

GLOBAL GOALS REPORT 2023



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FOREWORD



I am very pleased to present the Global Goals Report 2023, showcasing City's endeavours in advancing the United Nations' Sustainable Development Goals (SDGs). This report highlights the breadth of City's expertise and collaborative partnerships that enable us to offer progress in some of the most concerning areas affecting the global community.

Last year Professor Richard Ashcroft became City's Senior Ambassador for Sustainability, chairing the newly established Sustainability Board that reports to the Senior Leadership team. The Board was founded to advance City's commitment to tackling climate change and set our ambitions for driving down emissions. It is exploring ways to work more sustainably across campus. The Board first met in May 2023 and comprised 11 members from a range of Schools and Professional Services. Four workstreams were created: Research, Education, Engagement and Operations. These workstreams

will help develop our agenda of actions and activities contributing to our ambition of net zero by 2040 as well as our broader and emerging sustainability objectives.

In 2023 we are particularly proud of the range of work, research and activities being undertaken that align with the SDGs. Without the determination of our faculty, students, staff and stakeholders, this report and our efforts towards global sustainable development would not be possible, and I would therefore like to extend my gratitude to all those who have contributed.

A handwritten signature in black ink, reading "A Finkelstein".

Professor Sir Anthony Finkelstein
President

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THE SUSTAINABLE DEVELOPMENT GOALS

As City's Senior Ambassador for Sustainability, I am pleased to be championing City to fulfil its responsibility not only as an educator of the next generation of leaders and changemakers but also as contributors to the key research and operational sustainability which will enable a more resilient future.

We are proud to align our practices to the United Nations 17 Sustainable Development Goals (SDGs), also referred to as the Global Goals, developed in 2015. These goals serve as a framework, where key actions taken in one domain will impact results in others to eradicate poverty, safeguard the environment, and advocate peace and prosperity for all individuals by the year 2030.

These SDGs act as a blueprint for sustainable development at City and beyond and underpin our work towards social, economic and environmental sustainability.

Each year City produces research, activities and events that offer insights and innovation on many areas covered by the 169 targets and 230 indicators set out by the SDGs.

This report shares a selection of the progressive work and positive impacts being delivered by City students and staff across the four sustainability-led workstreams:

- Research: conducted across all disciplines by students and staff
- Education: undertaken during undergraduate and postgraduate programmes and placements
- Engagement: facilitated by course leaders and professional services, both locally, nationally and internationally
- Operations: the wide range of activities led by the Property and Facilities (PaF) teams, and delivered collaboratively across our schools and professional services to drive down environmental impacts through infrastructure and performance improvements.

I would like to thank each and everyone at City who has contributed to this work and to urge all those at City and among our wider stakeholders to redouble their efforts to deliver progress against the SDGs in the year ahead. I look forward to relating even greater progress in our 2024 report.

Professor Richard Ashcroft
Executive Dean,
The City Law School



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Since the advent of the industrial era, human activity has caused increased greenhouse gas emissions, unequivocally contributing to global warming. Unrelenting energy demand, mass consumerism, deforestation and large-scale loss of carbon sinks are amongst the most pressing challenges we face to arrest the damage being caused to our planet.

Without the careful application of resource and systems thinking, progress will be slow and limited. Multi-disciplinary, cross cutting research is proving essential to the evaluation of challenges and the design of appropriate solutions.

City, University of London is well positioned to contribute positively to this challenge and to help solve sustainable development issues.

The research in this report provides a small insight into the vast amount of exemplary work undertaken by City in 2023.

“The students of today are those who will contribute through their studies and research, to the solutions we so urgently need to the complex climate and sustainability challenges of both today and tomorrow.”

Dermot Barnes,
Head of Sustainability,
City, University of London

RESEARCH



Fabrication and characterisation of a simple, inexpensive, biodegradable Cellulose Nano Fibers (CNFs) – based water filter for antibiotic removal

Dr Sumsun Naher and Professor Kenneth Grattan,
School of Science & Technology

In this research, banana fibres were treated with chemicals to change them into Cellulose NanoFibres. These new fibres were then studied using different techniques like scanning electron microscopy, Fourier Transform Infra-Red spectroscopy, X-ray diffraction and thermal analysis to understand their properties better and improve them. The goal is to use these NanoFibres to create a low-cost water filter design for purifying water locally. The filters would be made using a mix of local clay and NanoFibres in a specific ratio.

After making these filters, they were tested using water contaminated with six common antibiotics. The performance of the filters was measured before and after filtration using UV-visible spectroscopy. The results showed that the filters were highly effective, removing over 90 per cent of the antibiotics with each pass through the filter. This suggests that for every pass through the filter, the removal of antibiotics was 2.7 times higher than the initial concentration. This method offers a simple, cheap, eco-friendly and locally-sourced solution to reducing antibiotics in wastewater, thus lowering the risk of antibiotic resistance and environmental harm.



