The project also seeks to investigate how digital tools and technologies can enhance building performance and user experience – offering a forward-thinking model for how technology and nature can work together in response to the climate emergency.

Both projects are approaching the final stages of design, and based on current design 'digital twins' are forecast to emit 40% less carbon over their lifespans than an equivalent building constructed to minimum Scottish building standards, setting the ambition for the most sustainable buildings the University has ever built.
(UN SDG 7, SDG 9, SDG 11, SDG 12, SDG 13, SDG 15, SDG 17)

Operational Adaptation

Our colleagues in procurement are based at Walter Bower House, the centre for the University's professional services. Our procurement strategy includes identifying contractors' carbon footprint as we are required to report that in our own Scope 3 emissions, and also where we can support our partners in providing social benefits to the University as many companies have an option for their staff to participate in these activities.

University Engagement with Local Food and Sustainable Supply Chains

The University catering team actively engages with local producers to support sustainable food systems and strengthen regional supply chains. This commitment is exemplified through participation in Food from Fife (FFF) networking events, which bring together producers, businesses, and University teams to share expertise, showcase innovations, and foster collaborative relationships.

A highlight of recent engagement was the introduction of Eden Valley Prawns, located at Eden Campus. Operated by Rastech, the facility is home to the UK's only Recirculating Aquaculture System (RAS) for the commercial production of King Prawns. The project is expanding with the development of the UK's first commercial King Prawn hatchery, which will serve both the company's own needs and those of the emerging national aquaculture sector.

At these events, the University Accommodation, Catering, and Events (ACE) team, represented by catering manager Steven Mackay, has presented on the scale and complexity of feeding thousands of students each day, with a particular emphasis on sustainability and local sourcing as central to operational practices. **(UN SDG 2, SDG 8, SDG 9, SDG 12, SDG 14, SDG 17)**

Agilico Zero: Sustainable Procurement in Action

As part of its commitment to responsible procurement, the University introduced the Agilico Zero initiative to replace its printing and copying fleet. Rather than purchasing entirely new devices, a refurbishment approach was adopted, significantly reducing environmental impact while achieving financial savings.

By choosing refurbished Agilico Zero devices, the University avoided 69.644 tonnes of CO_2 emissions, equivalent to planting 3,482 trees. The new Ricoh devices operate in eco-mode, reducing electricity consumption by up to 84.3%, saving over £5,190 per year and avoiding an additional 4.073 tonnes of CO_2 annually.

The project also champions a circular economy approach, incorporating 100% recycled PET toner bottles, 54% less plastic packaging, 50% post-consumer recycled plastics in the mainframe, toner-lock systems to prevent premature replacement, and energy-saving design features.

By embedding sustainability into procurement decisions, Agilico Zero demonstrates how operational choices can deliver measurable reductions in emissions, waste, and cost while maintaining high service standards.

(UN SDG 7, SDG 9, SDG 12, SDG 13)

Transition St Andrews – reduce, reuse, recycle

During 2025, the University, through Transition, continued its partnership with the British Heart Foundation (BHF) to support clothing and furniture donations across campus.

A total of 5,619 donation bags were collected, including 4,449 bags as part of the end-of-year campaign. The donations amounted to 44.9 tonnes of clothing and furniture, generating £78,666 for the charity.

Since the start of the partnership in 2019, the initiative has raised a cumulative total of £312,939 for the British Heart Foundation.

Efforts to increase reuse have led to significant environmental and economic benefits. In 2025, 12,558 kg of donated items were diverted from landfill, resulting in estimated carbon savings of 122 tCO_2 and a financial saving equivalent to £162,818 (based on the CCF 2019 carbon calculator)

Additional initiatives to promote reuse and reduce waste included the establishment of new reuse spaces in halls of residence, designed to facilitate local exchange of items among students. The Reuse Centre at University Hall has expanded its operations, now offering weekly opening hours for collection, deposits, and sorting activities led by volunteers.

Key reuse events and engagement highlights included:

- Big Giveaway: 1,007 attendees (primarily students)
- Reuse Store: Open twice weekly (Mondays and Fridays, 12:30–1:30 pm), attracting approximately 35 visitors per session, equivalent to 3,120 annual visits
- Mini Giveaways: Six sessions held throughout the year, with an average of 50 visitors per session (300 total annual visits)

(UN SDGs 11, SDG 12, SDG 13)

Toolshare

The Toolshare initiative, operating as a "library of things," continued to grow during 2025. The programme enables members to borrow tools instead of purchasing new ones, supporting repair, reuse, and resource efficiency.

Performance metrics for the year include:

- Loans made: 235 (an increase from 196 in 2024)
- Items available: 85
- Active members: 70

Tool reservations and memberships are available both online and in person, improving accessibility for the campus community.