Sustainable fund investment choices

Dr Susan Hill, Bayes Business School

Dr Susan Hill and Professor Denis A. Grégoire from HEC Montréal, Canada, collaborated on a study focused on responsible investment fund choices. They specifically looked into how the way information is framed and how the emotions people feel influence their decisions when choosing between retail investment funds that claim to address environmental issues, such as climate change or nature conservation.

They conducted online experiments with retail consumers in the UK and found that participants consistently preferred investing in funds that used certain communication frames. The emotions participants reported feeling when exposed to different communication frames played a significant role in explaining these investment preferences.

As consumers represent an important source of capital for addressing climate and nature crises, the effective framing of sustainable investment funds is valuable for directing consumer investments towards more environmentally responsible economic activities.

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HEALTHEI (Health Economic Analysis incorporating effects on Labour outcomes, Households, Environment and Inequalities) Oct 2022 – Mar 2025

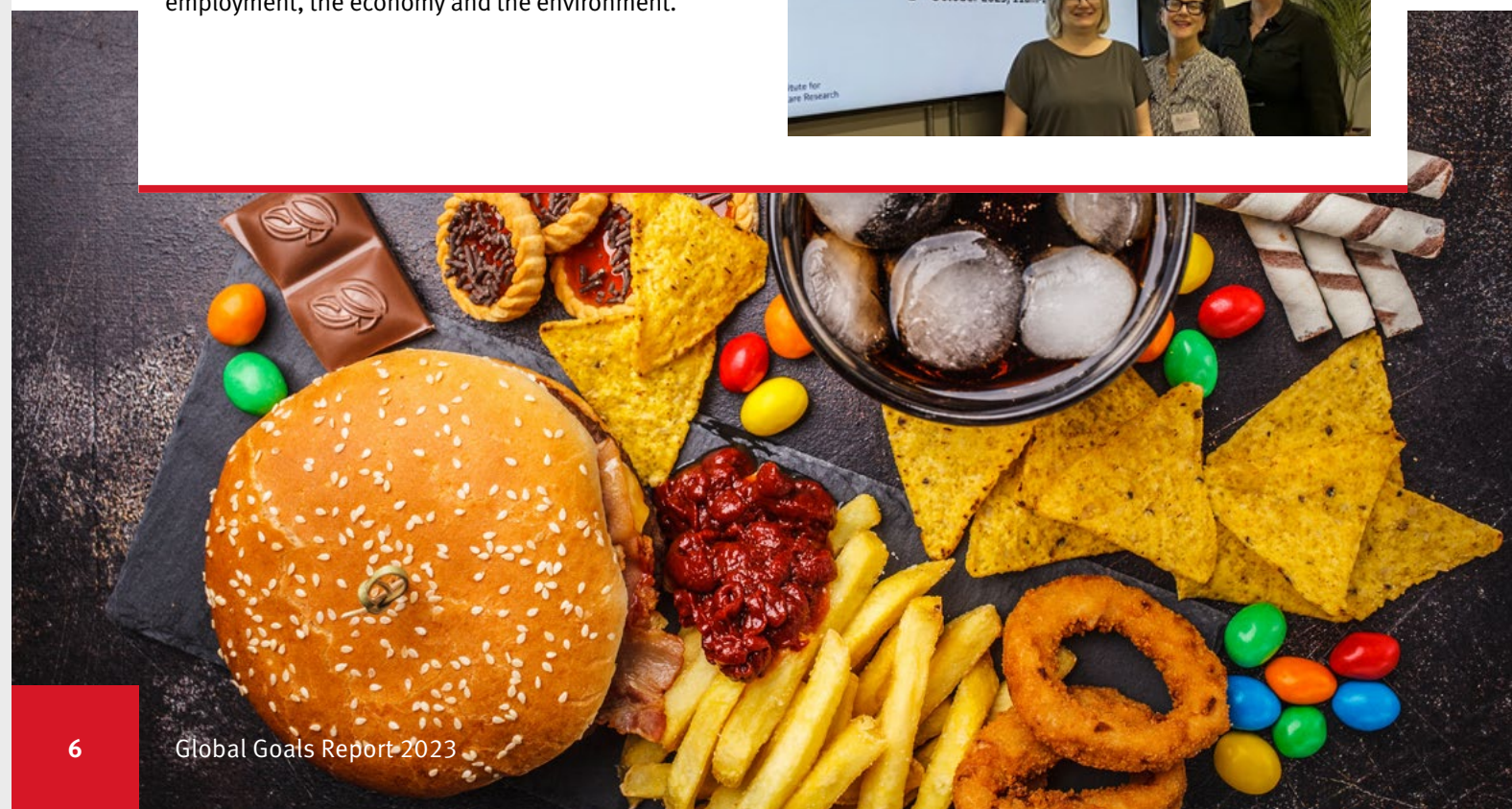
Dr Rebecca Wells and Dr Christian Reynolds, School of Health & Psychological Sciences

Eating unhealthy foods can lead to excess weight gain and health problems. Some experts believe that by adding taxes to unhealthy foods and offering subsidies for healthier options, people will be encouraged to make healthier choices. This, in turn, could reduce health issues related to obesity and narrow the health gap between different communities. It is suggested that if unhealthy foods become more expensive, people will consume less of them and opt for healthier alternatives instead. However, the success of such a policy depends on various factors such as how businesses react, whether the changes actually improve diets and if any unexpected consequences arise.

The HEALTHEI study aims to engage all stakeholders in discussions about which foods should be taxed and what the tax rates should be. Researchers will analyse how these taxes might impact the entire food system and estimate their effects on health, NHS costs, employment, the economy and the environment.

Additionally, the study includes a media analysis of reporting on food and beverage taxes, led by Research Fellows Dr Anette Bonifant Cisneros and Rachel Headings.

This project is a collaboration between the University of Sheffield and Teesside University, funded by the National Institute for Health and Care Research (NIHR). Dr Rebecca Wells and Dr Christian Reynolds lead the project at City, University of London.



Gender, communications and reproductive health in international development

Dr Carolina Matos, School of Communication & Creativity

The GCRF project, Gender, Communications and Reproductive health in international development, was a four-year research study conducted with 52 women's health NGOs worldwide (US, Europe, UK, India, Brazil and South America), including CARE UK, Amnesty International, and CREA India. The research explored advocacy communication practices around sexuality and reproductive health and rights (SRHR). The study found that irrespective of their geographical location, many NGOs face common challenges to community engagement on SRHR. A lack of access to health literacy and educational resources limits the capacity to navigate through media misinformation, leading to alarmist understandings of SRHR.

The study also evidenced, the consumption of 'hard facts' is not enough and people need to be able to relate these to their lived experiences. The research is beginning to have an impact on NGO practitioners, in their attempts to improve their strategic communications on sexuality and reproductive health amid a wider understanding of the complexities of the communication process. The work is also contributing towards the wider inclusion of marginalized women's groups in the global South, from India to Brazil and aims to improve in-depth global debate on reproductive health in the mediated public sphere.

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Climate coherence in the internal and external dimension of EU law

Eva Pander Maat, The City Law School

Eva Pander Maat is a final-year PhD candidate at The City Law School. Her thesis investigates climate coherence in the internal and external dimension of EU law. Climate coherence is imperative because climate change mitigation is a cross-disciplinary policy challenge. Climate must therefore be integrated across policy areas, such as energy, tax, trade and internal market policy. Crucially, climate coherence cannot be realised without aligning internal and external ambitions. Climate change is a global problem and the EU seeks to play a leadership role in finding global solutions. To do this, it uses internal legislation to incentivise third countries to adopt more ambitious climate policies, or 'set a global standard'.

However, this 'climate externalisation' is not uncontroversial from the perspective of international law, to which the EU is ardently committed. To maintain coherence, the EU thus has to walk a tightrope in designing climate externalisation measures. Eva's research assesses how the EU approaches this balancing act, thereby illuminating the intricate interaction between the internal and external dimensions of EU law. In 2023, her research was presented at the EUSA Conference in Pittsburgh and the UCL-KCL Environmental Law Symposium in London.



Seeking and Exploiting Synergies Among the UN Sustainability Development Goals

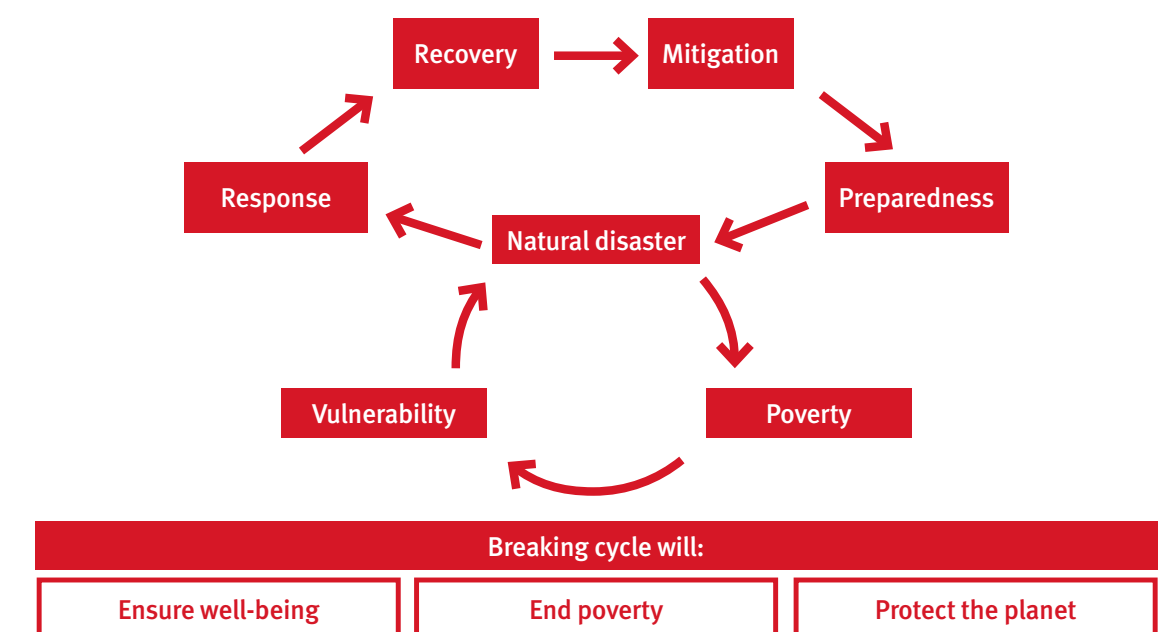
Professor ManMohan S. Sodhi, Bayes Business School

How can the world achieve sustainable development? In the words of the renowned Management guru Peter Drucker, "If you can't measure it, you can't manage it." Drawing on the lessons learned from the Millennium Development Goals Project, the UN took up the challenge again with a second 15-year project, establishing a broader set of 17 Sustainable Development Goals (SDGs) for people, planet, prosperity, peace and partnership.