Skillshare

The Skillshare programme provides peer-to-peer learning opportunities focused on sustainable living and practical skills development. Activities delivered throughout the year covered areas such as sewing, upcycling, cooking, foraging, crochet, no-dig gardening, and whittling.

Participation and volunteer engagement were strong, with:

- 405 attendees across all sessions
- 8 volunteers contributing a total of 80 volunteer hours

(UN SDG 4, SDG 11, SDG 12)

Active Travel and Cycling

Active travel initiatives continue to promote sustainable transport options for staff and students.

Cycle Maintenance and Training

- Bikes repaired: 455
- Cycling participants trained: 44 (including e-bikes and cargo bikes)
- Cycle maintenance training: 25 participants (including 2 achieving Velotech Gold standard)
- Bikes rented: 120 (primarily to students, with some staff usage)

The University delivered a range of engagement activities to encourage active travel and raise awareness of safe cycling practices:

- Social prescribing sessions: 20 participants
- Public engagement events:
  - Farmers' Markets – 247 participants
  - Walking, Wheeling and Cycling Festival – 550 participants
  - Bikefest – 200 participants

The "Close Pass" campaign equipped 43 bicycles with safety indicators between November and February, followed by surveys with 90 cyclists and 38 drivers to assess awareness and impact.

Achievements:

- Maintained the Cycle Friendly Campus (Excellent) award
- Bike to Work Breakfasts: 79 attendees
- E-bike training: 22 staff trained
- Cargo bike training: 22 staff trained
- Bikeability Level 2 training: Delivered to 34 P7 pupils across two local schools

(UN SDG 3, SDG 11, SDG 13)

Embedding Sustainability in Recruitment

As part of the University's 2022–2027 Strategy, a dedicated **Sustainability section** has been introduced in the new University JobSite. This reflects a core priority: ensuring that our values are clear and visible to prospective colleagues. Increasingly, applicants – particularly from Gen Z and Millennial cohorts – seek employers whose commitments to sustainability and ethics align with their own.

Sustainability governance theme lead Professor Ineke De Moortel was featured in a video segment, along with catering manager Steven McKay talking about how he has found professional and personal satisfaction in being part of the University's sustainability initiatives.

(UN SDG 4, SDG 8, SDG 10)

Bus Partnership

In November 2024, we celebrated the second anniversary of our unique bus travel partnership with Stagecoach, and brought on board local bus operator Moffat & Williamson. Since November 2022, the 75% bus discount scheme has supported more than 670,000 journeys, covering 22 million kilometres of travel and saving an estimated 1,325 tonnes of carbon emissions, equivalent to a 34% reduction compared to car travel.

Nearly 50,000 discounted tickets have been purchased to date, making this one of the University's most impactful cost-of-living and carbon-cutting initiatives. It has delivered over £2.6 million in cost savings for staff and students while significantly advancing sustainability goals.

Despite wider financial challenges in the higher education sector, St Andrews has reaffirmed its commitment to investing in projects that directly benefit its community and align with its sustainability strategy.

The partnership has not only helped ease financial pressures on staff and students but also reduced congestion in St Andrews and demonstrated how collaborative approaches can drive meaningful change. With Stagecoach planning to introduce fully electric buses on key local routes in 2025, the scheme's success signals continued potential for further carbon savings and accessible, sustainable travel options.

(UN SDG 3, SDG 7, SDG 9, SDG 10, SDG 11, SDG 12, SDG 13, SDG 17)

UN Sustainable Development Goals

Established in 2015, the United Nations Sustainable Development Goals (UN SDG) constitute a comprehensive and ambitious framework designed to tackle global challenges and promote sustainable development. Comprising 17 interconnected goals with 169 targets, they address pressing issues such as poverty, inequality, climate change, environmental degradation, peace, and justice.

Building upon the earlier Millennium Development Goals (MDGs), the UN SDG embrace a more holistic and inclusive approach, spanning economic, social, and environmental dimensions. Guided by the principles of universality, leaving no one behind, and partnership, they underscore the importance of collaborative efforts among governments, the private sector, civil society, and the international community.

The successful implementation of the UN SDG demands collective commitment, transformative action, and a dedication to leaving a positive legacy for future generations. By aligning the University Annual Sustainability Report with the UN SDG, the University aims to exemplify its commitment to addressing global challenges by contributing to the wellbeing of local and global communities through strategic operations and research outputs.

As the international community approaches the end of the initial 15-year SDG timeframe, the renewal process offers an opportunity for reflection, assessment, and recalibration of strategies. The renewal is expected to involve a comprehensive review of progress made towards achieving the 17 interconnected goals and 169 targets, identifying areas of success and acknowledging persistent challenges. A renewed commitment to the principles of the 2030 Agenda holds the promise of fostering a more equitable, sustainable, and resilient world.

Net Zero by 2035

Scan to view:

Web version of the Sustainability Report

University of St Andrews | FOUNDED 1413

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