To address this, we provide a framework for operations management (OM) researchers to contribute to achieving the SDGs by identifying synergies among the goals, allowing interventions to positively impact multiple SDGs simultaneously. Additionally, we connect existing OM research with these synergies to understand the complexity of the challenges and influence government and organisational interventions to maximise SDG attainment.

The trend of progress toward achieving the UN SDGs indicates that none of the 17 goals may be achieved by 2030 globally. In the 2023 UN SDG Index report card for countries, the 25 countries that led in the progress towards attaining the SDGs are all European, except for Japan. The bottom 25 countries are mostly from sub-Saharan Africa, with only a few non-African countries; Afghanistan, Haiti, and Papua New Guinea.

The paper was formally accepted by the Production and Operations Management journal, rated 4 by CABS and included in the Financial Times 50 list of journals for top business schools. The paper is also available on our research portal, Publications City. To view this paper click here.



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Education on climate change equips individuals to comprehend the pressing issues at hand and empowers them to address the impacts of the climate crisis. Armed with knowledge and skills, people can serve as catalysts for positive change.

Lacking essential knowledge and skills, students face barriers to actively addressing the climate crisis. Hence, it is vital for universities to integrate sustainability themes across interdisciplinary curricula. This approach empowers both students and faculty to engage in climate action, fostering skills for implementation in personal and professional spheres. Given the growing impact of climate change on future generations, it is imperative that upcoming leaders are equipped with climate literacy to contribute to solutions.

EDUCATION

“Education can encourage people to change their attitudes and behaviour; it also helps them to make informed decisions. In the classroom, young people can be taught the impact of global warming and learn how to adapt to climate change.”

United Nations



More Circular Design Powered via AI

Professor Neil Maiden, Bayes Business School

Circular design aims to minimise waste and pollution impacts by ensuring continuous reusability of more sustainable services, products and their components, enabling perpetual reuse through greater durability, reparability and reusability. However, this approach isn't common in everyday design practices. To address this, City's Centre for Creativity for AI funded by Research England, with the support of the Design Council and Ellen MacArthur Foundation, developed Design Sparks. This digital tool helps people contribute more effectively to circular design projects.

Design Sparks is designed to empower individuals to participate in creating more circular designs for their homes, businesses, and communities. It acts as a collaborative partner with expertise about circular design, guiding users to explore innovative ideas for circular designs. By using natural language processing, heuristic reasoning, and generative AI techniques, Design Sparks generates creative questions tailored to each user's specific challenge. These questions inspire users to generate their own ideas for circular design.

Design Sparks was successfully launched at the 2023 Design for Planet Festival. It is available for free use at <https://designsparks.io>. Users are encouraged to try it out and share their feedback.



Building a partnership with LV Prasad Eye Institute (LVPEI), Hyderabad, India

Dr Ahalya Subramanian, School of Health & Psychological Sciences

The Optometry Department at City, University of London and the LV Prasad Eye Institute (LVPEI) in Hyderabad, India, have a longstanding partnership focused on eye care education and research. LV Prasad Eye Institute is recognised as a World Health Organization Collaborating Centre for Prevention of Blindness and is known for its excellence in eye care.

This collaboration has strengthened research capacity through joint supervision of doctoral and post-doctoral students. Doctoral degrees are awarded by City, and students are based at LVPEI, conducting research on important topics such as vision impairment, myopia, and colour vision. Currently, there are nine students enrolled in the program, with five set to graduate later this year. These students have already published 18 papers in high-impact, peer-reviewed scientific journals and have presented their work at national and international conferences, receiving awards such as the Developing Country Eye Researcher Fellowship from The Association for Research in Vision and Ophthalmology. Additionally, this partnership has facilitated international networking opportunities through staff and student exchanges between the two institutions.

Researchers and students from LVPEI and City have visited each other's institutions for research symposiums and collaborative research activities. Furthermore, undergraduate optometry students from City have had the opportunity to participate in two-week placements at LVPEI, enhancing their clinical competence and cultural understanding.

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Innovation for African Universities

Dr Sara Jones and Professor Samuel Kamuriwo, Bayes Business School

The Innovation for African Universities (IAU) programme was initiated by the British Council as part of the Going Global Partnerships programme, to foster the culture of innovation and entrepreneurship within universities in Nigeria, Ghana, Kenya and South Africa.

Delivery of the programme was led by a Centre of Excellence (CoE) comprising three partner organisations: Dr Sara Jones and Professor Sam Kamuriwo from Bayes Business School (formerly Cass), Professor Mary Kinoti from the University of Nairobi and Neil Marshall from ChangeSchool.

The IAU programme developed a Community of Practice involving around 400 people. It ran from 2021 to 2023, offering support, mainly online, to 35 projects run by 24 partnerships of 87 organisations including universities based in the UK and Sub-Saharan Africa (SSA) as well as entrepreneurship ecosystem players. Projects in the programme developed new digital platforms and curricula for mainstreaming entrepreneurship education in SSA, often focussing on specific approaches or sectors such as agriculture, sustainable tourism, circular economy, inclusive innovation and social entrepreneurship. IAU programme projects eventually reached over 7,000 students and young people in Sub-Saharan Africa.



Protecting the Rights of the World's Indigenous Peoples

Dr Mauro Barelli, The City Law School

Dr Mauro Barelli from The City Law School has dedicated nearly twenty years to advocating for the rights of indigenous peoples. As part of his efforts, he established a partnership between his LLM module “Minorities and Indigenous Peoples in International Law” and the NGO Incomindios UK. This organisation is the UK Chapter of the International Committee for the Indigenous Peoples of the Americas, a prominent international NGO focused on indigenous peoples’ rights with consultative status at the United Nations.

Through this collaboration, some of Dr Barelli’s students had the opportunity to intern for three months at the organisation. This experience allowed them to gain valuable work experience and firsthand insights into the operations of human rights NGOs. By applying the knowledge they acquired in Dr Barelli’s classes, the students were able to contribute to the organisation’s research, communication and advocacy projects aimed at advancing the rights of indigenous peoples worldwide.



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Government, scientists and civic society have all underlined the importance of stakeholder engagement to achieve net-zero targets. The Higher Education sector is well placed to influence behaviour change and offer a wide range of opportunities to engage with climate change challenges and make informed choices.

With more than half of greenhouse gas emissions arising from lifestyle choices, individuals play a vital role in achieving net-zero. It is therefore crucial that educational institutions facilitate their students, staff and wider communities to reduce their environmental impacts. Participation can take a wide variety of forms such as reduction in the use of single-use plastics, turning off lights when they leave rooms and changing to a more plant-based diet.

As City implements its plans for reaching net-zero emissions by 2040, engagement with these important behavioural change issues will continue to form a central pillar of our work.

“The international community recognises the importance of education and training to address climate change. The UN Framework Convention on Climate Change, the Paris Agreement and the associated Action for Climate Empowerment (ACE) agenda call on governments to educate, empower and engage all stakeholders and major groups on policies and actions relating to climate change.”

The United Nations Educational, Scientific and Cultural Organization (UNESCO)



The London Student Sustainability Conference 2023

Arthur Shearlaw, Sustainability team

After two years of virtual conferences due to Covid-19, Kings College London hosted the fifth London Student Sustainability Conference on Monday 20 February 2023. This year, the conference was available to both in-person and online audiences, with presentations, posters and workshops accessible through both platforms.

In 2023, the London Student Sustainability partnership expanded from six universities to ten. The participating universities included City, University of London; Glasgow Caledonian University; Imperial College London; King's College London; Kingston University; London School of Economics; London South Bank University; University College London; University of Greenwich; and the University of Westminster.

All the London universities involved in organising the conference are dedicated to incorporating the UN Sustainable Development Goals (Global Goals) into

their education, research, leadership and operational activities. The conference aimed to emphasise the interconnected nature of these goals and the importance of interdisciplinary collaboration to achieve them. Each session was designed to be diverse, covering a range of topics and specialisms.

At the conference, 42 students from 13 London universities had the opportunity to share how their research and extracurricular activities contribute to addressing critical global issues. Some students presented their work in groups, totalling 36 in-person presentations throughout the day. Additionally, 58 posters were displayed at the conference and in an online exhibition space, with contributions from 76 students. Over 114 attendees joined in person throughout the day to listen to the presentations and take part in the Q&As, with a further 133 joining online.

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Global Leadership Award, Summer 2023

Tom Challen, The Office for Global Engagement

The Global Leadership Award offers the opportunity for undergraduate students to complete a fully funded period abroad during the summer. The programme involves engaging with international leaders and developing leadership and workplace skills, with the goal of developing skills required to work towards the SDGs in a global context. In 2023, 51 students completed programmes in Belgium, the Netherlands and Türkiye.

The programme began with a pre-departure session delivered by the Sustainability team which introduced the SDGs to students, exploring the connections between the goals, their subject fields and their upcoming trip abroad.

Students then completed one of three overseas programmes:

- Sustainable Global Experience in Brussels, Belgium, which included Carbon Literacy Training and an exploration of how the city of Brussels approaches issues of sustainability
- Intercultural Communication Training at the University of Groningen, Netherlands, which focussed on the communication skills required to work effectively and inclusively with colleagues from all cultures
- Global Futures Programme in Istanbul, Türkiye. This programme explored issues of cultural intelligence and global leadership, as well as an organisational attachment with a range of local businesses and charities.

The programme has an emphasis on widening participation, receiving funding from the Access and Participation Plan fund as well as from the Turing Scheme to ensure equitable access to the opportunity regardless of background.



Affordable Cycling for All

Yavuz Kafadar, City Students' Union

After negotiating with leading rental bike companies in London, Yavuz secured a 35 per cent discount for City students and staff from Buzzbike. This discount is a permanent offer for all City affiliates. Furthermore, with support from City's President, Professor Sir Anthony Finkelstein, the first 200 students who signed up for a 12-month plan were eligible to claim an additional £50 off. Originally, a 12-month Buzzbike plan, which includes free puncture repair, maintenance and theft guarantee, cost £215. Through this initiative, City students could access these benefits for only £90. City is delighted to have supported this initiative with the City Students' Union to encourage cycling as an environmentally friendly and cost-effective mode of transportation among our students and staff. The rental model also supports Circular Economy models of products as a service and reduces resource depletion. This fantastic enterprise has now been expanded to other universities in London, making it a citywide sustainability project led by City.



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Fostering Inclusive Excellence Through Cultural Transformation

Kiren Chima, The Office for Institutional Equity and Inclusion

The Office for Institutional Equity and Inclusion (OIEI) is City's catalyst for inclusive excellence and culture change. The OIEI is committed to establishing an inclusive environment and removing barriers to progression for students, staff and the wider community, enabling an inclusive and respectful environment where everyone can flourish.

City's Vision and Strategy 2030 embraces equity, diversity and inclusion at its core and emphasises the importance of embedding our values: We care, We learn, We act, in everything we do. Addressing institutional and cultural barriers for staff and students through Charter Mark frameworks, including Athena Swan, the Disability Confidence Scheme, the Race Equality Charter and Stonewall, is vital to ensure that proactive measures are taken and City develops innovative initiatives to ensure equity of opportunity for all. The action plans associated with these frameworks outline City's priorities for the next five years, acknowledging the intersectionality of gender, race and other diverse identities. In 2022/23, substantial progress on delivering initiatives within these action plans included:

- Establishment of a Race Equity Advisory Board and Race Implementation Committee
- Continued commitment to Ethnicity Pay Gap reporting
- Becoming a Menopause Friendly employer
- Advancing towards Leader Level 3 in the Disability Confident Employer scheme
- Resubmission to the Stonewall Workplace Equality Index
- Formation of Staff and Student Bullying and Harassment Committees
- Launch of a Senior Leadership equity, diversity and inclusion training program.

City's commitment to cultural change is demonstrated through work associated with the Charter Mark frameworks and continued collaboration with staff, students and the wider community. This collective effort amplifies diverse voices, driving inclusive excellence and cultural transformation through intersectional initiatives.



Sustainable Careers in Business and the Professions

Kate Kelsey, Quality and Student Experience

Students from the Women in Law Society and the Sustainability Society worked with Kate Kelsey, Interim Head of Academic Services in The City Law School, to produce a panel event exploring how students can pursue legal careers which are sustainable and responsible in the context of the climate crisis. The panellists were Jodie Blackstock, Barrister at Garden Court Chambers and member of Lawyers Are Responsible, whose signatories have declared not to provide their legal services towards the extraction of fossil fuels or the prosecution of climate protesters; and Barasha Borthakur, Herchel Smith Doctoral



Scholar at the Centre for Commercial and Legal Studies, School of Law, Queen Mary, University of London, where she researches green intellectual property and climate change law. Other panellists included Rochelle Inbakumar and Danielle Artbeiter.

The panel discussed questions such as, how can legal professionals balance the pursuit of profit with a commitment to sustainable and ethical practices? The event was enjoyed by many participants and a networking event followed.



Raising Climate Awareness in Digital Education

Dominic Pates, Learning Enhancement and Development

Dominic Pates of Learning Enhancement and Development's (LEaD) Digital Education team delivered a presentation for the University of London's Centre for Online and Distance Education (CODE) titled 'How Green is my Ed Tech?' in June 2023.

The talk covered topics such as IT's role in carbon emissions, existing research into the environmental impacts of online vs in-person university classes, perspectives on mainstreaming climate change education, and recent developments within the wider sector to understand and attempt to mitigate the role that carbon emissions can play in digital education.

Attended by over 150 people, the presentation was intended to put climate action onto the table within sectoral discourse about digital education and to prompt a conversation within the sector, as there had been very limited discussion about the links between educational technologies and carbon emissions thus far. As with many other sectors, conferences and events in this space in 2024 are increasingly looking to address the topic in their programmes.

Following the talk, Pates is collaborating with learning technology colleagues in other institutions for further ways for digital education to explore the climate question together.

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“Continuing to design for yesterday’s climate is exposing our buildings and their occupants to significant risks.”

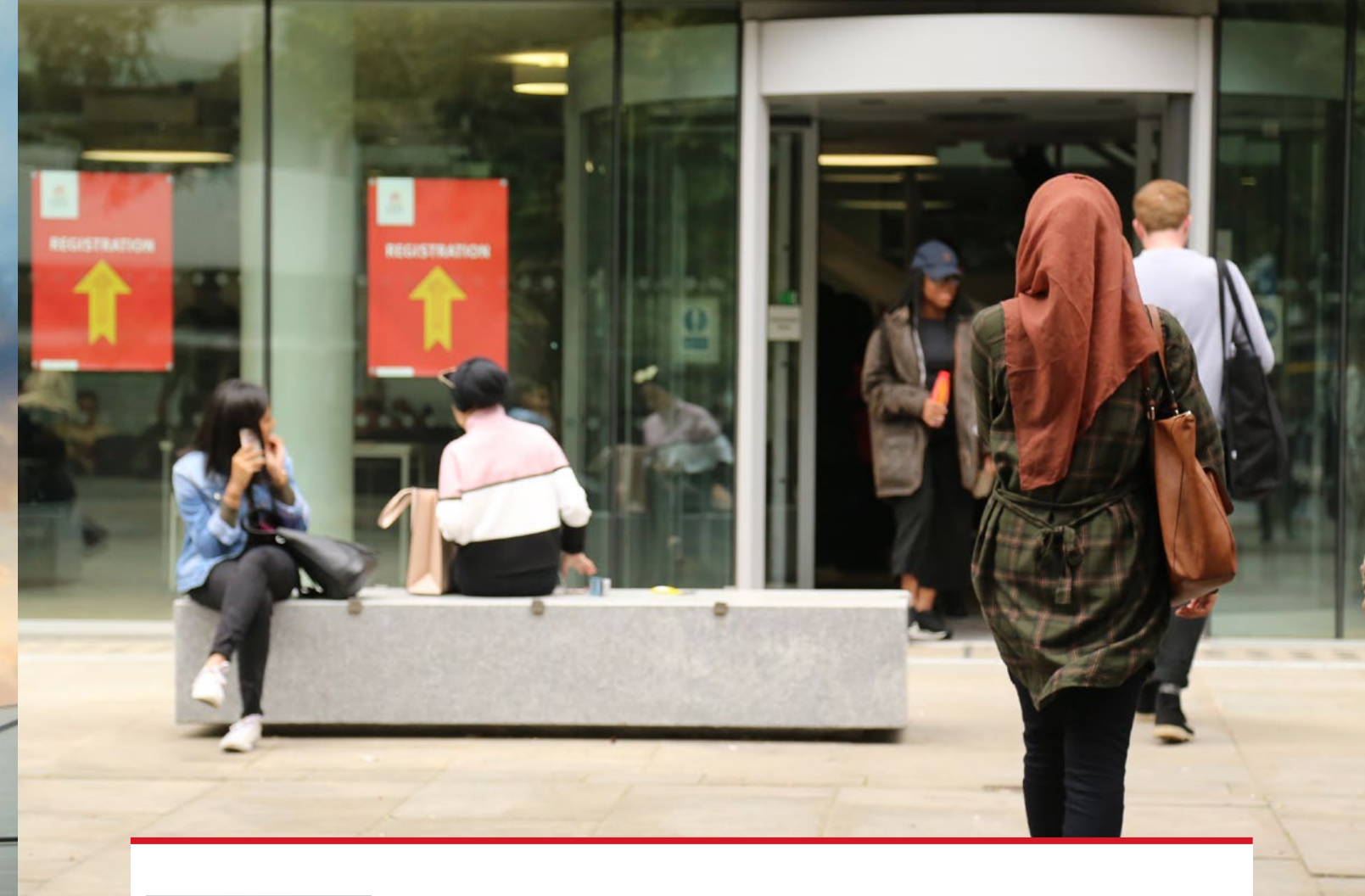
Daniel Johns, Head of Adaptation Committee on Climate Change

Buildings currently account for more than one third of global greenhouse gas emissions and energy use, which is increasing at approximately 1 per cent every year. Building construction is also responsible for around half of global resource consumption and almost 50 per cent of all waste sent to landfill.

The ways that we design, construct and use buildings is therefore an essential component in our ability to achieve the Government’s Net Zero Target as well as meeting the challenges of inevitable climate change.

Operational emissions need to fall by a minimum of 9 per cent per annum to meet our commitments under the Paris accord. City is currently exploring how this can be achieved through the employment of a variety of energy efficiency measures as well as the strategic deployment of renewable energy technologies.

At City we are dedicated to reducing our carbon emissions and fulfilling our responsibilities as one of the London Borough of Islington’s larger institutions. This will bring economic and environmental benefits, not only for our staff and students but also for our local community.



Pavement Washing

Johnny Javier, Cleaning Services

Following a review of the resource impacts of cleaning activities, City’s Cleaning team decided more environmentally friendly approaches were necessary. City has a large area of York Stone paving to its main campus entrances in Northampton Square. These traditionally receive an annual deep clean, via jet-washing equipment that requires almost 100,000 litres of mains water.

In 2023 the team sourced scouring pads made from recycled plastic which were placed on rotary cleaners. Together with wet-vac machines, the cleaners used this new process to deep clean the entire Northampton Square outside paving. By employing these methods, the team were able to reduce the quantity of water consumed to 20,000 litres, therefore saving 80,000 litres of water...a resounding win for the planet and for City.

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LED Replacement Lights

Thorlux Lighting and Mike Kinsella, Long Term Maintenance

Thorlux Lighting has worked closely with City to convert aged light fittings in Rhind Building to the latest energy-saving LED lighting technology.

As a sustainable alternative, City wished to keep the existing multi-function chilled beams at Rhind in place instead of replacing them with new fixtures. Thorlux provided tailored retrofits to replace the existing lamps and covers, re-engineering the existing chilled beam chassis. Retrofitting offers a circular economy solution which can help minimise waste and keep valuable materials in circulation for longer. A renovated lighting scheme must provide sufficient light levels and uniformity. With modern LED and optical technology,

it is possible to significantly improve light levels while reducing energy consumption compared to older light fittings.

The light fittings are now controlled by an award-winning SmartScan lighting management system which combines maintained illuminance, daylight dimming and presence detection to maximise energy savings.

In Rhind Building alone, Thorlux retrofitted 1,260 luminaires, providing the potential for an energy saving of 94 per cent compared to the old lighting system, the equivalent saving of £194,498.72 in electricity each year.



Waste Management Circular Economies

Johnny Javier, Julius Rutherford and Tracey Hughes, Facilities Management

Working in close collaboration with its Environmental Services contractor, City introduced a cleaning fluid container take back system which has allowed more than 452, 5-litre containers to be returned to the manufacturer for refilling and redistribution to customers.

Previously these containers were regularly purchased for cleaning activities around campus. Once the fluid had been used up, the containers would be sent for recycling. Although recycling has its benefits, it is far better for the environment to refill and reuse these containers. In one year, this closed-loop circular economy initiative has avoided 73kg of plastic waste being sent for recycling, and saved over 850kg of CO2 in the manufacturing process that would have been required to produce new containers.

Facilities Management, with the help of Julius Rutherford are continually looking at ways to make their activities better for the environment.



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“Sustainability is a key strategic agenda that enables institutions to thrive in a turbulent environment. It embodies the systems thinking required to understand and resolve complex problems. It balances the financial health of institutions with social and environmental impacts and it seeks to future-proof decision-making by taking a long-term view.”

The Alliance For Sustainability Leadership In Education (EAUC)

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In 2023 global warming exceeded 1.5°C across an entire year for the first time since the pre-industrial average. Although not in breach of the 2015 Paris Agreement, each vowing to ‘pursue efforts’ to limit global temperatures rising above 1.5°C or a maximum 2°C for two decades, it does bring us closer to missing our targets if action is not taken.

To achieve a significant reduction in our emissions at City, it is crucial to prioritise climate change. We must integrate sustainability into all interdisciplinary curricula and campus activities. Addressing the climate crisis requires collective effort; every staff member and student must contribute to this endeavour. This report highlights the vast amount of work already taking place in the sustainability realm but there is more to be done.



In higher education, it is imperative to highlight the profound significance of collaboration between students and staff in tackling the urgent issue of climate change. The sentiment echoing through this report resonates deeply with the understanding that environmental change cannot be achieved in isolation; it demands a unified effort from all sectors of society.

In this context, the involvement of students and staff in joint initiatives becomes not just beneficial, but essential. Students, with their energy, creativity, and passion for change, bring fresh perspectives and innovative solutions to the table. Meanwhile, staff, with their experience, expertise, and institutional knowledge, provide guidance and support to channel these ideas into effective action.

The urgency of addressing climate change cannot be overstated. It is a crisis that transcends borders, ideologies, and generations. Every day, we witness its devastating effects on our planet, from extreme weather events to biodiversity loss and rising sea levels. The window of opportunity to mitigate these impacts is rapidly narrowing, and the time for decisive action is now.

By fostering a collaborative environment where students and staff work hand in hand, educational institutions have the power to become hubs

of sustainability and resilience. Together, they can implement sustainable practices, promote environmental literacy, and advocate for policies that prioritize the health of our planet.

However, achieving meaningful change requires more than just goodwill and intentions; it demands concerted effort and unwavering commitment. It requires breaking down silos, fostering inclusivity, and nurturing a culture of collective responsibility.

As we reflect on the findings of this report, let us be reminded of the collective power we possess when we unite towards a common goal. Let us seize this moment as an opportunity to reaffirm our dedication to preserving the planet for future generations. Let us work together, students and staff alike, to create a sustainable and equitable world for all. Because in the fight against climate change, there is no room for division – only unity can lead us towards a brighter, more resilient future.

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Acknowledgements and further information

We are continually seeking the best ways to enhance the delivery of reduced environmental impacts by collaborating with City's student and staff community and forging new partnerships locally, nationally and globally. We eagerly look forward to involving City's stakeholders in crafting innovative tools to drive progress. City's Sustainability team warmly welcomes feedback and eagerly awaits your comments and suggestions at sustainable_city@city.ac.uk.

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